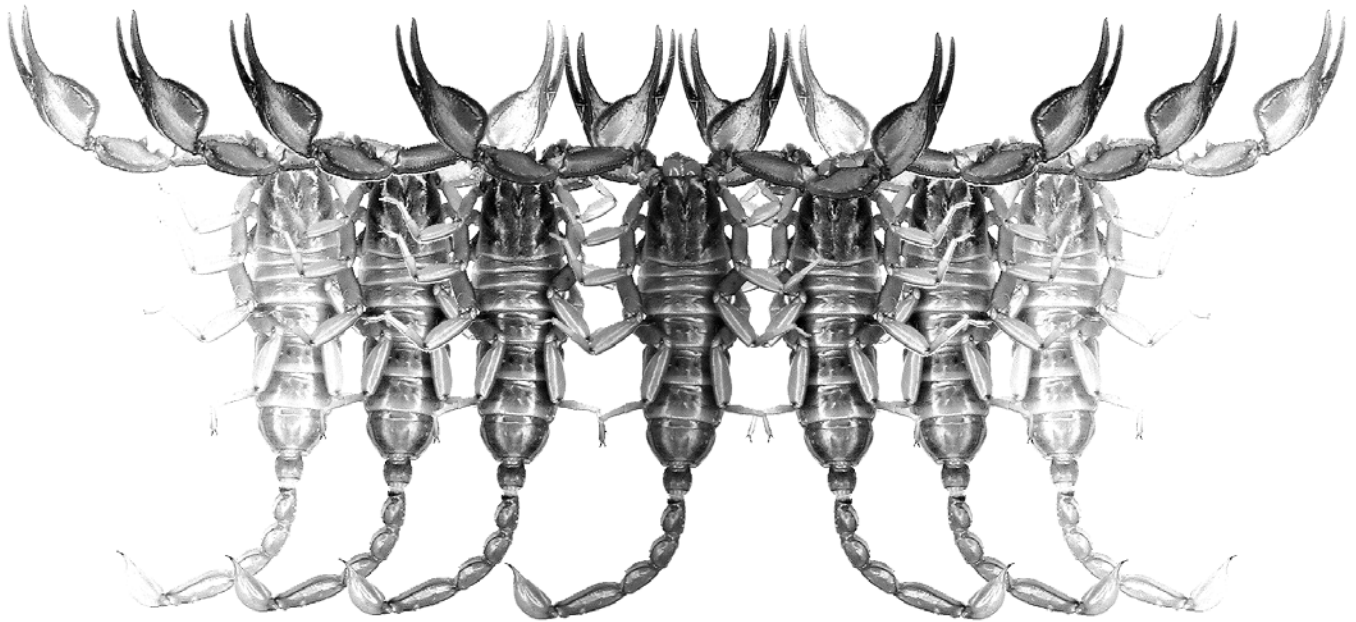


# *Euscorpius*

Occasional Publications in Scorpiology



**Another New Sub-Fossil Species of Scorpion of the Genus  
*Palaeogrosphus* Lourenço, 2000 from Malagasy Copal  
(Scorpiones: Buthidae)**

**Wilson R. Lourenço & Hans Henderickx**

**January 2012 – No. 137**

# *Euscorpius*

## Occasional Publications in Scorpiology

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The name *Euscorpius* Thorell, 1876 refers to the most common genus of scorpions in the Mediterranean region and southern Europe (family Euscorpiidae).

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- **CAS**, California Academy of Sciences, San Francisco, USA
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- **MCZ**, Museum of Comparative Zoology, Cambridge, Massachusetts, USA
- **MNHN**, Museum National d’Histoire Naturelle, Paris, France
- **NMW**, Naturhistorisches Museum Wien, Vienna, Austria
- **BMNH**, British Museum of Natural History, London, England, UK
- **MZUC**, Museo Zoologico “La Specola” dell’Universita de Firenze, Florence, Italy
- **ZISP**, Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia
- **WAM**, Western Australian Museum, Perth, Australia
- **NTNU**, Norwegian University of Science and Technology, Trondheim, Norway
- **OUMNH**, Oxford University Museum of Natural History, Oxford, UK
- **NEV**, Library Netherlands Entomological Society, Amsterdam, Netherlands

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Publication date: 16 January 2012

**Another new sub-fossil species of scorpion of the genus  
*Palaeogrosphus* Lourenço, 2000 from Malagasy copal  
(Scorpiones: Buthidae)**

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**Summary**

*Palaeogrosphus jacquesi* sp. n., the third known sub-fossil scorpion from Malagasy copal, is described. This is the fourth record of a sub-fossil scorpion in copal. The copal specimen was collected in the mines of the region of Sambava, Province of Antsiranana in the northeast of Madagascar. It belongs to the genus *Palaeogrosphus* Lourenço, 2000, described from Madagascar, and now represented by two sub-fossil species.

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**Introduction**

Although fossil scorpion findings in resins, in particular in amber, have become more common in recent years (Lourenço, 2009a), records from copal remain extremely rare. The only three species previously found in copal are *Palaeogrosphus copalensis* (Lourenço, 1996) and *Microchormus henderickxi* Lourenço, 2009, two buthoids from the Province of Antsiranana (Diego-Suarez), Madagascar, and *Chactas pleistocenicus* Lourenço et Weitschat, 2005, a chactid from Penia Blanca, Province of Santander in Colombia (Lourenço, 1996, 2009b; Lourenço & Weitschat, 2005).

In this note, a short description is presented for a new species found in Malagasy copal. It belongs also to the genus *Palaeogrosphus* Lourenço, 2000 (family Buthidae C. L. Koch, 1837). The genus *Palaeogrosphus* is uniquely known from Malagasy copal.

**Material**

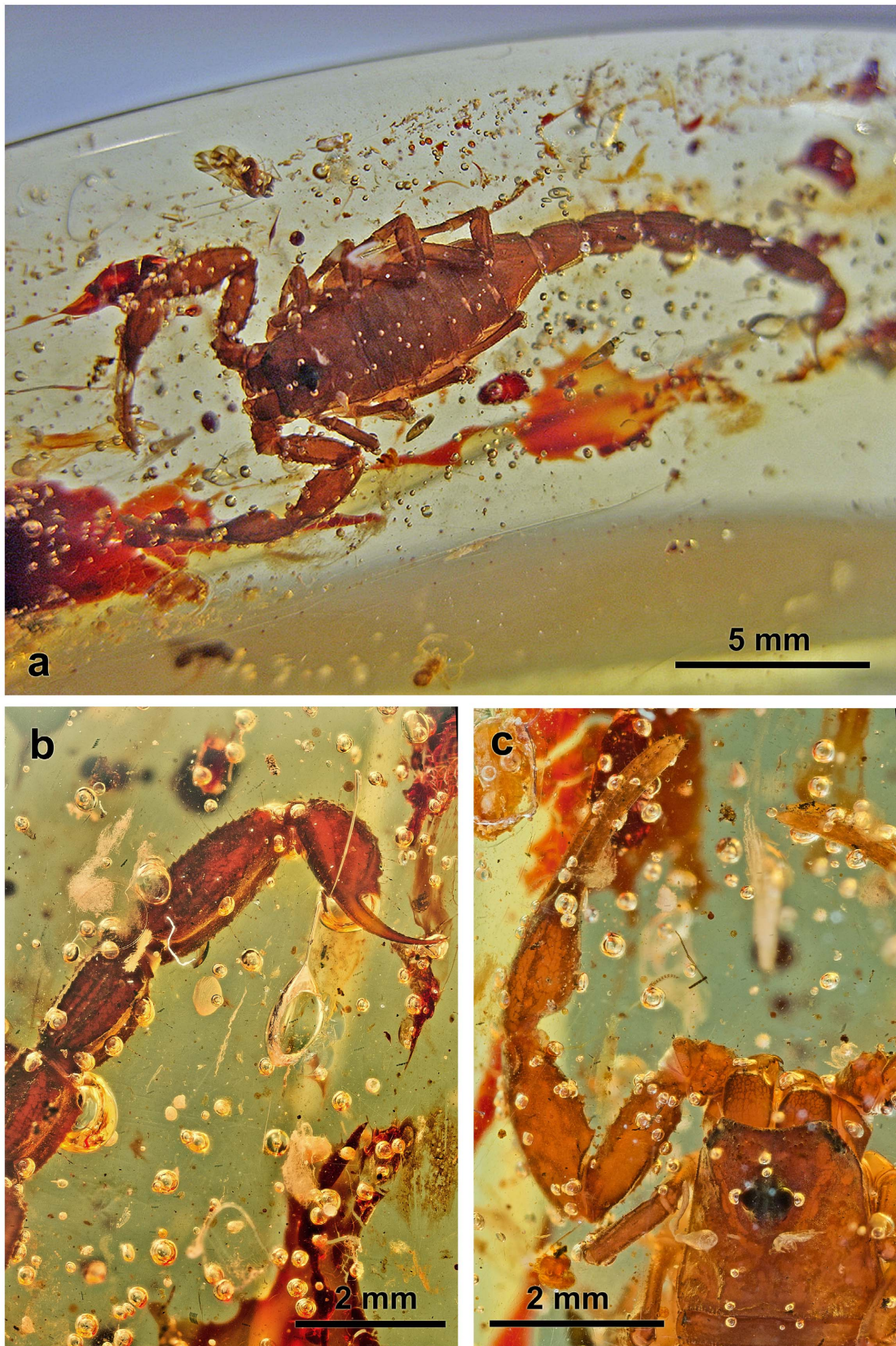
The specimen investigated was obtained by the junior author. It is enclosed in a more or less oval piece of clear, yellowish copal (76 x 25 x 8 mm), containing numerous bubbles. The weight of the piece is 10.7 g. The piece is conserved in the personal collection of Alex Beigel (Würselen, Germany). For more details about Malagasy amber see Bosselaers (2004).

*Palaeogrosphus jacquesi* Lourenço et Henderickx,  
sp. n.

**Diagnosis**

Small scorpion, measuring only 15–16 mm in total length (see some morphometric values after the description). Carapace with a moderate concavity; median ocular tubercle anterior to the centre of the carapace; three pairs of lateral eyes. Cheliceral dentition in accordance with the buthid pattern (Vachon, 1963). Pedipalp slender but moderately long; movable and fixed fingers with 9–10 rows only slightly oblique rows of granules. Tibial spurs not easily discernable, probably reduced. Sternum poorly discernable, more to triangular. Pectines poorly discernable, moderately long with 14–15 teeth. Basal middle lamella not dilated. Spiracles not clearly discernable, approximately slit-like. Telson with a strongly bulbous vesicle; aculeus moderately curved, with a strongly marked semi-rhomboidal to semi-spinoid tooth. Trichobothrial pattern of type A-alpha, probably orthobothriotaxic (Vachon, 1974, 1975), but not all trichobothria are discernable.

The new species is geographically and geologically close to *Palaeogrosphus copalensis* (Lourenço, 1996), described from the same region in Madagascar, from which it can be distinguished by a smaller overall size (15–16 mm, versus 23–25 for *P. copalensis*), distinct morphometric values (see Lourenço, 1996), a darker



**Figure 1** : *Palaeogrosphus jacquesi* sp. n. **A.** The general view in copal matrix, dorsal aspect. **B.** Metasomal segments III–V and telson, lateral aspect. **C.** In detail, carapace, chelicerae and left pedipalp.

general coloration, and stronger carination on the carapace, pedipalps and ventral aspect of metasoma.

### Description

*Holotype* (most certainly a male). Madagascar, Province of Antsiranana, from mines in the Sambava area, August 2011 (B. Jacques). Deposited in the personal collection of Alex Beigel (Würselen, Germany).

*Etymology*. Patronym in honor of Benoît Jacques (Spa, Belgium), who collected the type specimen.

*Coloration*. The general color of the copal resin is pale yellow. The specimen shows a darker coloration, being of a general reddish-brown to dark brown.

*Morphology*. Carapace moderately granular; anterior margin with a very moderately marked median concavity. All carinae moderate to weak; furrows moderately to weakly developed. Median ocular tubercle anterior to the centre of carapace; median eyes separated by a little more than one ocular diameter. Three pairs of lateral eyes. Sternum poorly discernable, seems to be rather triangular. Mesosoma: tergites with minute but moderately intense granulation. Median carina moderately to weakly developed in all tergites. Tergite VII pentacarinata. Venter: genital operculum not clearly discernable. Pectines poorly discernable, moderately long with 14 and/or 15 teeth; basal middle lamella not dilated. Sternites probably smooth but poorly discernable; spiracles poorly discernable, approximately slit-like in shape. Metasoma: all segments longer than wide, with carinae strongly marked; segments I to III with 10 carinae, crenulate; segment IV with 8 carinae, crenulate. Segment V with 5 carinae. Dorsal carinae on segments II to IV with at least one posterior spinoid granule strongly developed. Ventral carinae on segments IV and V with spinoid granules. Intercarinal spaces moderately granular. Telson with granules over latero-ventral and ventral surfaces; its dorsal surface smooth; aculeus weakly curved and longer than the vesicle; subaculear tooth strong, between rhomboid and spinoid. Cheliceral dentition characteristic of the family Buthidae (Vachon, 1963). Pedipalps: femur pentacarinata; patella with dorsointernal and ventrointernal carinae and with several spinoid granules on the internal face; chela with some moderately marked carinae. Fixed and movable fingers with 9–10 slightly oblique rows of granules. Trichobothrial pattern of type A- $\alpha$ , probably orthobothriotaxic (Vachon, 1974, 1975), but not all trichobothria are discernable. Tibial spurs not easily discernable, probably reduced.

*Morphometric values* (in mm) of male holotype.

Total length (including telson), 15.9. Carapace: length, 2.2; anterior width, 1.6; posterior width, 2.5. Metasomal segments. I: length, 1.2; width, 1.3; V:

length, 1.7; width, 1.0; depth, 1.1. Telson length, 2.0. Vesicle: depth, 0.9. Pedipalp: femur length, 1.5, width, 0.8; patella length, 2.6, width, 1.0; chela length, 3.6, width, 1.0; movable finger length, 2.3.

### Acknowledgments

We are most grateful to Benoît Jacques (Spa, Belgium) who collected the specimen and allowed its study, and to Victor Fet and Michael Soleglad for their comments on the manuscript.

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