

First record of the ant subfamily Cerapachyinae Forel, 1893 (Hymenoptera: Formicidae) from Morocco

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Résumé. Des prospections entomologiques au Maroc ont permis la découverte pour la première fois d'une fourmi appartenant à la sous famille Cerapachyinae Forel, 1893, élevant ainsi à 10, le nombre de sous familles de fourmis connues au Maroc. Le spécimen a été localisé près de Goulmima, province d'Errachidia. Il appartient au genre *Cerapachys* Smith, 1857, du groupe *longitarsus*. Toutefois, la détermination spécifique n'a pu être réalisée avec certitude à cause d'une part des problèmes taxonomiques, et d'autre part, du manque du matériel biologique.

Mots clés : Formicidae, Cerapachyinae, *Cerapachys*, groupe *longitarsus*, Maroc.

INTRODUCTION

The Kingdom of Morocco has a rich ant fauna. A recent catalogue of the ants of Morocco recorded 214 species from the country (Cagniant 2006), but additions to its myrmecofauna are ongoing and have subsequently provided seven new species to that catalogue (Delabie & Jacques 2007, Gómez *et al.* 2009, Cagniant 2009, Taheri *et al.* 2010, Taheri & Reyes López 2011).

Nine subfamilies of ant are currently known from Morocco: Dolichoderinae Forel, 1878 (with 9 species), Formicinae Latreille, 1809 (57 spp.), Aenictinae Emery, 1901 (1 sp.), Dorylinae Leach, 1815 (2 spp.), Leptanillinae Emery, 1910 (3 spp.), Amblyoponinae Forel, 1893 (3 spp.), Ponerinae Lepeletier de Saint-Fargeau, 1835 (5 spp.), Proceratiinae Emery, 1895 (1 sp.) and Myrmicinae Lepeletier de Saint-Fargeau, 1835 (140 spp.). In addition, a species originally described as *Aenictus maroccanus* Santschi, 1926 based on a single specimen in fact belongs to the genus *Neivamyrmex* Borgmeier, 1940 in the subfamily Ecitoninae Forel, 1893 (Bolton 2012). However, this subfamily is only known from the New World and the record is therefore best interpreted as a mislabelling of a Neotropical specimen (Aktaş *et al.* 2004).

The ant fauna of Iberia on the opposite side of the Strait of Gibraltar is richer with almost 300 species (Gómez *et al.* 2012), but the Moroccan myrmecofauna is more diverse at the subfamily level (seven are known from Iberia) and includes some predominantly palaeotropical elements such as the Aenictinae and the Dorylinae that are absent from Iberia. With this note, we record the presence of a *Cerapachys* Smith, 1857 species in Morocco, adding a tenth subfamily to its fauna: Cerapachyinae Forel, 1893.

The genus *Cerapachys* is distributed throughout the tropics and subtropics but is most common in the Old World, particularly the Indo-Australian region (Brown

1975). The most recent comprehensive work on the genus was by Brown (1975) and 152 species are currently recognised (Bolton 2012). Of these, four species have been identified from the Middle East, where additional species are known to occur (Collingwood & Agosti 1996, Collingwood *et al.* 2011), whilst three are cited from North Africa, in Egypt (Taylor & Sharaf 2012) and Tunisia (Santschi 1910).

MATERIALS AND METHODS

The Moroccan record is based on a single worker captured ca. 13 km east of Goulmima, Errachidia Province, 31°44.568'N, 4°51.945'W, 1100 m elevation, Leg. R. Guillem 03.v.2012. The specimen is illustrated in Figure 1. The habitat was a dry oued surrounded by stony, desert steppe of *Hammada scoparia* (Pomel) Iljin (Amaranthaceae) with scattered *Ziziphus lotus* (L.) Lam., Asteraceae and Fabaceae shrubs and *Anabasis aretioides* Moq. & Coss. ex Bunge (Amaranthaceae). A photograph of the site is included (Fig. 2). The specimen was captured whilst sampling at night with a LED Lenser H14R headlamp (220 lumens). It was found walking quickly along the ground. Further searches failed to produce more specimens. Also present at the site and active at night was *Monomorium santschii* (Forel, 1905), an infrequently encountered species that is known to be nocturnal. The specimen has been deposited in the private collection of Rhian Guillem.

The specimen has been ascribed to the *longitarsus*-group of *Cerapachys* species. The species is very closely allied to *Cerapachys longitarsus* (Mayr, 1879), as is apparent when taken through the keys in Brown (1975) and compared to images of specimens belonging to that species, including one from Yemen (www.antweb.org). However, some problems arise in the identification of species of the *longitarsus*-group and these are discussed below.



Figure 1. *Cerapachys* sp. from Morocco. (top) profile, (bottom) head.



Figure 2. Habitat of *Cerapachys* sp. near Goulmima, Morocco.

DISCUSSION

Cerapachys longitarsus was described from India as *Lioponera longitarsus* Mayr, 1879 and appears to be the most widespread *Cerapachys* in the Middle East and North Africa. It has been recorded from Egypt (Donisthorpe 1939, Brown 1975), Israel (Vonshak & Ionescu-Hirsch 2009), Saudi Arabia (Collingwood & Agosti 1996), Yemen (Collingwood & van Harten 2001) and the United Arab Emirates (Collingwood *et al.* 2011). The species as currently understood has a very extensive distribution from North Africa to Australia (Brown 1975).

According to Bolton (2012), *C. longitarsus* currently has six junior synonyms: *Cerapachys aegyptiacus* Brown, 1975, *Cerapachys alfierii* (Donisthorpe, 1939), *Cerapachys australis* Forel, 1895, *Cerapachys bicolor* (Clark, 1924), *Cerapachys parva* Forel, 1900 and *Cerapachys pygmaeus* (Clark, 1934). Of these, *C. aegyptiacus* and *C. alfierii* were both described from Egypt on the basis of males. Another species, *Cerapachys noctambulus* (Santschi, 1910), was described from Tunisia based on the male and has not been recorded again, with queens and workers unknown. Although Brown (1975) does not comment on

C. noctambulus, this species is perhaps best considered in the context of over-description of *longitarsus*-group species in North Africa until further Tunisian material can be studied, especially workers or queens.

The extremely extensive geographical range of *C. longitarsus* and its numerous synonyms suggest that a revision of material ascribed to this species is required. This may shed further light on the situation regarding *Cerapachys* in North Africa and the real identity of specimens from the Maghreb. Although the species from Morocco is obviously very closely allied to *C. longitarsus*, a definitive identification cannot be provided on the basis of a single worker, especially when the taxonomic problems related above are considered.

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