



Taxonomy and Natural History of the *Crematogaster* (*Decacrema*)-group (Hymenoptera: Formicidae) in Madagascar

BONNIE B. BLAIMER

Department of Entomology, University of California-Davis, One Shields Ave, Davis, CA 95616. E-mail: bbblaimer@ucdavis.edu

Table of content

Abstract	1
Introduction	2
Materials and methods	4
Results	7
Key to the Subgenera of the <i>Crematogaster</i> of the Malagasy region: Workers	7
Key to the Subgenera of the <i>Crematogaster</i> of the Malagasy region: Queens (as far as queens are known)	7
List of <i>Crematogaster</i> species/subspecies currently classified under <i>Oxygyne</i> , <i>Orthocrema</i> , <i>Mesocrema</i> and <i>Crematogaster</i> and described from Madagascar	8
Synopsis of the subgenus <i>Decacrema</i> Forel 1910.....	10
Taxonomic synopsis of <i>Malagasy Decacrema</i>	10
Key to the workers of the <i>Crematogaster</i> (<i>Decacrema</i>)-group, Malagasy region	14
Species accounts	14
<i>Crematogaster grevei</i> Forel 1891	14
<i>Crematogaster hova</i> -complex.....	17
<i>Crematogaster mahery</i> new species	22
<i>Crematogaster malala</i> new species	24
<i>Crematogaster nosibeensis</i> Forel 1891 new status	25
<i>Crematogaster sabatra</i> new species	27
<i>Crematogaster sisa</i> new species	29
Acknowledgments	37
References	37

ABSTRACT

The taxonomy of the Malagasy *Crematogaster* (*Decacrema*) is revised and a total of six distinct species and one species-complex are recognized. Malagasy *Decacrema* are widespread ants in Madagascar that nest almost exclusively arboreally, either in carton nests or inside dead twigs or branches, and often tend Coccoidea. Four species are newly described here: *Crematogaster mahery* **sp. nov.**, *C. malala* **sp. nov.**, *C. sabatra* **sp. nov.** and *C. sisa* **sp. nov.**. The species status of *Crematogaster grevei* Forel 1891 is confirmed by the study, and one described subspecies, *C. hova nosibeensis* Forel 1891 is raised to species level (*C. nosibeensis* **stat. nov.**) and a neotype designated. *Crematogaster hova latinoda* Forel 1891 is synonymised under *C. hova* Forel 1887, and the taxonomic status of *C. hova*, *C. ensifera* Forel 1910 and *C. schencki* Forel 1891 is further investigated, but could not be resolved with methods employed here. The *C. hova*-complex, a species-complex consisting of five morphological forms, is hence defined and the three described species above are associated with these morphotypes. Full descriptions including natural history information are presented for all species and the species-complex, as well as images, distribution maps and a species-identification key to the workers of Malagasy *Decacrema*. A diagnosis of the Malagasy *Decacrema* and identification keys to the subgenera of the ant genus *Crematogaster* in the Malagasy region are also provided.

Key words: Myrmicinae, arboreal ant, species-complex, subgenera, carton nest