



## REVISION OF THE MALAGASY CAMPONOTUS SUBGENUS MYRMOSAGA (HYMENOPTERA, FORMICIDAE) USING QUALITATIVE AND QUANTITATIVE MORPHOLOGY

BY

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*Camponotus tapia* Rakotonirina & Fisher, sp. nov.

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The *Camponotus* subgenus *Myrmosaga* **subgen. rev.** from the Malagasy region is revised based on analysis of both qualitative morphological characters and morphometric traits. The multivariate analysis used the Nest Centroid (NC)-clustering method to generate species hypotheses based on 19 continuous morphological traits of minor workers. The proposed species hypotheses were confirmed by cumulative Linear Discriminant Analysis (LDA). Morphometric ratios for the subsets of minor and major workers were used in species descriptions and redefinitions. The present study places the subgenus *Myrmopytia* **syn. nov.** in synonymy to *Myrmosaga*. It recognizes 38 species, of which 19 are newly described: *C. aina* **sp. nov.**, *C. aro* **sp. nov.**, *C. asara* **sp. nov.**, *C. atimo* **sp. nov.**, *C. bemahava* **sp. nov.**, *C. bozaka* **sp. nov.**, *C. daraina* **sp. nov.**, *C. harenarum* **sp. nov.**, *C. joany* **sp. nov.**, *C. karsti* **sp. nov.**, *C. kelimaso* **sp. nov.**, *C. lokobe* **sp. nov.**, *C. mahafaly* **sp. nov.**, *C. nivo* **sp. nov.**, *C. rotrae* **sp. nov.**, *C. sambiranoensis* **sp. nov.**, *C. tapia* **sp. nov.**, *C. tendryi* **sp. nov.**, *C. vano* **sp. nov.** Eleven species are redescribed: *C. aurosus* Roger, *C. cervicalis* Roger, *C. dufouri* Forel, *C. gibber* Forel, *C. hagensii* Forel, *C. hova* Forel, *C. hovabovoides* Forel, *C. immaculatus* Forel, *C. quadrimaculatus* Forel, *C. roeseli* Forel, *C. strangulatus* Santschi. The following are raised to species and redescribed: *C. becki* Santschi **stat. nov.**, *C. boivini* Forel **stat. rev.**, *C. cemeryi* Özdikmen **stat. rev.**, *C. mixtellus* Forel **stat. nov.**, *C. radamae* Forel **stat. nov.** *Camponotus maculatus* st. *fairmairei* Santschi **syn. nov.**, is synonymized under *C. boivini*. The following are synonymized under *C. cervicalis*: *Camponotus cervicalis gaullei* Santschi, **syn. nov.**; *Camponotus perroti* Forel, **syn. nov.**; *Camponotus perroti aeschylus* Forel, **syn. nov.**; *Camponotus gerberti* Donisthorpe, **syn. nov.** *Camponotus dufouri imerinensis* Forel, **syn. nov.** is a synonym of *C. dufouri*, *Camponotus hova* var. *obscuratus* Emery, **syn. nov.** is a synonym of *C. hova*, *Camponotus quadrimaculatus opacata* Emery, **syn. nov.** is a synonym of *C. immaculatus*, *Camponotus maculatus* st. *legionarium* Santschi, **syn. nov.** is a synonym of *C. roeseli*, *Camponotus hova maculatoides* Emery, **syn. nov.** is a synonym of *C. strangulatus*. The following are synonymized under *C. quadrimaculatus*: *Camponotus kelleri* Forel, **syn. nov.**, *Camponotus kelleri* var. *invalidus* Forel, **syn. nov.**, *Camponotus quadrimaculatus sellaris* Emery, **syn. nov.** As *C. imitator* Forel, *C. liandia* Rakotonirina & Fisher, and *C. lubbocki* Forel have been recently described and redescribed, only diagnoses and taxonomic discussions are provided. This revision also includes an illustrated species identification key, taxonomic discussions, images, and distribution maps for each species superimposed on the ecoregions of Madagascar.

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