



A revision of the Southern African species of *Meliturgula* Friese (Hymenoptera: Andrenidae: Panurginae)

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Abstract

Nine species of *Meliturgula* are known from southern Africa. This includes *Meliturgula bonheimi* sp. nov., which is here described as new from Namibia. A key to the southern African species is given to facilitate identification.

Key words: bee, Apoidea, new species, *Meliturgula bonheimi*

Introduction

Meliturgula Friese has its center of diversity in southern Africa. Nine species, including the one described below as new, occur in this part of the continent, and four are recorded in the Palaearctic (Eardley 1991, Patiny 1999, 2000, 2004). *Meliturgula scriptifrons* (Walker) is the most widespread species in the genus, with populations recorded in southern, eastern and north-eastern Africa. About four additional species occur in North Africa and Saudi Arabia (Patiny 2000, Michener 2007), and one, *Meliturgula insularis* Benoist, occurs in Madagascar (Pauly *et al.* 2001; Michener 2007). None is cleptoparasitic and most species have mostly been collected in xeric regions. The flower records published so far suggest that they have fairly narrow food plant preferences. An ability by pollination ecologists to identify the species would greatly facilitate pollination research. Therefore user-friendly keys, with good illustrations, are presented to stimulate pollination and ecological research on these bees.

Meliturgula belongs to Panurginae (Andrenidae), which are defined by the presence of two subantennal sutures and a truncate marginal cell (the gonobase is notably reduced to an internal ring). *Meliturgula* are mostly small (4.0–8.5 mm long), except *Meliturgula braunsi* Friese, which is 9.5–11.8 mm long. In females the first submarginal cell of the forewing is 1.5–2.0 times as long as the third submarginal cell, and in males the eyes converge a little above (lower interorbital distance 1.0–1.7 times as long as the upper interorbital distance), unlike *Melitturga*, in which they are strongly convergent above (lower interorbital distance 3.3–6.0 times as long as the upper interorbital distance). The males of *Meliturgula* (as well as their related genera in the Palaearctic) are characterized by the cradle-like shape of the S8, which shelters the genitalia. They can usually be easily identified because the metasoma is rather flat, they are sparsely hirsute, and the two black subantennal sutures can most often be easily seen due to the scarcity of the facial pilosity.

The southern African species of this genus were revised by Eardley (1991). Since then Patiny (1999b) released a species from synonym and described one new species (Patiny 2000). Patiny (2004) provided an updated key to the species. The southern Africa species can be fairly easily identified based on colour patterns and several distinct characters in their external morphology. The colour pictures in Eardley (1991) are of poor quality. Because modern photographic equipment and publication media allow for much improved illustration a new key that is largely based on colour is included.