



## The genus *Salfacarus* (Acari: Opilioacarida) in Madagascar

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### Abstract

The opilioacarid genus *Salfacarus* in Madagascar is revised, with description of four new species, *S. antsiranensis*, *S. kirindiensis*, *S. mahafaliensis*, and *S. ranobensis*, and a new delimitation for the type species, *S. legendrei*. *Salfacarus* is widespread in Madagascar but individual species appear restricted to relatively small areas. A key to the adults of *Salfacarus* in Madagascar is provided.

**Key words:** Parasitiformes, Opilioacaridae, taxonomy

### Introduction

Recent collections by personnel of the California Academy of Sciences in Madagascar turned up a substantial number of Opilioacaridae. All specimens collected belong to the genus *Salfacarus* Van der Hammen 1977. The genus *Salfacarus* currently includes 5 species, 2 from Madagascar (*S. legendrei* Van der Hammen 1977, *S. robustipes* Van der Hammen 1977), 2 from Rep. South Africa (*S. lawrencei* Van der Hammen 1977, *S. dispar* Van der Hammen 1977), and 1 from Tanzania (*S. tanzaniensis* Van der Hammen 1977). Adults of *Salfacarus* differ from those in most other genera of Opilioacaridae by the presence of numerous setae on the portion of the idiosoma posterior to the dorsal shield (shared with *Panchaetus* Naudo 1963 and *Vanderhammenacarus* Leclerc 1989). *Salfacarus* differs from *Panchaetus* by the absence of “coronidia”, thin, smooth, bent sensilla, on tibiae II–IV (shared with *Vanderhammenacarus*), and from *Vanderhammenacarus* by having multiple setae on all opisthogastral segments in the adults (shared with *Panchaetus*; limited to the 3 most posterior segments in *Vanderhammenacarus*).

Unfortunately the available species descriptions of *Salfacarus* species are inadequate by modern standards, often omitting detailed information on critical character systems, such as the ovipositor structure, and setation patterns in the sternitogenital region. Instead, characters such as the number of anterior dorsal shield setae are used as species characteristics. Unfortunately, that particular character is notoriously variable (Vázquez & Klompen 2002). The newly available material allows us to re-evaluate species level characters in the genus *Salfacarus*, and to describe four new species from Madagascar.

### Material and methods

Most material was studied as slide-mounted specimens, although some specimens were examined using temporary preparations in cavity slides. Terminology for the palp tarsal sensilla follows Grandjean (1936) as modified by Vázquez and Klompen (2002). All measurements are in micrometers (µm) and presented in tabular form (Table 1). These measurements are presented with some caveats. They are based on slide-mounted specimens. This means that measurements of soft structures, e.g. total length and total width, are