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### A new species of the genus *Serrundabracoon* van Achterberg (Hymenoptera: Braconidae: Braconinae) from Namibia

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**Abstract.** A second species of the braconine genus *Serrundabracoon* is described and illustrated and distinguished from the type species, *S. maraisi* Braet. Both species possess the unique combination of a multiple-arched ovipositor and dentate posterior margin to the metasomal tergite 5. Corrections are made to the redescription of *S. maraisi*. The relationships of, and possible evolutionary transitions to, the genus are discussed.

**Key words:** Ovipositor, *Serrundabracoon*, *Zaglyptogastra*, *Schizobracon*, new species, southern Africa, parasitoid wasp

#### Introduction

The Braconinae is not only one of the largest subfamilies of parasitoid braconid wasps (Quicke 2015), it is the most generically diverse with approximately 188 currently recognised genera. It is relatively most diverse in the Old World tropics. The subfamily is of interest because a large number of its genera show adaptations to their ovipositors and/or margin of their most posterior metasomal tergite (Quicke 1987, 2015). Modifications to the ovipositor are often associated with steering mechanisms that enable the wasp to bend the tip around corners while probing for concealed hosts (Quicke 1991b, Quicke & Laurene 2005). There are no observations of the use of various notches and serrations on the posterior tergites but it seems likely that these may be used in some species to help stabilise the ovipositor from slipping laterally in substrate penetration, and are always limited to taxa whose ovipositors are not much longer than the metasoma, and usually far shorter.

Braet (1999) described an intriguing braconine wasp from Namibia that uniquely combined a dentate and distinctly medially and laterally emarginated metasomal tergite 5, and an ovipositor modified into a series of arches as in members of the tropical Old World genus *Zaglyptogastra* Ashmead, in which he placed his new species. Van Achterberg (2003) redescribed the species, *Z. maraisae*, and erected a new genus, *Serrundabracoon*, to accommodate it. In the same paper he redescribed and illustrated the type species of three other genera of Braconinae that shared features with *S. maraisae*, viz. *Soter* de Saussure which shares a dentate metasomal tergite 5, and *Zaglyptogastra* Ashmead and *Undabracoon* Quicke, which both have a multiple-arched ovipositor which functions as a steering mechanism (Quicke 1991b; Quicke & Laurene 2005). In comparing these genera, van Achterberg concluded that *Serrundabracoon* was most closely related to the Australian genus *Undabracoon* and listed several putative synapomorphies in support. However, the greater similarity of the ovipositor of the new species described here to those of *Zaglyptogastra*, and reappraisal of other morphological characters (see Discussion) draws that into doubt.

#### Material and methods

Specimens were imaged using an Olympus SXZ16 microscope with automated multiple image capture at preset focal levels using an Olympus DP72 camera, and image combination using the Cell<sup>^</sup>D image processing system.

Terminology follows van Achterberg (1988) except for wing venation nomenclature which follows Sharkey et al. (1997); see also Figure 2.2 in Quicke (2015) for comparison of wing venation naming systems.

Specimens are deposited in the Collection of the Insect Museum, Museum of Natural History, Chulalongkorn University, Bangkok.