



Spinibdella Thor (Acari: Bdellidae) from southern Africa: descriptions of five new species and the redescription of *S. thori* (Meyer & Ryke)

ELIZABETH OMUKUNDA^{1,2} PIETER D THERON² & E A UECKERMANN^{2,3,4}

¹ Masinde Muliro University of Science and Technology, P. O. Box 190 Kakamega 50100, Kenya. eomukunda@yahoo.com

² School of Environmental Sciences and Development, North-West University Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520, South Africa. E-mail: Pieter.Theron@nwu.ac.za

³ ARC-Plant Protection Research Institute, Private Bag X134, Queenswood 0121 South Africa. E-mail: UeckermannE@arc.agric.za

⁴ Corresponding author

Abstract

Five new species of *Spinibdella* are described and figured: *S. ankylotricha* **sp. nov.**, *S. polyattenuata* **sp. nov.**, *S. pongolensis* **sp. nov.**, *S. namibiensis* **sp. nov.**, and *S. trinomma* **sp. nov.** Where available, immature stages are also described. *Spinibdella thori* (Meyer & Ryke) is redescribed and *S. cronini* (Baker & Balock) is reported for the first time from southern Africa. Keys to the genera of Bdellidae and South African *Spinibdella* are given.

Key words: Acari, Bdellidae, *Spinibdella*, southern Africa, new species, systematics

Introduction

Bdellidae (Acari: Acariformes: Eupodides) are predatory mites have high potential as biological control agents in pastureland ecosystems (Wallace 1974; Wallace & Mahon 1972, 1976; Wallace & Walters 1974). Our knowledge of the African Bdellidae remains modest, despite being the subject of several studies (Den Heyer 1981; Meyer & Ryke 1959; Omukunda 2007; Van Der Schyff *et al.* 2003, 2004, 2005). This study on *Spinibdella* Thor was carried out concurrently with other studies on the Bdellinae (Van der Schyff *et al.* 2004, 2005) and *Biscirus* Thor (Omukunda *et al.* 2007), which together represent a significant contribution to our knowledge of the African Bdellidae.

Spinibdella was created by Thor (1930) with *S. reducta* Thor as type species and to date includes 26 species: *S. ampulla* Wallace & Mahon, *S. antarctica* (Trägårdh), *S. atyeoi* Gupta & Paul, *S. bifurcate* Atyeo, *S. bioculata* Swift & Goff, *S. californica* McGregor, *S. corticis* (Ewing), *S. cronini* (Baker & Balock), *S. denheyeri* Hernandez, Daud & Feres, *S. depressa* (Ewing), *S. howarthi* Swift & Goff, *S. iberica* Gomelauri, *S. lignicola* (Canestrini), *S. longistriata* Tseng, *S. mali* Jorgensen, *S. novemsetosa* Tseng, *S. ornata* Atyeo, *S. quinqueoculata* Thor, *S. rapida* Kuznetsov & Livshits, *S. reducta* Thor, *S. smileyi* Tseng, *S. subrufa* Rack, *S. tadjikistanica* Kuznetsov, *S. tenuirostris* (Ewing) and *S. thori* (Meyer & Ryke), *S. yeni* Tseng (Atyeo 1960; Baker & Balock 1944; Canestrini 1885; Ewing 1909, 1917; Gomelauri 1961; Gupta & Paul 1985; Hernandez *et al.* 2008; Jorgensen 1967; Kuznetsov 1984; Kuznetsov & Livshitz 1979; Meyer & Ryke 1959; Rack 1961; Swift & Goff 1987; Thor 1930, 1931b; Trägårdh 1907; Tseng 1978; Wallace & Mahon 1972). The present study adds five new species from southern Africa.

Although *S. cronini* was also collected during this survey, a re-description is not given here as the 341 specimens found only contain one male specimen (in bad shape) and the rest were immature stages. However, it is included in the key.

Material and methods

The material for this study was collected by means of plant beating and extraction from soil and litter samples with Berlese-Tullgren funnels. Specimens were preserved in 70–80% ethanol and mounted in Heinz's PVA on micro-