



The Australian species of *Iphidozercon* (Acari: Ascidae)

D. J. GWIAZDOWICZ¹ & R. B. HALLIDAY²

¹ Department of Forest Protection, August Cieszkowski Agricultural University, Wojska Polskiego 71C, 60-625 Poznań, Poland.
E-mail dagwiazd@au.poznan.pl

² CSIRO Entomology, GPO Box 1700, Canberra ACT 2601, Australia. E-mail Bruce.Halliday@csiro.au

Abstract

The genus *Iphidozercon* Berlese (Acari: Ascidae) is reviewed. The genus is characterised mainly by a holodorsal shield without lateral incisions; the vertex of the dorsal shield bent sharply downward to conceal setae j1 from above; and the anterior ends of the peritremes bent sharply posteroventrally. Three new species are described from rainforest leaf litter in eastern Australia - *I. australis* sp. nov., *I. foveatus* sp. nov., and *I. walteri* sp. nov. The genus now includes eight species from Europe, the Middle East, Russia, North America, Australia and New Caledonia. A key to the known species worldwide is provided.

Key words: *Iphidozercon*, Ascidae, Acari, Australia

Introduction

The genus *Iphidozercon* Berlese, 1903 (Acari: Ascidae) currently includes five species of small mites that occur in low numbers in soil, leaf litter, compost and under bark, in Europe, North America, New Caledonia, and Australia. Little is known of their biology, but the one species whose biology has been studied, *I. corticalis* Evans, 1958, has been shown to develop and reproduce for several generations on a diet of nematodes (Walter & Lindquist 1995). The genus is characterised mainly by a holodorsal shield without lateral incisions, the vertex of the dorsal shield bent sharply downward to conceal the bases of setae j1 from above, and the anterior ends of the peritremes bent sharply posteroventrally. The included species are *I. californicus* Chant, 1963, *I. corticalis* (= *Leioseius* (*Arctoseius*) *elegans* Bernhard, 1963, = *I. variolatus* Ishikawa, 1969), *I. gibbus* (Berlese, 1903) (= *Ameroseius oviforme* Schweizer, 1949, = *Leioseius* (*Arctoseius*) *stammeri* Bernhard, 1963), *I. poststigmatus* Gwiazdowicz, 2003, and *I. validus* Karg, 1996.

Many other species have been included in *Iphidozercon* by other authors, but are here considered to belong to other genera, because they have lateral incisions in the dorsal shield, strongly developed lateral margins of the deutosternal groove, or more than three setae on the anal shield, character states that do not occur in *Iphidozercon*, or because they lack the downturned vertex that conceals the bases of setae j1, or the sharp bend at the anterior ends of the peritremes. This concept of the genus is narrower than that used by some authors, and returns to that of Lindquist & Evans (1965). This diagnosis was also used by Berlese (1903), Evans (1957, 1958), Chant (1963), Bregetova (1977), Krantz & Ainscough (1990), Karg (1993), Halliday *et al.* (1998) and Gwiazdowicz (2007). Well-known species that are here excluded include *Seiulus minutus* Halbert, 1915 (to *Arctoseius*), *Lasioseius* (*Lasioseius*) *pulvisculus* Berlese, 1920 (to *Arctoseius*), *Lasioseius* (*Leioseius*) *venustulus* Berlese, 1916 (to *Arctoseius*), *Arctoseius pannonicus* Willmann, 1949 (to *Arctoseius*), *I. orientalis* Berlese, 1920 (to *Scarabaspis*) and *I. inexpectatus* Berlese, 1920 (to *Scarabaspis*). Other species