



Description of a new genus of spider beetle (Coleoptera: Ptinidae) from South Africa

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Abstract

Pocapharaptinus **gen. nov.** and eight new species, *P. müllerae* **sp. nov.**, *P. harrisoni* **sp. nov.**, *P. akotsenorum* **sp. nov.**, *P. capensis* **sp. nov.**, *P. soutpanensis* **sp. nov.**, *P. lachnos* **sp. nov.**, *P. aboakyer* **sp. nov.**, and *P. acanthus* **sp. nov.** are described from South Africa. The genus is distinguished by the pronotal surface being densely covered with flocculent, wooly, tan colored setae obscuring the cuticular surface except anteriomedially, where the bare cuticle is variably triangular in shape. All species are illustrated, described, diagnosed and an identification key provided. The biogeography and relationships of this genus to other Ptinidae are also discussed.

Key words: *Pocapharaptinus*, spider beetles, Ptinidae, South Africa, new species

Introduction

Spider beetles include approximately 600 described species that have been classified into nearly 70 genera and 10 genus-groups, including an *incertae sedis* group (Bellés 1982, 1985; Philips 2000). A wide diversity of morphological forms and behaviors are found in this family including elongate-bodied wood borers, dung feeders with globular bodies that are covered with setae of various shapes and densities, and highly specialized myrmecophiles with conspicuous trichomes on the pronotum, elytra, or legs (Philips 2000). Insect associates of these inquilines not only include ants, but also bees and perhaps termites (Linsley & MacSwain 1942; Lawrence & Reichardt 1966; Lawrence & Reichardt 1969; Zayas 1988). Spider beetles are a widespread clade. Some species, such as those in *Ptinus* Linnaeus, are found throughout the world as pests of dried goods (Howe & Burgess 1951, 1952, 1953a & b, 1955), while others, such as *Damarus* in coastal Namibia, have restricted distributions (Irish 1996b). While ptinids commonly infest and contaminate stored food, they can also bore holes in textiles, cellophane, plastic or cardboard (Hinton 1941, 1943; Howe 1959; Bellés 1985; Bousquet 1991).

The hierarchical placement of spider beetles has been unsettled for a long time. They were originally considered a family by Latreille (1802), and at various times included both anobiids and ptinids within Ptinidae (e.g. Fall 1905). Ptinids and anobiids were recognized as two distinct families by Pic (1912) and this division remained stable until Crowson (1981) and Lawrence and Newton (1995) placed spider beetles as a subfamily of Anobiidae. However, Lawrence and Newton (1995) did note that the name Ptinidae had priority over Anobiidae. A phylogeny of bostrichids, anobiids and ptinids based on morphological evidence (Philips 2000) indicated a sister relationship of ptinids to the remaining anobiids and suggest that both can be recognized as either families or subfamilies of Bostrichidae to prevent paraphyly. Philips (2000) also suggested that more evidence was needed before any classification change be considered. In contrast to Philips (2000), preliminary molecular evidence (Hunt et al. 2007; Bell & Philips unpub. data) suggest that