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Studies on the genus *Aporcelaimellus* Heyns, 1965 (Nematoda, Dorylaimida, Aporcelaimidae). Four new species with complex uterus from Southeastern Iberian Peninsula

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Abstract

Four new species with complex uterus of the genus *Aporcelaimellus*, collected mainly in natural areas in the Iberian Peninsula, are identified and described here. *Aporcelaimellus alpujarrensis* **sp. n.** is characterized by having body 1.72–1.91 mm long, lip region offset by constriction and 14–15 µm broad, odontostyle 14–16 µm long with aperture occupying 67–70% its length, neck about 455 µm long, pharyngeal expansion about 224 µm long, uterus tripartite and 145–206 µm long, *V* = 53–55, tail convex conoid (27–34 µm, *c* = 55–71, *c'* = 0.9–1.1), spicules 56–60 µm long, and 7–9 irregularly spaced ventromedian supplements with hiatus. *Aporcelaimellus castaneanus* **sp. n.** is characterized by having body 2.18–2.83 mm long, lip region offset by constriction and 20–23 µm broad, odontostyle 22–24 µm long with aperture occupying 62–67% its length, neck 581–662 µm long, pharyngeal expansion 300–355 µm long, uterus tripartite and 164–348 µm long, *V* = 52–58, tail conical with rounded terminus (44–52 µm, *c* = 48–60, *c'* = 0.8–1.1), spicules 94–103 µm long, and 14–15 irregularly spaced ventromedian supplements which lack hiatus. *Aporcelaimellus communis* **sp. n.** is characterized by having body 2.56–4.22 mm long, lip region offset by constriction and 19–25 µm broad, odontostyle 19–26 µm long with aperture occupying 64–74% its length, neck 595–750 µm long, pharyngeal expansion 321–427 µm long, uterus bipartite and 190–450 µm long, *V* = 51–60, tail short and convex conoid (29–50 µm, *c* = 63–109, *c'* = 0.5–1.0), spicules 89–118 µm long, and 16–25 irregularly spaced ventromedian supplements with hiatus. *Aporcelaimellus tenuis* **sp. n.** is characterized by having body 1.89–2.70 mm long and comparatively slender (*a* = 35–49), lip region offset by constriction and 15–18 µm broad, odontostyle 15–21 µm long with aperture occupying 60–70% of its length, neck 488–645 µm long, pharyngeal expansion 251–366 µm long, uterus bipartite and 135–213 µm long, *V* = 55–58, tail convex conoid with rounded terminus (25–40 µm, *c* = 64–92, *c'* = 0.8–1.1), spicules 52–66 µm long, and 11–12 irregularly spaced ventromedian supplements with hiatus. Measurements and illustrations, including line drawings, LM pictures and and/or SEM pictures, are given for the four species.

Key words: Description, dorylaims, morphology, morphometrics, nematodes, new species, SEM, taxonomy

Introduction

The genus *Aporcelaimellus* Heyns, 1965 is an important and interesting free-living, dorylaimid taxon due to its high species richness and worldwide distribution, with its type species *A. obtusicaudatus* (Bastian, 1865) Altherr, 1968 probably being the most abundant soil nematode species (*cf.* Andrássy, 2009a). Its identity and taxonomy have been matters of discussion (Tjepkema *et al.*, 1971; Baqri & Khera, 1975; De Ley *et al.*, 1993; Andrássy, 2001 & 2002a; Álvarez-Ortega *et al*., 2013a, b), and its morphological and molecular diversity are not sufficiently known or understood yet (Álvarez-Ortega *et al.*, 2013a, b).

The study of Iberian dorylaimid fauna has been significantly advanced in the last three decades (Jiménez-Guirado *et al.*, 2007), with more than three hundred recorded species so far (Peña-Santiago *et al.*, 2003). Nevertheless, representatives of *Aporcelaimellus* have received poor attention, since the presence of only three species, namely *A. amylovorus* (Thorne & Swanger, 1936) Heyns, 1965, *A. obtusicaudatus* and *A. paraobtusicaudatus* (Micoletzky, 1922) Andrássy, 1986 has been previously reported, and there is no monographic

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