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## Studies on the genus *Aporcelaimellus* Heyns, 1965 (Nematoda, Dorylaimida, Aporcelaimidae). Four typical species with simple uterus from Southern Iberian Peninsula

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### Abstract

Three new and one known species of the genus *Aporcelaimellus* with simple uterus and typical caudal region, mainly collected in natural areas of southeastern Iberian Peninsula, are studied, including descriptions, measurements, line illustrations and LM pictures. *Aporcelaimellus baeticus* sp. n. is characterized by a body length of 1.96–2.95 mm, lip region offset by constriction and 17–20 µm broad, odontostyle 17–22 µm long, neck 510–635 µm long, pharyngeal expansion 250–335 µm long, a dorsal cell mass at level of anterior end of intestine, uterus 60–150 µm long or 0.9–1.7 times the corresponding body diameter, vulva transverse ( $V = 48–54$ ), tail convex conoid with broadly rounded terminus (30–46 µm,  $c = 47–80$ ,  $c' = 0.7–1.1$ ), spicules 99–103 µm long, and 18–21 irregularly spaced ventromedian supplements which lack hiatus. *Aporcelaimellus brevicaudatus* sp. n. is characterized by a body length of 1.54–2.14 mm long, lip region offset by a more or less distinct constriction and 14–16 µm broad, odontostyle 13–15 µm long, neck 512 µm long, pharyngeal expansion 255 µm long, uterus 39–57 µm long or 0.9–1.0 times the corresponding body diameter,  $V = 50–55$ , tail short and rounded to hemispherical (24–27 µm,  $c = 66–82$ ,  $c' = 0.6–0.7$ ) with inner core hardly reaching the middle of tail length, and male unknown. *Aporcelaimellus rotundus* sp. n. is characterized by its body 2.01–2.58 mm long, lip region offset by constriction and 19–20 µm broad, odontostyle 22–23 µm long, neck 455–579 µm long, pharyngeal expansion 226–316 µm long, a distinct dorsal cell mass present at cardia level, uterus 28–74 µm long or 0.5–0.9 times the corresponding body diameter,  $V = 47–52$ , female tail short and conoid to rounded (27–33 µm,  $c = 64–90$ ,  $c' = 0.7–0.9$ ), and males unknown. New data, including SEM pictures, sequences and taxonomic comments, are provided for *A. waenga*.

**Key words:** Description, dorylaims, D2-D3 rDNA, molecular analysis, morphology, morphometrics, new species, taxonomy

### Introduction

This is the third in a series of contributions (Álvarez-Ortega *et al.*, 2012 and Álvarez-Ortega & Peña-Santiago, 2012) devoted to studying species of the genus *Aporcelaimellus* from the Iberian Peninsula, dealing with four species, one known and three non-described, which are characterized by having simple uterus, *i. e.* with no perceptible differentiation or subdivision, and typical caudal region, *i. e.* short, rounded and lacking any special cuticular features. For further detailed information about the aims of this work, the reader is referred to the first contribution of the series (Álvarez-Ortega *et al.*, 2012).

Nematodes were collected mainly in natural areas of the southeastern Iberian Peninsula in several nematological surveys. The techniques and protocols used for extraction and mounting of nematodes, light microscopy, and SEM observation were as described by Álvarez-Ortega *et al.* (2012); and for DNA extraction, PCR of the D2-D3 expansion segments of 28S rDNA gene, and phylogenetic analysis as described by Álvarez-Ortega *et al.* (2013a).