

Another species of the genus *Aporcelinus* Andrásy, 2009 (Nematoda: Dorylaimida)

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Abstract. A further new species of the recently established genus *Aporcelinus* Andrásy, 2009 is presented. *Aporcelinus decimus* sp. n. from Ecuador can be differentiated from all known species by the shape of the vulval lips and the tail. The former are sclerotized lying parallel with the body axis, the latter is relatively long, rapidly tapered at its middle, and more or less bent dorsally.

In a quite fresh paper (Andrásy, 2009), I was proposing a new genus of the aporcelaimoid nematodes, *Aporcelinus*, for species having a two-layered cuticle of different refraction, a small cardinal lobe, bumpy eggshell, small ovoid spermatozoa, sclerotized vulva, unusually small male supplements continuously arranged with the adanal pair, and a more or less conoid tail. In the special structure of the cuticle, *Aporcelinus* Andrásy, 2009 is closely related to the genera *Aporcelaimellus* Heyns, 1965 and *Makatinus* Heyns, 1965. All they belong to the family Aporcelaimidae Heyns, 1965, and can be united under a separate subfamily, Aporcelaimellinae Andrásy, 2009.

Aporcelinus differs from *Aporcelaimellus* by the thinner cuticle never thickened so strongly on the tail, absence of a cervical lacuna, very small male supplements showing no precloacal space, and by the pointed tail. It differs from *Makatinus* by the same structures like in *Aporcelaimellus*, moreover by the number of the adcloacal supplements (one pair vs. two to five pairs).

I placed nine species under the genus, and designated *Aporcelinus diadematus* (Cobb in Thorne & Swanger, 1936) Andrásy, 2009 as type species.

When examined some older slides preserved in my collection, I just discovered another species of *Aporcelinus* that seemed to be new to science. This species is presented hereunder.

Aporcelinus decimus sp. n.

(Figs. 1 A–E and 2 A–C)

Holotype female: L = 1.35 mm; a = 23; b = 4.1; c = 28; c' = 2.0; V = 54 %.

Paratype females (n = 4): L = 1.32–1.42 mm; a = 21–27; b = 4.1–4.6; c = 25–32; c' = 1.7–2.1; V = 51–54 %.

Description. Body relatively small and robust, C-shaped after fixation, 52–64 μm wide at the middle region. Cuticle smooth, thin, 2.0–2.5 μm thick on most body, and 4–5 μm thick on tail; consisting of two layers which are especially distinct on the tail. Lip region slightly offset by a depression, 14 μm wide, lips angular, hardly separated. Body at posterior end of oesophagus 3.3–4.2 times wider than head. Amphids cup-shaped with aperture occupying about half a corresponding body.

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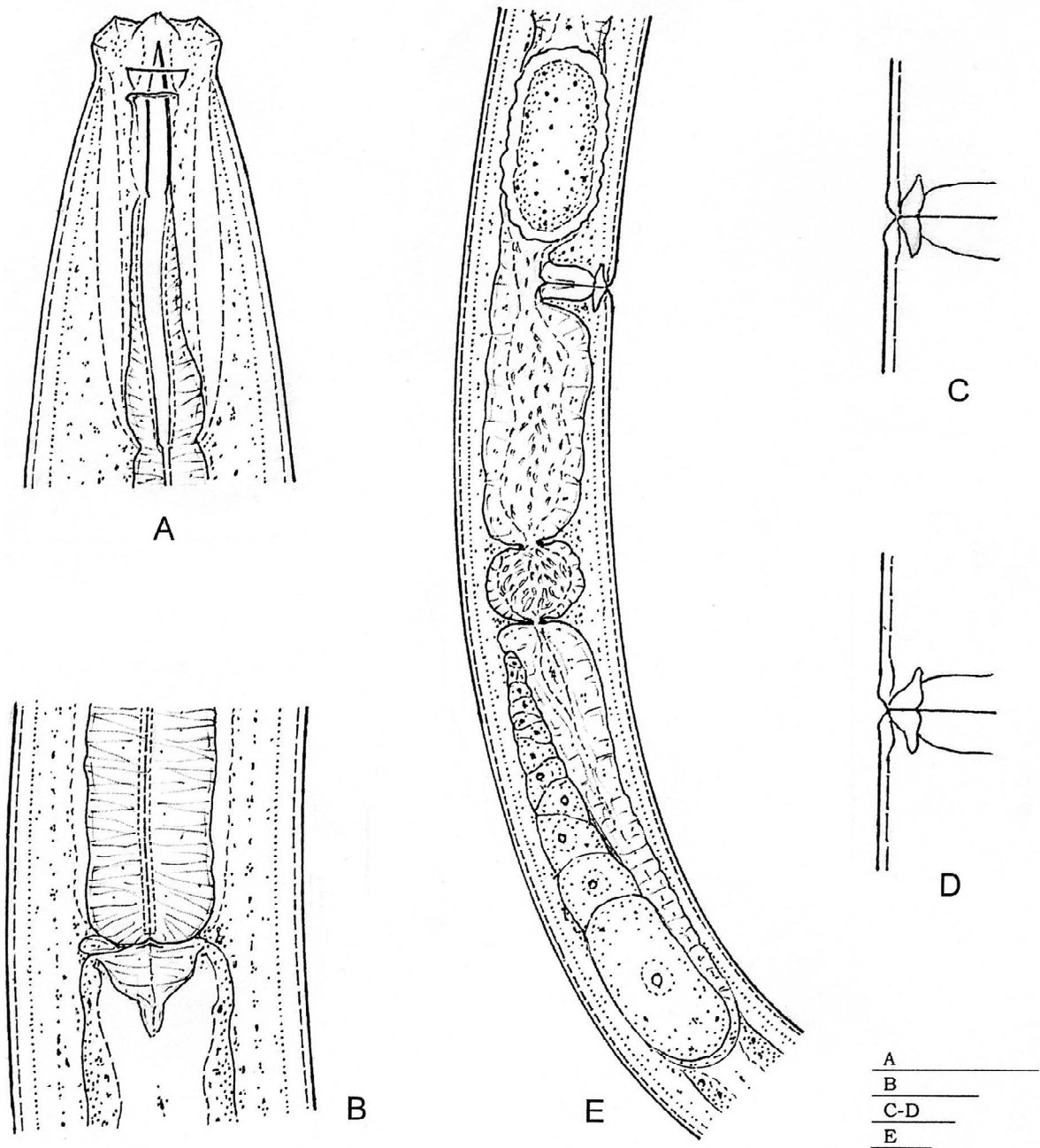


Figure 1. *Aporcelinus decimus* sp. n. A: anterior end; B: cardiac region; C–D: vulval lips; E: detail of genital apparatus. (Scale bars 20 μm each)

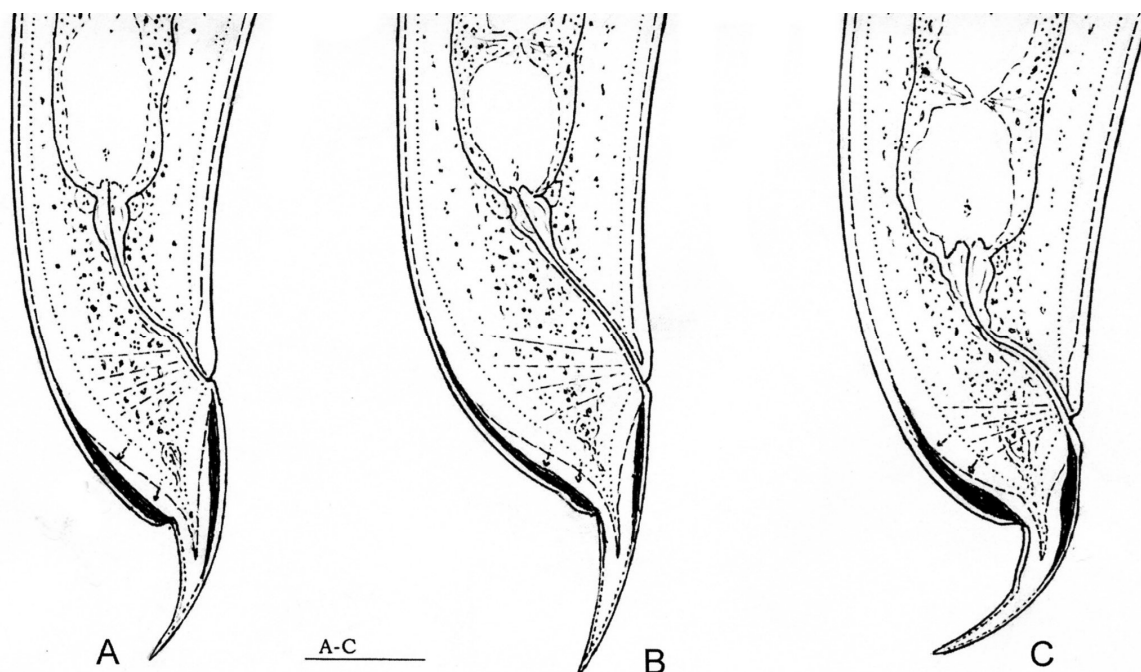


Figure 2. *Aporcelinus decimus* sp. n. A–C: female tail. (Scale bar 20 μ m)

Odontostyle moderately long, 18–20 μ m, as long as 1.3–1.4 labial diameters, conspicuously thicker than cuticle at the same level; aperture occupying one-third of stylet length. Guiding ring aporcelaimoid. Oesophagus 324–382 μ m long, heavily muscular, gradually widened at 52–54 % of its length. Distance between proximal end of oesophagus and vulva always longer (1.2–1.4 times) than oesophagus itself. Dorsal nucleus located at 58–60 % of oesophagus length, or 14–15 % of total body length. AS1 nucleus inconspicuous. Location of the other nuclei: AS2 = 55–56 %, PS1 = 70–71 %, PS2 = 70–73 %. Glandularium 130–138 μ m long. Cardia with a small, rather

inconspicuous dorsal lobe. Rectum 1.4–1.7, pre-rectum 1.0–1.3 times the anal body width long.

Female genital apparatus didelphic, well-developed. Each branch as long as 5.6–6.2 body diameters, or occupying 22–25 % of entire length of body; anterior branch occasionally reaching close to cardiac region. Vulva transverse with 20–25 μ m wide sclerotized and divergent inner lips (arranged parallel with body axis). Vagina 28–33 μ m long. Each branch of uterus with a large, spheroid, well-offset spermatheca. Ovaries lying on dorsal side of intestine. Uterine eggs one to five in number, 70–83 \times 30–38 μ m; eggshell undulated or wrinkled.

Distance between vulva and anus equal to 11–14 tail lengths. Tail 44–51 μm long, or occupying 3.1–3.9 % of entire length of body. It is very characteristic in shape: in its first half conoid-rounded, then strongly tapered and more or less dorsally curved. Tail tip pointed or finely rounded. Inner layer of caudal cuticle thicker than outer layer, and showing a different refraction.

Male not known.

Diagnosis and relationships. A smaller species of the genus, with thin cuticle, narrow and hardly offset head, relatively short odontostyle, short oesophagus, greatly developed female genital apparatus, sclerotized and divergent inner vulval lips, bumpy eggshell, very short prerectum and comparatively long and dorsally bent tail.

By virtue of the arrangement of the vulval sclerotization and the shape and size of the tail, this new species can unambiguously be distinguished from all known species of the genus. As for the shape of the tail – rapidly tapered at its middle and dorsally bent in the latter section – the new species may be compared with *Aporcelinus altitudinalis* Andrásy, 2009 and *A. amazonicus* (Andrásy, 2004) Andrásy, 2009. However, it differs from both of them by having an only slightly offset head, characteristically divergent vulval lips and a longer tail ($c' = 1.0\text{--}1.1$ in *altitudinalis*, and $1.0\text{--}1.5$ in *amazonicus*). Furthermore, it differs from both of them by the following characters. From *A. altitudinalis* by the

smaller body (1.3–1.4 vs. 1.9–2.3 mm), narrower head (14 vs. 18–19 μm), and by the shorter odontostyle (18–20 vs. 23–24 μm). From *A. amazonicus* by the shorter body (1.3–1.4 vs. 1.6–1.7 mm), the more posteriorly located vulva (51–54 vs. 44–49 %), and by the long genital tract.

Type specimens. Holotype female on slide No. 14985. Paratypes: four females and two juveniles; all in the collection of the author.

Type habitat and locality. Humus with fallen leaves from a rain forest, 2000 m above sea level, near the village Baeza, Prov. Napo, Ecuador; collected in November 1971 by J. Balogh.

Etymology. Latin *decimus* means: tenth; this is the tenth known species of the genus *Aporcelinus*.

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