



Re-description of three species of the genus *Sectonema* Thorne, 1930 (Nematoda: Dorylaimida: Aporcelaimidae) originally studied by E. Altherr

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Abstract

Three species of the genus *Sectonema*, namely *S. demani*, *S. heynsi* and *S. macrospiculum*, originally described by E. Altherr, are re-described on the basis of type material. Detailed descriptions, morphometrics and illustrations, including line drawings and/or LM pictures, diagnoses and remarks about their identity and later reports are provided for each species. *Sectonema demani* is characterized by its 6.78–7.24 mm long body, lip region 27–28 µm broad, mural tooth 19–20 µm long at its ventral side, pharyngeal expansion 834–875 µm long or 68–69% of total neck length, uterus a simple tube-like structure 2.1–2.2 times the corresponding body diameter, $V = 49–52$, tail short and rounded conoid (51–55 µm, $c = 123–143$, $c' = 0.7–0.8$), and male unknown. *Sectonema heynsi* is distinguished by its body 6.45 mm long, lip region 28 µm broad, circumoral area bearing cilia- or seta-like structures, mural tooth-like structure 20 µm long, pharyngeal expansion 856 µm long or 68% of total neck length, uterus a tube-like structure ?1.7 times the corresponding body diameter, $V = 50$, tail short and rounded to conoid (54 µm, $c = 120$, $c' = 0.7$), and male unknown. And *S. macrospiculum* is characterized by its 4.07–5.06 mm long body, lip region 27–28 µm broad, ventral side of the odontostyle 15 µm long, pharyngeal expansion 555–640 µm long or 67–68% of total neck length, uterus a simple tube-like structure 1.9–2.1 times the corresponding body diameter, $V = 53$, female tail short and convex conoid with rounded terminus (62 µm, $c = 82$, $c' = 0.7$), male tail more conoid than that of female and with the ventral side visibly more straight (58 µm, $c = 71$, $c' = 0.8$), spicules 107 µm long, and eight irregularly spaced ventromedian supplements bearing hiatus.

Key words: Aporcelaims, dorylaims, LM, morphology, morphometrics, taxonomy, type material

Introduction

During his long nematological career (Vallotton, 1979), the Swiss nematologist Edmund Altherr (from Aigle, Switzerland) described three species currently classified under the genus *Sectonema* Thorne, 1930, namely *S. demani* Altherr, 1965, *S. heynsi* Altherr, 1968 and *S. macrospiculum* (Altherr, 1958) Heyns, 1965 (= *Nygolaimus macrospiculum* Altherr, 1958). Original descriptions and illustrations by Altherr, based on isolated specimens (one female for *S. demani* and *S. heynsi*, and one female and one male for *S. macrospiculum*), were acceptable in that time but often lacked important details for complete species characterization. *Sectonema macrospiculum* was later re-described by Heyns (1965), who provided additional information about this species in his monographic contribution devoted to the family Aporcelaimidae Heyns, 1965, but no later studies of the other two species are known. Fortunately, Altherr's nematode collection is still curated at and available from the Museo Cantonale di Storia Naturale—Lugano, Switzerland. The aim of this paper is the re-examination of the nematodes originally studied by Altherr in order to provide an updated morphological and taxonomical characterization of the three species for comparative purposes.

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