



## A review of the genus *Aponema* Jensen, 1978 (Nematoda: Microlaimidae) with description of three new species

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### Abstract

The taxonomy of the genus *Aponema* Jensen, 1978 is discussed. An emended diagnosis and identification keys at species level are provided. Two *Aponema* species – *A. decramerae* and *A. mnazi* are transferred from the genus *Aponema* to *Microlaimus* because of the presence of two testes. One known *Microlaimus* species, *Microlaimus nanus* Blome, 1982, is transferred from the genus *Microlaimus* to *Aponema* because of the presence of a single testis in males. Three new *Aponema* species are described.

*A. bathyalis* sp. n. is characterized by a small body, smooth or slightly transversely striated cuticle, amphids with rod-like protruding corpus gelatum, almost round pharyngeal bulb and presence of three papilliform precloacal supplements in males. *A. bathyalis* is similar to *A. nympha* and *A. nanum* but differs from the former by the position of amphidial fovea (at about 1.5 head diameters from anterior end vs less than 0.7 head diameters from anterior in *A. nympha*) and from the latter by the presence of a gubernaculum, a protruding corpus gelatum from the amphidial fovea and by the shorter tail ( $c = 8.2\text{--}11.3$  vs  $c = 5.8\text{--}7.8$ ).

*A. minutissima* sp. n. is characterized by a very small slender body, transversely striated cuticle, roundish amphidial fovea, spherical pharyngeal bulb, presence of short somatic setae, large spermatozoa, and a weakly developed copulatory apparatus without gubernaculum. It differs from the other *Aponema* species by the small body size (0.20–0.43 mm). It mostly resembles *A. bathyalis* sp. n. but differs by smaller size, slightly striated cuticle and absence of a gubernaculum.

*A. westindicum* sp. n. is characterized by a larger body, annulated cuticle, discernible dorsal tooth, pyriform pharyngeal bulb and conical tail. It differs from *A. nanum* (Blome, 1982) by longer body size and structure of buccal cavity.

All *Aponema* species described in this paper are characterized by monorchic males without gubernacular apophyses, females with two outstretched ovaries and a conical tail.

**Key words:** Nematoda, Microlaimidae, *Aponema*, taxonomy

### Introduction

The genus *Aponema* was erected by Jensen (1978) for the species *Microlaimus torosus* Lorenzen, 1973 characterized by strongly sclerotized amphidial fovea and copulatory apparatus, females with two outstretched ovaries and males with gubernacular apophyses directed dorsocaudally. Jensen classified the new genus within a new family Molgolaimidae in a new subfamily Aponematinae Jensen, 1978 alongside the genera *Molgolaimus* Ditlevsen, 1921 and *Prodesmodora* Micoletzky, 1923. Aponematinae was classified with the subfamily Molgolaiminae Jensen, 1978 in family Molgolaimidae, characterized by females with reflexed ovaries (Jensen, 1978). According to Jensen the Molgolaimidae primarily differs from the Microlaimidae by females possessing reflexed ovaries. Additional characters are the shape of pharyngeal bulb (bulb almost