



New species of *Dorcopsinema* and *Paralabiostrongylus* (Nematoda: Chabertiidae: Cloacininae) from Indonesia, with a key to species of *Dorcopsinema*

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Abstract

Two new species of nematodes (Chabertiidae: Labiostrongylinea) from *Dorcopsis muelleri* in Raja Ampat Island, Papua, were described and figured. *Dorcopsinema longispicularis* sp. nov. is most similar to *D. simile*, but can be distinguished from it in being a smaller worm with longer spicules and a relatively longer oesophagus, as well as in the form of the posterior lip of the genital cone, the form of the spicule tips and the spiked tip of the female tail. *Paralabiostrongylus rajampatensis* sp. nov. differs from its congener, *P. bicollaris*, in having the deirids and excretory pore at about the same level, and in the form of the dorsal ray, with lateral branches proximal to the bifurcation of the dorsal trunk, the relatively longer spicule with ala extending to the tip and the form of the posterior lip of the genital cone.

Key words: Nematode, *Dorcopsinema*, *Paralabiostrongylus*, wallaby, kangaroo, Papua, Indonesia

Introduction

The genera *Dorcopsinema* and *Paralabiostrongylus* belong to the tribe Labiostrongylinea (Nematoda: Chabertiidae: Cloacininae), occur in the stomachs of macropodid marsupials and are found only on New Guinea and associated islands; Papua New Guinea (PNG) and Papua Indonesia (Mawson, 1977; Smales, 1997, 1999). There are four known species of *Dorcopsinema*; *D. dorcopsis* Baylis, 1940 and *D. simile* Smales, 1999 are found in the forest wallabies *Dorcopsis* Schlegel & Mueller and *Dorcopsulus* Matschie while *D. dendrolagi* Smales, 1982 and *D. mbaiso* Smales, 1997 are found in tree kangaroos, *Dendrolagus* Mueller & Schlegel (Baylis, 1940, Smales 1982, 1997, 1999). The monospecific *Paralabiostrongylus bicollaris* Smales, 1982 is known from *Dorcopsis muelleri* (Lesson) from PNG. In this paper a fifth species of *Dorcopsinema* from *D. muelleri* from the Raja Ampat Islands, islands near the mainland of Papua and a second species of *Paralabiostrongylus* from the same host and locality are reported.

Materials and Methods

The material examined was collected from the brown dorcopsis, *D. muelleri*, from Raja Ampat Islands, about 40 km off the northwest tip of Brideshead Peninsula on mainland Papua, Indonesia (1° 6' S, 130° 51' E). Specimens for light microscopy were fixed in warm 70% ethanol, cleared and mounted in glycerine-70% ethanol for examination as wet mounts. Specimens for Scanning Electron Microscope (SEM) examination were post-fixed in cacodylate buffer and glutaraldehyde, dehydrated through a graded series of alcohol and freeze dried. The specimens were attached to stubs with double sided cello-tape, coated with gold and observed with a JSM-5310LV Electron Microscope. Figures were drawn with the aid of a drawing tube and all measurements are in micrometers (µm), unless otherwise stated, with the mean followed by the range in parentheses where more than 2 specimens were measured. Paratype material of the species in the two genera under study, held in the South Australian

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