



<http://dx.doi.org/10.11646/zootaxa.3856.3.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:EED65F9D-B55B-4152-A9E1-36BD4E6F9E19>

***Paracomesoma minor* sp. n. and *Microlaimus validus* sp. n. (Nematoda) from the coast of Vietnam**

VLADIMIR G. GAGARIN¹ & NGUYEN DINH TU²

¹*Institute of Inland Waters Biology, Russia Academy of Sciences, Borok, Yaroslavl Province, 152742, Russia*

²*Institute of Ecology and Biological Resources, Vietnamese Academy of Sciences and Technologies, 1000 Hanoi, Vietnam*

Abstract

Two nematode species isolated from sediments of the littoral zone of South China Sea on the coast of Vietnam are described and illustrated. *Paracomesoma minor* sp. n. is closely related to *P. elegans* Gagarin & Thanh, 2009 and *P. lissum* Gagarin & Thanh, 2009. It differs from the former species in the shorter body, longer and more slender tail, longer cephalic setae and shorter spicules, and from the latter species in the shorter body, longer cephalic setae, presence of cervical setae and smaller number of preloacal supplements in males. *Microlaimus validus* sp. n. is morphologically closest to *M. citrus* Gerlach, 1959 and *M. nanus* Blome, 1982 and differs from both species in the longer body, relatively shorter pharynx and relatively shorter and thicker tail.

Key words: description, free-living marine nematodes, *Microlaimus validus* sp. n., new species, *Paracomesoma minor* sp. n., South China Sea, taxonomy, Vietnam

Introduction

The free-living nematode fauna of Vietnam has been studied in connection with the creation of a new database for the biomonitoring assessment of water quality in watershed and wetland ecosystems of Vietnam in its entirety. This work was conducted during 2007–2010 as a part of the Vietnam National project for study of biodiversity of free-living nematodes of coastal Vietnam in the Ho Chi Minh City region.

Material and methods

Nematode samples were collected in March 2010 from littoral zone along the South China Sea coast of North Vietnam. Samples were taken from a boat using a Polar grab. One sample was collected at each station. Three replicates (subsamples) were taken for nematode analysis. All samples were fixed in hot 40% formalin. The nematodes were extracted by centrifugation method using Ludox-TM 50 solution, gradually transferred to anhydrous glycerin and finally mounted on permanent slides (Williams & Williams 1974). Observations, measurements and photographs were made using a Nikon Eclipse 80i light microscope equipped with Nomarski DIC accessories, Nikon DS-Fil digital camera and PC with NIS-Elements D 3.2 software for imaging and analysis. In these samples, 67 species of free-living nematodes have been found, and 20 of these appear to be new to science. The descriptions of nine new species have already been published (Gagarin 2012, 2013a, 2013b; Nguyen Vu Thanh & Gagarin 2013). Descriptions and illustrations of two more new species are given in the present article.

Abbreviations:

a —body length divided by maximum body diameter;

a.d.—anal or cloacal body diameter, in μm ;

Acknowledgements

This work was supported by “NAFOSTED”, Foundation of Vietnam and Vietnamese Fund of Basic Research, grants FWD. 2011. 15 and № 106.12-2012.31.

References

- Allgén, C.A. (1959) *Free-living marine nematodes. Further zoological results of the Swedish Antarctic expedition*. P.A. Norsted and Söner, Stockholm, 293 pp.
- Blome, D. (1982) Systematik der Nematoda eines Sandstrandes der Nordseeinsel Sylt. *Microfauna Meeresbodens*, 86, 1–194.
- De Coninck, L.A. (1965) Systematique des nematodes. *Traite de Zoologie*, 4, 586–731.
- De Coninck, L.A. & Schuurmans Stekhoven, J.H. (1933) The free-living marine nemas of the Belgian coast. II. With general remarks on the structure and the system of nemas. *Memoires du Musee Royal d'histoire naturelle de Belgique*, 58, 1–163.
- De Man, J.G. (1880) Die einheimischen, frei in der reisen Erde und im süßen Wasser lebende Nematoden monographisch bearbeitet. *Tijdschrift der nederlansche dierkundige Vereeniging*, 5, 1–164.
- Filipjev, I. (1918) Free-living Nematodes of the Sevastopol area. *Trudy osoboi zoologicheskoi laboratorii i sevastopol'skoi biologicheskoi stantsii Rossijskoi Akademii Nauk*, 21, 1–350. [in Russian]
- Gagarin, V.G. (2012) Two new species of the genus *Chromadorita* Filipjev, 1922 (Nematoda, *Chromadorita*) from the coast of Vietnam. *International Journal of Nematology*, 22, 21–29.
- Gagarin, V.G. (2013a) Four new species of free living marine nematodes of the family Comesomatidae (Nematoda, Araeolaimida) from coast of Vietnam. *Zootaxa*, 3608 (7), 547–560
<http://dx.doi.org/10.11646/zootaxa.3608.7.2>
- Gagarin, V.G. (2013b) Two new species of the genus *Metadesmolaimus* Stekhoven, 1935 (Nematoda, Monhysterida) from coast of Vietnam. *International Journal of Nematology*, 23, 119–128.
- Gagarin, V.G. & Thanh, N.V. (2006) Three new species of free-living nematodes of the family Comesomatidae from the delta of the Mekong River, Vietnam (Nematoda, Monhysterida). *Zoosystematica Rossica*, 15, 221–228.
- Gagarin, V.G. & Thanh, N.V. (2009). Three new species of free-living nematodes from mangrove of Mekong River, Vietnam. *International Journal of Nematology*, 19, 7–15.
- Gerlach, S. (1959) Neue Meeres-Nematoden aus dem Supralitoral der deutschen Küsten. *International Revue der Gesamten Hydrobiologie und Hydrographie*, 44, 463–467.
<http://dx.doi.org/10.1002/iroh.19590440125>
- Jensen, P. (1979) Revision of Comesomatidae (Nematoda). *Zoologica Scripta*, 8, 81–105.
<http://dx.doi.org/10.1111/j.1463-6409.1979.tb00621.x>
- Hope, W.D. & Murphy, D.G. (1972) A taxonomic hierarchy and checklist of the genera and higher taxa of marine nematodes. *Smithsonian contributions to Zoology*, 137, 1–101.
- Micoletzky, H. (1922) Die freilebenden Erdnematoden. *Archiv für Naturgeschichte*, 87A, 1–650.
- Thanh, N.V. & Gagarin, V.G. (2013) Three new species of nematodes (Nematoda, Enoplida) from coastal waters of Vietnam. *Russian Journal of Marine Biology*, 39, 420–428.
<http://dx.doi.org/10.1134/S1063074013060060>
- Tu, N.D., Vanrensel, A, Smol, N., Long, P.K. & Thanh, N.V. (2013) *Paracomesoma paralongispiculum* sp. n.: a new species of nematode from mangroves of Can Gio (Vietnam) and taxonomy of the genus *Paracomesoma* Hope & Murphy, 1972 (Nematoda: Araeolaimida). *Russian Journal of Marine Biology*, 39, 144–148. [in Russian]
<http://dx.doi.org/10.1134/S1063074013020077>
- Williams, D.D. & Williams, N.E. (1974) A counterstaining technique for use in sorting benthic samples. *Limnology and Oceanography*, 19, 152–154.
<http://dx.doi.org/10.4319/lo.1974.19.1.0152>