



<http://dx.doi.org/10.11646/zootaxa.3866.1.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:A3620CFB-E223-479C-8A9B-FF84F30143CF>

Earthworms of the 'acaecate' *Pheretima* group in Vietnam (Oligochaeta: Megascolecidae), with description of a new species from the Mekong delta

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Abstract

The 'acaecate' *Pheretima* group from Vietnam is revised, with description of a new species, *Polypheretima mekongmontis* sp. nov. A total of 18 species of three genera, *Metapheretima* Michaelsen, 1928, *Planapheretima* Michaelsen, 1934, and *Polypheretima* Michaelsen, 1934 has been recorded from Vietnam. Caecate species of *Planapheretima* are included here as well. *Planapheretima arboricola* (Rosa, 1890), *Pl. lacertina* (Chen, 1946), *Pl. tenebrica* (Chen, 1946), *Polypheretima elongata* (Perrier, 1872), and *Po. taprobanae* (Beddard, 1892) are originally recorded from other countries; all remaining species are native to Vietnam. The species *Polypheretima tani* (Thai, 1996) and *Po. tiencanhensis* (Pham, 1995) are transferred to the genus *Metapheretima*. A key to species and distribution maps are also presented.

Key words: Acaecate earthworms, Clitellata, new species, Vietnam

Introduction

The 'acaecate' *Pheretima* group comprises pheretimoid species without intestinal caeca. The group was carefully revised by Easton (1979) and consists of more than 100 species in five genera: *Archipheretima* Michaelsen, 1928, *Polypheretima* Michaelsen, 1934, *Planapheretima* Michaelsen, 1934, *Metapheretima* Michaelsen, 1928, and *Pleionogaster* Michaelsen, 1892. The group is known to have a restricted distribution in the Indo-Australian archipelago except for several species found in Asian mainland (Easton 1979).

To date, 17 species of the 'acaecate' *Pheretima* group have been recorded from Vietnam, five species of *Planapheretima*, three of *Metapheretima*, and nine of *Polypheretima* (Stephenson, 1931; Michaelsen, 1934a; Thai, 1982, 1984, 1996, 1997; Nguyen, 1993). The genus *Planapheretima* includes species with and without caeca but is considered here, for reasons of convenience, as belonging to the 'acaecate' group of pheretimoid species (Easton 1979). *Planapheretima arboricola* (Rosa, 1890), *Pl. lacertina* (Chen, 1946), *Pl. tenebrica* (Chen, 1946), *Polypheretima elongata* (Perrier, 1872), and *Po. taprobanae* (Beddard, 1892) are exotic or distributed also outside Vietnam (Gates 1972; Thai 1983; Chen 1946). Most of the remaining native species are restrictedly distributed in Central Vietnam or Northern Vietnam, except for *Polypheretima colonensis* and *Polypheretima grandisetosa*, recorded only from the Con Lon Islands (Southern Vietnam), and a new species described here, *Polypheretima mekongmontis* sp. nov., found in the mountain region of the Mekong Delta. The paper provides a review of the 'acaecate' *Pheretima* group recorded in Vietnam, and the description of a new species, *Polypheretima mekongmontis* sp. nov. It gives distribution maps of the listed species and new illustrations of *Po. elongata* (Perrier, 1872) and *Po. taprobanae* (Beddard, 1892). Species descriptions originally published in Vietnamese are paraphrased in the taxonomic section.

-	Polythecal in 4/5/6/7; holandric	<i>Po. spiridonovi</i>
6	Four to six large setae on the dorsum of VI; male pores simple	<i>Po. grandisetosa</i>
-	Large setae in VI absent; male pores on an eyelike circular plate	<i>Po. colonensis</i>
7	Four pairs of spermathecal pores in 5/6-8/9	<i>Po. kyhaensis</i>
-	One pair of spermathecal pores in 7/8	<i>Po. taprobanae</i>
8	Bithecal	<i>Po. parataprobanae</i>
-	Polythecal	9
9	Genital markings paired in XVII and XIX	<i>Po. mekongmontis</i> sp. nov.
-	Genital markings paired in XIX and successive segments	<i>Po. elongata</i>
10	Spermathecal pores on dorsum	11
-	Spermathecal pores on ventrum	12
11	Copulatory pouch absent; genital markings absent	<i>Pl. plumatomusculata</i>
-	Copulatory pouch present; small, genital markings small in male region	<i>Pl. rarus</i>
12	Intestinal caeca multiple; genital markings unpaired, large in XVII	<i>Pl. arboricola</i>
-	Intestinal caeca simple or absent; no genital markings	13
13	Intestinal caeca small, simple	<i>Pl. tenebrica</i>
-	Intestinal caeca absent	<i>Pl. lacertina</i>

Acknowledgements

We would like to deeply thank Prof. Thai Tran Bai (HNUE) Vietnam for his suggestion on new taxa, and for invaluable comments to improve the paper. The paper is supported by the project No.B2013-17-41 of Ministry of Education and Training. We would like to thank two anonymous reviewers for their invaluable comments, and their kindly correcting English.

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