



## Two new bithecal earthworms of the genus *Amynthas* (Oligochaeta: Megascolecidae) from Laos

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### Abstract

Earthworm specimens collected from Nam Phouin NBCA, Laos were found to be two new species of megascolecoid earthworms: *Amynthas namphouinensis* **sp. nov.** and *Amynthas chandyi* **sp. nov.** They belong to the *zebrus* species group with a pair of spermathecal pores in 7/8. *A. namphouinensis* has male pores on small round porophores in XVIII, genital papillae always paired equatorial in XVII, presetal, widely paired in XIX, and mid-ventral in 17/18. *A. chandyi* has male pores on circular porophores in XVIII, and genital papillae paired in 18/19 posterior to the porophores, postsetal in XVI-XIX, and presetal in XVIII, XX.

**Key words:** Earthworms, Oligochaeta, Megascolecidae, *Amynthas*, new species, Nam Phouin NBCA, Laos

### Introduction

Beginning in August 2005, the author surveyed numerous locations in northern Laos. One of these is the Nam Phouin National Biodiversity Conservation Area (NBCA), a protected area in Xayabouli Province around 100 km from the Xayabouli provincial capital. It was not a high mountain area but covered primarily with forests. Soils are slightly sandy and black with the accumulation of organic matters. Removal of the leaf litter layer exposed many earthworms and other invertebrates. The earthworm fauna of the forest in the Nam Phouin NBCA was dominated by the genus *Amynthas* of the family Megascolecidae, as for Laos in general (Thai and Samphon 1988; 1989; 1990ab; 1991ab). Among Laotian *Amynthas*, species with a single pair of spermathecal pores have been found to have the pores in 5/6 or 7/8. The two new species described herein have the pores in 7/8.

The two new species key to the *zebrus* group in Sims and Easton (1972). This group is composed of *A. culminis* (Michaelsen, 1899), *A. hilgendorfi* (in part) (Michaelsen, 1892), *A. principalis* (Michaelsen, 1932), *A. palmosus* (Chen, 1946), *A. zebrus* (Benham, 1896), *A. elegans* Qiu and Wang, 1992, *A. magnipapillatus* Qiu and Wang, 1992, *A. fasciculus* Qiu et al, 1993, *A. xuongmontis* (Thai and Samphon, 1990b), and *A. heaneyi* James, 2004. Except for *A. culminis*, *A. principalis* and *A. zebrus* of Indonesia and *A. heaneyi* of the Philippines, they are found in mainland Asia. One species, *A. xuongmontis*, is from Luangprabang, northern Laos. Even on a cursory inspection this species group appears to be polyphyletic, having members with simple and manicate caeca, and with and without genital marking glands (James 2004).

Holotype and some paratypes are deposited in the Department of Biology, Faculty of Science, National University of Laos, Vientiane (BDNUL). The remaining paratypes are deposited in the National Institute of Biological Resources, Korea (NIBR).