



A new Korean earthworm (Oligochaeta: Megadrilacea: Megascolecidae)*

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Abstract

Amyntas gageodo Blakemore, **sp. nov.** is described from small Gageo-do Island, offshore to the southwest of the Korean Peninsula in the Yellow Sea. It is an octothecal species (four pairs of spermathecae) comparable to Japanese *Amyntas carnosus* (Goto & Hatai, 1899) (synonyms: Korean *kyamikia* Kobayashi, 1934, *monstrifera* Kobayashi, 1936, *sangyeoli* Hong & James, 2001, *youngtai* Hong & James, 2001, *kimhaeiensis* Hong & James, 2001, *sinsiensis* Hong & James, 2001, *baemsagolensis* Hong & James, 2001, Taiwanese *monsoonus* James *et al.*, 2005) and to Chinese *A. pingi* (Stephenson, 1925) (synonym: *fornicata* Gates, 1935). Species associations in its forest litter habitat on the remote island included terrestrial leeches, planarian flatworm predators and other worms. MtDNA COI barcodes indisputably identify types of *A. gageodo* as a new model for future Korean earthworm species characterizations.

Key words: *Amyntas*, pheretimoid, island biodiversity, Asian endemic invertebrates.

Introduction

Surveys of invertebrates on Gageo-do Island (~9.2 km²) were conducted by the National Institute of Biological Resources in 2011. Amongst the animals collected were a manifestly new pheretimoid earthworm species as described in this paper.

Materials and Methods

Specimens were collected by digging and hand-sorting from leaf litter and humic soil. Taxonomic determinations by the senior author follow the style, systematics, methodology and conventions in Blakemore (2000, 2002, 2010b). Small tissue samples were taken from non-essential posterior segments as per Blakemore *et al.* (2010) for DNA extraction and cytochrome-c oxidase subunit 1 (COI) barcoding by Macrogen Inc., Seoul, with results presented in an Appendix.

Taxonomic Results

Amyntas gageodo Blakemore, **sp. nov.**

Diagnosis: Size 150–170 mm. Spermathecal pores lateral in 5/6/7/8/9. Dorsal pores from 12/13. Genital markings as closely paired, mid-ventral, presetal discs in 8–10, 11 and in 17, 18–20 plus more widely paired postsetal discs in 8–9 and 18–19, 20 (total numbering up to twenty six with some markings unpaired unilateral, or all more widely paired). Intestinal caeca simple from 27.