



## Three new *Hemienchytraeus* species (Enchytraeidae, Oligochaeta, Annelida) from Korea, with first records of other enchytraeids and terrestrial polychaetes (Annelida)

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### Abstract

This is the first occasion that the enchytraeid (Enchytraeidae, Oligochaeta) fauna has been investigated in Korea. 18 enchytraeid taxa (7 genera) and two terrestrial polychaetes (*Hrabeiella* sp. and *Parergodrilus heideri*) were identified. Three species are new to science (*Hemienchytraeus koreanus* sp. n., *H. jeonjuensis* sp. n. and *H. quadratus* sp. n.); they are described here. Twelve taxa were distinguished at species level, four of them are cosmopolitan widespread species in the Holarctic, and one, *Enchytraeus irregularis* is obviously an introduced species. The two polychaetes were known previously only from Europe.

**Key words:** Oligochaeta, Enchytraeidae, *Hemienchytraeus*, new species, terrestrial Polychaeta, Korea

### Introduction

Investigations of the oligochaete fauna were already underway in Korea by the 1930s (Kobayashi 1934) and have been continued by a more recent group of Korean oligochaetologists. However, there are no data for Korea on the family Enchytraeidae due to the lack of Korean experts. In this study we present data derived from studying soil samples collected in 2007–2008 from the experimental areas of Chonbuk National University, including the experimental farm at the University, maple tree cultivation area, earthworm experimental box, and deciduous mountain forest in Mt. Jiri near Namwon-city. We describe three new *Hemienchytraeus* species and in addition we provide data on the occurrence of other, previously described enchytraeids and two terrestrial polychaete species. Other species in our samples, that have not been identified yet, including some presumed new species will be covered in following publications.

For the sake of completeness, in the table 1 containing the fauna list we include species found in two samples received from North Korea in 1988.

### Study sites, materials and methods

**Site A.** Soil and litter layers in maple trees cultivation of experimental farm, College of Agriculture & Life Science, Chonbuk National University, Jeonju-si, Jeollabuk-do, Korea (N 35°50'51.1", E 127°08'0.3") 03. 09. 2007, 06. 10. 2008.

**Site B.** Soil and litter layers in feed crop cultivation of experimental farm, College of Agriculture & Life Science, Chonbuk National University, Jeonju-si, Jeollabuk-do, Korea (N 35°50'54.5", E 127°07'57.1") 03. 09. 2007.