



## New earthworms of the *Pheretima urceolata* species group (Oligochaeta: Megascolecidae) from southern Luzon, Philippines

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### Abstract

Earthworm specimens were collected from the Bicol region, southern Luzon Island, the Philippines. Seven species of the genus *Pheretima* Kinberg, 1867 are described from Bicol: *Pheretima bicolensis* **sp. nov.**, *Pheretima viracensis* **sp. nov.**, *Pheretima camarinensis* **sp. nov.**, *Pheretima doriae* **sp. nov.**, *Pheretima batoensis* **sp. nov.**, *Pheretima buhiensis* **sp. nov.**, and *Pheretima gorasi* **sp. nov.** The seven new *Pheretima* species all key to the *urceolata* group in Sims & Easton (1972) with a single pair of spermathecal pores in 5/6. *Pheretima bicolensis* **sp. nov.** has spermathecal pores 0.05–0.06 circumference apart, copulatory bursae openings 0.14 circumference apart. *Pheretima viracensis* **sp. nov.**, has spermathecal pores 0.32–0.36 circumference apart; copulatory bursae openings 0.20 circumference apart. *Pheretima camarinensis* **sp. nov.**, has spermathecal pores 0.18–0.20 circumference apart; copulatory bursae openings 0.19–0.20 circumference apart. *Pheretima doriae* **sp. nov.**, has spermathecal pores 0.32 circumference apart; copulatory bursae openings 0.32 circumference apart. *Pheretima batoensis* **sp. nov.**, has spermathecal pores 0.21–0.23 circumference apart; copulatory bursae openings 0.15–0.18 circumference apart. *Pheretima buhiensis* **sp. nov.**, has spermathecal pores 0.04–0.06 circumference apart; copulatory bursae openings 0.07–0.12 circumference apart. *Pheretima gorasi* **sp. nov.**, has spermathecal pores 0.06–0.07 circumference apart; copulatory bursae openings 0.10 circumference apart. Descriptions of the new species are provided, including illustrations of the ventral view, and spermathecae.

**Key words:** Earthworms, Oligochaeta, Megascolecidae, *Pheretima*, *urceolata* group, new species, Bicol region, Philippines

### Introduction

This paper is one of a series of reports on the earthworm fauna of the Philippines (James *et al.* 2004; James 2004; Hong & James 2004; James 2006; Hong & James 2008 a, b, c). Although the Philippines is a country with very diverse biota and located in a biogeographically interesting region, the earthworms of the Philippines were largely unknown. In order to address this gap in scientific knowledge of an ecologically important category of organism which is potentially significant to regional biogeographical studies, we surveyed numerous sites in the northern Philippines, several of which are included here. In our further work we have completed surveying the entire nation.

Here we describe the *Pheretima* species with spermathecal pores in only 5/6 collected from the Bicol region on and near the south of Luzon Island. The Bicol region comprises six provinces: Albay, Camarines Norte, Camarines Sur, Sorsogon, Catanduanes and Masbate. Of these, the last two are on their respective islands. The other provinces make up the Bicol peninsula of southern Luzon.