



***Longibrachium arariensis*, a new species of Onuphidae (Annelida: Polychaeta) from the shallow water of Izu Peninsula, central Japan, with notes on its feeding behavior**

EIJIROH NISHI^{1,3} & TETSUYA KATO²

¹Manazuru Marine Laboratory for Science Education, Yokohama National University, Iwa, Manazuru, Kanagawa 259-0202, Japan. E-mail: enishi@ynu.ac.jp

²Seto Marine Biological Laboratory, Field Science Education and Research Center, Kyoto University, 459, Shirahama, Nishimuro, Wakayama 649-2211, Japan. E-mail: kato@smb.l.mbox.media.kyoto-u.ac.jp

³Corresponding author

Abstract

A new species, *Longibrachium arariensis*, is described from shallow sandy bottoms, at the western side of Izu Peninsula, Shizuoka Prefecture, Pacific side of central Honshu, Japan. *Longibrachium arariensis* most closely resembles the Australian *L. longipes* Paxton, 1986 and European *L. falcigerum* Paxton and Gillet, 2004 in having a combination of large and small hooks in its prolonged parapodia. The new species can be distinguished from these two species by having shorter antennae and recurved hooks with differently arranged spines. This is the first record of the genus from Japan. We are reporting a unique collecting method of this large onuphid worm using hook and line and illustrating with underwater photographs the feeding behavior of the new species.

Key words: Taxonomy, collecting method, hook and line, underwater photography

Introduction

SCUBA diving and underwater photography of marine organisms in situ has provided information in the fields of ecology, ethology and natural history. A recent paper by Barnich and Steene (2003) reported on a large scaleworm from New Guinea, where the underwater observation and collection of specimens led to the description of a new species with some excellent photographs. We herein provide a similar case where a diver had found a unique polychaete in his favorite diving spot at Izu Peninsula. Some photographs and specimens were sent to one of us (E. N.) and were found to be a new species of *Longibrachium* Paxton, 1986b. The new species is the fifth species of *Longibrachium* and represents a new record for the genus from Japan.

The earliest example of a polychaete being captured with hook and line is that of acoetid *Polyodontes maxillosus*, a huge worm reaching 1–2m in length (Saint-Loup 1889; Glasby & Bailey-Brock 2001). Other polychaetes that have been caught with hook and line are eunicids at the Mediterranean and Atlantic coasts (Glasby & Bailey-Brock 2001). In Australia, Australian beach worms of the genus *Australonuphis* are also collected by bait collectors. However, they are not caught by hook and line but lured out of the sand with bait and caught by hand (Paxton 1979). Here we describe a method to collect worms using hook and line in the water.