

## Freshwater Planarians (Platyhelminthes: Tricladida: Planariidae) from the Kuril Islands and Kamchatka

Ronald Sluys<sup>1</sup>, Irene Smolders<sup>1</sup>, Masaharu Kawakatsu<sup>2</sup>,  
Theodore W. Pietsch<sup>3</sup> and Ryoichi B. Kuranishi<sup>4</sup>

<sup>1</sup> *Institute for Biodiversity and Ecosystem Dynamics & Zoological Museum, University of Amsterdam, P. O. Box 94766, 1090 GT Amsterdam, The Netherlands*

*E-mail: R.Sluys@uva.nl*

<sup>2</sup> *9 jô 9 chôme 1-8, Shinkotoni, Kita-ku, Sapporo, 001-0909 Japan*

<sup>3</sup> *University of Washington, Seattle, WA, U.S.A.; School of Aquatic and Fishery Sciences and Burke Museum of Natural History and Culture, University of Washington, Seattle, WA 98195-5020, U.S.A.*

<sup>4</sup> *Natural History Museum and Institute, Chiba, 955-2 Aoba, Chuo-ku, Chiba, 260-8682 Japan*

(Received 26 June 2009; Accepted 4 November 2009)

Collections of freshwater planarians made by two expeditions to the Kuril Islands and Kamchatka are described, thus providing the first comprehensive account of the occurrence of this group of animals in the Kuril Archipelago. The samples contained three species: *Seidlia schmidti* (Zabusov, 1916), *S. elongata* (Zabosova, 1929), and *Phagocata* sp. The new records for *S. schmidti* and *S. elongata* include asexual specimens that were identified on the basis of their eye arrangement. This study shows that freshwater planarian species that were already known to occur in Kamchatka and Japan have also colonized the Kuril Islands. Possible scenarios for dispersal into the Kuril Islands from two mainland source areas during the Last Glacial Maximum are discussed.

**Key Words:** Platyhelminthes, Tricladida, Kuril Islands, Kamchatka, taxonomy, biogeography.

### Introduction

The Kuril Islands are an archipelago of more than 56 islands in the northwestern Pacific Ocean between the Kamchatka Peninsula and Hokkaido. The biodiversity of the Kuril Archipelago has been the subject of a recent (1994–2000) biotic survey of the terrestrial and freshwater plants and animals by the International Kuril Island Project (IKIP). The results of this survey have been published in numerous publications and are also available from a website maintained at the University of Washington (cf. [www.okhotskia.org](http://www.okhotskia.org); see also Pietsch *et al.* 2003 and references therein). The freshwater planarians, collected during one of the seven IKIP expeditions, remained to be examined.

A second, briefer biotic survey of only the North Kuril Islands as well as Kamchatka, was carried out by joint expeditions of Japanese and Russian scientists in 1996 and 1997 (cf. Komai 2000). A preliminary report on the freshwater planarians collected during this survey was published by Kawakatsu and Kuranishi (2000). Earlier from the Kurils, only Miyadi (1937) had reported any find of freshwater pla-