Korean species of the genus Neoperla Needham, 1905 (Plecoptera: Perlidae)*

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Abstract

Two new species of the perlid genus Neoperla, N. adamantea Murányi & Li, sp. n., and N. goguryeo Murányi & Li, sp. n., are described from both sexes, collected in the Kumgang and Myohyang Mountains of North Korea by personnel of the Hungarian Natural History Museum during the 1970’s. Two additional species, N. coreensis Ra, Kim, Kang & Ham, 1994 and N. ussurica Sivec & Zhiltzova, 1996 are redescribed from North Korean specimens. Neoperla quadrata Wu & Claassen, 1934 is redescribed on the basis of the holotype from Sichuan Province, China, and the Korean occurrence of this species requires confirmation. Korean and global distributions of the five Neoperla species reported from the peninsula are depicted on maps.

Key words: Neoperla, stoneflies, Korean Peninsula, North Korea, new species, redescriptions, distributions

Introduction

Neoperla Needham, 1905 is one of the largest genera of stoneflies, widely distributed in the Nearctic, East Palearctic, Ethiopian and Oriental Biotic provinces and in Wallacea (DeWalt et al. 2014). The greatest species diversity of Neoperla is in the Oriental Region (Cao et al. 2007), but East Palearctic species occur in the Far East, to the Amur Basin in Russia. More than 70 described species are known from China (Li et al. 2014), at least ten species are recognized from Japan (Uchida 1990), and in the Russian Far East, two additional species are known (Teslenko 2012). The distribution and taxonomy of Neoperla in the Korean Peninsula is poorly known, with one species reported from North Korea (Zwick 1973a) and three from South Korea (Yoon & Aw 1985, Ra et al. 1994, Stark 2010).

Between 1970 and 1994, personnel from the Hungarian Natural History Museum had the opportunity to take 16 collecting expeditions to North Korea (Mahunka & Steinmann 1971, Mészáros & Zombori 1995). These efforts yielded some Plecoptera, but this material has been only partially studied (Zwick 1973b, Stark & Sivec 2008, Murányi et al. 2014). In this paper, we treat the Neoperla from these collections, including a discussion of the available information of this genus known from the Korean Peninsula.

Material and methods

Specimens were stored dry in the Collection of Smaller Insect Orders, Department of Zoology, Hungarian Natural History Museum, Budapest, Hungary (HNHM). They were relaxed and transferred to vials with 70% ethanol, their

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