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***Heterangaesus* Alexander, 1925 crane flies (Diptera: Pediciidae) of Korea**

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Abstract

The Korean crane fly species of the genus *Heterangaesus* Alexander, 1925 (Diptera: Pediciidae) is taxonomically revised. *H. gloriosus gloriosus* (Alexander, 1924) is redescribed. A new species *Heterangaesus koreanus* n. sp., which is the first species of Pediciidae from South Korea, is described and illustrated.

Key words: *Heterangaesus gloriosus gloriosus*, *Heterangaesus koreanus*, new species, larval morphology, South Korea, North Korea

Introduction

Alexander (1938) was the first dipterist who started investigating Pediciidae crane flies of the Korean Peninsula. His first publication listed ten species collected by Alexander Yankovsky from the northern part of Korea. Since then, 18 Pediciidae species have been registered in Korea, all of them from North Korea, and no species from South Korea (Oosterbroek, 2015).

In 2012, research of Korean crane flies was started by the authors of this publication. The aim of the study is to document, redescribe, illustrate and prepare keys for all Korean species. Insects are collected each season in different localities, at different times and using different methods throughout the country. All collected specimens after identification are held at the National Institute of Biological Resources, Incheon, Korea.

Previously the genus *Heterangaesus* Alexander, 1925 was thought as endemic to Japan and the islands of Far Eastern Russia. Just recently, large but isolated populations of *H. mongolicus* Podenas, Podeniene, Gelhaus was found east of Ulaan Baatar, Mongolia, about 1500 km from the closest known localities of other *Heterangaesus* (Podenas et al., 2014). *Heterangaesus* were among the first crane flies collected during this study in Jirisan National Park. They are all previously unknown species. Some specimens were repeatedly found in the exactly same locations and season. Alexander (1938) mentioned one female of *H. gloriosus* (Alexander, 1924) from N. Korea, a species which was originally described from Sakhalin Island.

In total, close to four thousand specimens of crane flies were collected by the authors. At the same time, the main collections, storing crane flies from the Korean Peninsula, were studied: the collection of the National Institute of Biological Resources, Korea; Ch. P. Alexander's collection at the Smithsonian Institution, U.S.A., collections of Kansas and Michigan Universities, U.S.A. These collections hold close to two thousand specimens of crane flies from Korea. Among all of stored insects only single female of *H. gloriosus*, mentioned by Alexander (1938), was found.

Material and methods

Adult specimens were collected in 2012, 2013 and 2014 primarily by sweeping vegetation in South Korea, mostly