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Review of the genus *Cratyna* Winnertz (Diptera: Sciaridae) in Korea, including the description of a new species

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Abstract

The genus *Cratyna* Winnertz, 1867 (Diptera: Sciaridae) is studied in the Korean peninsula. *Cratyna* (s. str.) *suwonensis* Shin, Menzel & Lee **sp. nov.** is described as new to science. Additionally, three species are redescribed and illustrated as new to Korea: *C.* (s. str.) *ambigua* (Lengersdorf, 1934), *C.* (s. str.) *nigerrima* (Mohrig & Krivosheina, 1979), and *C.* (*Peyerimhoffia*) *vagabunda* (Winnertz, 1867). A key to the Korean species is given.

Key words: Palaearctic region, new records, redescription, key to species, Sciaroidea, *Peyerimhoffia*

Introduction

The genus *Cratyna* (Sciaridae: Diptera) is distributed widely throughout the world. Around 130 species are known, and placed in 6 subgenera: *Cratyna* Winnertz s. str., *Diversicratyna* Menzel & Mohrig, *Peyerimhoffia* Kieffer, *Pictosciara* Mohrig, *Spathobdella* Frey, and *Termitosciara* Schmitz. Most species are collected in broad-leaved woodland or forest, and larvae of some species are known as decomposers (Menzel *et al.* 2006). Tuomikoski (1960) proposed that *Cratyna* included 5 subgenera: *Plastosciara* (= *Cratyna* s. str.), *Decembrina* Frey, *Peyerimhoffia*, *Spathobdella*, and *Termitosciara*. Later, *Decembrina* was synonymized with *Cratyna* s. str., and *Diversicratyna* and *Pictosciara* were added as subgenera (Menzel & Mohrig 1998, 2000; Mohrig 2004). In a morphological phylogenetic study, Vilkamaa & Hippa (2005) found that *Cratyna* s. l. was paraphyletic, and therefore treated *Peyerimhoffia* as separate genus. However, according to a recent molecular phylogenetic analysis, the type species *C.* (*Peyerimhoffia*) *vagabunda* forms a monophyletic group with *Cratyna* s. str. and *Spathobdella* (Shin *et al.* 2013).

Most species of *Cratyna* are recorded from the Palaearctic region. Hippa *et al.* (1998) found 31 species of *Cratyna* s. str. (as *Pseudozygoneura* Steffan) in the Oriental region, and species have also been found in the Afrotropical, Neotropical, and Oceanian regions (Hippa *et al.* 1998; Mohrig 1999, 2003; Rudzinski & Baumjohann 2012). Four subgenera occur in the Palaearctic region: *Cratyna* s. str., *Diversicratyna*, *Peyerimhoffia*, and *Spathobdella* (Menzel & Mohrig 2000). *Pictosciara* is recorded from the Australian region (Papua New Guinea, Micronesia), and *Termitosciara* is known from the Afrotropical and Oriental region (Madagascar, India) (Schmitz 1915; Steffan 1969; Menzel & Mohrig 2000; Mohrig 2004). Previously, 2 species were recorded from the Korean peninsula in North Korea, *C. salomonis* (Mohrig & Mamaev, 1985) [as *Plastosciara*] and *C. longispina* (Petty, 1918) [as *Plastosciara tuberculata* Tuomikoski, 1960] (Mohrig *et al.* 1992). In this study, the taxonomy of six Korean species is reviewed, among them one new species and three species that are recorded for the first time on the Korean peninsula.

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