



Original Article

Genus *Stathmopoda* Herrich-Shäffer (Lepidoptera, Stathmopodidae) from the Korean Peninsula with two new speciesKyu-Tek Park^a, Soowon Cho^b, Solmoon Na^c, Young-Min Shin^d, Sora Kim^{e,*}^aThe Korean Academy of Science and Technology, Seongnam, Gyeonggi-do, 463-808 Republic of Korea^bDepartment of Plant Medicine, Chungbuk National University, Cheongju, Chungcheongbuk-do, 28644, Republic of Korea^cDivision of Life Sciences, Incheon National University, Incheon, 406-772, Republic of Korea^dKorea National Arboretum, Pocheon, Gyeonggi-do, 487-829, Republic of Korea^eLaboratory of Insect Biosystematics, Department of Agricultural Biotechnology, Research Institute of Agriculture and Life Sciences, Seoul National University, Seoul 08826, Republic of Korea

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ABSTRACT

A total of 13 species of the genus *Stathmopoda* (Lepidoptera, Stathmopodidae) are reviewed from the Korean Peninsula including two new species, *Stathmopoda baegunica* Park & Kim **sp. nov.** and *S. euryzoister* Park & Kim **sp. nov.**, and five newly recorded species, *S. commoda* Meyrick, *S. neohexatyla* Li & Wang, *S. pedella* (Linnaeus), *S. persona* Terada, and *S. moriutiella* Kasy. Among them, *Stathmopoda pullicuneata* Terada, 2014, **syn. nov.** is synonymized with *S. neohexatyla* Li & Wang, 2002. Illustrations of the adults and genitalia and diagnoses or descriptions for all the species are provided with available host plant information.

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Introduction

Stathmopoda Herrich-Shäffer is the largest genus of the family Stathmopodidae comprising more than 240 species (Terada 2016). Of them, about 190 species are distributed in Oriental and Australasian regions encompassing Micronesia and Polynesia. More than 20 species were from Afrotropical and Palaearctic regions, whereas less than 20 species were from Neotropical region, and only two species were from Nearctic region (Sinev 2015). In the Korean Peninsula, faunistic or taxonomic studies on the genus *Stathmopoda* have been poorly conducted. Since the first record of four species, *Stathmopoda masinissa* Meyrick, *S. opticaspis* Meyrick, *S. haematosema* Meyrick, and *S. auriferella* (Walker), by Park (1983) from the southern part of the Korean Peninsula (i.e., South Korea), only two species, *S. flavescens* Kuznetsov and *S. stimulata* Meyrick, were reported from the northern part (North Korea) (Sinev and Park 1994). The genus is characterized by the following combination of characters: i) forewing and hindwing lanceolate; ii) forewing ground color usually yellowish, with dark brown markings; iii) hind

tibia with dense tufts; iv) male genitalia with uncus bell shaped, setose laterally, tapering caudally, as long as gnathos, and cucullus densely setose on inner margin; v) female genitalia with corpus bursae bearing signum or a pair of signa. According to a recent phylogenetic work (Kim et al 2016), the biology of *Stathmopoda* is rather distinct from other sister genera, *Atrijuglans*, *Casmara*, and *Hieromantis*. The microhabitats of the larvae are flowers or fruit capsule, and they shelter themselves by boring seeds, fruits, or bud.

In this study, we provided a review of the genus *Stathmopoda* from the Korean Peninsula, with descriptions of two new species, *Stathmopoda baegunica* Park & Kim **sp. nov.** and *S. euryzoister* Park & Kim **sp. nov.**, and reports of five unrecorded species, *S. commoda* Meyrick, *S. neohexatyla* Li & Wang, *S. pedella* (Linnaeus), *S. persona* Terada, and *S. moriutiella* Kasy. *Stathmopoda pullicuneata* Terada, 2014, **syn. nov.** is synonymized with *S. neohexatyla* Li & Wang, 2002. Illustrations of each adult, male and female genitalia, diagnosis or description, and host plant distribution data for the Korean *Stathmopoda* species are provided.

Materials and methods

This study is based on the specimens collected from various localities in Korea since 1980s. They are preserved in the following

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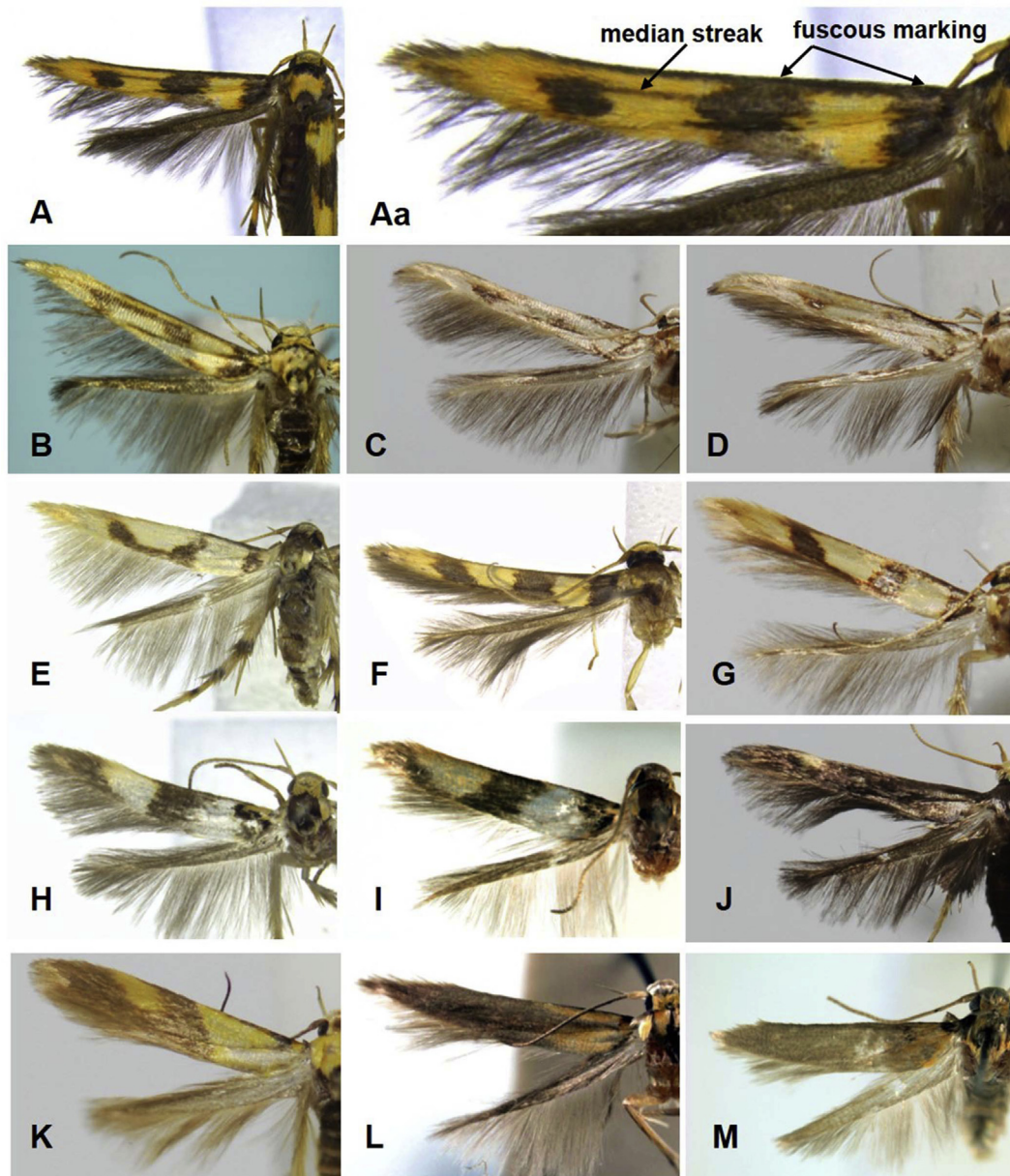


Figure 1. Adult of *Stathmopoda*: A, *Stathmopoda pedella*; B, *S. neohexatyla*; C, *S. stimulata*; D, *S. baegunica* sp. nov.; E, *S. flavescens*; F, *S. euryzoster* sp. nov.; G, *S. commoda*; H, *S. opticaspis*; I, *S. persona*; J, *S. masinissa*; K, *S. auriferella*; L, *S. haematosema*; M, *S. moriutiella*.

institutions in Korea: Korea National Arboretum, Pocheon; Incheon National University, Incheon; Chungbuk National University, Cheongju; and in the first author's private collection.

The abbreviations used for the institution names here are as follows:

CIS: Center for Insect Systematics, Korea

KNA: Korea National arboretum, Korea

INU: Incheon National University, Korea

Types of the new species were deposited in KNA.

The abbreviations used here for distribution records are as follows: North, North Korea; South, South Korea (GG, Gyeonggi-do; GW, Gangweon-do; CB, Chungcheongbuk-do; CN, Chungcheongnam-do; JB, Jeonlabuk-do; JN, Jeonlanam-do; GB, Gyeongsangbuk-do; GN, Gyeongsangnam-do; JJ, Jeju-do); TL, Type locality; and TS, Type species.

Systematic accounts

Genus *Stathmopoda* Herrich-Shäffer, [1853]

Stathmopoda **Herrich-Shäffer, 1853**: 54. TS: *Phalaena (Tinea) pedella* Linnaeus, 1761

Boocara **Butler, 1880**: 562. TS: *Boocara skelloni* **Butler, 1880**

Placostola **Meyrick, 1887**: 280. TS: *Placostola diplaspis* **Meyrick, 1887**

Erineda **Busck, 1909**: 94. TS: *Erineda elyella* **Busck, 1909**

Agrioscelis **Meyrick, 1913**: 96. TS: *Agrioscelis tacita* **Meyrick, 1913**

Kakivoria **Nagano, 1916**: 138. TS: *Kakivoria flavofasciata* **Nagano, 1916**

***Stathmopoda pedella* (Linnaeus, 1761)**

(**Figures 1A, Aa, 2A, Aa, 3A**)

Phalaena (Tinea) pedella Linnaeus, 1761: 367. TL: Sweden.

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