

Short communication

One Zygaenid Moth, *Inope heterogyna*, Newly Recorded in Korea

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ABSTRACT

We report a zygaenid moth, *Inope heterogyna* Staudinger for the first time from Korea. This species which shows the dark brown wings without medial lines and markings, is externally indistinguishable from *Inope maerens* and the correct identification can be done by the genitalia examination. The female genitalia of *Inope heterogyna* can be distinguished by the relatively short and strongly coiled at the anterior ductus bursae.

Keywords: Zygaenidae, *Inope heterogyna*, new record, Korea

INTRODUCTION

A zygaenid genus *Inope* was designated by Staudinger in 1887 with the type species, *Inope heterogyna*, and now comprises three species in Asia (Efetov and Tarmann, 2012). Efetov and Tarmann (1996) listed the diagnostic characters of the genus: the dorsoventrally compressed head with projected frons and forwardly extended chaetosema, the hindleg with one medial and two apical spurs, and the slightly folded valva of the male genitalia. Among these characters, the lack of the medial spur on the hindleg in *Inope inconspicua* Strand, 1915 was assumed as the second reduction (Efetov and Tarmann, 2012). In Korea, one species of *Inope*, *I. maerens* (Staudinger, 1887), is known. Here, we report another species of *Inope* for the first time in Korea.

Adult moth was collected at night using a 22-watt UV light bucket trap (BioQuip, USA). The adult was mounted for examination and was mainly identified based on the female genitalia. For slide preparation of female genitalia, the specimen was prepared by boiling the abdomen in 10% KOH for approximately 20 min. The scales and tissues were removed, stained with Chlorazol Black, and mounted on slides in an Euparal solution.

The material has been deposited in the Insect Collection, the Department of Environmental Education, Mokpo National

University, South Korea. Abbreviations are as follows: TS, type species; TL, type locality; GW, Gangwon-do.

SYSTEMATIC ACCOUNTS

Order Lepidoptera Linnaeus, 1758
Family Zygaenidae Latreille, 1809
Subfamily Procrinae Boisduval, 1828
Tribe Artonini Tarmann, 1994: 120

Genus *Inope* Staudinger, 1887

Type species: *Inope heterogyna* Staudinger, 1887

= *Aglaino* Staudinger, 1887 (TS: *Aglaino maerens* Staudinger, 1887)

= *Pollanista* Strand, 1915 (TS: *Pollanista inconspicua* Strand, 1915)

¹**Inope heterogyna* Staudinger, 1887 (Figs. 1, 2)

Inope heterogyna Staudinger, 1887: 170. TL: Russian Far East, Wladiwostok.

Inope impellucida Graeser, 1888: 108. TL: Russian Far East, Wladiwostok.

Inope heterogyna; Alberti, 1954: 224; Efetov and Tarmann, 1996: 203.

Korean name: ¹*큰굴뚝알락나방 (신칭)

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Fig. 1. Adult of *Inope heterogyna* from Korea. Scale bar = 10 mm.

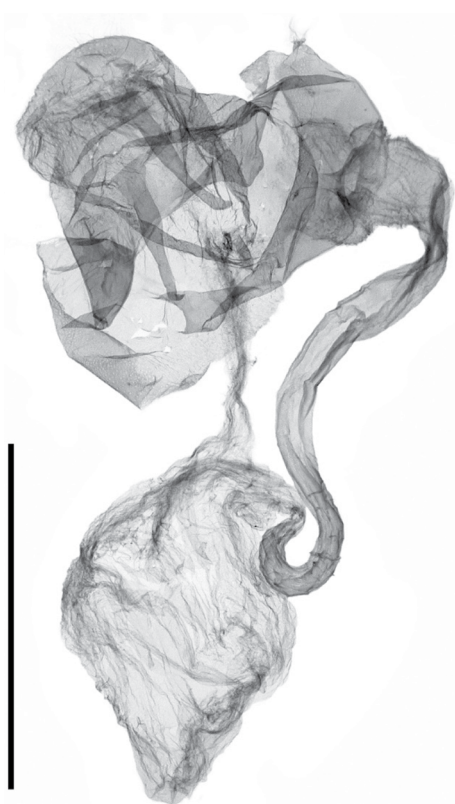


Fig. 2. Female genitalia of *Inope heterogyna* from Korea. Scale bar = 2 mm.

Material examined. 1 female, Korea, GW: Samcheok, Nogok-ri, 18 Jun 2006, Sung-Soo Kim.

Diagnosis. The adult of *Inope heterogyna* is externally almost indistinguishable from its congeners, *I. maerens*. However, the male and female genitalia can be distinguishable from each other. The male genitalia of *I. heterogyna* can be distinguished from those of *I. maerens* by the longer anellus that extends beyond the tegumen, the larger valva with the

sharply pointed sacculus, and the long cornutus (Efetov and Tarmann, 1996). The female genitalia of *I. heterogyna* can be distinguished from those of *I. maerens* by the relatively short and strongly coiled at the anterior of ductus bursae.

Description. Wingspan 28 mm. Adult: Antennae in female filiform; frons covered with dark brown hairs; labial palpi minute. Body and legs covered with dark brown hairs. Forewing and hindwing ground color dark brown without medial lines and markings. **Female genitalia.** Papilla anales broad, rounded; anterior apophyses long, thick; antrum broad, long bowl-shaped; ductus bursae long, thin, sclerotized, strongly coiled between the anterior of ductus bursae and corpus bursae; corpus bursae large, ball-shaped without a signum.

Distribution. Korea, Japan, and Russian Far East.

Remarks. The larvae feed on *Pyrus* species (Rosaceae) (Graser, 1888). Due to the simple dark brown wing color without any wing pattern elements, the species of *Inope* are very similar to its allied species. For the correct identification, it is needed to examine the genitalia.

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CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

ACKNOWLEDGMENTS

We thank Ms. Bora Shin for preparing the plates. The study was supported by a grant from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR202304203).

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Received September 5, 2023
Revised October 30, 2023
Accepted October 30, 2023