Short communication

Discovery of Ceratosticha leptodeta Meyrick (Lepidoptera: Psychidae) from Korea

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ABSTRACT

In the present study, the genus Ceratosticha Meyrick with a newly recorded species Ceratosticha leptodeta Meyrick is reported for the first time from Korea. All available information is presented, including the collecting localities, host plants, illustrations of adults, and genitalia.

Keywords: Ceratosticha Korea Lepidoptera new record Psychidae

Introduction

The family Psychidae, is a relatively small group, with fewer than 1350 described species under 241 genera worldwide (Sobczyk 2011). Members of the family Psychidae are known as case-making moths, the so-called “bagworms,” due to the specific case-making habits of larva. These cases vary in form and size depending on the host plants used, including pieces of leaves, tree barks, mosses, lichens, and grasses on the ground. Sometimes, the characteristics of the larval case can be used to identify them to the genus and species level (Sugimoto 2009; Roh and Byun 2015).

In Korea, a total of seven species of the family Psychidae have been known to date (Park 1983; Byun et al 1996, 2009). Recently, Roh et al (2015) described a new species, Psyche yeongwolensis, and reported a newly recorded species, Proutia maculatella. Consequently, a total of nine species are recorded from Korea to date.

The genus Ceratosticha, belonging to the family Psychidae, was established by Meyrick based on the type species, Ceratosticha leptodeta Meyrick, 1935, which has been known as a genus only from Japan and Taiwan to date (Meyrick 1935; Saigusa and Sugimoto 2013).

The aim of this study is to report a newly recorded species, C. leptodeta Meyrick, to update the knowledge of the psychid fauna in Korea. All the available information is presented in this study, including the collecting localities, host plants, illustrations of adults, and genitalia.

Materials and methods

Materials examined in the present study are preserved in the Systematic Entomology Laboratory, Hannam University (SELHNU), Daejeon, Korea. The genitalia of both sexes were dissected and examined after mounting with glycerol solution and Euparal solution for identification of the species. Photos of adults and genitalic structures of the species were taken by a digital camera, Pax cam (PAXcam Microscope Cameras Co., Chicago, IL, USA) attached on the microscope Carl Zeiss Axio Imager A1 (Carl Zeiss Ltd, Gottingen, Germany).

Systematic accounts

Order Lepidoptera Linnaeus, 1758
Family Psychidae Boisduval, 1829
Subfamily Psychinae Boisduval, 1840

Genus Ceratosticha Meyrick, 1935
Type species: Ceratosticha leptodeta Meyrick, 1935

Ceratosticha leptodeta Meyrick, 1935 (신칭) (Figures 1–3)

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**Adult (Figures 1 and 2).** Wingspan 6.3–8.1 mm. Coloration and vestiture: sclerites on head and thorax light-brown. Head clothed with long whitish hairs; vestiture of erect piliform scales on occiput, vertex and frons scales grouped into tufts. Thoracic notum densely covered with light-brown hairs. Upper side of wings: ground color whitish; dark-brown spots covered sporadically; scales slightly narrowed; apical margin usually produced into two to four weak rounded laciniation. Hindwing covered with light-brown hairs; forewing covered with similar scales as on upper side. Structure: head slightly small, compound eyes slightly large; interocular index 0.23; cornea naked; ocelli absent; labial palpi short and three segmented. Antennae less than half of forewing; scape rough with long scales; flagellum filiform. Forewing short and narrow; costa straight and gently arched beyond 3/5, apex slightly peaked; termen shortly arched to posterior margin. Wing venation: median cell 0.58 times as long as wing, anterodistal and posterodistal corner rectangular; Sc terminating at 1/2 costa; R1 originated at distal of costa; R2 + R3 stalked at 2/3 anterodistal cell; R4 + R5 originated at anterodistal corner to reaching apex; M1 and M2 parallel to termen; M3 terminating at tornus; CuA1 and CuA2 closed to distal corner; A1 + A2 reaching to posterior margin. Hindwing right-angled triangular shape; costa straight, apex gently curved; median cell 0.6 times as long as wing; Sc + R1 straight to 3/5 costa; Rs terminating at apex; M1, M2, and M3 arising with distal margin of median cell; CuA1 and CuA2 stalked at posterior margin of median cell. Legs: femora and tibiae clothed with light grayish hairs; tarsi covered with light brown hairs; claws reddish brown.

**Male genitalia (Figure 3A).** In lateral aspect, dorsum smooth ground. Saccus slender and short with 0.5 times rather than the height of ring; erect piliform hairs on uncus. Ampulla club shaped apically, setae present sparsely. Aedeagus slightly longer than genitalia, short hair apically.
Female genitalia (Figures 3B and 3C). Papillae anales narrow, present with few short hairs, apex slightly blunt. Apophyses posteriors very long and slender. Ostium bursae slender, well sclerotized from entrance to middle. Ductus bursae membranous, 3.5 times longer than corpus bursae, slender. Corpus bursae small, sack-shaped.

Larval case (Figure 1C). Length 5.6–8.2 mm. Attached are the tiny particles of sand.

Material examined. 2♂, 2♀, Isa-dong, Dong-gu, Daejeon, 27 April 2014 (BK Byun & SJ Roh); 1♂, Haemieup-castle, Seosan, 1 May 2015 (BK Byun & SJ Roh & DS Kim)-coll. SEL/HNU.

Distribution. Korea (new record), Japan, and Taiwan.

Host plants. Mosses attached on barks and walls (Saigusa and Sugimoto 2013).

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References


