

Ericeia inangulata (Guenée) (Lepidoptera: Noctuidae), New to Korea

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ABSTRACT

Two species of *Ericeia* Walker are recognized in Korea including a new record of *E. inangulata* (Guenée). Diagnosis of the genus *Ericeia* and *E. inangulata* is provided with brief descriptions of adults including male genitalia.

Key words: *Ericeia inangulata*, Ophiderinae, Noctuidae, Lepidoptera, taxonomy, Korea

INTRODUCTION

The genus *Ericeia* Walker is a tropical ophiderine group, comprising more than 30 species, from South Africa, Australia, India, China to Japan (Poole, 1989). The subfamily Ophiderinae was defined by distinctive morphological and ecological characters from adult and immature (Kitching and Rawlins, 1999; Spidel and Naumann, 2004): the specialized apical armature of the proboscis, the thin, elongate 3rd segment of labial palpi, the sinuate dorsal margin of forewing often with a produced median lobe and tornal angle, and the oblique postmedial line projected to the apex of the forewing; largely restricted to Menispermaceae as host plant and often heterochromic. Walker (1858) erected the genus *Ericeia*, based on the type species *Ericeia sobria* Walker (Type locality: Queensland, Australia). Seitz (1913) described the general morphology of genus and incorrectly synonymized *E. sobria* and *E. pertendens* Walker with *E. inangulata* Guenée. Gardener (1947) designated the larvae of *E. inangulata* into the genus that all ventral prolegs are present and those of A3 distinctly reduced.

In Korea, Sohn et al. (2005) first reported a member of *Ericeia*, *E. pertendens* based on a male from Jeju Island, with comment on the ambiguity whether this species occurred in Korea or not (Sohn et al., 2005). In April and October of 2007, four additional males have been collected at the southeastern coast of Jeollanam-do, Oenarodo Island, Goh-eung-gun (see below). It suggested that the population of this species is distributed in mainland of Korea.

A male of *Ericeia inangulata* was collected on an island of Korea, Wuido Island, about 51 km southwest from

Mokpo. Here I report *Ericeia inangulata* for the first time in Korea. Consequently, two species of *Ericeia* are reported in the Korean peninsula. Nomenclature for adult morphology and genitalia follows Scoble (1992).

SYSTEMATIC ACCOUNTS

Order Lepidoptera Linnaeus, 1758

Family Noctuidae Latreille, 1809

Subfamily Ophiderinae, Guenée, 1852

Genus *Ericeia* Walker, 1858

Ericeia Walker, [1858]; List Spec. Lepid. Insects Colln Br.

Mus. 13: 1078, 1089. TS: *Ericeia sobria* Walker.

Diagnosis. Moths of *Ericeia* have filiform antennae, well projected palpi with expanded 2nd segment and male hindleg with long hairs on tibia and proximal tarsi. Forewings are distinguished by a reniform brownish stigma, strong dark brownish markings at apical area, undulating medial and subterminal lines and a row of black dots on termen. Hindwings are distinguished by dark brownish medial lines and a row of blackish dots on termen. The male genitalia are distinguished by the long uncus with a sharp apex, long and narrow tegument and vinculum with very short saccus, slender valva with medially expanded costa and aedeagus with a strongly coiled vesica and a patch of long spinular cornuti and several sac-like diverticula. In Korea two species are recorded: *E. inangulata* (Guenée) and *E. pertendens* (Walker).

¹**Ericeia inangulata* (Guenée) (Fig. 1B)

Hulodes inangulata Guenée, 1852. Noct. 3: 210. TL: [Bangladesh]: Silhet.

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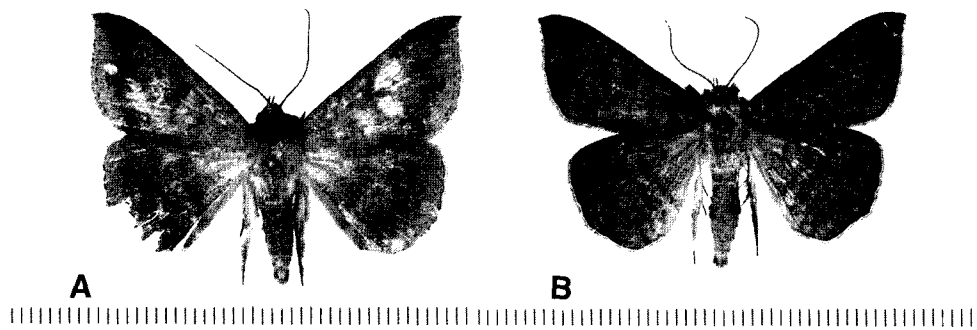


Fig. 1. Adults of *Ericeia* Walker in Korea. A. *E. pertendens*; B. *E. inangulata*.

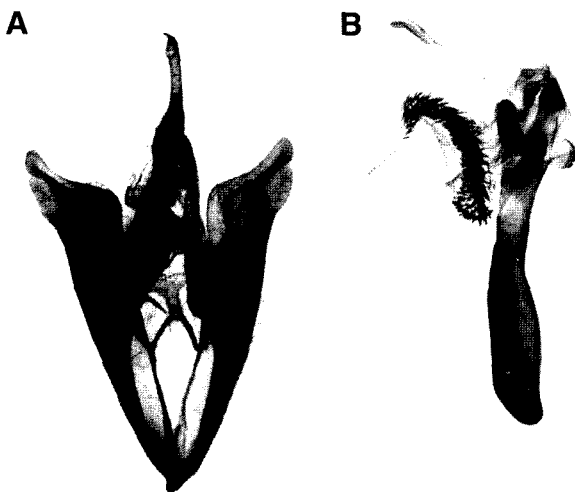


Fig. 2. Male genitalia of *Ericeia inangulata*. A. genital capsule; B. aedeagus with everted vesica.

Ericeia inangulata: Seitz, 1913, Macrolepid. World 3: 363.

Material examined. [Jeollanam-do Province, JN] 1♂ JN: Sinan, IS: Wooi, 34°43'N, 126°09'E, 11 Aug. 2006 (S. W. Choi).

Diagnosis. This species is externally similar to *E. pertendens*, but can be distinguished by the thin markings of subterminal line of forewing and the blackish antemedial line of hindwing with two strongly marked medial lines on underside. The male genitalia are similar to those of *E. pertendens*, but can be distinguished by the long, membranous sacculus of valva.

Description (Fig. 1B). Wingspan 43 mm. Antennae filiform in male; frons covered with long dark brownish scales; labial palpi long, well projected beyond eyes, 2nd segment largely expanded with dark brown hairs and 3rd segment

naked. Forewing ground color brownish grey, costal margin strongly curved near apex; basal, medial and subterminal lines weakly appearing, undulated, costally distinct with blackish scales; reniform stigma weak, brownish; apical area dark brownish; termen with a row of black dots. Hindwing ground color brownish grey, antemedial line blackish, two medial lines distinct with dark brownish scales; subterminal line weakly appearing, undulated; termen with a row of blackish dots; underside with two medial lines (Fig. 1B).

Male genitalia (Figs. 2A, B). Uncus long, slender with sharp tip; tegument narrow, triangular; vinculum as long as tegumen; saccus very short with sharp tip. Transtilla thin rod-shaped, juxta well developed, ventrally with a slanted sclerotized line. Valva long, slender; costa long, medially strongly expanded; sacculus long, dorsomedially with a large hat-shaped harpe. Aedeagus long, slender, distally with a sclerotized sac; vesica strongly twisted with a long patch of backward erected spinules and several small sac-like diverticula. Female genitalia. Not examined.

Host plant. *Dahlbergia latifolia* (Gesneriaceae), *Mimosa rubicaulis*, *Cassia fistula* (Fabaceae) (Sevastopulo, 1943; Gardner, 1947).

Distribution. Korea, Japan, China, Taiwan, Bangladesh, India, Malaysia.

Remarks. Holloway (1977) noted a markedly asymmetrical valva of *E. inangulata*, but the specimen in Korea had the symmetrical valva. The male genitalia from a good series of specimens of Indo-Australian region should be examined whether the asymmetrical valva is a variation or not. The residence of *E. inangulata* in the Korean peninsula is ambiguous based on information on host plants and its geographic distribution. It needs further taxonomic and ecological study for confirmation of the distribution in Korea.

¹**Ericeia pertendens* (Walker) (Fig. 1A)

Remigia pertendens Walker, 1858, List Specimens lipid.

¹*바람개비밤나방

Insects Colln. Br. Mus. 14: 1512. TL: [Sri Lanka]: Ceylon.

Ericeia gonioptila Prout, 1922, Bull. Hill Mus. 1: 233. TL: [Indonesia]: Ceram.

Ericeia eurytaenia Prout, 1929, Bull. Hill Mus. 3: 113. TL: Ceylon.

Ericeia occidua Prout, 1929, Bull. Hill Mus. 3: 115. TL: China.

Ericeia pertendens iopolia Fletcher, 1957, Nat. Hist. Renell i., Br. Solomon Is. 2: 50. TL: [Solomon Island]: Renell Island.

Ericeia pertendens: Sohn et al., 2005, Ent. Res. 35: 219.

Material examined. [Jeollanam-do Province, JN] 4♂ JN: Goheung, IS: Oenarodo, 34°27'N, 127°28'E, 11 Apr. 2007, 1-2 Oct. 2007, 22 Oct. 2007 (E.S. Gang).

Diagnosis. This species is externally similar to *E. inangulata*, but can be distinguished by the relatively thick and wavy markings of subterminal line of forewing. The male genitalia are similar to those of *E. inangulata*, but can be distinguished by the short, folded and strongly sclerotized sacculus of the valva.

Host plants. *Cassia* spp. (Fabaceae) (Sohn et al., 2005).

Distribution. Korea, Japan, China, Taiwan, Vietnam, Laos, Thailand, Malaysia, Indonesia, Philippines, Nepal, India, and Sri Lanka.

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