



Genus *Pseudodoxia* Durrant (Lepidoptera: Oecophoridae) from Korea: Description of one new species and a checklist of the genus



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ARTICLE INFO

Article history:

Received 2 February 2016

Accepted 3 June 2016

Available online 05 June 2016

Keywords:

Lepidoptera
Oecophoridae
Pseudodoxia
New species
Checklist
Korea

ABSTRACT

A small and poorly known genus *Pseudodoxia* Durrant is studied in Korea. One new species, *Pseudodoxia gahakensis* **sp. nov.**, is described. Illustrations of adult and genitalia are provided, along with keys to two Korean *Pseudodoxia*. A checklist of the genus in the world is given.

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Introduction

The *Pseudodoxia* Durrant proposed in 1895 based on the type species, *Pseudodoxia limulus* (Rogenhofer), is a little known Oriental genus of the family Oecophoridae (Lepidoptera: Gelechioidea), comprising 40 species. Meyrick (1906, 1910, 1914, 1915, 1921, 1922, 1923, 1928, 1939) described 32 species. After then, Diakonoff (1947, 1951) added 3 species, *Pseudodoxia modica*, *P. pulla* and *P. xantrocephala*. Of these total 40 species, 5 species, *P. achlyphanes* (Meyrick, 1934), *P. limulus* (Rogenhofer, 1889), *P. sepositella* (Walker, 1864), *P. siriopa* (Meyrick, 1933) and *P. seganomella* (Stainton, 1859), were transferred from other genera such as *Cryptolechia*, *Fumea*, *Gelechia* and *Oecophora* (Gaede, 1939; Clarke, 1963). They were distributed from Oriental Region, South and Southeast Asia, mostly from Sri Lanka, India and Indonesia (Table 1). Only one species, *P. achlyphanes* (Meyrick), is distributed from Palaearctic Region such as Korea, Japan and China (Byun et al., 2009).

They are characterized by followings: i) antennae as long as forewing, without pecten; forewing rather narrow, elongate, with black spot marking; ii) male genitalia with a spine-shaped costal projection developed; iii) female genitalia with distinct caudal margin of ductus bursae.

Larvae of the *Pseudodoxia* have diverse life history. The larvae of *P. limulus* feed on small mosses and lichens upon rocks and trees (Durrant, 1895) whereas, the larvae of *P. achlyphanes* feed on the dead leaves of *Cinnamomum camphora* Siev. (Lauraceae), *Shiia cuspidata* Makino, *Quercus serrata* Thunb. (Fagaceae) and *Smilax china* L. (Liliaceae) (Saito, 1976), and the larvae of *P. microphora* feed in a portable case on lichens growing on trucks and rocks (Meyrick, 1910).

In Korea, only one species, *P. achlyphanes* (Meyrick) has been recorded (Park, 1981).

The aim is to review of the genus *Pseudodoxia* from Korea with description of one new species, *P. gahakensis* **sp. nov.** and redescription of *P. achlyphanes*. The new species is a second *Pseudodoxia* species in the Palaearctic Region. Illustrations of external and internal characters and keys to Korean *Pseudodoxia* are provided with a checklist of the genus in the world.

Material and methods

This study is based on specimens deposited in the Korea National Arboretum (KNA), Pocheon, Korea. For examination, all slide vouchers of abdomen and genitalia were made by the first author and then, they were taken by digital camera, Diagnostic Instruments, Inc. 14.2 Color Mosaic attached on the microscope, Leica DM 400B at a resolution of 600 dpi. The color standard for the description of adults follows Kornerup and Wanscher (1978). Type of the new species will be deposited in the KNA, Pocheon, Korea.

The abbreviations used here are as follows: GG, Gyeonggi Province; GW, Gangweon Province; CB, Chungcheongbuk Province;

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Table 1A checklist of the genus *Pseudodoxia* Meyrick in the world including distribution information.

<i>Pseudodoxia</i> species	Palearctic regions			Oriental regions		
	Korea	Japan	China	Sri Lanka	India	Indonesia
<i>Pseudodoxia achlyphanes</i> (Meyrick, 1934) Exot. Microl. 4: 478. TL. Japan (Tokyo).	●	●	●			
<i>Pseudodoxia acritodes</i> (Meyrick, 1914) Exot. Microl. 1: 263. TL. Ceylon (Huputale).				●		
<i>Pseudodoxia agoraea</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc., 20: 152. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia albinea</i> (Meyrick, 1914) Exot. Microl. 1: 266. TL. Ceylon (Puttalam, Trincomali).				●		
<i>Pseudodoxia ateleides</i> (Meyrick, 1915) Exot. Microl. 1: 308. TL. Bengal (Pusa)					●	
<i>Pseudodoxia camatodes</i> (Meyrick, 1914) Exot. Microl. 1: 264. TL. Ceylon (Peradeniya).				●		
<i>Pseudodoxia cerealis</i> (Meyrick, 1914) Exot. Microl. 1: 263. TL. S. India (Palnis, 6000 ft).					●	
<i>Pseudodoxia chalcias</i> (Meyrick, 1906) J. Bombay Nat. Hist. Soc., 17: 407. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia chlorostoma</i> (Meyrick, 1914) Exot. Microl. 1: 264–265. TL. N.Coorg (Dibidi, 3500 ft); S. India (Nilgiris, 3500 ft).					●	
<i>Pseudodoxia crassata</i> (Meyrick, 1922) Exot. Microl. 1: 265. TL. India (Assam, Khasis).					●	
<i>Pseudodoxia cretata</i> (Meyrick, 1906) J. Bombay Nat. Hist. Soc. 17: 407–108. TL. Ceylon (Peradeniya, Matale).				●		
<i>Pseudodoxia cryptias</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc. 20: 152. TL. Ceylon (Madulsima).				●		
<i>Pseudodoxia encalypta</i> (Meyrick, 1914) Exot. Microl. 1: 264. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia gahakensis</i> Kim sp. nov. in this study. TL. Korea (JN).	●					
<i>Pseudodoxia haplocnista</i> (Meyrick, 1939) Trans. R. Ent. Soc. Lond. 89: 58. TL. India.				●		
<i>Pseudodoxia ichnaea</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc. 20: 153. TL. Ceylon (Peradeniya).				●		
<i>Pseudodoxia illutata</i> (Meyrick, 1914) Exot. Microl. 1: 266. TL. Ceylon (Trincomali).				●		
<i>Pseudodoxia limulus</i> (Rogenhofer, 1889) Verh. Zool.-bot. Ges. Wien. 29: 60. TL. Ceylon.				●		
<i>Pseudodoxia manifesta</i> (Meyrick, 1914) Exot. Microl. 1: 265–266. TL. India (Kanara).					●	
<i>Pseudodoxia melanaema</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc., 20: 151. TL. India (Khasis).					●	
<i>Pseudodoxia melicrana</i> (Meyrick, 1928) Exot. Microl. 3: 478. TL. Assam (Shillong, 5000 ft).					●	
<i>Pseudodoxia miseranda</i> (Meyrick, 1923) Exot. Microl. 3: 62. TL. S. India (Palnis, Kodaikanal).					●	
<i>Pseudodoxia modica</i> (Diakonoff, 1951) Idea. 8: 88. TL. West Java.						●
<i>Pseudodoxia montigena</i> (Meyrick, 1914) Exot. Microl. 1: 273. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia pachonoma</i> (Meyrick, 1922) Exot. Microl. 2: 547. TL. S. India (Ootcamund).					●	
<i>Pseudodoxia palimpsesta</i> (Meyrick, 1915) Exot. Microl. 1: 308. TL. Bengal (Hazaribagh).					●	
<i>Pseudodoxia paradema</i> (Meyrick, 1914) Exot. Microl. 1: 264. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia picrophaea</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc. 20: 152–153. TL. Ceylon (Hakgala).				●		
<i>Pseudodoxia pinarodes</i> (Meyrick, 1910) J. Bombay Nat. Hist. Soc. 20: 152. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia placata</i> (Meyrick, 1914) Exot. Microl. 1: 265. TL. Ceylon (Diyatalawa).				●		
<i>Pseudodoxia placida</i> (Meyrick, 1910) J. Bombay nat. Hist. Soc. 20: 151. TL. Ceylon (Vauhgan).				●		
<i>Pseudodoxia pulla</i> (Diakonoff, 1951) Idea. 8: 85. TL. West Java.						●
<i>Pseudodoxia pumicosa</i> (Meyrick, 1914) Exot. Microl. 1: 266. TL. Ceylon (Madulsima).				●		
<i>Pseudodoxia scotias</i> (Meyrick, 1921) Zool. Meded. Leyden. 6: 171. TL. Java (Sindanglaya).						●
<i>Pseudodoxia sepositella</i> (Walker, 1864) List spec. Lepid. Insect Colln Br. Mus. 29: 630. TL. Ceylon (Maskeliya).				●		
<i>Pseudodoxia siriopa</i> (Meyrick, 1933) Exot. Microl. 4: 368. TL. Java.						●

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