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A new species of *Agnathosia* Amsel, 1954 from China (Lepidoptera: Tineidae, Meessiinae)

Y. L. Xiao & H. H. Li

Abstract

One new species, viz. *Agnathosia obisagittalis* Xiao & Li, sp. n., is described based on the specimens collected from China. Photographs of adult and male genitalia as well as drawing of the venation are provided.

KEY WORDS: Lepidoptera, Tineidae, Meessiinae, *Agnathosia*, new species, China.

Una nueva especie de *Agnathosia* Amsel, 1954 para China (Lepidoptera: Tineidae, Meessiinae)

Resumen

Se describe una nueva especie, a saber *Agnathosia obisagittalis* Xiao & Li, sp. n., basándose en ejemplares recogidos en China. Se proveen fotografías del adulto y la genitalia del macho, así como un dibujo de la venación.

PALABRAS CLAVES: Lepidoptera, Tineidae, Meessiinae, *Agnathosia*, new species, China.

Introduction

AMSEL (1954) established the genus *Agnathosia* with *A. austriacella* Amsel, 1954 from Austria as the type species. PETERSEN (1957) regarded *A. propulsatella* Rebel, 1892 as the senior synonym of *A. austriacella* Amsel and *A. flavimaculella* Toll, 1942. PETERSEN (1961) considered *Tinea mendicella* Hübner, 1796 as the senior synonym of *A. propulsatella* and transferred it to the present genus; ROBINSON (2001) regarded *T. mendicella* [Denis & Schiffermüller], 1775 as a valid name and transferred it to the present genus, as well as deemed *T. mendicella* Hübner, 1796 as the senior synonym of the above mentioned three species. GAEDIKE (2006) deemed *T. mendicella* [Denis & Schiffermüller], 1775 as the senior synonym of *T. mendicella* Hübner, 1796, and firstly recorded the species from Heilongjiang Province, China. In addition, GOZMÁNY & VÁRI (1973) considered *Tinea byrsinopa* Meyrick, 1933 from Sierra Leone and Senegal belonging to *Agnathosia*; JONASSON (1977) described *A. sandoeensis* from the Baltic island of Gotska Sandön; and GAEDIKE (2000) described *A. chasanica* from Russia. Of the four described species, three occur in the Palaearctic Region and one in the African Region. We herein describe one new species based on six specimens collected from Henan, Hubei, Hunan and Gansu provinces, China.

All the studied specimens, including the types, are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, China.

Agnathosia Amsel, 1954

Agnathosia Amsel, 1954: 8. Type-species: *Agnathosia austriacella* Amsel, 1954 (junior synonym of *Tinea mendicella* [Denis & Schiffermüller], 1775).

Diagnosis: The genus *Agnathosia* is characterized by the eighth abdomen segmental sternum in

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males laterally carrying small coremata with spicular scales and the distal part of the valvae consisting of dorsal and ventral lobes. It is related to *Matratinea* Sziráki, 1990, but can be differentiated by the valvae lacking the tubular pecten and the absence of transtilla. In *Matratinea*, the valvae possess a process at base or middle of costa bearing the tubular pecten, and the transtilla is bifurcated with the apodeme of the valvae (SZIRÁKI, 1990; XIAO & LI, 2008).

Distribution: China (Henan, Hubei, Hunan, Gansu), Central Europe, Sierra Leone, Senegal.

Remarks

Agnathosia larvae are fungivorous (JONASSON, 1977; ROBINSON & NIELSEN, 1993). However, in the subfamily Meessiinae, the larvae of most Palearctic genera such as *Infurcitinea* Spuler, 1910, *Eudarcia* Clemens, 1860, *Stenoptinea* Dietz, 1905, *Lichenotinea* Petersen, 1957, *Montetinea* Petersen, 1957, and *Novotinea* Amsel, 1939 are lichnivorous (ROBINSON & NIELSEN, 1993). The *Agnathosia* pupae resemble the tineid pupae by having one or two transverse bands of dorsal spines on the abdomen, which is obviously different from the known *Eudarcia* pupae that have the scattered spines forming a broad and elongate field. Therefore, it is very doubtful that the genus *Agnathosia* is associated with Meessiinae, but it does not obviously belong to any other monophyletic subfamily in Tineidae and is too small to be placed in the polyphyletic subfamily Myrmecozelinae (JONASSON, 1977; ROBINSON & NIELSEN, 1993).

Agnathosia obisagittalis Xiao & Li, sp. n. (Figs. 1-3)

Type material: Holotype ♂, CHINA: Mt. Badagong (31° 17' N, 121° 17' E), Sangzhi County, Hunan Province, 1250 m, 13-VIII-2001, leg. Houhun Li and Xipu Wang, gen. slide no. XYL03429. Paratypes: 1 ♂, Mt. Jigong (32° 51' N, 114° 54' E), Xinyang City, Henan Province, 700 m, 15-VII-2001, leg. Dandan Zhang; 1 ♂, Shiziping (33° 47' N, 110° 52' E), Lushi County, Henan Province, 1700 m, 20-VII-2001, leg. Dandan Zhang; 1 ♂, Houhe (30° 07' N, 110° 48' E), Wufeng County, Hubei Province, 1100 m, 11-VII-1999, leg. Houhun Li, 2 ♂♂, Mt. Yangga, Wen County (32° 58' N, 104° 41' E), Gansu Province, 2000 m, 5-VII-2001, leg. Houhun Li and Xipu Wang.

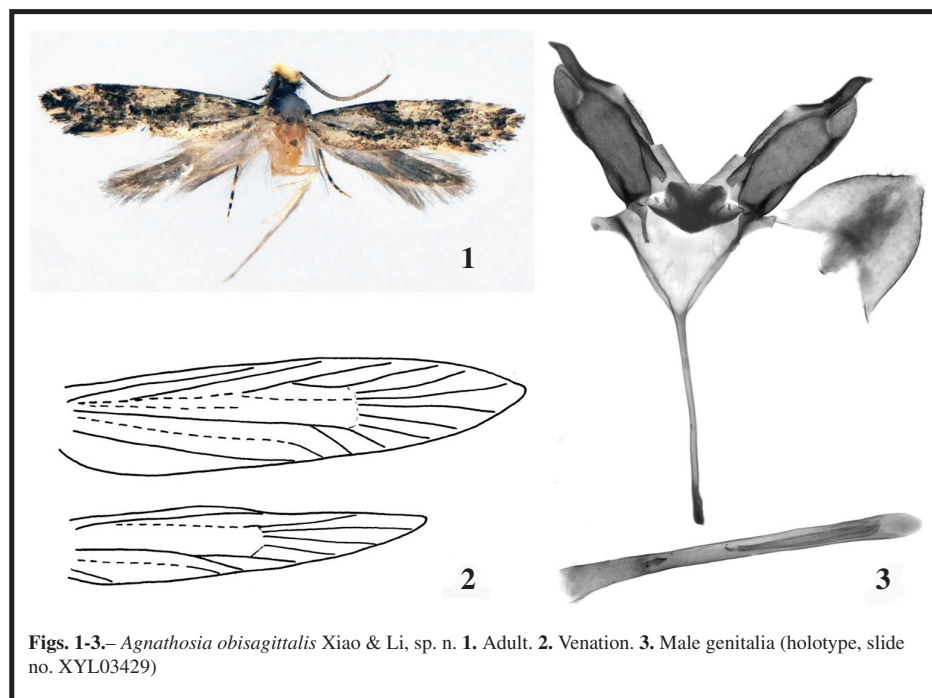
Description: Adult (Figs. 1-2): Wingspan 8.0-12.0 mm. Head ochre yellow. Inner side of labial palpi ochre yellow; outer side dark brown except third segment ochre yellow at apex. Antennae dark gray, length of scape about twice its width. Thorax and tegulae dark brown. Forewings with Sc to 2/5 of costal margin, basal distance between R_1 and R_2 about 3.0 times that between R_2 and R_3 ; dark brown, with shiny light purple luster; costal margin with a quadrangular ochre yellow patch at middle, its lower corner on outside extending posteriorly to about distal 1/4 of dorsum, thin and sinuate, becoming fainter; elongate ochre yellow spot along distal part of costal margin, bearing small dark brown spots; quadrangular ochre yellow spot near posterior corner of termen, with small dark brown spot; fold with a black stripe at basal 2/3; longitudinal ochre yellow band from base to anal corner along dorsal margin, its upper margin sinuous; ciliae dark brown, mixed with ochre yellow. Hindwings and ciliae dark gray. Legs pale ochre yellow, with large blackish patches on tibiae and tarsi.

Male genitalia (Fig. 3): Uncus inconspicuous. Subscaphium with length three times its width, gradually narrowing from middle to both ends. Valvae with length three times the width, consisting of inner and outer parts folded basally but separate distally; inner part slightly narrower than outer one, its distal 1/4 produced to an oval dorsal lobe; outer part with distal 1/3 produced to a strongly sclerotized, narrowly elongate ventral lobe, pointed at apex. Saccus about 2.6 times valvae in length, inverted triangular in basal 2/5, sticklike in distal 3/5. Juxta with length about half its width, inverted sagittate. Phallus about 2.2 times length of valvae, slightly expanded at base, obtusely rounded at apex; cornuti two, slender, length about 0.45 times that of phallus, gradually broadened from base to apex, apex somewhat truncate.

Female unknown.

Distribution: China (Henan, Hubei, Hunan, Gansu).

A NEW SPECIES OF AGNATHOSIA AMSEL, 1954 FROM CHINA



Figs. 1-3.– *Agnathosia obisagittalis* Xiao & Li, sp. n. **1.** Adult. **2.** Venation. **3.** Male genitalia (holotype, slide no. XYL03429)

Diagnosis: This species is similar to *Agnathosia mendicella* (Hübner, 1796). It can be easily distinguished by the valvae with the dorsal lobe obviously shorter than the ventral one, the juxta inverted sagittate, and the phallus with two slender cornuti. In *A. mendicella* (Hübner), the dorsal lobe of valvae is about equal to the length of the ventral one, the juxta is not inverted sagittate, and the phallus does not have conspicuous cornuti (ZAGULAJEV, 1979).

Etymology: The specific name is derived from the Latin prefix *ob-* (= inverted) and the word *sagittalis* (= sagittate), in reference to the inverted sagittate juxta.

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