A NEW SPECIES OF *WOCKIA* HEINEMANN, 1870 (LEPIDOPTERA: URODIDAE) FROM VIETNAM

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Abstract - *Wockia variata* **n. sp.** based on a single specimen is described from Tam Dao National Park in Northeastern Vietnam. It is one of two species of *Wockia* known from the Oriental Region. Photos of the adult and illustrations of male genitalia are provided.

Key words: Southeast Asia, Tam Dao National Park, Taxonomy, Urodoidea, *Wockia*, Vietnam.

INTRODUCTION

Vietnam is one of the 25 countries considered to possess a high level of biodiversity (Vietnam Environment Protection Agency, 2005, *electronic source*). The northern part of the country is especially interesting in terms of biodiversity because of many areas having been denied human access for several decades, by political situation, resulting in their natural resources remaining well protected. The Tam Dao National Park, situated 80 km north-west of Hanoi, is the most representative reservoir of biodiversity in Northern Vietnam. The large area extending over three mountains has been protected since 1996 and recent scientific expeditions have revealed a wealth of hitherto undocumented fauna and flora (Dennis, 2000).

Wockia Heinemann, 1870 is one of the more infrequently encountered groups in Lepidoptera. Our knowledge of the genus has long been limited to the type species, *W. asperipunctella* (Bruand, 1852). The adults of the genus are small, relatively dull colored moths with a typical forewing element of an oblique antemedian line comprising raised scales (Kyrki, 1986). Genus level characters of the immature stages include a bisetose AF-seta group and lack of a puncture on the adfrontal sclerite on the larval head; sparse abdominal tergal spines, a blotched pattern, and several pairs of apically hooked setae on the frons, vertex and the cremaster in pupae (Adamski *et al.*, 2009). So far as known, the genus is closely associated with Salicaceae for the larval host plants (Adamski *et al.*, 2009; Sohn, unpublished data). Pupation takes place in a meshed cocoon whose one side is attached on the plant leaf surface.

Wockia is poorly represented and comprises only five species known from the Northern Hemisphere: *W. asperipunctella* (Bruand, 1852) from Europe and eastern North America (Kyrky, 1988; Heppner, 1997; Landry, 1998), *W. balikpapanella* Kyrki, 1986 from Borneo (Kyrki, 1986), *W. koreana* Sohn, 2008 from South Korea (Sohn and Adamski, 2008) and two Mexican species, *W. chewbacca* Adamski, 2009 and *W. mexicana* Adamski, 2009 (Adamski *et al.*, 2009). Currently, a new major radiation of the genus or its possible allies has been revealed from the Central and South America (Sohn, unpublished data). This finding calls for a new assessment of its world distribution that must be wider than the present.

The aim of this work is to describe the second new species of *Wockia* from the Oriental Region. Considering this remote occurrence of two Oriental species, we expect more undescribed congeners present in the Southeast Asia. It is also possible that more intense inventories for the group will reveal a major radiation in the Orient.

DESCRIPTION OF NEW SPECIES

Wockia variata Sohn and Park, n. sp.

Diagnosis: The new species is characterized by: transverse fuscous streaks between veins in forewing, tegumen with a pair of elongated terminal projections, four-lobed valval tip, and aedeagus enlarged basally. It is closer to *W. asperipunctella* and *W. koreana* by lacking the triangular uncus as shown in *W. chewbacca* and *W. mexicana*, but differs from them by the aforementioned unique features in forewing pattern and male genitalia.

Description: Head - Vertex and frontoclypeus with appressed, brownish gray scales; frons flattened; scales on occiput pale brown; scape of antenna gray with denser scales ventrally and a small pale gray area dorsoterminally; flagellum laminate, gray, 2/3 as long as forewing; labial palpus upcurved to 1/3 of frontoclypeus, with white-tipped gray scales dorsally and dark gray scales ventrally; 2nd segment of labial palpus as long as 3rd, with denser scales terminally; proboscis naked.

Thorax – Patagium gray, tinged with brownish white medially; tegula and mesonotum dark gray. Foreleg dark gray; epiphysis with long hairs and dense scales. Midleg with coxa pale gray; femur with dark gray scales tipped with white; tibia gray, with a dark gray band basally, medially and terminally; tarsus dark gray. Hindleg white-tipped, gray on coxa; femur, tibia and 1st tarsal segment silvery gray; the other tarsal segments dark gray, each with a whitish gray band distally; dorsal tibial hair tuft long. Forewing: length 6.5mm (n = 1), narrowly elliptical, rounded apically, gray, with transverse dark-gray shades between veins; two black clusters of raised scales basally; two short black lines of raised scales antemedially; two faint dark spots postmedially; fringe gray. Hindwing gray.

Male genitalia- Tegumen trapezoidal, with a pair of elongate, slightly curved projections on dorsolateral surface; vinculum narrowly rounded distally; juxta U-shaped. Valva elongate, slightly wider at base, round apically, with one large subtriangular and one small digitate lobe on interior subtermina; a linguiform lobe present between saccular distal end and lower subterminal lobe; elongate scales arising on the dorsal surface distally; costal process elongate to 2/3 of valval length, distal part digitate, densely setose; sacculus narrow, pointed and protruded distally; inner surface near base with a zone of spine-like hairs. Aedeagus about as long as valva, tapered distally, enlarged basally, with two elongate rods; cornuti absent.

Female - unknown.

Holotype: 1♂, "Mt. Tam-Dao Nat[ional] Park, 912m, northen Vietnam, 13 VIII 2005, [leg] K. T. Park, M. Y. Kim and M. Y. Chae", genitalia slide no. SJC-629. Detached apical part of right hindwing in gelatin capsule attached on pin of specimen.

Holotype is deposited in the National Arboretum, Pocheon, Gyonggi, Korea.

Distribution: Northern Vietnam.

Etymology: The specific epithet, *variata*, is derived from the Latin, varius, meaning "variegate" and refers to the forewing pattern of the new species.

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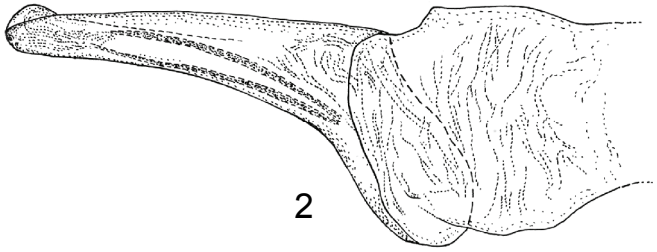

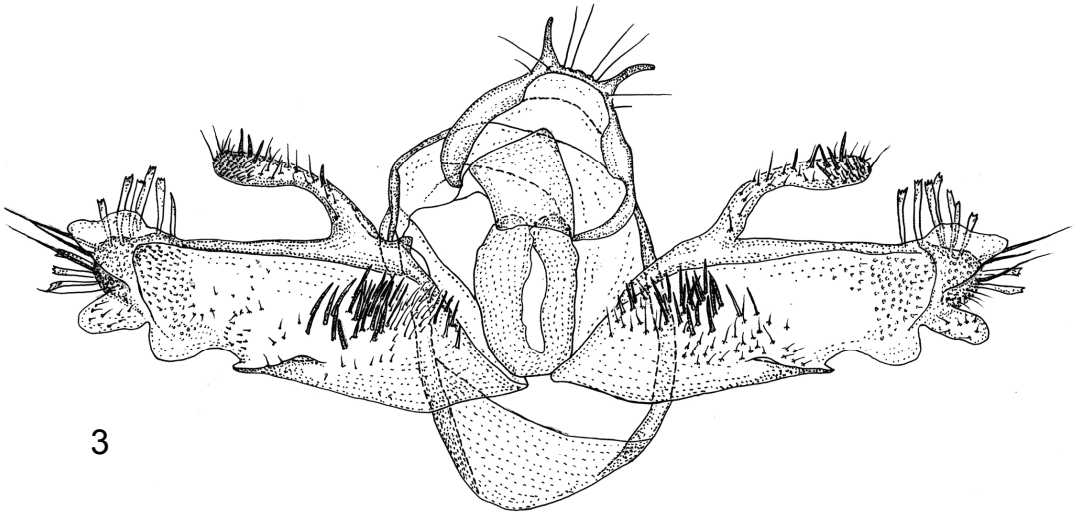

Figs 1-3. Habitus and male genitalia of *Wockia variata* **n. sp.**: 1. holotype, 2. aedeagus, 3. male genital capsule (right valva folded in the actual specimen, illustrated with the reference of left valva).

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