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The taxonomical status of *Wittstrotia flavannamica nunta* (Lepidoptera, Noctuidae)

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Abstract

The subspecies *nunta* KEMAL, LEKSAWASDI & KOÇAK, 2006 of *Wittstrotia flavannamica* BEHOUNEK & SPEIDEL, 2005, from North Thailand, is considered to be a separate species (**stat. nov.**) and is described in detail. Habitus and genitalia of both sexes of *W. nunta* are figured. The genus *Wittstrotia* holds now five known species.

Introduction

When we described, in 2005, the new genus *Wittstrotia* (SPEIDEL & BEHOUNEK, 2005) a single species had been known and three new species were described at the same time. Those species are distributed in China, Taiwan, and Vietnam in a strictly allopatric manner. This holds also true for *W. fansipani* BEHOUNEK & SPEIDEL, 2005 and *W. flavannamica* BEHOUNEK & SPEIDEL, 2005 which are both found in North Vietnam but occur at different elevations.

In 2006, KEMAL, LEKSAWASDI & KOÇAK (2006) published a paper on *Wittstrotia flavannamica* in Thailand and described its new subspecies *W.f. nunta* based on a single female from North Thailand (Chiang Mai). The type specimen or its genitalia were not figured.

Material of both sexes of *nunta* at hand from the same region in North Thailand (Chiang Mai province) supports our view that the taxon *nunta* is not a subspecies of *W. flavannamica* but a distinct species.

In the genus *Wittstrotia*, therefore, the following five species can be listed:

<i>fansipani</i> BEHOUNEK & SPEIDEL, 2005	(N. Vietnam)
<i>flavannamica</i> BEHOUNEK & SPEIDEL, 2005	(N. Vietnam)
<i>fukiensis</i> (DANIEL, 1955)	(China, Fujian)
<i>nunta</i> KEMAL, LEKSAWASDI & KOÇAK, 2006	(N. Thailand)
<i>taroko</i> BEHOUNEK & SPEIDEL, 2005	(Taiwan)

The genus *Wittstrotia* was provisionally assigned to Eustrotiinae where it belongs to the epaulette-bearing group of genera.

Material examined

„N. Thailand, Chiang Mai-prov., Doi Inthanon NP, 1416 m, 18 30'59"N, 98 28'13"E, 30. iv. 2006, leg. K. Cerný", 2♂♂ (coll. G. BEHOUNEK, ZSM, München, W. SPEIDEL, Olching). "Nordthailand, Chiang Mai, Mae Ai, Doi Pha Hom Pok, 1650 m, 24. 4. 2006. N: 20 07, 847 E: 099 , 643, leg. T. IHLE, coll. A. BECHER", 1♂; genitalia slide No. 5904 (BEHOUNEK); (coll. A. BECHER). Same data, but genitalia slide No. 5905 (BEHOUNEK); 1 ♀ (coll. A. BECHER).

The female holotype of *W. nunta* was never figured, and was not seen by the authors. It was taken close to the localities of our specimens listed above: N. Thailand, Chiang Mai, Chiang Dao, San Pakia RFD, Watershed Station, 28. iv,-1. v. 1994, leg. I. J. KITCHING et al.

Wittstrotia nunta KEMAL, LEKSAWASDI & KOÇAK, 2006 (stat. n.)

The original description of the taxon *W. flavannamica* ssp. *nunta* by KEMAL, LEKSAWASDI & KOÇAK is very short, without any figure, and reads as follows: "On forewing, 3rd basal black spot reniform, proximal fascia fine and complete, dorsal black stria and proximal fascia also united. On hindwing, ground colour less orange than that of nominate subspecies. Discoidal blackish spot larger, submarginal blackish band broad and complete up to anal angle. Wing size smaller, forewing: 10 mm, wingspan 23,5 mm." The subspecies is raised in the rank of a separate species because of the considerable differences in superficial appearance and in the genitalia of both sexes.



Figs 1-2: 1. ♂ *Wittstrotia nunta* KEMAL, LEKSAWASDI & KOÇAK "Nordthailand, Chiang Mai, Mae Ai, Doi Pha Hom Pok, 1650 m, 24. 4. 2006. N: 20 07, 847 E: 099 , 643, leg. T. IHLE, coll. A. BECHER". Genitalia slide No. 5904 (BEHOUNEK). Coll. A. BECHER. Photo I. KOSTJUK; 2. ♀ *Wittstrotia nunta* KEMAL, LEKSAWASDI & KOÇAK , same data, but genitalia slide No. 5905 (BEHOUNEK). Coll. A. BECHER. Photo I. KOSTJUK.

Description: From the material at our disposal, the following more detailed description can be given. (Figs 1, 2).

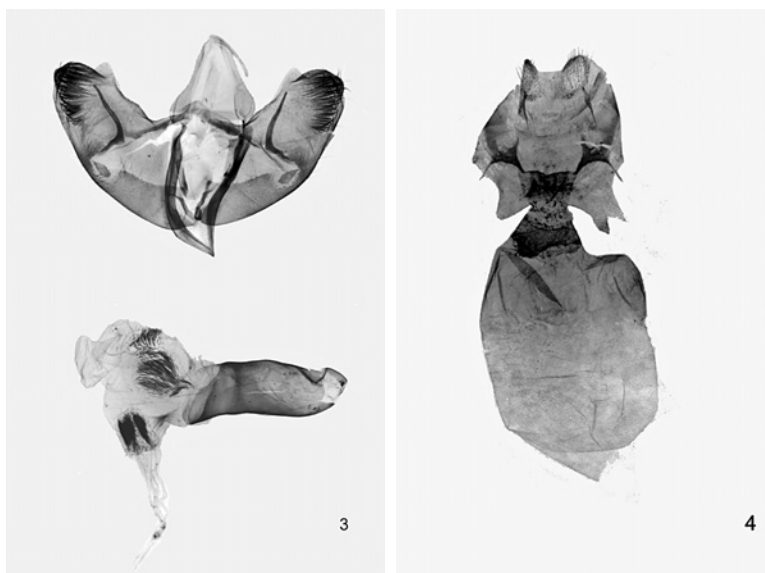
Wingspan 20 mm (♂), 21 mm (♀).

Head: White, labial palpi white at underside, upperside almost completely black with only inconspicuous white interruption in intersegmental region.

Forewing white with black markings. Proximal fascia black, well developed, not interrupted, curved in two arcs. Basal area with a few black spots. Orbicular stigma is a small black point near the proximal fascia. Reniform stigma 8-shaped, filled inside with black. Distal fascia strongly s-shaped. Two strong black costal spots present, the first one situated in the centre of median area, the other one in a subapical position. A submarginal series of horizontal black lines and a marginal series of black dots present. Fringes chequered black and white.

Hindwing yellowish white, broadly infuscated with black scales at margin and with a large, rectangular, black discoidal spot.

Male genitalia (Fig. 3): Uncus slender with blunt tip. Valva with digitus near end of costal margin, termen rounded, sacculus very strong in proximal part and clasper present, very long almost reaching costal margin of valva. Aedeagus short, strongly sclerotized, vesica with apical diverticulum and 3 patches of thin elongate cornuti.



Figs 3-4: 3. ♂ *Wittstrotia nunta* KEMAL, LEKSAWASDI & KOÇAK genitalia slide 5904 (BEHOUNEK); 4. ♀ *Wittstrotia nunta* KEMAL, LEKSAWASDI & KOÇAK genitalia slide 5905 (BEHOUNEK).

Female genitalia (Fig. 4): Apophyses posteriores short, ductus bursae short, separated from corpus, with bowl-shaped sclerotized ostium. Corpus bursae oval, with lateral appendix and sclerotized region at apex where ductus bursae inserts.

Differential diagnosis: Both fasciae curved, and the two large costal black spots developed, as in *W. fansipani*. The yellowish white colour of the hindwing is similar to *W. flavannamica*. The male genitalia are close to *W. flavannamica* with even longer clasper (genitalia of *W. fansipani* are unknown). The strong black margin and the bold discoidal spot to the hindwing distinguish *W. nunta* from all other congeners and support its specific status.

Distribution: So far confined to North Thailand, Mount Inthanon and Mount Pha Hom Pok, the holotype from Chiang Dao.

Biology: Adults found in April at elevations of 1400 to 1650 m in primary mixed deciduous rain-forest.

Discussion

Due to the rather incomplete original description of *W. nunta* there may remain some doubts as to the identity of our material with the type specimen which is slightly larger than our. The yellow colour of the hindwing and the broad black submarginal band to the hindwing suggest, however, conspecificity with *W. nunta*. Furthermore, given the allopatric distribution of all hitherto known species, the existence of two taxa in the genus in the same region and at a similar elevation in North Thailand is very unlikely.

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Zusammenfassung.

Die aus Nord-Thailand beschriebene Subspecies *nunta* KEMAL, LEKSAWASDI & KOÇAK, 2006 von *Wittstrotia flavannamica* BEHOUNEK & SPEIDEL, 2005 wird als eigenständige Art betrachtet (**stat. nov.**) und genauer beschrieben. Habitus und Genitalien beider Geschlechter der Art *W. nunta* werden abgebildet. Damit umfasst die Gattung *Wittstrotia* fünf bekannte Arten.

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