The adelid genus *Nematopogon* Zeller, with 13 species confined to the Palaearctic region, has been revised by Nielsen (1985). Only three species have been reported from South-Eastern Asia: *N. dorsiguttella* (Erschoff) is distributed across Siberia to Japan, Korea, and Northern China; *N. distincta* Yasuda is found in Japan and Korea, and *N. chalcophyllis* (Meyrick) is known from the type locality (China, Zhejiang) only (Nielsen 1985, Kozlov 1997). None of *Nematopogon* species was reported from Taiwan (Heppner 1992), until the Hungarian lepidopterist Csaba Szabóky collected two specimens of the new species in the highlands of Taiwan in 1997.

*Nematopogon taiwanella* sp. n. (figs. 1-7)

Type material. – Holotype ♂: Taiwan, Prov. Nantou, 5 km SW of Tayuling (24° 09’ N, 121° 17’ E), 2900 m, 26.V.1997, leg. Csaba Szabóky. – Paratype: 1 ♀, labelled as holotype. The type specimens are deposited in the Hungarian Museum of Natural History, Budapest.

**Diagnosis**

*N. taiwanella* sp. n. differs from the closely related *N. chalcophyllis* (Meyrick, 1935) primarily in genital structures of both sexes, whereas external differences are subtle. The male of *N. taiwanella* has the valvar pectinifer with a higher (32-34) number of pegs, a relatively wider uncus with straight lateral margins, an aedeagus with only one apical cornutus, and a juxta with pointed arrow-head; the female has a narrower tergite VIII.

**Description**

Male (fig. 1). – Forewing length 10.3 mm, width 3.0 mm; wing expanse 21 mm. Frons bright white, vertex pale yellowish brown. Proboscis dark brown, base sparsely covered with white scales. Labial palpus snow-white. Antenna 2.5× forewing length; scapus and flagellum uniformly pale yellowish brown, except for medial sides of both scapus and 5-10 basal flagellar segments which are white. Tentagulum yellowish brown; thorax (dorsum) brown. Forewing pale yellowish brown, slightly darker at costal margin; neither reticulate pattern nor any spot are distinct. Hindwing pale light yellowish grey, almost transparent. Legs brown to pale yellowish; hind tibia with sparse prominent white hairs. Epiphysis at 0.4 of forewing length.


*Nematopogon taiwanella* sp. n., described from specimens collected in highlands Taiwan, is closely related to *N. chalcophyllis* (Meyrick, 1935) from which it differs primarily in genital structures of both sexes, whereas external differences are subtle. The male of *N. taiwanella* has the valvar pectinifer with a higher (32-34) number of pegs, a relatively wider uncus with straight lateral margins, an aedeagus with only one apical cornutus, and a juxta with pointed arrow-head; the female has a narrower tergite VIII.

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Key words. – *Nematopogon*, Adelidae; taxonomy; Taiwan.
tibia, not reaching its tip. Abdomen yellowish brown.

Female. – Forewing length 9.0 mm, width 2.7; wing expanse 18 mm. Antenna >1.5× forewing length (tip broken). Otherwise similar to male.

Male genitalia (figs. 2-6). – Genitalia preparations were investigated and figured as described by Kozlov (1993). Uncus broader than long, apex slightly emarginate, lateral margins almost straight; width of uncus exceeding width of proximal part of vinculum. Socii almost spherical. Vinculum with slightly concave lateral margins, tip rounded. Length of valva c. 0.75× length of vinculum. Valva subtriangular, proximal part very broad, ventral margin bent in the middle, with a few pegs at bend; apex of valva narrowly rounded. Unstalked pectinifer (c. 0.25× length of valva) bears 32-34 pegs. Transtilla with straight middle portion and narrow, long sublateral processes. Length of aedeagus c. 0.85× length of vinculum; base of aedeagus swollen; tip with prominent ventrolaterally directed cornutus arising from wide extension of the ventral wall of the aedeagus. Juxta c. 0.75× length of aedeagus; arrow-head of juxta narrow (width 0.45 x length), tip of arrow-head pointed.

Female genitalia (fig. 7). – Apophyses posteriores and anteriores of nearly equal length. Tergite VIII relatively narrow, 3.6× as long as wide; hind margin almost straight; anterior half weakly sclerotized; medial keel weak; vestibulum with well developed sclerotization.

**Biology**

The forest area above Tayuling is a rather open, very old *Abies kawakamii* - *Tsuga chinensis* conifer woodland, with shrubby *Rhododendron* bushes and patches of pygmy bamboo. Herbaceous plants are scattered on the more open rocky surfaces and walls (L. Ronkay pers. comm.). Moths were collected with a light-trap.

**Taxonomic position**

*N. taiwanella* along with *N. chalcophyllis* and *N. distincta* forms a monophyletic group defined by the following (presumably apomorphic) characters: (1) valva with a flap from the distal end of dorsal margin; (2) tip of aedeagus with large prominent cornutus; (3) vestibulum with well developed sclerotization. In this group, *N. chalcophyllus* and *N. distincta* share the following (presumably apomorphic) character: (4) valva with a cluster of pegs on bend of ventral margin.

The following keys are constructed as modifications to the keys by Nielsen (1985); where additional couplets received an ‘a’ number.
Figs. 2-7. *Nematopogon taiwanella*, genitalia (2-6, male; 7, female). – 2, Genital complex, ventral view (right valva not shown); 3, ditto, lateral view; 4, juxta; 5, aedeagus, ventral view; 6, aedeagus, lateral view; 7, tergite VIII and apophyses posteriores; scales 0.25 mm.
Keys to species of *distincta* species group based on male genitalia

3. Tip of flap rounded; valva with a cluster of pegs on bend of ventral margin ..............................3a
   – Tip of flap pointed; valva without a cluster of pegs on bend of ventral margin .............. *distincta*

3a. Pectinifer with fewer than 30 pegs; uncus with convex lateral margins; aedeagus with two cornuti; juxta with wide round arrow-head ................
       ............................................................................................................ *chalcophyllis*
   – Pectinifer with more than 30 pegs; uncus with straight lateral margins; aedeagus with only one apical cornutus; juxta with pointed arrow-head ...
       ............................................................................................................ *taiwanella*

Keys to species of *distincta* species group based on female genitalia

2. Posterior part of sternite VIII strongly sclerotized
   ............................................................................................................ 2a
   – Entire sternite VIII membranous .............. *distincta*

2a. Tergite VIII relatively narrow, 3.6x as long as wide; hind margin almost straight ........ *taiwanella*
   – Tergite VIII relatively wide, 2.5x as long as wide; hind margin with prominent medial lobe ..........
       ............................................................................................................ *chalcophyllis*

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