

## Two new species of *Apophyllia* from China (Coleoptera: Chrysomelidae: Galerucinae)

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**Abstract.** *Apophyllia yangi* sp. nov. (from China: Xizang) and *A. cheni* sp. nov. (from China: Guangxi) are described and compared with related taxa. Male genitalia of both new species are illustrated.

**Key words.** Taxonomy, new species, Coleoptera, Chrysomelidae, Galerucinae, *Apophyllia*, Palaearctic region, China

### Introduction

The genus *Apophyllia* Thomson, 1858, is distributed in the Afrotropical, Oriental and eastern Palaearctic regions. All known Asian species were revised and additional nine new species described by BEZDĚK (2003a, b, c, d, 2004, 2005, 2006a, b). Nowadays, the Asian fauna comprises 77 species and subspecies.

Two additional new species have been recognized among unidentified specimens deposited in the Institute of Zoology in Beijing, China. They are described below.

### Material and methods

All morphological measurements were made with an ocular grid of the MBS-10 binocular microscope at 32x magnification (except 16x magnification for the body length).

The material is housed in the following collections:

IZCAS Chinese Academy of Sciences, Institute of Zoology, Beijing, China;  
JBCB Jan Bezděk collection, Brno, Czech Republic.

The original labels of the type specimens are written in Chinese. We present transliterated data; a label with these data has been attached under each type specimen. A single slash (/) divides label data on different rows on additional red labels. Other comments and remarks are placed in square brackets.

## Taxonomy

### *Apophyllia yangi* sp. nov.

(Figs. 1, 6)

**Type locality.** China, Xizang, Longzi.

**Type material.** HOLOTYPE: ♂, CHINA: XIZANG, Longzi, 3340 m a.s.l., 25.vii.1981, Xinnian Li leg. (IZCAS). PARATYPES: 1 ♂ 1 ♀, same label data as holotype (♀ in IZCAS and ♂ in JBCB); 1 ♀, XIZANG, Longzi, vii.1981, without the name of collector (IZCAS). The specimens are provided with additional printed red labels: 'HOLOTYPE [or PARATYPUS], / *Apophyllia / yangi* sp. nov., / det. Bezděk & Zhang 2006'.

**Description.** Body length: males 5.20-5.30 mm (holotype 5.30 mm); females 6.15-6.70 mm.

Male. Body flattened, parallel, densely pubescent. Head black, mouthparts brownish. Antennomeres 1-3 yellow, antennomere 1 darkened dorsally, antennomeres 2 and 3 slightly darkened apically, antennomere 4 dark with paler base, antennomeres 5-11 black. Pronotum black with yellow extreme margins. Scutellum black, elytra metallic dark green. Prosternum yellow. Meso-, metasternum and abdomen black. Legs black, trochanters and bases of femora brownish.

Labrum transverse, covered with several pale setae, anterior margin slightly sinuate. Anterior part of head semiopaque, sparsely covered with pale setae. Frontal tubercles small, subtriangular, lustrous. Interantennal space with small deep groove. Vertex with slightly impressed median line, dull, coarsely and densely punctate, and covered with short pale hairs. Antennae slender, 0.70 times as long as body, length ratios of antennomeres 1-11 equal to 18-10-19-23-14-14-12-12-10-10-13. Last three antennomeres very short, nearly as long as wide.

Pronotum transverse, 1.70 times as broad as long, widest at anterior third, slightly narrowed anteriorly and posteriorly, with two lateral depressions. Surface covered with fine punctures, lustrous, lateral depressions semiopaque. Anterior and posterior margins almost straight, thinly bordered. Lateral margins rounded, indistinctly bordered. Anterior angles rounded, posterior angles obtusely angulate; all angles with small distinct teeth bearing one long pale seta.

Scutellum subtriangular with widely rounded apex, semiopaque, densely covered with small punctures and short pale hairs.

Elytra parallel. Humeral calli well developed. Elytral surface dull, covered with small and very dense confluent punctures and very short pale hairs. Epipleura distinct, narrow, disappearing before apex. Macropterous.

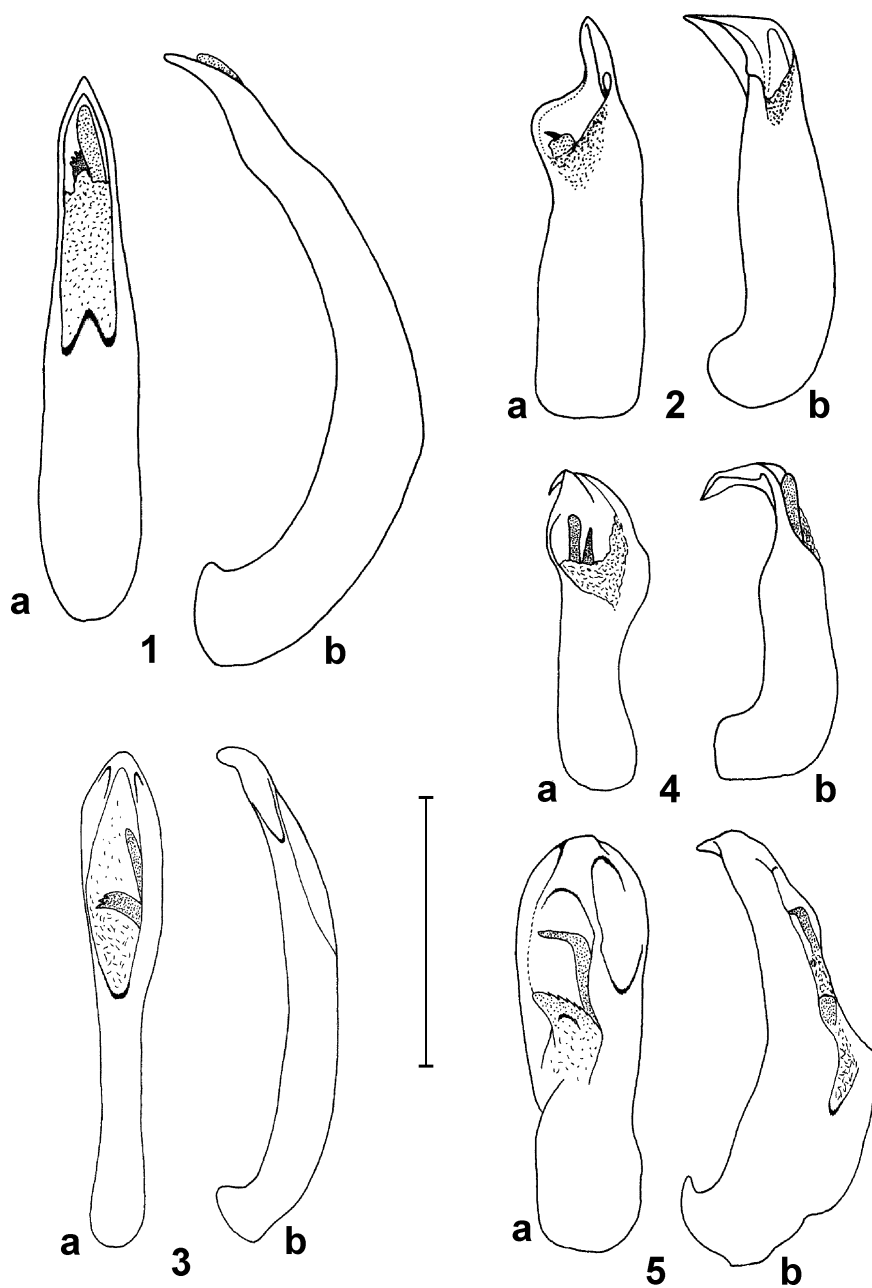
Ventral surface semiopaque, finely punctate, and covered with pale hairs. Last visible ventrite with subtriangular incision. Pygidium with very small apical incision.

Hind tarsomere 1 ca 1.05 times as long as two following tarsomeres combined. Claws bifid.

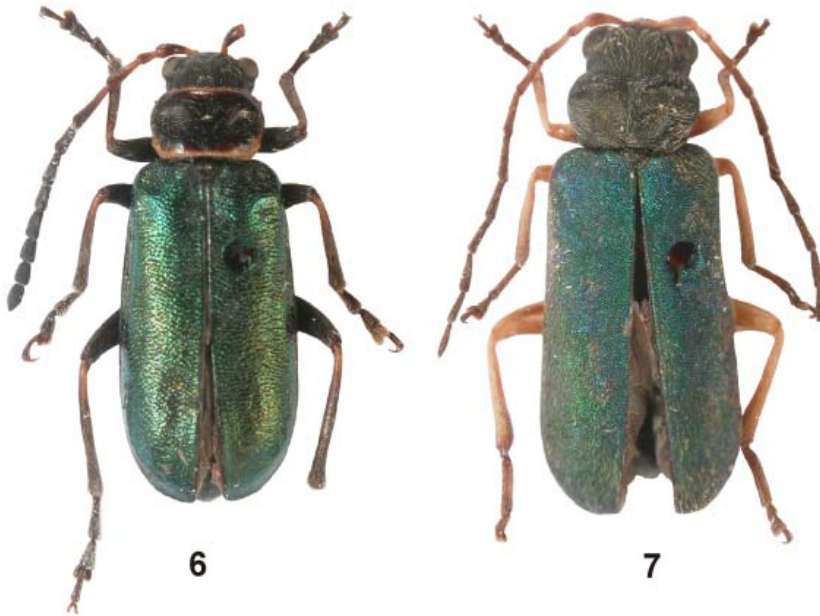
Shape of aedeagus as in Fig. 1.

Female. Pronotum 1.75-1.80 times as broad as long. Both last ventrite and pygidium not emarginate. Middle and hind tarsomeres 1 thin. Claws appendiculate.

**Variability.** One female with the yellow margins of pronotum somewhat wider and the pronotal surface not as lustrous as in the other three specimens.



Figs. 1-5. Aedeagus (a – dorsal view; b – lateral view). 1 – *Apophyllia yangi* sp. nov.; 2 – *A. cheni* sp. nov.; 3 – *A. excavata* Bryant, 1954; 4 – *A. kimotoi* Bezděk, 2003; 5 – *A. weisei* (Jacoby, 1896). Scale: 1 mm.



Figs. 6-7. Habitus. 6 – *Apophylia yangi* sp. nov. (holotype; 5.30 mm); 7 – *A. cheni* sp. nov. (holotype; 6.05 mm).

**Differential diagnosis.** Owing to the coloration of the pronotum, *A. yangi* sp. nov. resembles other *Apophylia* species with extended black pattern on the pronotum – *A. grandicornis* (Fairmaire, 1888), *A. frischeri* Bezděk, 2003, and females of *A. variicollis* Laboissière, 1927. However, all these species have a yellow anterior part of the head (completely black in *A. yangi* sp. nov.), at least partly yellow legs, and a dull or semiopaque pronotum.

**Etymology.** The species is dedicated to Prof. Xing-ke Yang (China, Beijing), an excellent specialist in Chinese Galerucinae.

**Bionomics.** Unknown.

**Distribution.** China: Xizang.

### *Apophylia cheni* sp. nov.

(Figs. 2, 7)

**Type locality.** China, Guangxi, Longsheng, Tianpingshan Mt.

**Type material.** HOLOTYPE: ♂, CHINA: GUANGXI, Longsheng, Mt. Tianpingshan, 740 m a.s.l., 5.vi.1963, Yongshan Shi leg. (IZCAS). PARATYPE: 1 ♀, GUANGXI, Longsheng, 1150 m a.s.l., 18.vi.1963, Shuyong Wang leg. (IZCAS). The specimens are provided with additional, printed, red label: 'HOLOTYPUS [or PARATYPUS], / *Apophylia* / *cheni* sp. nov., / det. Bezděk & Zhang 2006'.

**Description.** Body length: male (holotype) 6.05 mm; female 6.55 mm.

Male. Body flattened, parallel, densely pubescent, dull. Head black, anterior part of head and mouthparts yellow, mandibles brown. Frontal tubercles black. Antennomeres 1-3 yellow

and slightly darkened dorsally, gradually darkened from antennomere 4, last five antennomeres black. Pronotum, scutellum and underside black, elytra metallic green, legs yellow, tarsi infuscate.

Labrum transverse, covered with several pale setae, anterior margin distinctly sinuate. Anterior part of head with microsculpture, semiopaque, sparsely covered with pale setae. Frontal tubercles small, subtriangular, and semiopaque. Vertex dull, coarsely and densely punctate, covered with short pale hairs. Antennae filiform, 0.80 times as long as body, length ratio of antennomeres 1-11 equal to 21-10-18-23-20-20-18-18-18-15-17.

Pronotum transverse, 1.90 times as broad as long, widest at anterior third, dull, densely covered with small punctures and pale hairs; anterior marginal ridge sparsely covered with coarse punctures. Surface with two large lateral depressions. Anterior margin widely and shallowly concave, lateral margins rounded, posterior margin straight with small indicated median emargination. Anterior marginal ridge interrupted in the middle. Anterior and posterior margins thinly bordered, lateral margins indistinctly bordered. Anterior angles rounded with very small teeth, posterior angles obtusely angulate with distinct teeth; all angles bearing one long pale seta.

Scutellum subtriangular with widely rounded apex, semiopaque, densely covered with small punctures and short pale hairs.

Elytra parallel. Humeral calli well developed. Elytral surface dull, covered with small and very dense confluent punctures and short pale hairs. Epipleura narrow, disappearing before apex. Macropterous.

Ventral surface semiopaque, finely punctate, covered with pale hairs. Last visible ventrite with semicircular emargination.

Hind tarsomere 1 long, 2.25 times as long as the following two tarsomeres combined. Claws bifid.

Shape of aedeagus as in Fig. 2.

Female. Hind tarsomere 1 only 1.75 times as long as the following two tarsomeres combined. Last ventrite not emarginate. Claws appendiculate.

**Differential diagnosis.** Owing to the filiform antennae, black frontal tubercles and yellow anterior part of the head, *A. cheni* sp. nov. is most similar to *A. excavata* Bryant, 1954 from Myanmar and Thailand, *A. kimotoi* Bezděk, 2003 from Japan, and *A. weisei* (Jacoby, 1896) from Java and Sumatra. Males of *A. cheni* sp. nov. are easily distinguished from other similarly coloured species by the unique left latero-apical incision of the aedeagus (Figs. 2-5).

**Etymology.** The species is dedicated to Prof. Sicien Chen, an excellent specialist in Chinese Chrysomelidae and a pioneer of Chinese studies in Coleoptera.

**Bionomics.** Unknown.

**Distribution.** China: Guangxi.

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