

Taxonomical changes in the genera
Hoplasoma* and *Haplosomoides
(Coleoptera: Chrysomelidae: Galerucinae)

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Abstract. Examination of the type material of three *Haplosomoides* Duvivier, 1890 species described by JIANG (1988) enables us to propose the following taxonomical changes: *Haplosomoides verticalis* Jiang, 1988 = *H. occipitalis* Medvedev, 2000, syn. nov.; *Hoplasoma minor* Gressitt & Kimoto, 1963 = *Haplosomoides biclavatus* Jiang, 1988, syn. nov.; *Hoplasoma nigricollis* (Jiang, 1988), comb. nov.; *Haplosomoides medvedevi* nom nov., a new name for *Haplosomoides nigricollis* Medvedev, 2000 (nec *H. nigricollis* Jiang, 1988). The spelling of *Haplosomoides verticalis* Jiang, 1988 is fixed.

Key words. Coleoptera, Chrysomelidae, Galerucinae, *Haplosomoides*, *Hoplasoma*, taxonomy, synonymy, China

Introduction

The genera *Hoplasoma* Jacoby, 1884, and *Haplosomoides* Duvivier, 1890, include usually yellow species, relatively similar each other. Both genera can be easily distinguished by the claws, which are bifid in *Hoplasoma* and appendiculate in *Haplosomoides*. Males of many *Hoplasoma* species have a characteristic pair of processes on the second ventrite. Both genera were revised and keyed by MEDVEDEV (2000a,b). *Hoplasoma unicolor* (Illiger, 1800) group was revised by BEZDĚK (2006).

MEDVEDEV (2000a) did not include five Chinese species described by JIANG (1988) in his revision of *Haplosomoides*. Revision of the type material of three of these species and their comparison with some other recently described species revealed a need for nomenclatorial changes, which we provide below.

Materials and methods

The examined material is deposited in the following collections:

- BPBM Bernice P. Bishop Museum, Honolulu, USA (Al Samuelson);
 IZCAS Chinese Academy of Sciences, Institute of Zoology, Beijing, China;
 JBBC Jan Bezděk collection, Brno, Czech Republic;
 SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany (Wolfgang Schawaller);
 ZMHB Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Johannes Frisch, Joachim Willers).

Original labels of the type specimens deposited in IZCAS are written in Chinese and we present transliterated data. Exact label data are cited for the rest of the type specimens. A single slash (/) divides data in different rows on each red label. Type localities are cited in the original spelling. Other comments and remarks are placed in square brackets: [p] – preceding data are printed; [h] – preceding data handwritten; [w] – white label.

Taxonomy

Haplosomoides medvedevi nom. nov.

Haplosomoides nigricollis Medvedev, 2000: 28 (nec *Haplosomoides nigricollis* Jiang, 1988).

Comments. *Haplosomoides nigricollis* Medvedev, 2000, is a primary junior homonym of *Haplosomoides nigricollis* Jiang, 1988 (transferred here to the genus *Hoplasoma*). We propose a new name, *Haplosomoides medvedevi* nom. nov.

Haplosomoides verticalis Jiang, 1988

(Fig. 1)

Haplosomoides verticalis Jiang, 1988: 178, 182.

Haplosomoides verticolis: YANG (1993): 337, YANG et al. (1997): 873.

Haplosomoides occipitalis Medvedev, 2000: 29, **syn. nov.**

Type localities. *Haplosomoides verticalis*: ‘Sichuan: Mt. Emei’; *H. occipitalis*: ‘China, Sichuan, Mt. Emei’.

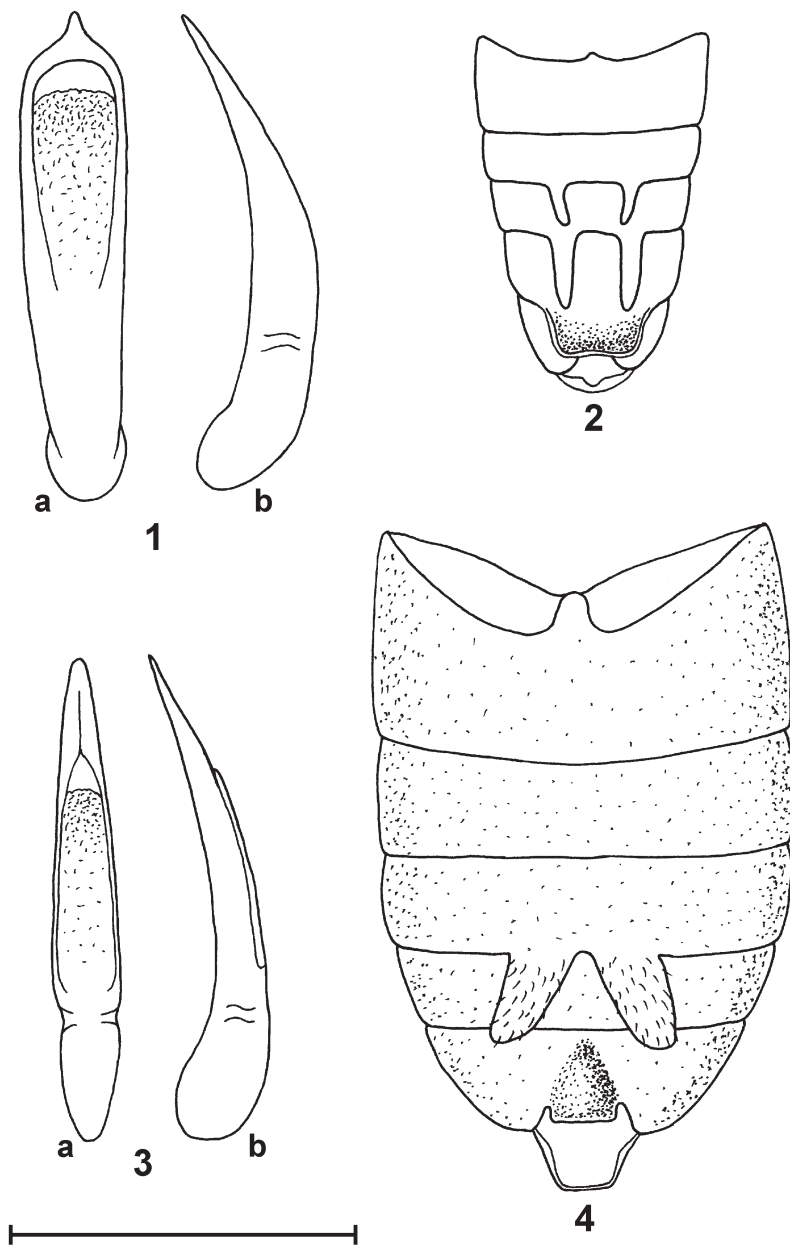
Type material. *Haplosomoides verticalis*: HOLOTYPE: ♂, ‘[Sichuan Province: Mt. Omei, 760-1100m, 1955.VI. 21, Huang Tianrong] [in Chinese, w, combined p and h] // Омейшань, 760-1100М / Сычуань 21 У1 1955 / Хуан Тен-жун [Russian transcription of original label, w, combined p and h] // HOLOTYPE [red label, p]’ (IZCAS). PARATYPES: ♀, ‘[Sichuan Province: Mt. Omei, Qingyinge / 800-1000m // 1957.VI. 13 / Coll. Huang Keren] [in Chinese, w, combined p and h] // ALLOTYPE [blue label, p]’ (IZCAS); ♂, ‘[Sichuan Province: Mt. Omei, 1955.VI. 23, Coll. Huang Keren and Jin Gentao] [in Chinese, w, p] // Омейшань / Сычуань 23 У1 1955 / Хуан Кэ-жен [in Russian, w, p] // PARATYPE [yellow label, p]’ (IZCAS).

Haplosomoides occipitalis: PARATYPES: 1 ♂ 1 unsexed specimen, ‘CHINA: Sichuan / Mt. EMEI, 600-1050m / 5.-19.5.1989 / Lad. Bocák, leg. [w, p] // PARATYPUS [p] / Haplosomoides / occipitalis m. [h] / L. N. Medvedev det.95 [red label, p]’ (SMNS, ZMHB).

Additional material examined. CHINA: SICHUAN, Emei Co, Emei Shan, 3000 m a.s.l., 31.vii.1994, 1 ♂ 2 ♀♀, Beneš leg. (JBBC); Jiulonggou env., near Dayi, 70 km W of Chengdu, 28.vi.-2.vii.1995, 2 ♂♂ 5 ♀♀, Z. Jindra leg. (JBBC).

Distribution. China (Sichuan).

Comments. Both species were described from the same type locality (Sichuan: Mt. Emei).



Figs. 1-4. 1 – *Haplosomoides verticalis* Jiang, 1988, aedeagus (a – dorsal view; b – lateral view). 2 – *Hoplasoma minor* Gressitt & Kimoto, 1963, male abdomen. 3-4. *Hoplasoma nigricollis* (Jiang, 1988). 3 – aedeagus (a – dorsal view; b – lateral view); 4 – male abdomen. Scale: 1 mm for Figs. 1, 3 and 4; 2 mm for Fig. 2.

Comparison of paratypes clearly showed that both species are identical and must be synonymized. Aedeagus as in Fig. 1.

JIANG (1988) used two different spellings in the original description of *H. verticalis*. In the Chinese (p. 178) and English version (p. 182) of the description, the species name was spelled as *H. verticolis* but he spelled it as *H. verticalis* in the legend to drawings (p. 179). Although subsequent authors (YANG 1993, YANG et al. 1997) cited the species as *H. verticolis*, we decided to select the grammatically correct name *H. verticalis* and thereby fix it as the correct original spelling according to Article 24.2.3 of the Code (ICZN 1999).

Hoplasoma minor Gressitt & Kimoto, 1963

(Fig. 2)

Hoplasoma minor Gressitt & Kimoto, 1963: 497.

Hoplasoma minor: WILCOX (1973): 480, MEDVEDEV (2000b): 124.

Haplosomoides biclavatus Jiang, 1988: 177, 181, **syn. nov.**

Haplosomoides biclavatus: JIANG (1992): 657.

Type localities. *Hoplasoma minor*: ‘Szechuan, Wei-chow, NW of Chengtu’; *Haplosomoides biclavatus*: ‘Sichuan: Lixian’.

Type material. *Hoplasoma minor*: PARATYPES: ♂, ‘Oer, nrWeichow / Aug.6 16.1933 / 7000-9000 ft.alt. [w, p] // SzechwanChinaS / DCGraham [w, p] // US [w, p] // n/2 [w, h] // ILL [w, p] // PARATYPE [p] / Hoplasoma / minor [h] / Gressitt & Kimoto [yellow label, p] // Hoplasoma / minor [h] / Gressitt & Kimoto det. 196 [w, p]’ (BPBM); ♂, ‘Para- / type [white round label with yellow border, p] // Oer, nrWeichow / Aug.6-16,1933 / 7000-9000 ft.alt. [w, p] // Brit. Mus. / 1963-245. [w, p] // SzechwanChinaS / DCGraham [w, p] // US [w, p] // PARATYPE [p] / Hoplasoma / minor [h] / Gressitt & Kimoto [yellow label, p] // Hoplasoma / minor [h] / Gressitt & Kimoto det. 196 [w, p]’ (BMNH).

Haplosomoides biclavatus: HOLOTYPE: ♂, ‘[Sichuan Province: LiXian, Miyaluo, 2800m] [in Chinese, w, combined p and h] // [1983.VIII. 13, Coll. Wang Shuyong] [in Chinese, w, combined p and h] // PARATYPE [yellow label, p]’ (IZCAS). PARATYPE: ♀, ‘[Sichuan Province: LiXian, Miyaluo, 2800m] [in Chinese, w, combined p and h] // [1983.VIII. 14, Coll. Wang Shuyong] [in Chinese, w, combined p and h] // ALLOTYPE [blue label, p]’ (IZCAS).

Distribution. China (Sichuan).

Comments. One of the smallest *Hoplasoma* species characterized by a very unusual structure of male abdomen (Fig. 2) with two pairs of processes. Both examined paratypes of *H. minor* are in bad condition. The paratype from BMNH lacks the head and pronotum, the other paratype from BPBM has the abdomen glued separately and aedeagus missing. However the unique structure of the abdomen, which perfectly fits the drawing of *Haplosomoides biclavatus* in JIANG (1988), allows us to synonymize both species without any doubts.

Hoplasoma nigricollis (Jiang, 1988), **comb. nov.**

(Figs. 3-4)

Haplosomoides nigricollis Jiang, 1988: 177, 181.

Haplosomoides nigricollis: JIANG (1992): 657.

Type locality. Sichuan: Yajiang.

Type material. PARATYPE: ♂, ‘[Sichuan Province: Yajiang, 3200m, 27.viii.1882, Coll. Wang Shuyong, host plant: Salix] [two Chinese labels, w, combined p and h] // PARATYPE [yellow label, p]’ (IZCAS).

Distribution. China (Sichuan).

Comments. Examination of the claws of *Haplosomoides nigricollis* Jiang, 1988, clearly

showed that they are bifid as in *Hoplasoma* and not appendiculate as in *Haplosomoides*. Moreover, the abdomen bears one pair of processes similar to many *Hoplasoma* species (although they are surprisingly found on the third ventrite and not on the second one as in other *Hoplasoma* species, Fig. 4). Due to these facts we transfer *H. nigricollis* to the genus *Hoplasoma*. Aedeagus as in Fig. 3.

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References

- BEZDĚK J. 2006: Resurrection of *Hoplasoma simplicipennis* and *H. ventralis*, previously synonymized with *H. unicolor* (Coleoptera: Chrysomelidae: Galerucinae). *Acta Entomologica Musei Nationalis Pragae* **46**: 133-144.
- DUVIVIER A. 1890: Liste des Coléoptères phytophages recueillis par M. le Dr. Platteeuw dans l'île de Sumatra. *Bulletin ou Comptes-rendus des Séances de la Société Entomologique de Belgique* **1890**: 32-37.
- GRESSITT J. L. & KIMOTO S. 1963: The Chrysomelidae (Coleopt.) of China and Korea. Part 2. *Pacific Insects Monograph* **1B**: 301-1026.
- ICZN 1999: *International Code of Zoological Nomenclature. Fourth Edition*. International Trust for Zoological Nomenclature, London, 306 pp.
- JACOBY M. 1884: Description of a new genus and three new species of Malayan Galerucinae. *Notes from the Leyden Museum* **6**: 233-235.
- JIANG S.-Q. 1988: Five new species of the genus *Haplosomoides* (Coleoptera: Chrysomelidae). *Sinozoologia* **6**: 177-182 (in Chinese and English).
- JIANG S.-Q. 1992: (Coleoptera: Chrysomelidae – Galerucinae). Pp. 646-674. In: CHEN S.-H. (ed.): (*Insects of the Hengduan Mountains region. Volume 1*). Science Press, Beijing, xii + 865 pp (in Chinese, English summary).
- MEDVEDEV L. N. 2000a: Chrysomelidae from the Nepal Himalayas, with revision of the genus *Haplosomoides* (Insecta: Coleoptera). *Stuttgarter Beiträge zur Naturkunde, Ser. A* **616**: 1-32.
- MEDVEDEV L. N. 2000b: A revision of the genus *Hoplasoma* Jacoby, 1884 (Coleoptera: Chrysomelidae). *Russian Entomological Journal* **8** (1999): 123-128.
- WILCOX J. A. 1973: Chrysomelidae: Galerucinae (Luperini: Luperina). In: WILCOX J. A. (ed.): *Coleopterorum Catalogus Supplementa. Pars 78(3)*. Second edition. W. Junk, 's-Gravenhage, 433-664 pp.
- YANG X.-K. 1993: (Coleoptera: Chrysomelidae – Galerucinae). Pp. 331-346. In: HUANG F.-S. (ed.): (*Insects of Wuling Mountains area, southwestern China*). Science Press, Beijing, x + 777 pp (in Chinese, English summary).
- YANG X.-K., LI W.-Z., ZHANG B.-Q. & XIANG Z.-Q. 1997: Coleoptera: Chrysomelidae: Galerucinae. Pp. 863-904. In: YANG X.-K. (ed.): (*Insects of the Three Gorge Reservoir area of Yangtze river. Part 1*). Chongqing Publishing House, Chongqing, xx + 974 pp (in Chinese, English summary).

