

A revision of *Hoplasoma acuminatum* and *H. thailandicum* species groups, and re-definition of *H. unicolor* species group (Coleoptera: Chrysomelidae: Galerucinae)

JAN BEZDĚK

Mendel University, Department of Zoology, Zemědělská 1, 613 00 Brno, Czech Republic. E-mail: bezdek@mendelu.cz

Abstract

Two species groups within the genus *Hoplasoma* Jacoby, 1884 are defined and revised. The *Hoplasoma acuminatum* species group is established for *H. acuminatum* Medvedev, 2000 and *H. sumatranum* Medvedev, 2000, and the *Hoplasoma thailandicum* species group for *H. thailandicum* Kimoto, 1989; *H. vithala* sp. nov. (Vietnam, Laos, Thailand) and *H. andrewesi* sp. nov. (Myanmar). *Hoplasoma unicolor* species group is re-defined. The male of *H. acuminatum*, to date unknown, is described. Colour photo of habitus and both male and female genitalia are provided for all the species revised. The checklist of all species currently classified in *Hoplasoma* is provided.

Key words: Coleoptera, Chrysomelidae, Galerucinae, *Hoplasoma*, taxonomy, new species, Oriental Region

Introduction

The genus *Hoplasoma* Jacoby, 1884, consists of medium sized, elongate, narrow and parallel-sided galerucines, usually yellow-orange coloured, with bifid claws. Males of about half of the known species possess a pair of processes on the second ventrite (very rarely also on the first or third ventrite). Species of *Hoplasoma* are distributed predominantly in the Oriental Region and the neighbouring areas of the Palearctic Region (Himalayas, South China) as defined by Löbl & Smetana (2010).

Modern taxonomic studies of the genus started by Medvedev (2000a) who summarized taxonomical knowledge of *Hoplasoma* in a key and in the same year he added the description of *H. allardi* from Laos and Vietnam (Medvedev 2000b). In the following years, the same author described *H. mindanense* and *H. luzonicum* from the Philippines (Medvedev 2002), and *H. paradoxum* and *H. sulawesianum* from Sulawesi (Medvedev 2007). In 2005, a revision of *Hoplasoma* was started by the present author leading to publications such as the revision of the *Hoplasoma unicolor* (Illiger, 1800) species group and its synonyms (Bezděk 2006), some taxonomical changes in *Hoplasoma* (Bezděk & Zhang 2007) and revisions of *Hoplasoma* spp. from Sulawesi (Bezděk 2008) and the Philippines (Bezděk 2012). *Hoplasoma longicornis* (Allard, 1888) was transferred to the genus *Mimastra* Baly, 1865 (Bezděk 2010a) and *Haplomela* Chen, 1942 was synonymized with *Hoplasoma* by Bezděk (2010b). Currently, the genus is represented by 34 species. The gender of *Hoplasoma* was fixed as neuter (Bezděk 2008).

Until now only the *Hoplasoma unicolor* species group was insufficiently defined (Bezděk 2006, 2012). Other species were not classified in groups yet. In this paper additional two species groups are defined (including the descriptions of two species new to science) and the *H. unicolor* species group is re-defined.

Material and methods

All measurements were made using an ocular grid mounted on the MBS-10 stereomicroscope (at 16× magnification for the body length and 32× magnification for the remaining measurements). The photographs were taken by Canon EOS 550D with Macro Lens MP-E65mm and mounted with Helicon Focus 5.3 software.

Hoplasoma species not classified in species groups

<i>allardi</i> Medvedev, 2000	(Laos)
<i>anaimalaiense</i> Takizawa, 1987	(southern India)
<i>carinatum</i> Kimoto, 1977	(Bhutan, Nepal, Sikkim)
<i>costatipenne</i> Jacoby, 1896	(Nepal, Sikkim, southern and eastern India, Sri Lanka ?)
<i>dilaticorne</i> Jacoby, 1900	(India)
<i>frontale</i> Jacoby, 1896 (= <i>medvedevi</i> Samoderzhenkov, 1992)	(Vietnam, Indonesia: Sumatra)
<i>furcatum</i> Medvedev, 2000	(Nepal, eastern India)
<i>indicum</i> Takizawa, 1987	(southern India)
<i>majorinum</i> Laboissière, 1929	(China: Sichuan, Yunnan, Guangxi, Taiwan, Vietnam, Laos, India: Arunachal Pradesh, Meghalaya)
(= <i>cheni</i> Medvedev, 2004)	
(= <i>semiopaca</i> Chen, 1942)	
<i>minus</i> Gressitt & Kimoto, 1963(China: Sichuan)
(= <i>biclavatus</i> Jiang, 1988)	
<i>nigricolle</i> Jiang, 1988	(China: Sichuan)
<i>sexmaculatum</i> (Hope, 1831)	(India, Bhutan, Nepal, Pakistan, Sikkim, China: Yunnan)
(= <i>sexmaculata</i> Jacoby, 1899)	
(= <i>bifasciata</i> Allard, 1888)	
(= <i>quadrinotata</i> Gressitt & Kimoto)	

Acknowledgements

I would like to thank all curators and colleagues listed above for giving me the opportunity to study their collections.

References

- Allard, E. (1888) Synopsis des Galerucines à corselet sillonné transversalement. 1re partie. *Annales de la Société Entomologique de France*, Series 6, 8, 305–333.
- 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.
- Bezděk, J. (2008) A review of the genus *Hoplasoma* (Coleoptera: Chrysomelidae: Galerucinae) from Sulawesi, Indonesia, with the description of *H. bosi* sp. nov. *Zootaxa*, 1941, 55–66.
- Bezděk, J. (2010a) Revisional study on the genus *Mimastra* (Coleoptera: Chrysomelidae: Galerucinae). Part 2. *Annales Zoologici*, 60, 35–46.
<http://dx.doi.org/10.3161/000345410x499506>
- Bezděk, J. (2010b) *Haplomela* Chen, 1942, a new synonym of *Hoplasoma* Jacoby, 1884 (Coleoptera: Chrysomelidae, Galerucinae). *Entomologische Zeitschrift*, 120, 81–84.
- Bezděk, J. (2012) Revision of *Hoplasoma* (Coleoptera: Chrysomelidae: Galerucinae) of the Philippines, with descriptions of five new species. *Zootaxa*, 3382, 1–19.
- Bezděk, J. & Zhang, L.-J. (2007) Taxonomical changes in the genera *Hoplasoma* and *Haplosomoides* (Coleoptera: Chrysomelidae: Galerucinae). *Acta Entomologica Musei Nationalis Pragae*, 47, 189–193.
- Chen, S.H. (1942) Galerucinae nouveaux de la faune Chinoise. *Notes d'Entomologie Chinoise*, 9 (3), 9–67.
- Csiki, E. (1953) Über neue und bekannte Coleopteren aus Ungarn und den angrenzenden Ländern. *Annales Historico-Naturales Musei Nationalis Hungarici*, 3 (1952), 115–135.
- Jacoby, M. (1884) Descriptions of a new genus and three new species of Malayan Galerucinae. *Notes from the Leyden Museum*, 6, 233–235.
- Jolivet, P. & Hawkeswood, T.J. (1995) *Host-plants of Chrysomelidae of the world. An essay about the relationships between the leaf-beetles and their food-plants*. Backhuys, Leiden, 281 pp.
- Kimoto, S. (1989) Chrysomelidae (Coleoptera) from Thailand, Cambodia, Laos and Vietnam. IV. Galerucinae. *Esakia*, 27, 1–241.

- Löbl, I. & Smetana, A. (2010) *Catalogue of Palaearctic Coleoptera. Volume 6. Chrysomeloidea*. Apollo Books, Stenstrup, 924 pp.
- Medvedev, L.N. (2000a) A revision of the genus *Hoplasoma* Jacoby, 1884 (Coleoptera: Chrysomelidae). *Russian Entomological Journal*, 8 (1999), 123–128.
- Medvedev, L.N. (2000b) Chrysomelidae (Coleoptera) of Laos from the collection of the Hungarian Natural History Museum. *Annales Historico-Naturales Musei Nationalis Hungarici*, 92, 161–182.
- Medvedev, L.N. (2002) New and poorly known Chrysomelidae from the Philippines (Insecta, Coleoptera). *Spixiana*, 25, 59–67.
- Medvedev, L.N. (2007) New and poorly known Oriental Chrysomelidae (Coleoptera) of the Staatliches Museum für Naturkunde, Stuttgart. *Stuttgarter Beiträge zur Naturkunde*, Serie A (Biologie), 702, 1–19.
- Medvedev, L.N. & Dang, T.D. (1982) Troficheskie svyazi listoedov Vietnam'a. [Trophic connections between chrysomelid beetles in Vietnam]. In: Medvedev, L.N. (Ed.), *Zhivotnyy mir Vietnam'a. [Animal world of Vietnam]*. Nauka, Moskva, pp. 84–97. [in Russian]
- Reid, C.A.M. (1998) The Chrysomeloidea of Taman Nasional Gede-Pangrango and environs, Jawa Barat, Indonesia. *Serangga*, 3, 269–315.
- Silfverberg, H. (1978) The identity of *Aulacophora pannonica* Csiki (Coleoptera: Chrysomelidae). *Folia Entomologica Hungarica*, 31, 205–206.