

Genus	Vol. 25(3): 373-375	Wrocław, 30 IX 2014
-------	---------------------	---------------------

Supplementary remarks on the taxonomic structure of the genus *Chrysodema* C.G. (Coleoptera: Buprestidae)

ROMAN B. HOLYŃSKI

PL-05822 Milanówek, ul. Graniczna 35, skr. poczt. 65, e-mail: holynski@interia.pl

ABSTRACT. Having become aware of the overlooked designation of type-species for the genus *Chrysodema* C.G. made it necessary to introduce some corrections to my earlier publication (HOLYŃSKI 1993): new name for the subgenus originally considered nominotypical and modification of the key.

Key words: entomology, nomenclature, new name, classification, Buprestidae, *Chrysodema* C.G.

The almost cosmopolitan (only marginally in neotropics) subtribe **Chalcophorina** LAC. (**Buprestinae: Buprestini** – HOLYŃSKI 1993) contains 7 genera, 3 of them known to occur in the Indo-Pacific Region (traditional Oriental plus Wallacea, New Guinea, and tropical-subtropical Oceania eastwards to *ca.* 130°W – HOLYŃSKI 2009). Two E-Asian species (KUROSAWA 1974) of mainly Holarctic *Chalcophora* DEJ., as well as six (PENG 1995 – some of them of doubtful validity) of sino-japanese *Nipponobuprestis* OBB. (perhaps but a subgenus of *Chalcophora* DEJ.), do not extend beyond its northernmost areas, so only the speciose [estimations vary from 48 (LANDER 2003) through *ca.* 80 (my unpublished preliminary revision) to 100 (BELLAMY 2003) spp.] and widely (from India and Ceylon to Bonin, Mariana and Solomon Is.) distributed *Chrysodema* C.G. significantly represents the subtribe in the Region, making – besides the **Chrysochroina** CAST. (*Chrysochroa* DEJ., *Cyphogastra* DEYR., *Iridotaenia* DEYR., &c.) or *Belionota* ESCH. – one of the most impressive “trade-marks” of the Indo-Pacific buprestid fauna.

Traditionally (*e.g.* KERREMANS 1909) the genus *Chrysodema* C.G. was divided into four subgenera: *Pseudochrysodema* SND., *Gelaus* WATH., *Chrysodema* C.G. s.str. and

Thymedes WATH.; some later authors (KUROSAWA 1979, VOLKOVITSH 2001) ascribed full generic rank to all of them, and such treatment has been followed in the influential catalogue of BELLAMY (2003), who (despite the Russian author's own warning against such interpretation ["*It is vital to note that I do not suggest a new classification of the Buprestidae, because in my opinion the creation of a natural classification based on a single character system is impossible*"]) uncritically accepted his phenetic arrangement of antennal structures as taxonomic classification. In my opinion the differences separating the above-mentioned taxa from one another (as well as from *Tamamushia* M.C., originally described as a distinct genus), are no more (often less) pronounced than those between some groups within *Chrysodema* C.G. s.str., therefore I (HOLYŃSKI 1994) not only retained the broad interpretation of the genus, but further extended it by inclusion of MIWA & CHÛJÔ's (1935) taxon and distinguished two more subgenera: *Leganya* sg.n. and *Mitshekia* sg.n. In so doing, I accepted *Buprestis radians* BDV. as the type of *Chrysodema* C.G., having overlooked the earlier designation of *Chrysodema sonnerati* C.G. by KUROSAWA (1982). Unfortunately, *C. sonnerati* C.G. is a rather "aberrant" species, making (together with *C. lewisi* SND.) a distinctive circle not showing the diagnostic characters of what I considered the nominotypical subgenus. Whether they should be classified as con-subspecific with *C. smaragdula* (OL.) (in which case *Mitshekia* HOL., typified by the latter, would become a younger synonym) or should be kept separated (as I tentatively do), remains unclear, but anyway *Chrysodema* C.G. s.str. *sensu* HOLYŃSKI (1994) has been left without valid name and the main purpose of this paper is to provide one:

***Marcikiella* nom. nov.**

Chrysodema C.G. s.str. *sensu* HOLYŃSKI (1994) *nec* KUROSAWA (1982).

Type-species *Buprestis radians* BOISDUVAL 1835.

Marcikiella n.n. is only a substitute name, so its type-species and diagnosis remain as for *Chrysodema* C.G. s.str. *sensu* HOLYŃSKI (1994). More exact delimitation is, however, needed between the nominotypical subgenus (*sensu* KUROSAWA 1982) and *Mitshekia* HOL. – this is done below in the form of modified key:

KEY TO SUBGENERA OF THE GENUS *CHRYSODEMA* C.G.

- 1(6) Laterobasal foveae of pronotum large, round, laterally delimited by sharp and high supramarginal ridge. Antennal setae much shorter than width of antennomeres.
- 2(3) Elytra with prominent subhumeral denticle *Pseudochrysodema* SND.
- 3(2) No distinct subhumeral denticle
- 4(5) 2.-5. elytral costae joined at *ca.* apical third *Leganya* HOL.
- 5(4) 5. costa always separate throughout, 2. and 4. also separate or joined to 3. only behind apical fourth *Marcikiella* n. n.
- 6(1) Pronotal foveae, if distinct, more or less irregular, not reaching supramarginal ridge, or antennal setae subequal to or longer than width of joints

- 7(12) Lateral carinae of pronotum do not reach anterior angle
 8(9) Subhumeral denticle of elytra prominent *Gelaesus* WATH.
 9(8) Elytra without distinct subhumeral denticle
 10(11) Perimarginal dfp vitta deep, regular, at least in apical half of elytra. Elytral disk without discal dfp foveae. 2.-4. costae lacking or very inconspicuous *Chrysodema* G.G. s.str.
 11(10) Elytra without appreciable perimarginal dfp vitta, and/or with distinct discal foveae, and/or costae prominent *Mitshekia* HOL.
 12(7) Lateral pronotal carinae entire
 13(14) Elytra with depressed dfp pattern (lateral band or large patches) *Thymedes* WATH.
 14(13) Elytra evenly sculptured *Tamamushia* M.C.

Except speciose, widely distributed *Marcuskiella* n.n. and *Mitshekia* HOL. all the remaining subgenera are small (1 to 9 spp.) groups of restricted distribution: *Pseudochrysodema* SND. inhabits various Micronesian islands, *Leganya* HOL. New Guinea, *Gelaesus* WATH. Lesser Sundas, *Thymedes* WATH. Philippines and *Tamamushia* M.C. Bonin Is., only *Chrysodema* G.G. s.str. occupies two widely disjunct (relictual?) areas: Ceylon (*C. sonnerati* C.G.) and Japan (*C. lewisi* SND.).

REFERENCES

- BELLAMY, C.L., 2003. An illustrated summary of the higher classification of the superfamily Buprestoidea (Coleoptera). *Folia Heyr., Suppl.* **10**: 1-197.
 BOISDUVAL, J.A., 1835. Voyage de découvertes de l'Astrolabe exécutée par ordre du Roi, pendant les années 1826-1827-1828-1829, sous les commandement de M.J. Dumont d'Urville. Faune entomologique de l'Océan Pacifique avec l'illustration des insectes nouveaux recueillis pendant le voyage. Deuxième partie. Coléoptères et autres ordres. Paris: Tastu: 1-716.
 HOLYŃSKI, R.B., 1993. A reassessment of the internal classification of the Buprestidae LEACH (Coleoptera). *Crystal (Zool.)*, **1**: 1-42.
 —, 1994. A review of *Chrysodema* C.G. (Coleoptera: Buprestidae). I. The subgenera *Tamamushia* M.C. and *Thymedes* WATH. *Ann. Upp. Sil. Mus. (Ent.)*, **5**: 69-96.
 —, 2009. Taxonomic structure of the subtribe Chrysochroina CAST. with review of the genus *Chrysochroa* DEJ. (Coleoptera: Buprestidae). Warszawa, Gondwana: 1-421.
 KERREMANS C. 1909. Monographie des Buprestides. Bruxelles: Janssens **3**, 13-19: 385-604; **4**, 1-5: 1-160.
 KUROSAWA Y. 1974. A revision of the East Asian species of the genus *Chalcophora* (Coleoptera, Buprestidae), with special reference to their distribution and differentiation. *Mem. Nat. Sci. Mus. Tokyo*, **1**, 1: 67-75.
 —, 1979. On the genus *Thymedes* WATERHOUSE (Coleoptera, Buprestidae) endemic to the Philippines. *Bull. Nat. Sci. Mus. (Zool.)*, **5**, 1: 51-60.
 —, 1982. A remarkable convergence found in Malayan buprestid beetles, with description of two new species from Thailand and Hainan. *Bull. Nat. Sci. Mus. (Zool.)*, **8**, 4: 173-204.
 LANDER, T., 2003. Révision du genre *Chrysodema*. *Coll. Syst.*, **8**: 1-98.
 MIWA Y., CHŪJŌ, M., 1935. Nihonsan mikiroku-no tamamushi [Some new buprestids from the Japanese Empire]. *Ent. World*, **3**, 17: 270-282.
 PENG, Z.L., 1995. A study on the genus *Nipponobuprestis* OBENBERGER (Coleoptera: Buprestidae). *Ent. Sin.*, **2**, 2: 95-103.
 VOLKOVITSH, M.G., 2001. The comparative morphology of antennal structures in Buprestidae (Coleoptera): evolutionary trends, taxonomic and phylogenetic implications. Part 1. *Acta Mus. Morav. (Sci. Biol.)*, **86**: 43-169.