Case 2758

*Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera): proposed conservation by the designation of *Buprestis octoguttata* Linnaeus, 1758 as the type species of *Buprestis*

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Abstract. The purpose of this application is to conserve the universal understanding and usage of the names *Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (family *Buprestidae* Leach, 1815, the jewel beetles) by designating *B. octoguttata* Linnaeus, 1758 as the type species of *Buprestis*. At present *B. chrysostigma* Linnaeus, 1758 is the valid type species of both *Buprestis* and *Chrysobothris*. Both genera, which have worldwide distribution, include species which are serious economic pests.

1. Linnaeus (1758, p. 408) established the genus *Buprestis* with 19 included species. Among these were *octoguttata*, *mariana* and *chrysostigma*. By 1800 more than 250 species had been described in the genus although no type species had been designated. Many of the species originally included by Linnaeus are now placed in other genera.

2. Geoffroy (1762, p. 123) replaced the name *Buprestis* Linnaeus with his new name *Cucujus* and (p. 137) used *Buprestis* in place of the carabid names *Carabus* and *Cicindela* Linnaeus, 1758. This was recorded by Müller (1764, pp. xvi, xvii). Neither *Cucujus* nor *Buprestis* have been adopted in Geoffroy’s sense; in an application to the Commission Kerzhner (BZN 48: 120) has proposed the conservation of *Cucujus* Fabricius, 1775 (the type genus of the cucujidae) by the suppression of all previous uses of the name *Cucujus*.

3. Eschscholtz (1829, p. 9) established the genus *Chrysobothris* with three included species: *Buprestis chrysostigma*, *B. impressa* Fabricius, 1775 (p. 220) and *B. affinis* Fabricius, 1794 (p. 450). No type species was designated. Eschscholtz originally spelled the generic name as *Chrysobotoris* but this has not been used for over 150 years and an application for the conservation of *Chrysobothris* has been published (BZN 49: 120–121).

4. A number of type species designations have been made for *Buprestis* Linnaeus and *Chrysobothris* Eschscholtz, extending over several years. Latreille (1810, p. 426) designated *Buprestis chrysostigma* ‘Fab.’ (i.e. Fabricius, 1775, p. 219, who cited Linnaeus) as the type species of *Buprestis*. Subsequently Westwood ([1838], p. 24), apparently overlooking the earlier designation, designated *B. chrysostigma* as the type species of *Chrysobothris*, thereby rendering the latter name a junior objective
synonym of Buprestis. The type species designations in Westwood’s Synopsis of the genera of British insects were accepted as valid in Opinion 71 (January 1922). The dates of publication of the work were set out in Direction 63 (June 1957). Gozis (1886, p. 20) designated B. octoguttata as the type species of Buprestis. Chamberlin (1926, p. 24) designated B. affinis Fabricius as the type species of Chrysobothris. Richter (1952, p. 190) designated B. mariana Linnaeus as the type species of Buprestis and (p. 199) B. impressa Fabricius as the type species of Chrysobothris.

5. In 1837 Kirby (p. 156) established Odontomus as a subgenus of Buprestis; however, he designated B. chrysostigma as the type species, thereby rendering Odontomus a junior objective synonym of Buprestis Linnaeus, 1758 (following Latreille’s type designation). Odontomus is also a junior objective synonym of Chrysobothris Eschscholtz, 1829 (as typified by Westwood the following year). Kirby’s classification did not include a nominotypical (in the modern sense) subgenus Buprestis (Buprestis).

6. Current usage of Buprestis and Chrysobothris is consistent with octoguttata and chrysostigma respectively as the type species. However, a strict adherence to the Principle of Priority and the recognition of Latreille’s (1810) designation of chrysostigma as the type of Buprestis would necessitate using Buprestis as the valid name for the genus now called Chrysobothris, with Chrysobothris being a junior objective synonym. Another name would be required for Buprestis as currently understood. The next available is that of Ancylochira Eschscholtz, 1829 (p. 9), published with octoguttata and Buprestis rustica Linnaeus, 1758 (p. 409) among the seven included nominal species. Westwood ([1838], p. 24) designated rustica as the type of the genus. Ancylochira has been considered a junior subjective synonym of Buprestis and has been used as a valid name by only a single recent author, Richter (1952), who (p. 26) erroneously cited octoguttata as the type species.

7. The question of the status of the names Buprestis and Chrysobothris has long been recognized. Kerremans (1906, pp. 174–176) noted that there was confusion among earlier authors in the use of Buprestis; he accepted B. octoguttata as the type species. Méquignon (1939, pp. 48–49; a member of the Commission at that time) pointed out that the usage of the names Buprestis and Chrysobothris did not accord with Latreille’s (1810) type designation; he proposed to refer the problem to the International Congress of Zoology for a suspension of the Code. Fisher (1942, p. 3) noted: ‘On account of the wide distribution and great number of species, and an unbroken history of constant universal usage for over 100 years, and since a change of name at this late date would cause greater confusion than uniformity, the International Commission on Zoological Nomenclature will be requested to place Chrysobothris Eschscholtz, with Buprestis chrysostigma Linnaeus as type, and Buprestis Linnaeus, with B. octoguttata Linnaeus as type, on the Official List of Generic Names under suspension of the rules’. Schaefer (1949, p. 26) and Bellamy (1985, p. 408) supported Commission action to designate B. octoguttata as the type of Buprestis. Despite these statements an application to the Commission has not been made until now.

8. Cobos (1986, p. 112) noted the inclusion of 600 valid species worldwide in Chrysobothris and 80 species in Buprestis. There has been a considerable amount of literature published on a number of the common species included in the genera, both taxonomic and ecological (see, for example, Casey, 1909, p. 51; Arnett, 1962, p. 486;
Bily, 1989, pp. 42, 66; Bright, 1987, p. 94. A list of a further eight references, all except one (1949) published since 1971, is held by the Commission Secretariat. Several species are economic pests (for example, Buprestis aurulentata Linnaeus, B. apricans Herbst, Chrysobothris femorata (Olivier) and C. mali Horn) and much applied literature has been published on these (see, for example, Knill, 1950, p. 192; Furniss & Carolin, 1977, p. 257). A transfer of the name Buprestis to the genus currently called Chrysobothris, and Ancylochira Eschscholtz used in place of Buprestis (para. 6 above), would result in great confusion. Buprestis and Chrysobothris are the type genera of the family-group taxon Buprestidae Leach, 1815 and Chrysobothrinini Gory & Laporte, [1839] respectively.

9. It has already been proposed (BZN 49: 121) that Chrysobothris Eschscholtz, 1829 and the name of its type species Buprestis chrysostigma Linnaeus, 1758 be placed on the appropriate Official Lists.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus Buprestis Linnaeus, 1758 and to designate Buprestis octoguttata Linnaeus, 1758 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name Buprestis Linnaeus, 1758 (gender: feminine), type species by designation in (1) above Buprestis octoguttata Linnaeus, 1758;

(3) to place on the Official List of Specific Names in Zoology the name octoguttata Linnaeus, 1758, as published in the binomen Buprestis octoguttata Linnaeus, 1758 (specific name of the type species of Buprestis);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name Odontomus Kirby, 1837 (a junior objective synonym of Chrysobothris Eschscholtz, 1829).

References


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