

June 2005

# Case 3314: *Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915 (Insecta, Coleoptera, SCARABAEIDAE): proposed conservation

Andrew Smith  
asmith@unl.edu

Follow this and additional works at: <http://digitalcommons.unl.edu/entomologypapers>



Part of the [Entomology Commons](#)

---

Smith, Andrew, "Case 3314: *Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915 (Insecta, Coleoptera, SCARABAEIDAE): proposed conservation" (2005). *Papers in Entomology*. 29.  
<http://digitalcommons.unl.edu/entomologypapers/29>

This Article is brought to you for free and open access by the Museum, University of Nebraska State at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Papers in Entomology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

**Case 3314*****Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915  
(Insecta, Coleoptera, SCARABAEIDAE): proposed conservation**

Andrew B.T. Smith

Canadian Museum of Nature, P.O. Box 3443, Station D, Ottawa, ON  
K1P 6P4, Canada (e-mail: asmith@mus-nature.ca)

**Abstract.** The purpose of this application, under Article 23.9.3 of the Code, is to conserve the names of two well-established genera of cetoniine scarab beetles, *Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915. *Stegopterus* Burmeister & Schaum is a junior synonym of *Tetropthalmus* Kirby, 1827 and *Trichiotinus* Casey a junior synonym of *Trichinus* Kirby, 1827. The two junior names are in prevailing use and it is proposed that they be conserved by suppression of both Kirby's names.

**Keywords.** Nomenclature; taxonomy; Coleoptera; SCARABAEIDAE; *Stegopterus*; *Trichiotinus*; *Stegopterus suturalis*; *Trichiotinus piger*; scarab beetles; North America; South Africa.

---

1. Kirby (1827, p. 156) established the names *Trichinus* and *Tetropthalmus* as subgenera of the genus *Trichius* Fabricius, 1775. The original spellings of the names were *Trichini* and *Tetropthalmi* but this was in Latin text as plural nouns. Kirby explicitly stated that the gender of both subgenera was male, stating: 'Instead of giving the denominations of the subgenera a feminine termination as proposed in the *Introduction to Entomology*, I have followed the gender of the genus [*Trichius*]'. Kirby (1837, p. 137) later correctly emended *Trichini* to *Trichinus* and designated *Trichius piger* Fabricius, 1775 as the type species. The name *Tetropthalmi* should also be emended, retaining the original author and date, to *Tetropthalmus* in accordance with Article 11.8.1 so that the name is in the nominative singular. The type species of *Tetropthalmus* is *Trichius sutularis* Kirby, 1827 by monotypy.

2. Burmeister & Schaum (1840, p. 404) established the name *Stegopterus* for the same taxonomic group described as *Tetropthalmus* by Kirby, with *Trichius suturalis* Gory & Percheron, 1833 (p. 48) as one of the included species. Burmeister & Schaum mentioned *Tetropthalmus* in a footnote, but chose to use the generic name *Stegopterus* instead. I (Smith, 2004, p. 288) designated *Trichius suturalis* Gory & Percheron as the type species of *Stegopterus*. The name *Tetropthalmus* has not been used as a valid name for over 150 years and qualifies as a nomen oblitum under Article 23.9.1.1. However, the name *Stegopterus* is a little-known genus that has been mentioned in fewer than 10 papers over the past 50 years, including Krikken (1984), Evans (1987), Ricchiardi (1998, 2001) and Smith (2004). This limited use of the name *Stegopterus* is insufficient to allow its automatic conservation as a nomen protectum under Article 23.9.1.2. It is for this reason that I propose that the Commission

should use its plenary power to conserve the name *Stegopterus* by suppression of *Tetropthalmus*.

3. Casey (1915, p. 381) described the genus *Trichiotinus* without mention of the name *Trichinus*, apparently being unaware of its existence. *Trichius piger* Fabricius, 1775 (p. 41) was designated by Kirby (1837, p. 137) as the type species of *Trichinus*; the same nominal taxon is the type species of *Trichiotinus* by original designation by Casey (1915, p. 381), making *Trichinus* and *Trichiotinus* objective synonyms. The name *Trichiotinus* has been used in the majority of publications for this taxonomic group since 1915, although a few authors lump *Trichiotinus* under the name *Trichius*. The following authors have used *Trichiotinus* as a valid name in the last 50 years: Ritcher (1958), Kaul (1960), Woodruff (1960), Dillon & Dillon (1961), Gates & Peters (1962), Borror & DeLong (1964), Ritcher (1966), Arnett (1968), Howden (1968), Ritcher (1969a), Ritcher (1969b), Borror & White (1970), Thien (1974), Green (1978), Lago et al. (1979), Arnett et al. (1980), White (1983), Morón (1984), Schneider & Nichols (1984), Travis (1984), Howden (1985), Glaser (1986), Lago & Miller (1986), Lago & Mann (1987), Firmage & Cole (1988), Borror et al. (1989), Howden & Ratcliffe (1990), Vogt (1990), Delgado-Castillo & Morón (1991), Ratcliffe (1991), Downie & Arnett (1996), Harpootlian (2001) and Ratcliffe (2002). The only author to use *Trichinus* as a valid genus-group name since Kirby (1837) was Hatch (1971, pp. 482, 484) who used the name as valid without explanation or justification in a work on the beetles of Washington and Oregon in the United States. Hatch's use of *Trichinus* as a valid name after 1899 prevents its qualification as a nomen oblitum under Article 23.9.1.1. It is for this reason that I propose that the Commission should use its plenary power to conserve the name *Trichiotinus* Casey by suppression of *Trichinus* Kirby.

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

- (1) to use its plenary power to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
  - (a) *Tetropthalmus* Kirby, 1827;
  - (b) *Trichinus* Kirby, 1827;
- (2) to place on the Official List of Generic Names in Zoology the following names:
  - (a) *Stegopterus* Burmeister & Schaum, 1840 (gender: masculine), type species by subsequent designation by Smith (2004) *Trichius suturalis* Gory & Percheron, 1833;
  - (b) *Trichiotinus* Casey, 1915 (gender: masculine), type species by original designation *Trichius piger* Fabricius, 1775;
- (3) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *suturalis* Gory & Percheron, 1833, as published in the binomen *Trichius suturalis* (specific name of the type species of *Stegopterus* Burmeister & Schaum, 1840);
  - (b) *piger* Fabricius, 1775, as published in the binomen *Trichius piger* (specific name of the type species of *Trichiotinus* Casey, 1915);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  - (a) *Tetropthalmus* Kirby, 1827 (as suppressed in (1)(a) above);
  - (b) *Trichinus* Kirby, 1827 (as suppressed in (1)(b) above).

## References

- Arnett, R.H.** 1968. *The beetles of the United States*. 1112 pp. American Entomological Institute, Ann Arbor, MI.
- Arnett, R.H., Downie, N.M. & Jaques, H.E.** 1980. *How to know the beetles*, (Ed. 2). 416 pp. McGraw Hill, Boston, MA.
- Borror, D.J. & DeLong, D.M.** 1964. *An introduction to the study of insects*, revised edition. 819 pp. Holt, Rinehart & Winston, New York, NY.
- Borror, D.J., Triplehorn, C.A. & Johnson, N.F.** 1989. *An introduction to the study of insects*, (Ed. 6). 875 pp. Saunders College Publishing, Philadelphia, PA.
- Borror, D.J. & White, R.E.** 1970. *A field guide to the insects of America North of Mexico*. 404 pp. Houghton Mifflin, Boston, MA.
- Burmeister, H. & Schaum, H.** 1840. IV. Kritische Revision der Lamellicornia melitophila. *Zeitschrift für die Entomologie*, **2**(2): 353–378.
- Casey, T.L.** 1915. A review of the American species of Rutelinae, Dynastinae and Cetoniinae. *Memoirs on the Coleoptera*, **6**: 1–394.
- Delgado-Castillo, L. & Morón, M.A.** 1991. A new genus and species of Trichiini from Mexico (Coleoptera: Melolonthidae). *Pan-Pacific Entomologist*, **67**: 181–188.
- Dillon, E.S. & Dillon, L.S.** 1961. *A manual of common beetles of Eastern North America*. 884 pp. Row, Peterson & Co., Evanston, IL.
- Downie, N.M. & Arnett, R.H.** 1996. *The beetles of Northeastern North America*, vol. 1. 880 pp. Sandhill Crane Press, Gainesville, FL.
- Evans, A.V.** 1987. A new species of the genus *Brachagenius* Kraatz (= *Xiphoscelidus* Péringuey syn. nov.) with notes on the synonymy of *Elpidus hopei* (Burmeister) (Coleoptera: Scarabaeidae: Trichiinae). *Journal of the Entomological Society of South Africa*, **50**(2): 351–356.
- Fabricius, J.C.** 1775. *Systema Entomologiae*. 832 pp. Flensburgi & Lipsiae.
- Firmage, D.H. & Cole, F.R.** 1988. Reproductive success and inflorescence size of *Calopogon tuberosus* (Orchidaceae). *American Journal of Botany*, **75**: 1371–1377.
- Gates, D.E. & Peters, L.L.** 1962. *Insects in Kansas*, (Ed. 2). 397 pp. State Printer, Topeka, KS.
- Glaser, J.D.** 1986. Notes of some Maryland Scarabaeidae and Cerambycidae (Coleoptera). *Coleopterists' Bulletin*, **40**: 355–356.
- Green, B.B.** 1978. Comparative ecology of *Geranium richardsonii* and *Geranium nervosum*. *Bulletin of the Torrey Botanical Club*, **105**: 108–113.
- Gory, H.L. & Percheron, A.R.** 1833. *Monographie des Cétoines et genres voisins . . .*, 406 pp. Paris.
- Harpootlian, P.J.** 2001. Scarab beetles (Coleoptera: Scarabaeidae) of South Carolina. *Biota of South Carolina*, **2**: 1–157.
- Hatch, M.H.** 1971. The beetles of the Pacific northwest. Part V: Rhipicerioidea, Sternoxi, Phytophaga, Rhynchophora, and Lamellicornia. *University of Washington Publications in Biology*, **16**: 1–662.
- Howden, H.F.** 1968. A review of the Trichiinae of North and Central America (Coleoptera: Scarabaeidae). *Memoirs of the Entomological Society of Canada*, **54**: 1–77.
- Howden, H.F.** 1985. Expansion and contraction cycles, endemism and area: the taxon cycle brought full circle. In Ball, G.E. (Ed.), *Taxonomy, phylogeny and zoogeography of beetles and ants*. W. Junk, Dordrecht, Netherlands.
- Howden, H.F. & Ratcliffe, B.C.** 1990. An unusual new species of *Trigonopeltastes* Burmeister from Chiapas, Mexico (Coleoptera: Scarabaeidae: Trichiinae). *Canadian Entomologist*, **122**: 1–4.
- Kaul, R.** 1960. A revision of *Asimina* and *Deeringothamnus* (Annonaceae). *Brittonia*, **12**: 233–278.
- Kirby, W.** 1827. A description of some new genera and species of petaloceros Coleoptera. *Zoological Journal*, **3**(10): 145–158.
- Kirby, W.** 1837. The Insects. In Richardson, J., Swainson, W. & Kirby, W. (Eds.), *Fauna Boreali-Americana*, part 4. 325 pp. Josiah Fletcher, Norwich.

- Krikken, J.** 1984. A new key to the suprageneric taxa in the beetle family Cetoniidae, with annotated lists of the known genera. *Zoologische Verhandelingen*, **210**: 1–75.
- Lago, P.K. & Mann, M.O.** 1987. Survey of Coleoptera associated with flowers of wild carrot (*Daucus carota* L.) (Apiaceae) in northern Mississippi. *Coleopterists' Bulletin*, **41**: 1–8.
- Lago, P.K. & Miller, P.R.** 1986. Notes of the Coleoptera associated with the flowers of *Magnolia grandiflora* in northern Mississippi. *Journal of the Mississippi Academy of Sciences*, **31**: 141–146.
- Lago, P.K., Post, R.L. & Oseto, C.Y.** 1979. The phytophagous Scarabaeidae and Trogidae (Coleoptera) of North Dakota. *North Dakota Insects*, **12**: 1–131.
- Morón, M.A.** 1984. *Escarabajos: 200 Millones de Años de Evolución*. 132 pp. Instituto de Ecología, Museo de Historia Natural, Mexico City.
- Ratcliffe, B.C.** 1991. The scarab beetles of Nebraska. *Bulletin of the University of Nebraska State Museum*, **12**: 1–333.
- Ratcliffe, B.C.** 2002. Scarabaeidae Latreille 1802: Cetoniinae Leach 1815, chapter 34–VI. In Arnett, R.H., Thomas, M.C., Skelley, P.E. & Frank, J.H. (Eds.), *American Beetles*, vol. 2. 861 pp. CRC Press, Boca Raton, FL.
- Ricchiardi, E.** 1998. Notes on South African Trichiini. On the genus *Eriopeltastes* Burmeister & Schaum, 1840, with description of three new species (Coleoptera: Cetoniidae: Trichiinae). *Elytron*, **11**: 121–132.
- Ricchiardi, E.** 2001. *Camapterus*, a new brachypterous Trichiini genus from South Africa (Coleoptera: Cetoniidae: Trichiinae). *Elytron*, **14**: 201–206.
- Ritcher, P.O.** 1958. Biology of Scarabaeidae. *Annual Review of Entomology*, **3**: 311–334.
- Ritcher, P.O.** 1966. *White grubs and their allies*. 219 pp. Oregon State University Press, Corvallis, OR.
- Ritcher, P.O.** 1969a. Spiracles of adult Scarabaeoidea (Coleoptera) and their phylogenetic significance. I. The abdominal spiracles. *Annals of the Entomological Society of America*, **62**: 869–880.
- Ritcher, P.O.** 1969b. Spiracles of adult Scarabaeoidea (Coleoptera) and their phylogenetic significance. II. Thoracic spiracles and adjacent sclerites. *Annals of the Entomological Society of America*, **62**: 1388–1398.
- Schneider, E.L. & Nichols, D.M.** 1984. Floral biology of *Argemone aurantiaca* (Papaveraceae). *Bulletin of the Torrey Botanical Club*, **111**: 1–7.
- Smith, A.B.T.** 2004. Clarification on the nomenclatural status of six genus-group names in the tribe Trichiini (Coleoptera: Scarabaeidae: Cetoniinae). *Coleopterists' Bulletin*, **58**(2): 285–291.
- Thien, L.B.** 1974. Floral biology of *Magnolia*. *American Journal of Botany*, **61**: 1037–1045.
- Travis, J.** 1984. Breeding system pollination and pollinator limitation in a perennial herb, *Amianthium muscaetoxicum* (Liliaceae). *American Journal of Botany*, **71**: 941–947.
- Vogt, C.A.** 1990. Pollination in *Cypripedium reginae* Orchidaceae. *Lindleyana*, **5**: 145–150.
- White, R.E.** 1983. *A field guide to the beetles of North America*. 368 pp. Houghton Mifflin, Boston, MA.
- Woodruff, R.E.** 1960. Suppression of the genus *Roplisa* Casey with notes on the United States species of *Trigonopeltastes* Burmeister (Coleoptera: Scarabaeidae). *Florida Entomologist*, **43**: 139–145.

This publication was supported by an NSF/BS&I grant (DEB-0342189) to A.B.T. Smith and F.C. Ocampo.

Acknowledgement of receipt of this application was published in BZN **61**: 78.

---

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).