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## Nomenclatural Notes on the Palaeartic Anthicidae (Coleoptera)

Donald S. CHANDLER <sup>(1)</sup>, Gianluca NARDI & Dmitry TELNOV

Abstract: The subgeneric names of *Anthicus* Paykull proposed by MARSEUL (1879) are established as valid, the emendations of SAHLBERG (1903) are accepted as justified; the replacement names of PIC (1894) are placed as junior synonyms for *Anthicus*: *Clavicollis* Marseul, *Cordicollis* Marseul, *Hirticollis* Marseul, *Stricticollis* Marseul, and *Tenuicollis* Marseul have priority over the more commonly known names of PIC (*Clavicomus*, *Cordicomus*, *Hirticomus*, *Stricticomus*, *Tenuicomus*). [The following names are emended to the Latin nominative singular: *Biscissicollis* Marseul, 1879 (from *Biscissicolles*), *Bitumicollis* Marseul, 1879 (from *Bitumicolles*), *Curticollis* Pic, 1892 (from *Curticolles*), *Ephippicollis* Marseul, 1879 (from *Ephippicolles*), *Laticollis* Marseul, 1879 (from *Laticolles*), *Reticollis* Marseul, 1879 (from *Reticolles*), *Rotundicollis* Marseul, 1879 (from *Rotundicolles*), *Spinicornus* Kreckich-Strassoldo, 1919 (from *Spinicornes*), *Spiniferus* Pic, 1911 (from *Spiniferes*), *Stenicollis* Marseul, 1879 (from *Stenicolles*), *Sulcicollis* Marseul, 1879 (from *Sulcicolles*).] Seventeen new generic-level synonymies are presented: *Birricollis* Marseul, 1879 **syn. nov.**, *Brevicollis* Marseul, 1879 **syn. nov.**, *Curticollis* Pic, 1892 **syn. nov.**, *Eonius* Thomson, 1864 **syn. nov.**, *Nodolinus* Mulsant & Rey, 1866 **syn. nov.**, *Pubicollis* Marseul, 1879 **syn. nov.**, *Reticollis* Marseul, 1879 **syn. nov.**, *Pseudanthicus* Desbrochers des Loges, 1868 **syn. nov.** (= *Clavicollis* Marseul, 1879), priority reversed due to lack of use; *Bitumicollis* Marseul, 1879 **syn. nov.**, *Laticollis* Marseul, 1879 **syn. nov.** (= *Cordicollis* Marseul, 1879), *Spiniferus* Pic, 1911 **syn. nov.**, *Spinicornus* Kreckich-Strassoldo, 1919 **syn. nov.** (= *Cyclodinus* Mulsant & Rey, 1866), *Ephippicollis* Marseul, 1879 **syn. nov.** (= *Lepta-*

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*leus* LaFerté-Sénéctère, 1849), *Monstrosipedes* Marseul, 1879 **syn. nov.** (= *Microhoria* Chevrolat, 1877), *Trapezicollis* Marseul, 1879 **syn. nov.**, *Trapezonotus* Sahlberg, 1913 **syn. nov.** (= *Omonadus* Mulsant & Rey, 1866), *Sulcicollus* Marseul, 1879 **syn. nov.** (= *Stricticolles* Marseul, 1879).

Type species are designated for three genus level taxa: *Monocerus* Villa & Villa, 1833, type species *Notoxus cornutus* Fabricius, 1792; *Nodolinus* Mulsant & Rey, 1866, type species *Anthicus schmidtii* Rosenhauer, 1847; *Spiniferus* Pic, 1911, type species *Anthicus cerastes* Truqui, 1855. *Amblyderus* LaFerté-Sénéctère, 1847 is recognized as a justified emendation for *Aneblyderes* LaFerté-Sénéctère, 1847. *Notoxus excisus* Küster, 1848 has priority over *N. cavifrons* LaFerté-Sénéctère, 1849 **syn. nov.** and *N. hispanicus* Motschulsky, 1849 **syn. nov.**; *Anthicus minutus* LaFerté-Sénéctère, 1842 is given priority over *A. sardous* Schmidt, 1842 (nomen oblitum); *Anthicus plumbeus* LaFerté-Sénéctère, 1842 is given priority over *A. brevis* Schmidt, 1842 **syn. nov.** (nomen oblitum), *A. callosus* Schmidt, 1842 **syn. nov.** (nomen oblitum), and *A. melanarius* Schmidt, 1842 **syn. nov.** Synonymic homonyms of *Anthicus instabilis* Schmidt, 1842 and *A. pulchellus* Schmidt, 1842 are discussed. *Anthicus elegans* Steven, 1806, *A. subaeneus* LaFerté-Sénéctère, 1847, and *A. subtilis* Gistel, 1831 are placed as nomina dubia. *Notoxus elongatus* LaFerté-Sénéctère, 1849 and *N. trinotatus* Pic, 1894 have their status revised and are returned to the level of species.

Twenty-three new species level synonymies are given: *Anthicus balteatus* LaFerté-Sénéctère, 1849 **syn. nov.**, *A. basalis* LaFerté-Sénéctère, 1849 **syn. nov.**, *A. floreus* LaFerté-Sénéctère, 1849 **syn. nov.**, *Hirticomus biplagiatus fuscobrunneus* Bonadona, 1969 = *Hirticollis biplagiatus* (LaFerté-Sénéctère, 1849); *Anthicus fatuus* var. *dilutius* Truqui, 1855 = *Cyclodinus fatuus* (Truqui, 1855); *A. mauritiensis* var. *corporaali* Pic, 1923 = *Stricticollis tobias* (Marseul, 1879); *A. nectarinus* var. *testaceus* Pic, 1941 = *Microhoria nectarina* (Panzer, 1794); *Anthicus nigrofasciatus* Truqui, 1855 = *Cyclodinus humilis* (Germar, 1824); *A. nipponicus* Nomura, 1960 = *Stricticollis coreanus* (Pic, 1938); *Anthicus ornatus* Truqui, 1855 = *Stricticollis transversalis transversalis* (Villa & Villa, 1833); *Anthicus phoenicius* var. *obscurius* Truqui 1855 and *Anthicus phoenicius* var. *dilutius* Truqui, 1855 = *Omonadus phoenicius* (Truqui, 1855); *A. scoticus* Rye, 1872 = *Anthicus flavipes flavipes* (Panzer, 1796); *A. testaceofasciatus* Pic, 1894 = *Microhoria mactae* (Pic, 1894); *A. velatus* var. *mauritanica* Pic, 1952 = *Cordicollis velatus* (Marseul, 1879); *Leptaleus minutus* Bonadona, 1969 = *L. sennarensis* (Pic, 1907); *L. truncatulus* Fairmaire, 1892 = *L. klugii klugii* (LaFerté-Sénéctère, 1849); *Mecynotarsus tenuipes* var. *obscurior* Pic, 1943 and *M. tenuipes* var.

*pallidior* Pic, 1943 = *M. tenuipes* Champion, 1891; *Notoxus daimio* Lewis, 1895 = *N. trinotatus* Pic, 1894; *N. latemaculatus* Pic, 1894 = *N. monoceros* Linnaeus, 1760; *Notoxus rubetorum* var. *dilutius* Truqui, 1855 and *Notoxus rubetorum* var. *obscurius* Truqui, 1855 = *Notoxus rubetorum* Truqui, 1855. Seventeen new combinations from *Anthicus* Paykull are listed: *Clavicollis fugiens* (Marseul, 1876) **comb. nov.**; *C. hummeli* (Pic, 1935) **comb. nov.**; *C. kocheri* (Pic, 1951) **comb. nov.**; *C. laevipennis* (Marseul, 1876) **comb. nov.**; *C. lepidulus* (Marseul, 1876) **comb. nov.**; *C. plicatipennis* (Pic, 1936) **comb. nov.**; *C. postimpessus* (Pic, 1938) **comb. nov.**; *C. shibatai* (Nomura, 1962) **comb. nov.**; *Cordicollis posticus* (Motschulsky, 1849) **comb. nov.**; *Microhoria imbasicornis* (Pic, 1931) **comb. nov.**; *M. torretassoi* (Pic, 1931) **comb. nov.**; *Omonadus quadraticollis* (Yawata, 1944) **comb. nov.**; *Pseudoleptaleus sahlbergi* (Pic, 1898) **comb. nov.**; *Sapintus formosanus* (Pic, 1911) **comb. nov.**; *S. longepilosus* (Pic, 1942) **comb. nov.**; *Striticollis coreanus* (Pic, 1938) **comb. nov.**; *Tenuicollis pietschmi* (Pic, 1938) **comb. nov.**; new combination from *Tomoderus* LaFerté-Sénéctère: *Pseudotomoderus harwoodi* (Blair, 1923) **comb. nov.**

Seventeen varietal names are here placed as subspecies: *Anthelephila anceyi rathjensi* (Pic, 1957) **stat. nov.**; *A. bispilifasciata obscuripennis* (Pic, 1898) **stat. nov.**; *Anthicus abyssinicus adenensis* Pic, 1957 **stat. nov.**; *A. fortepunctatus similior* Pic, 1955 **stat. nov.**; *A. testaceicolor sub-suturalis* Pic, 1913 **stat. nov.**; *Leptaleus klugii obscurior* Pic, 1947 **stat. nov.**; *Macratria griseosellata blaisei* Pic, 1911 **stat. nov.**; *M. pallidicornis distinctipes* Pic, 1901 **stat. nov.**; *Microhoria superba pueli* (Chobaut, 1903) **stat. nov.**; *Notoxus raffrayi brittoni* Pic, 1957 **stat. nov.**; *N. raffrayi erythreus* Pic, 1914 **stat. nov.**; *N. schimperii unifasciatus* Pic, 1914 **stat. nov.**; *Pseudoleptaleus unifasciatus erythreanus* (Pic, 1907) **stat. nov.**; *P. unifasciatus lesnei* Pic, 1932 **stat. nov.**; *P. unifasciatus sublatus* (Pic, 1914) **stat. nov.**; *Sapintus apicatus birmanicus* (Pic, 1907) **stat. nov.**; *Striticollis amaniensis diversicolor* (Pic, 1913) **stat. nov.**

Thirteen junior homonyms are given new replacement names: *Anthicus caribe* Chandler **nom. nov.** (= *A. subtilis* LaFerté-Sénéctère, 1849); *A. pseudoruficeps* Nardi **nom. nov.** (= *A. uniformis* Pic, 1938); *A. winkleri* Telnov **nom. nov.** (= *Anthicus longipygus* Pic, 1919); *Anthicus yemenitus* Nardi **nom. nov.** (= *A. scotti* Pic, 1957); *Aulacoderus hilleianus* Nardi **nom. nov.** (= *Anthicus scotti* Hille, 1984); *Clavicollis wuyishanensis* Nardi **nom. nov.** (= *A. plicatipennis* Pic, 1954); *Cordicollis cyclodiformis* Nardi **nom. nov.** (= *A. subopacus* Pic, 1936); *Cordicollis muelleri* Nardi **nom. nov.** (= *A. gracilis rufescens* Müller, 1908); *Microhoria medvedevi* Telnov **nom. nov.** (= *A. kaszabi* Medvedev, 1975); *Notoxus abditus* Nardi **nom. nov.** (= *N. unifasciatus* Pic, 1947); *Sapintus nomurai*

Nardi **nom. nov.** (= *A. irregularis* Nomura, 1962); *Tenuicollis duplex* Nardi **nom. nov.** (= *A. subaeneus* LaFerté-Sénéctère, 1849); *Tomoderus uhmanni* Chandler **nom. nov.** (= *T. bimaculatus* Uhmann, 1988). The junior synonym *Notoxus bangi* Pic, 1902 is selected to replace the junior homonym *N. quadrimaculatus* Heyden, 1887; *Notoxus quadrimaculatus* Guérin-Ménéville, 1838 is tentatively placed in the Salpingidae, generic placement unknown. Homonyms of *Anthicus bengalensis* Wiedemann, 1823, *A. binotatus* Gebler, 1829, *A. caeruleipennis* LaFerté-Sénéctère, 1847, *A. compressicollis* Motschulsky, 1839, *A. constrictus* Say, 1826, *A. instabilis* Schmidt, 1842, *A. occipitalis* Dufour, 1843, *A. pulchellus* Schmidt, 1842, *A. ruficollis* Fabricius, 1801, *A. scabricollis* LaFerté-Sénéctère, 1847, *Formicomus parallelus* Solier, 1851, *Notoxus ater* Thunberg, 1787, *N. bifasciatus* Rossi, 1792, and *N. niger* Olivier, 1811 are discussed. A lectotype is designated for *Notoxus ater* Thunberg, 1787. A list of the known unavailable names produced from 1870 to the present is given, with a brief statement as to why these names are unavailable. Two senior homonyms of species proposed in *Anthicus* have been placed in other families, and have been overlooked in catalogues: *A. fasciatus* Fabricius, 1801 (now *Hydnocerus fasciatus*, Cleridae, not *A. fasciatus* Chevrolat, 1834) and *A. thoracicus* Fabricius, 1801 (now *Pedilus thoracicus*, Pyrochroidae, not *A. thoracicus* LaFerté-Sénéctère, 1849).

Key words: Coleoptera, Anthicidae, nomenclature, new synonymies, new combinations, replacement names, lectotype designations, type species designations, unavailable names, Palaearctic region.

## Introduction

This paper addresses and resolves many of the nomenclatural problems encountered during preparation of the Anthicidae for the Palaearctic Catalogue of Coleoptera (UHMANN et al. in prep.). However, some of the problems treated in this paper are relevant to other or all biogeographic regions. The primary problems concern: different sets of generic-level names by PIC (1894b) and SAHLBERG (1903a–b, 1903d–e) that are based on the names of MARSEUL (1879); generic and species synonymies; designation of type species for certain genera; new subspecific status of former varieties; priority or reversal of priority for certain names; replacement names for primary homonyms, and other problems. A list of the known unavailable names that have accumulated since 1870 is provided. Problems are either resolved here, or an explanation for maintaining current usage is presented. Where appropriate the relevant articles

from the current International Code of Zoological Nomenclature (ICZN, 1999) are cited with the article number being simply referenced as “Article x.xx.x.” Label data is signaled by “//,” indicating the beginning or end of the data, and “/” separating data from different labels. Emendations proposed here were checked for homonymy using NEAVE (1939–1940) and subsequent updates. Dates of publication were established by carefully examining the issue covers or inserts in journal volumes, or by consulting EVENHUIS (1997).

### **Subgeneric Names of MARSEUL, PIC, and SAHLBERG**

The diverse cosmopolitan genus *Anthicus* Paykull, 1798 is one of the oldest and largest genera in the Anthicidae, and as a consequence initially held species now placed in an array of beetle groups. LAFERTÉ-SÉNECTÈRE (1847) began the breakup of *Anthicus* by proposing two new subgenera during a study of the Algerian fauna, and added six more new subgenera in portions of his series (1849a–h) that thereafter formed his world monograph (1849i). Today all of these names are treated as valid genera. MULSANT & REY (1866) later proposed five new subgenera for *Anthicus*, with two of these now being used as valid generic names, and CHEVROLAT (1877) followed with his new subgenus *Microhoria*. Shortly thereafter MARSEUL (1879) produced his major revision of the Old World Anthicidae in which he placed all Old World *Anthicus* in nineteen groups, assigned each a descriptive latinized name, designated a species typical of each group, and indicated features distinguishing each group in a key (p. 65, “Ces espèces, nous les répartissons en 19 groupes, aussi naturels que possible: le tableau qui suit permettra de reconnaître auquel de ces groupes chacune des espèces doit se rapporter.”). While MARSEUL did not comment on the etymology of his names, they appear to describe the form of the pronotum, with the prefix a Latin word describing the form (cf. MARSEUL 1879:68, 139), and the suffix “-colles” apparently based on the Latin word for “neck” (*collum* [neuter], *collus* or *collis* [both masculine], or pronotum in this sense). Two further divisions of “Groupe XVIII, *Bifossicolles*” were apparently based on the form of the legs (suffix - “*pedes*,” [from *pes* or feet]).

MARSEUL’s names were latinized uninomial names formed with the first letter in upper case, framed by parentheses, printed with the same type-face and size as other older generic and subgeneric names, and are

different from the italicized species names. They were clearly intended to be descriptive, latinized names for cohesive groups of species. Four names were treated as equivalent to previously named subgenera, 13 were treated as new subgenera, and two (*Monstrosipedes* and *Normalipedes*) were placed as subdivisions of the subgenus *Bifossicolles* (MARSEUL 1879:67). Based on formation and usage in MARSEUL's paper, all are available names [Article 10.4]. However, genus-group names must be treated as nouns in the nominative singular [Article 11.8], and the form “-colles” did not appear to be correctly latinized. Uncertain as to whether these names were correctly formed, we consulted with Dr. Aleš SMETANA, who pointed out that these names were a French plural form of scientific names that was commonly used in the 1800's and early 1900's, and that these names can be emended to the nominative singular [Article 11.8.1]. Many of these names were subsequently treated/emended by two authors, PIC (1894b, 1894c) and SAHLBERG (1903a–b, 1903d–e).

Apparently under the perception that MARSEUL's names were vernacular and unavailable, PIC (1894b:41, footnote 1) stated that he was using MARSEUL's names as the basis for the subgenera that he recognized, and did so by replacing the suffix “-colles” with “-comus” (“J'ai cru bon de latiniser les coupes de De Marseul, ...”). These were in effect proposed as replacement names, rather than emendations of MARSEUL's names in the nominative singular, since “-comus” means “with” and is clearly different from “-colles” (pertaining to neck or pronotum). PIC thereafter treated MARSEUL's names as being subordinate to his subgenera in *Anthicus* (PIC 1895:52, and other papers), and printed them in a different style which we interpret as indicating that they were descriptive (vernacular) names rather than scientific names. Five of PIC's names have been used extensively from 1894 until today and are well-established in the recent literature, while the remainder have long been implicitly (but not explicitly) placed as synonyms of older generic names.

A third set of names was proposed by SAHLBERG (1903a–b, 1903d–e), who was either unaware of PIC's replacement names or ignored them. He used several subgeneric names with prefixes similar to those of MARSEUL, but with the suffix “-collis.” Using the comprehensive bibliography of SAHLBERG's work by SAALAS (1960), all relevant papers by SAHLBERG from 1871–1913 were examined for a statement on whether these subgenera were intended to be new, or whether they were emendations of MARSEUL's names. However, SAHLBERG never discussed this matter in



his papers, and only he used these names in his papers. SAHLBERG's names are clearly correctly latinized forms of MARSEUL's names, and "-collis" is a noun in the nominative singular that is a rarely used but acceptable form for genus-group names. They are here judged to be justified emendations of MARSEUL's names [Article 11.8.1]. These names take the author and date of their original description [Article 33.2.2], and all of MARSEUL's names with the ending of "-colles" that have not yet been emended are here uniformly emended to "-collis" in the following text (exception *Sulcicollus*, to avoid homonymy with *Sulcicollis* Klug, 1833 [Coleoptera]), unless the names are mentioned in quotes or to establish clarity in discussions.

Two of MARSEUL's names end in "-pedes," and while probably proposed as a latinized French plural form of *pes*, *pedes* is a Latin noun in the nominative singular for "walker, pedestrian". MARSEUL did not specify the meaning of "-pedes," though the divisions are clearly in reference to form of the hind legs (MARSEUL 1879:188). These names are accepted as valid in their original form since *pedes* is a correct formation of a noun in the nominative singular.

PIC's names have been used many times after 1899, and are those most familiar to workers of the past 50 years. The potential for reversal of precedence must be considered, with one of the important factors being whether the senior synonyms have been validly used after 1899 [Article 23.9.1]. After 1899 MARSEUL's original or emended names have been treated as subgenera by SAHLBERG (1903a–e, 1913a–d; number of usages indicated in parentheses): *Bifossicollis* (4), *Birricollis* (2), *Brevicollis* (8), *Clavicollis* (1), *Cordicollis* (7), *Hirticollis* (6), *Lagenicollis* (7), *Stricticollis* (7), *Tenuicollis* (2), *Trapezicollis* (5); KREKICH-STRASSOLDO (1911): *Bifossicolles*, *Birricolles*, *Brevicolles*, *Cordicolles*, *Hirticolles*, *Pubicolles*, *Stricticolles*, *Trapezicolles*; (1919): *Lagenicolles*; (1929): *Bifossicolles*, SCHATZMAYR & KOCH (1934): *Bifossicolles*, *Brevicolles*, *Cordicolles*, *Hirticolles*, *Lagenicolles*, *Pubicolles*, *Stricticolles*, *Tenuicolles*, *Trapezicolles*, KOCH (1935b): *Bifossicolles*, *Birricolles*, *Lagenicolles*, *Stricticolles*, and WINKLER (1927): all above names in MARSEUL's formation plus *Normalipedes*. Only *Monstrosipedes* has not been cited after 1899. Five of MARSEUL's names (*Clavicollis*, *Cordicollis*, *Hirticollis*, *Stricticollis*, *Tenuicollis*) are the oldest available names for comparable genera attributed to PIC, and all have been cited as valid at least once after 1899. Since the prefixes of these names remain the same while

the endings are changed, there should be minimal confusion in recognizing the priority of MARSEUL's names, and a petition to the ICZN to conserve PIC's names will not be pursued.

An additional problem is MARSEUL's placement of four of his new names as equivalent, but second to the subgenera of LAFERTÉ-SÉNECTÈRE. Since these four names were initially listed second by MARSEUL, we treated these as having been proposed as junior synonyms of LAFERTÉ-SÉNECTÈRE's names, and were thus unavailable [Article 11.6]. However, in his catalogue of the Old World Coleoptera MARSEUL (1887) listed his subgeneric names first [e. g. "*Ephippicolles* M. - *Leptaleus* Laf."], thus effectively treating his names as replacement names and the names of LAFERTÉ-SÉNECTÈRE as synonyms. We are treating this arrangement as a validation of the MARSEUL names listed below. All four names are then available under the date and author of their original listing [Article 11.6.1], and are junior synonyms of the respective genera of LAFERTÉ-SÉNECTÈRE. The four pairs of names are: *Biscissicollis* Marseul, 1879 (= *Aulacoderus* LaFerté-Sénectère, 1849h); *Ephippicollis* Marseul, 1879 (= *Leptaleus* LaFerté-Sénectère, 1849f); *Rotundicollis* Marseul, 1879 (= *Liparoderus* LaFerté-Sénectère, 1849g); and *Stenicollis* Marseul, 1879 (= *Stenidius* LaFerté-Sénectère, 1847). MARSEUL also briefly mentioned *Microhoria* Chevrolat in the text (p. 187) of his definition of *Bifossicollis*, and more extensively later (pp. 195–196), but did not develop any nomenclatural conclusions regarding this name.

### Generic Synonymies

Confusion over the availability and correct composition of MARSEUL's names led to their variable use or inclusion by authors (see WINKLER (1927) for the most complete coverage of these names, but yet the most confusing arrangement). Some genus-level names have never been explicitly synonymized, but their type species have been included in older genera by recent authors without indication of the genus-level names associated with them. The following names based on Palaearctic taxa are all placed as junior synonyms of the indicated genera.

#### ***Anthicus* (*Anthicus*) Paykull, 1798**

*Anthicus* (*Anthicus*) Paykull, 1798:253. Type species *Meloe antherinus* Linnaeus, 1760, sub. desig. WESTWOOD, 1830

*Birricollis* Marseul, 1879:67. Type species *Anthicus genei* LaFerté-Sénectère, 1849, orig. desig., **syn. nov.**

- Birricollis*: SAHLBERG, 1903a:67 (justified emendation of *Birricolles* Marseul, 1879)
- Birricomus* Pic, 1894b:43 (replacement name for *Birricolles* Marseul, 1879)
- Brevicollis* Marseul, 1879:67. Type species *Meloe antherinus* Linnaeus, 1760, orig. desig., **syn. nov.**
- Brevicollis*: SAHLBERG (1903a:67) (justified emendation of *Brevicolles* Marseul, 1879)
- Brevicomus* Pic, 1894b:46 (replacement name for *Brevicolles* Marseul, 1879)
- Cartolus* Mulsant & Rey, 1866:104. Type species *Notoxus sellatus* Panzer, 1796, monotypy [listed as junior synonym of *Eonius* by WINKLER (1927:846)]
- Curticollis* Pic, 1892a:44. Type species *Anthicus trotommidens* Pic, 1892, monotypy, (here emended from *Curticolles* Pic, 1892), **syn. nov.**
- Curticomus* Pic, 1894c:76 (replacement name for *Curticolles* Pic, 1892)
- Eonius* Thomson, 1864:366. Type species *Notoxus bimaculatus* Illiger, 1801, monotypy, **syn. nov.**
- Nodolinus* Mulsant & Rey, 1866:83. Type species *Anthicus schmidtii* Rosenhauer, 1847, sub. design. given below, **syn. nov.**
- Platylorus* Mulsant & Rey, 1866:84. Type species *Notoxus bimaculatus* Illiger, 1801, monotypy [listed as junior synonym of *Eonius* by REITTER (1891:267)]
- Pubicollis* Marseul, 1879:67. Type species *Anthicus axillaris* Schmidt, 1842, orig. desig., **syn. nov.**
- Pubicollis*: SAHLBERG, 1903b:9 (justified emendation of *Pubicolles* Marseul, 1879)
- Pubicomus* Pic 1894b:48 (replacement name for *Pubicolles* Marseul, 1879)
- Recticollis* Marseul, 1879:66. Type species *Anthicus inderiensis* Marseul, 1879, orig. desig., (here emended from *Recticolles* Marseul, 1879), **syn. nov.**

### ***Aulacoderus* LaFerté-Sénéctère, 1849**

*Aulacoderus* LaFerté-Sénéctère, 1849h:133

Type species *Anthicus transversalis* LaFerté-Sénéctère, 1849 [junior homonym], (= *Anthicus mutatus* Harold, 1870 [replacement name]), orig. desig.

*Biscissicollis* Marseul, 1879:68

Type species *Anthicus friwaldszkyi* LaFerté-Sénéctère, 1849, orig. desig., (here emended from *Biscissicolles* Marseul, 1879) [originally described as junior synonym of *Aulacoderus*, validated by MARSEUL (1887:353); placed as junior synonym by WINKLER (1927:850)]

### ***Clavicollis* Marseul, 1879**

*Clavicollis* Marseul, 1879:66

Type species *Anthicus longiceps* LaFerté-Sénectère, 1849, orig. desig.

*Clavicollis*: SAHLBERG, 1903e:55 (justified emendation of *Clavicolles* Marseul, 1879)

*Clavicomus* Pic, 1894b:42 (replacement name for *Clavicolles* Marseul, 1879)

*Pseudanthicus* Desbrochers des Loges, 1868:80

Type species *Formicomus olivierii* Desbrochers des Loges, 1868, monotypy. This name not been used after 1899 [Article 23.9.1.1]; *Clavicollis* or *Clavicomus* has been used by 14 authors for 44 publications in the past 50 years (teste CHANDLER and NARDI), and meets the criteria for reversal of precedence [Article 23.9.1.2], **syn. nov.**

### ***Cordicollis* Marseul, 1879**

*Cordicollis* Marseul, 1879:66

Type species *Anthicus instabilis* Schmidt, 1842, orig. desig.

*Bitumicollis* Marseul, 1879:66

Type species *Anthicus turca* Marseul, 1879, orig. desig., (here emended from *Bitumicolles* Marseul, 1879), **syn. nov.**

*Cordicollis*: SAHLBERG, 1903a:67 (justified emendation of *Cordicolles* Marseul, 1879)

*Cordicomus* Pic, 1894b:42 (replacement name for *Cordicolles* Marseul, 1879)

*Laticollis* Marseul, 1879:67. Type species *Anthicus baicalicus* Mulsant & Rey, 1866, orig. desig., (here emended from *Laticolles* Marseul, 1879) **syn. nov.**

*Laticomus* Pic, 1894b:41 (replacement name for *Laticolles* Marseul, 1879)

### ***Cyclodinus* Mulsant & Rey, 1866**

*Cyclodinus* Mulsant & Rey, 1866:77

Type species *Anthicus humilis* Germar, 1824, sub. desig. BONADONA (1949)

*Lagenicollis* Marseul, 1879:66

Type species *Anthicus humilis* Germar, 1824, orig. desig. [originally described as junior synonym of *Cyclodinus*, validated by MARSEUL (1887:350); listed as junior synonym by WINKLER (1927:837)]

*Lagenicollis*: SAHLBERG (1903a:66) (justified emendation of *Lagenicolles* Marseul, 1879)

*Spinicornus* Krekich-Strassoldo, 1919:65

Type species *Anthicus beckeri* Desbrochers des Loges, 1875 (= *Anthicus humilis* Germar, 1824) monotypy, (here emended from *Spinicornes* Krekich-Strassoldo, 1919), **syn. nov.** (see discussion below)

*Spiniferus* Pic, 1911c:33

Type species *Anthicus cerastes* Truqui, 1855, sub. desig. below, (here emended from *Spiniferes* Pic, 1911), **syn. nov.** (see discussion below)

### ***Hirticollis* Marseul, 1879**

*Hirticollis* Marseul, 1879:67

Type species *Notoxus quadriguttatus* Rossi, 1792, orig. desig.

*Hirticollis*: SAHLBERG, 1903a:67 (justified emendation of *Hirticolles* Marseul, 1879)

*Hirticomus* Pic, 1894b:41 (replacement name for *Hirticolles* Marseul, 1879)

### ***Leptaleus* LaFerté-Sénéctère, 1849**

*Leptaleus* LaFerté-Sénéctère, 1849f:5

Type species *Notoxus rodriguessi* Latreille, 1804, orig. desig.

*Ephippicollis* Marseul, 1879:65

Type species *Notoxus rodriguessi* Latreille, 1804, orig. desig., (here emended from *Ephippicolles* Marseul, 1879) [originally described as junior synonym of *Leptaleus*, validated by MARSEUL (1887: 349)], **syn. nov.**

### ***Liparoderus* LaFerté-Sénéctère, 1849**

*Liparoderus* LaFerté-Sénéctère, 1849g:85

Type species *Anthicus insignis* Lucas, 1843, orig. desig.

*Rotundicollis* Marseul, 1879:67

Type species *Anthicus insignis* Lucas, 1843, orig. desig., (here emended from *Rotundicolles* Marseul, 1879) [originally described as junior synonym of *Liparoderus*, validated by MARSEUL (1887: 352); listed as junior synonym by WINKLER (1927:846)]

### ***Microhoria* Chevrolat, 1877 and subgenera**

BONADONA (1952) began the systematic elevation of many *Anthicus* subgenera to the generic level by recognition of *Microhoria* Chevrolat as a genus. BONADONA included *Immichrohoria* Pic, 1894 as a subgenus and described two other subgenera: *Submicrohoria* Bonadona and *Platyhoria*

Bonadona, while ignoring MARSEUL's (1879) relevant subgenera *Bifossicollis*, *Normalipedes* and *Monstrosipedes*, of which the first two had been previously mentioned by some earlier authors (see above). NARDI (2003) formally placed the three subgenera treated by BONADONA as synonyms of *Microhoria*, but also overlooked MARSEUL's groups. All of MARSEUL's names are junior synonyms of *Microhoria*.

*Microhoria* Chevrolat, 1877:168

Type species *Anthicus oedipus* Chevrolat, 1860, sub. desig. BONADONA (1952)

*Bifossicollis* Marseul, 1879:67

Type species *Anthicus ghiliani* LaFerté-Sénéctère, 1849, orig. desig. [listed as junior synonym of *Immichoria* by WINKLER (1927:846)]

*Bifossicollis*: SAHLBERG, 1903d:31 (justified emendation of *Bifossicolles* Marseul, 1879)

*Immichoria* Pic, 1894c:72

Type species *Notoxus fasciatus* Chevrolat, 1834, sub. desig. BONADONA (1952:234) as *Anthicus fasciatus* LaFerté-Sénéctère, 1849 [synonymized by NARDI (2003:58)]

*Monstrosipedes* Marseul, 1879:67

Type species *Anthicus varus* Marseul, 1875 (= *Anthicus valgus* Fairmaire, 1875), orig. desig., **syn. nov.**

*Normalipedes* Marseul, 1879:68

Type species *Anthicus andalusiacus* LaFerté-Sénéctère, 1849, orig. desig. [listed as junior synonym of *Immichoria* by WINKLER (1927:846)]

*Platyhoria* Bonadona, 1952:234

Type species *Anthicus terminatus* Schmidt, 1842, orig. desig. [synonymized by NARDI (2003:58)]

*Submicrohoria* Bonadona, 1952:234

Type species *Anthicus plumbeus* LaFerté-Sénéctère, 1849, orig. desig. [listed as junior synonym of *Immichoria* by ANGELINI et al. (1995:231)]

### **Omonadus Mulsant & Rey, 1866**

*Omonadus* Mulsant & Rey, 1866:104

Type species *Meloe floralis* Linnaeus, 1758, sub. desig. BONADONA (1959:86)

*Trapezicollis* Marseul, 1879:66

Type species *Meloe floralis* Linnaeus, 1758, orig. desig. **syn. nov.**

*Trapezicollis*: SAHLBERG, 1903a:67 (justified emendation of *Trapezicolles* Marseul, 1879)

*Trapezicomus* Pic, 1894b:45 (replacement name for *Trapezicolles* Marseul, 1879)

*Trapezonotus* Sahlberg, 1913b:191

Type species *Anthicus phoenicius* Truqui, 1855, monotypy, **syn. nov.** [not *Trapezonotus* Fieber, 1860 (Heteroptera, Lygaeidae)]

### ***Stenidius* LaFerté-Sénéctère, 1849**

*Stenidius* LaFerté-Sénéctère, 1847:371

Type species *Anthicus vittatus* Lucas, 1843, monotypy

*Stenicollis* Marseul, 1879:65

Type species *Anthicus vittatus* Lucas, 1843, monotypy (here emended from *Stenicolles* Marseul, 1879) [originally described as junior synonym of *Stenidius*, validated by MARSEUL (1887:349); listed as junior synonym by WINKLER (1927:837)]

### ***Stricticollis* Marseul, 1879**

*Stricticollis* Marseul, 1879:66

Type species *Anthicus longicollis* Schmidt, 1842, orig. desig.

*Stricticollis*: SAHLBERG, 1903a:67 (justified emendation of *Stricticolles* Marseul, 1879)

*Stricticomus* Pic, 1894b:42 (replacement name for *Stricticolles* Marseul, 1879)

*Sulcicollus* Marseul, 1879:66

Type species *Anthicus giganteus* LaFerté-Sénéctère, 1849, orig. desig., (here emended from *Sulcicolles* Marseul, 1879), **syn. nov.**

### ***Tenuicollis* Marseul, 1879**

*Tenuicollis* Marseul, 1879:67

Type species *Anthicus olivaceus* LaFerté-Sénéctère, 1849, orig. desig.

*Tenuicollis*: SAHLBERG, 1903e:56 (justified emendation of *Tenuicolles* Marseul, 1879)

*Tenuicomus* Pic, 1894b: 42 (replacement name for *Tenuicolles* Marseul, 1879)

## **Type Species Designations**

### ***Monocerus* Villa & Villa, 1833**

*Monocerus* was first listed and attributed to MEGERLE VON MÜHLFELD by DAHL (1823:47), with six names being listed for this genus. Only

one of these names, *Notoxus cornutus* Fabricius, 1792 (= *N. trifasciatus* Rossi, 1792; not *N. cornutus* Thunberg, 1787) was available, with the remainder being manuscript names. DAHL's book was placed on the list of works rejected for systematic purposes (ICZN, 1964:242), and *Monocerus* was rendered invalid based on DAHL's work. *Monocerus* was next mentioned by CRISTOFORI (1832:105), but only as a synonym of *Anthicus*. VILLA & VILLA (1833:20) were the first to treat *Monocerus* as valid, and listed five species for this genus. Only two of these species names were available, with one again being *N. cornutus*. We here designate *Notoxus cornutus* Fabricius, 1792 as the type species of *Monocerus*. **Type species designation.** This act maintains the placement of *Monocerus* as a junior synonym of *Notoxus* Geoffroy, 1762. LAFERTÉ-SÈNECÈRE (1846) first discussed the potential synonymy with *Notoxus*, and then finalized it (1849a:1) while listing the name as *Monocerus* Faldermann, 1837. HOPE (1840:139) designated *Anthicus vulgaris* Hope as type species of *Monocerus* Megerle von Mühlfeld, but this name is a nomen nudum and the designation is invalid.

#### ***Nodolinus* Mulsant & Rey, 1866**

Six species were originally placed in this subgenus of *Anthicus* based on the 2<sup>c</sup> Division, 1<sup>er</sup> and 2<sup>c</sup> Groupes (with the 3<sup>c</sup> Groupe set aside for the new subgenus *Platylorus* Mulsant & Rey), and today these species are placed in five separate genera. A type species has never been designated. WINKLER (1927) listed this genus as a synonym of a younger genus, *Stricticollis* Marseul, 1879, though there had been no previous discussion by any authors as to the rationale for this placement. To prevent even more confusion over the correct name for the species placed in *Nodolinus*, we choose the originally included species *Anthicus schmidtii* Rosenhauer, 1847 to be the type species, and place *Nodolinus* as a junior synonym of *Anthicus* (*Anthicus*) Paykull, 1798. **Type species designation.**

#### ***Spiniferes* Pic, 1911c and *Spinicornes* Krekich-Strassoldo, 1919**

PIC (1895:52) originally used the word "*spinicornes*" in the French scientific plural to denote those species of *Anthicus* (*Brevicomus*) [3 spp.] and *Anthicus* (*Cyclodinus*) [10 spp.] that have a dorsal tooth on the scape of the antennae. These two otherwise different groups are presently in the respective genera *Anthicus* and *Cyclodinus*. The name *spinicornes* was clearly used as a grouping of species that were to be maintained in two separate subgenera that happened to share a similar anatomical character,



and was not being used to support a new taxonomic group. This name is here judged to be an unavailable vernacular name.

The name "*Spiniferes*" was first used by PIC in his world catalogue (1911c) for the same species listed under "*spiniornes*" plus four others (*Anthicus arisi* Pic, 1905; *A. cylindricus* Pic, 1899; *A. dentaticornis* Pic, 1898; *A. episcopalis* Pic, 1903), while *A. beckeri* Desbrochers des Loges, 1875 was excluded. The italicized name *Spiniferes* was placed after each relevant species name in PIC's catalogue, with the first letter capitalized and the name printed in a manner identical to that used for the established subgenera. The subgenera *Brevicomus* and *Cyclodinus*, where these species were placed by all other authors (including PIC in his other papers), were replaced by *Spiniferes* in the position where PIC indicated subgeneric placements. Strangely, *Spiniferes* was not present in PIC's list of *Anthicus* subgenera (1911c:30). *Spiniferes* was not subsequently treated as a valid genus until UHMANN (1976, 1978) elevated it (as *Spiniferes* Pic, 1894 [*sic*]) to the generic level without discussion. This name has since been used in a few recent papers (e.g. UHMANN 1985, 1992a, 1992b, 1998; WHITEHEAD 1993; TELNOV 2002).

Based on formation and use of the name, *Spiniferes* Pic, 1911 is an available name, with 16 species associated with this name scattered through PIC's (1911c) world catalogue. The first usage is for *Anthicus (Spiniferes) arisi* Pic, 1905 on page 33. However, these species are placed by most past and present authors as members of *Anthicus* and *Cyclodinus* based on form and structure of the head and pronotum, mesosternum, and other features. The shared modification of the antennal scapes can be clearly seen as a progression from the scapes being normally rounded-truncate at the base (*C. bremeri* (LaFerté-Sénéctère, 1842)), strongly and obliquely constricted-carinate at the base (*C. reitteri* (Pic, 1892)), roundly angulate at the base for the males and rounded in the females (*C. salinus salinus* (Crotch, 1867)), dentate in the male and angulate in the female (*C. longipilis* (Brisout de Barneville, 1863)), and strongly dentate for both sexes (*C. cerastes* (Truqui, 1855)). Most recent authors recognize two subspecies of *C. salinus*, which has the antennal tooth variably developed (distinctly dentate in males of *C. salinus carthageniensis* (Pic, 1892); more rounded in males of the nominate subspecies). Yet by using the spinose antennae to separate genera, UHMANN (1992a) placed these two taxa as distinct species in separate genera! This pattern of variation is also seen in *Cordicollis*, and is used to separate the subspecies *Cordicollis*

*instabilis instabilis* (Schmidt, 1842) and *C. instabilis franzi* (Bonadona, 1954). This feature is judged to be inadequate to support recognition of *Spiniferes* in view of all the other different features commonly used to characterize genera. We here designate the originally included species *Anthicus cerastes* Truqui, 1855 as the type species, an otherwise very typical member of *Cyclodinus*, which places *Spiniferes* Pic as a junior synonym of *Cyclodinus* Mulsant & Rey. **Type species designation.**

KREKICH-STRASSOLDO (1919:65) mentioned both names [“... und die er *Spinicornes* oder *Spiniferes* benennt”] during a discussion of *A. beckeri* Desbrochers des Loges, 1875, while confirming that PIC had based his original placement on misidentified specimens, since this species lacks the antennal tooth. Citation of this genus-group name first with a valid species had the unfortunate effect of validating the name *Spinicornes* Krekich-Strassoldo, 1919, while discussing a species that lacks the antennal spine. The single originally included species of *Spinicornes* is *A. beckeri* Desbrochers des Loges, 1875, and it is the type species by monotypy, which places *Spinicornes* as a junior synonym of *Cyclodinus* Mulsant & Rey, 1866, since this species is considered a junior synonym of *A. humilis* Germar, the type species of *Cyclodinus*. Both *Spinicornes* Krekich-Strassoldo and *Spiniferes* Pic were formed in the French plural for scientific names, and must be emended [Article 11.8.1], taking the original author and date of the names [Article 19.2]. The names are here emended to *Spinicornus* Krekich-Strassoldo, 1919 and *Spiniferus* Pic, 1911.

## **Priority and availability of generic and specific names**

### ***Amblyderus* LaFerté-Sénéctère, 1847**

*Amblyderus* LaFerté-Sénéctère, 1847:368 (justified emendation of *Aneblyderes*, LaFerté-Sénéctère, 1849a:1)

Type species *Anthicus scabricollis* LaFerté-Sénéctère, 1847, monotypy.

LAFERTÉ-SÉNÉCTÈRE (1847:369, footnote) described the subgenus *Aneblyderes* of *Anthicus* in the French scientific plural form, and based his name on the form of the pronotum: “.., j’ai cru devoir reconnaître dans ces deux une coupe naturelle, et en former une division du genre *Anthicus*, sous le nom d’*Aneblyderes* (insecte à thorax tronqué ou émoussé).” In his subsequent monograph (1849b:1), the name was emended to *Amblyderus* without explanation.

It is clear that LAFERTÉ-SÉNECTÈRE intended to descriptively base the generic name on the form of the pronotum, but the prefix (“anebly-”) to the genus is not based on a word, while the emended name is descriptive (Greek, ambly = blunt, deres = neck). The original spelling of “*Aneblyderes*” is a recognized in part as a printer’s error based on the context in which the subgeneric name was proposed, and also as a French plural form of the name. The name was subsequently justifiably emended by LAFERTÉ-SÉNECTÈRE to *Amblyderus* [Article 32.5.1]. *Amblyderus* thus takes the authorship and date of its first publication [Article 32.2.2].

### **Priority of KÜSTER, 1848 over LAFERTÉ-SÉNECTÈRE, 1849**

*Notoxus excisus* Küster, 1848:68 [“1848”: only the year is specified and must be dated XII-31-1848, Article 21.3.2]

*Notoxus cavifrons* LaFerté-Sénectère, 1849a:11 [III-1-1849]

*Notoxus hispanicus* Motschulsky, 1849:128 [VII-15-1849]

KÜSTER (1848) described *Notoxus excisus* from Cartagena (southern Spain), and shortly thereafter LAFERTÉ-SÉNECTÈRE (1849a) added *N. cavifrons* from Portugal. LAFERTÉ-SÉNECTÈRE (1849a, 1849i) was apparently unaware of KÜSTER’s work, and did not treat any of KÜSTER’s new anthicid species in his world monograph. In July of the same year MOTSCHULSKY (1849) described *N. hispanicus* from central Spain. TRUQUI (1855) subsequently revised the Anthicidae of Cyprus and greater Syria and recorded *N. excisus* from Cyprus, leading to some later authors treating this species as being restricted to the eastern Mediterranean region. The eastern Mediterranean records are now attributed to *N. appendicinus* Desbrochers des Loges, 1874, a species that is sometimes placed as a subspecies of *N. cavifrons* (e. g. BUCCIARELLI 1973, 1980; KUBISZ & SZWAŁKO 1998), or as a separate species (e. g. HEBERDEY, 1936a; BONADONA 1991; UHMANN 1992a). The differences between the male genitalia of the two species support treating them as separate species.

During the following 80 years, TRUQUI’s incorrect identification and confusion over the correct priority of names led to the three names being given priority by different authors, with *N. excisus* also being variably restricted to the western or eastern Mediterranean regions. HEBERDEY’s (1936a–b) revision of the Palaearctic species of the *monoceros*-group of *Notoxus* resolved these problems, and *N. excisus* was correctly restricted to the countries bordering the western Mediterranean. However, *N. cavifrons* was given priority over *N. excisus*, a synonymy that is in place today.

LAFERTÉ-SÉNECTÈRE (1849a) initially treated the *Notoxus* of the world in one of the 17 parts he authored for the series edited by GUÉRIN-MÉNEVILLE, and then published all parts together with some changes in a single monograph (LAFERTÉ-SÉNECTÈRE 1849i). The date of publication indicated on the monograph's title page is 1848, but CHANDLER (2000) established that the series edited by GUÉRIN-MÉNEVILLE was published near March 1, 1849, and that the subsequent monograph was published near May 1, 1849. KÜSTER's (1848) paper was clearly published before those of LAFERTÉ-SÉNECTÈRE and MOTSCHULSKY, and should receive priority based on date of publication. Along with its listing in several catalogues after 1899, *Notoxus excisus* has been treated as a valid name by FUENTE (1932), BURAKOWSKI et al. (1987), and MROCKOWSKI & STEFAŃSKA (1991). To ensure stability, since *N. excisus* has been used as a valid name after 1899 and it is the oldest name, we recognize the priority of *N. excisus* Küster as the valid name for this species.

#### **Priority of SCHMIDT (1842) and LAFERTÉ-SÉNECTÈRE (1842)**

In 1842 SCHMIDT published a series of four papers treating the European species of *Anthicus*, with the third paper (1842a) in this series being published August and the fourth (1842b) in September. A paper by LAFERTÉ-SÉNECTÈRE also appeared in September, 1842, and treated the *Anthicus* taken near Perpignan (France). In LAFERTÉ-SÉNECTÈRE's subsequent papers (1847, 1849h, 1849i), he placed four of SCHMIDT's names as junior synonyms of two of his species, with these synonymies being maintained in later treatments of the respective genera. Two species with names derived from lists of other authors were described by both, though LAFERTÉ-SÉNECTÈRE (1847) clearly indicated in the list of names for each species that SCHMIDT's paper had preceded his, except for his treatment of *Anthicus minutus* LaFerté-Sénectère, where he gave priority to his name and not to *A. sardous* Schmidt. Based on dates of publication, the SCHMIDT names are senior. All four species covered here are well-known in Europe, and have been treated in many papers after 1899. Depending on the circumstances, the SCHMIDT names are given priority (2), placed as **nomina oblita** (3), or listed as a junior synonym (1).

*Anthicus instabilis* Schmidt, 1842a:184 [VIII-1842] [now in *Cordicollis* Marseul, 1879]

*Anthicus instabilis* LaFerté-Sénectère, 1842:259 [IX-1842]

Both authors described the same species as *Anthicus instabilis*, based on specimens whose name was attributed to J. C. VON HOFFMANSEGG.

The name of SCHMIDT is the older name, and was treated as senior by LAFERTÉ-SÉNECTÈRE (1847:373; 1849i:305).

*Anthicus minutus* LaFerté-Sénectère, 1842:255 [IX-1842] [now in *Cyclodinus* Mulsant & Rey, 1866]

*Anthicus sardous* Schmidt, 1842a:175 [VIII-1842]

In the last 50 years at least 35 articles by 28 authors (teste NARDI) have been published listing *Anthicus minutus* LaFerté-Sénectère or *Cyclodinus minutus* (LaFerté-Sénectère) as valid [Article 23.9.1.2], and none have listed *A. sardous* as a valid name after 1899. *Anthicus minutus* LaFerté-Sénectère is here placed as a **nomen protectum**, and *Anthicus sardous* Schmidt as a **nomen oblitum** [Article 23.9.2].

*Anthicus plumbeus* LaFerté-Sénectère, 1842:250 [IX-1842] [now in *Microhoria* Chevrolat, 1877]

*Anthicus brevis* Schmidt, 1842a:180 [VIII-1842]

*Anthicus callosus* Schmidt, 1842a:181 [VIII-1842]

*Anthicus melanarius* Schmidt, 1842a:178 [VIII-1842]

LAFERTÉ-SÉNECTÈRE (1849h:158) placed three older SCHMIDT names as junior synonyms of *Anthicus plumbeus* LaFerté-Sénectère, 1842: *A. brevis* Schmidt, 1842a:180, *A. callosus* Schmidt, 1842a:181 and *A. melanarius* Schmidt, 1842a:178. The first two names have been treated only as junior synonyms after 1899 [Article 23.9.1.1], while *A. melanarius* has been cited as a valid name only once after 1899, as a variety of *A. plumbeus* in PIC's world catalogue (1911c:67). We have found only 14 papers by 10 authors listing *Microhoria plumbea* (LaFerté-Sénectère) as a valid name during the last 50 years (teste NARDI), which falls short of the 25 citations required to justify the reversal of priority for the names [Article 23.9.1.2], but a continued search will likely lead to discovery of the required number of references. The younger name of LAFERTÉ-SÉNECTÈRE has had a long history of use as a valid name, while those of SCHMIDT have been consistently treated as junior synonyms or as a variety of *A. plumbeus* after 1899. We here place *A. plumbeus* LaFerté-Sénectère as a **nomen protectum**, and *A. brevis* Schmidt and *A. callosus* Schmidt as **nomina oblita**. *Anthicus melanarius* Schmidt has been used as a valid name only once after 1899, and this use was as a variety of *A. plumbeus*. We feel that the use of *A. melanarius* as the valid name would create unnecessary nomenclatural instability. The case will be referred to the Commission to maintain use of junior name [Article 23.9.3]; meanwhile, prevailing usage is maintained.

*Anthicus rodriguessi* Latreille, 1804:357 [now in *Leptaleus* LaFerté-Sénéctère, 1849]

*Anthicus pulchellus* Schmidt, 1842b:195 [IX-1842]

*Anthicus pulchellus* LaFerté-Sénéctère, 1842:256 [IX-1842] [junior homonym]

*Anthicus pulchellus* was described by both SCHMIDT and LAFERTÉ-SÉNECTÈRE, and was based on a name listed by DEJEAN (1836:217, and earlier catalogues). The two names are synonymic homonyms that are junior synonyms of *Leptaleus rodriguessi* (Latreille, 1804). LAFERTÉ-SÉNECTÈRE (1847:372) lists SCHMIDT's reference before his in his treatment of *L. rodriguessi*, thus indicating the respective priority of these two papers which were published in the same month. Since both names are junior synonyms and have not been used as valid since 1847, a replacement name is not required.

Nearly 50 years later CHAMPION (1890:229) also described an *Anthicus pulchellus* from Panama, which was subsequently placed in the genus *Acanthinus* LaFerté-Sénéctère, 1849 by WERNER (1961). *Leptaleus* was treated as a valid genus as early as 1863 (MOTSCHULSKY 1863:491), and so the synonymic homonyms of SCHMIDT / LAFERTÉ-SÉNECTÈRE and the homonym of CHAMPION have resided in separate genera since the time of CHAMPION's description in 1890 [Article 23.9.5, but applies to names in use]. The senior homonyms have not been used since 1847 [Article 23.9.1.1], but the junior homonym of CHAMPION has been used in only three publications by one author in the past 50 years [Article 23.9.1.2] (teste CHANDLER), so only one of the conditions to institute prevailing usage is met. We do not propose a new name while maintaining the prevailing usage, and this case should be referred to the ICZN for a ruling.

#### **Priority of STEVEN (1806) and SCHMIDT (1842).**

*Anthicus elegans* Steven, 1806:161 [nomen dubium]

*Anthicus tristis* Schmidt, 1842a:172

STEVEN (1806:161) described *Anthicus elegans* from "Kislariae" [= Kislovodsk, Stavropol'skiy Kray, Russian Caucasus], and later SCHMIDT (1842a:172) described *Anthicus tristis* from Marseille (France). The identity of STEVEN's species has been uncertain for many years. While treating *A. elegans* as a separate species, LAFERTÉ-SÉNECTÈRE (1849h:174) commented that, based on the original description, this species could not be separated from some specimens of *A. tristis* Schmidt, 1842. GEMMINGER & HAROLD (1870:2094, 2101) treated both names as sep-

arate species, while MARSEUL (1879:261; 1887:351) placed *A. elegans* as a junior synonym of *A. tristis*, but with a question mark before the name. PIC (1911c:77) treated *A. elegans* as a variety of *A. tristis* (thus *A. tristis* var. *elegans* STEVEN), for the only citation of *A. elegans* as a valid name after 1899. In a footnote associated with his treatment of *A. tristis*, BONADONA (1983:104) brought attention to the fact that if *A. elegans* is placed as a synonym of *A. tristis*, then a nomenclatural problem based on priority must be resolved.

This common and widespread European species has been cited in many papers after 1899 as *A. tristis* SCHMIDT, while *A. elegans* STEVEN has been cited only once by PIC as a valid name after 1899, and that was as a variety of *A. tristis*. No author has ever mentioned seeing STEVEN's type, which should be in Moscow (HORN 1926), but could not be located there or in St. Petersburg during a recent search (teste TELNOV). Until the type is located, we feel that usage of the older name of STEVEN would be premature and create unnecessary nomenclatural instability. We here remove *A. elegans* STEVEN from synonymy and place it as a **nomen dubium**. If the synonymy is eventually confirmed, this case should be submitted to the ICZN for a ruling to conserve the name of SCHMIDT.

LAFERTÉ-SÉNECTÈRE (1849f:16) created a junior primary homonym when he described *A. elegans* from "Carolina," USA, but he (1849i:304) quickly proposed the replacement name *A. sturmii* for this species, which is used today as *Ischyropalpus sturmii*. A junior secondary homonym of STEVEN's name, *A. elegans* (Lea, 1895; from *Formicomus* LaFerté-Sénectère, 1849) from Australia, was given the replacement name *Anthicus troilus* Hinton, 1945.

### New combinations

- Clavicollis fugiens* Marseul, 1876:463 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Clavicollis hummeli* Pic, 1935:10 (*Anthicus*) [**comb. nov.**, NARDI; based on description]
- Clavicollis kocheri* Pic, 1951c:81 (*Anthicus*) [**comb. nov.**, NARDI; based on description]
- Clavicollis laevipennis* Marseul, 1876:471 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Clavicollis lepidulus* Marseul, 1876:461 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Clavicollis plicatipennis* Pic, 1936b:29 (*Anthicus*) [**comb. nov.**, NARDI; based on description]

- Clavicollis postimpessus* Pic, 1938a:5 (*Anthicus*) [**comb. nov.**, TELNOV; type examined]
- Clavicollis shibatai* Nomura, 1962:3 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Cordicollis posticus* Motschulsky, 1849:131 (*Anthicus*) [**comb. nov.**, CHANDLER; based on description]
- Microhoria imbasicornis* Pic, 1931a:6 (*Anthicus*) [**comb. nov.**, CHANDLER; based on description]
- Microhoria torretassoi* Pic, 1931c:66 (*Anthicus*) [**comb. nov.**, CHANDLER; based on description]
- Omonadus quadraticollis* Yawata, 1944:1 (*Anthicus*) [**comb. nov.**, CHANDLER; based on figure and description]
- Pseudoleptaleus sahlbergi* Pic, 1898a:124 (*Anthicus*) [**comb. nov.**, TELNOV; type examined]
- Pseudotoderus harwoodi* Blair, 1923:124 (*Tomoderus*) [**comb. nov.**, TELNOV; type examined]
- Sapintus* (*Sapintus*) *formosanus* Pic, 1911d:11 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Sapintus* (*Sapintus*) *longepilosus* Pic, 1942:13 (*Anthicus*) [**comb. nov.**, TELNOV; based on description]
- Stricticollis coreanus* Pic, 1938c:13 (*Anthicus*) [**comb. nov.**, TELNOV; type examined]
- Tenuicollis pietschmi* Pic, 1938b:11 (*Anthicus*) [**comb. nov.**, NARDI; based on description]

## New species synonymies

### ***Anthicus biplagiatus* LaFerté-Sénéctère, 1849 and synonyms**

BONADONA (1958a:146, as *Hirticomus*) began the treatment of this complex when he placed *Hirticollis densatus* (Fairmaire, 1898) as a junior synonym of *H. balteatus* (LaFerté-Sénéctère, 1849). He later (1969a:267, as *Hirticomus*) returned to this problem when he dealt with the accumulation of names based on the widespread and variable African species, *H. biplagiatus* (LaFerté-Sénéctère, 1849). He placed three names as junior synonyms and treated five others as “forms” (one newly described, *H. biplagiatus* form *fuscobrunneus*, p. 267), while now recognizing *H. densatus* as a form distinct from *H. balteatus*. Any taxon described as a form after 1960 [Article 45.6.3] is automatically infrasubspecific and thus unavailable, and since taxa explicitly placed as subspecies were treated elsewhere in the paper, all names cited as forms were implicitly treated as junior synonyms. However, later in the same year, BONADONA (1969b: 324) treated four of these “forms” as subspecies, which continued their



treatment as valid names, while not mentioning his “form” *fuscobrunneus*. MEDLER (1980:238) did cite *fuscobrunneus* as a subspecies of *biplagiatus*, validating the name under the original author and date, since it was done before 1985 [Article 45.6.4.1]. The color patterns characterizing the various subspecies can be seen as a continuum in a single long series from Nigeria (teste CHANDLER), and recent authors have ignored the subspecies listed by BONADONA. These subspecies are here formally placed as junior synonyms:

- Hirticollis biplagiatus* (LaFerté-Sénéctère, 1849g:111) (*Anthicus*)  
*balteatus* LaFerté-Sénéctère, 1849g:112 (*Anthicus*), **syn. nov.** [teste CHANDLER; based on description and identified specimens]  
*basalis* LaFerté-Sénéctère, 1849g:113 (*Anthicus*), **syn. nov.** [teste CHANDLER; based on description]  
*bisuniguttatus* Pic, 1951b:15 (*Anthicus*) [synonymized with *biplagiatus* by BONADONA, 1969a:267]  
*chembanus* Pic, 1932b:18 (*Anthicus*) [synonymized with *densatus* by BONADONA, 1969a:267]  
*densatus* Fairmaire, 1898:241 (*Anthicus*) [synonymized with *balteatus* by BONADONA, 1958a:146]  
*floreus* LaFerté-Sénéctère, 1849g:112 (*Anthicus*), **syn. nov.** [teste CHANDLER; based on description and identified specimens]  
*fuscobrunneus* Bonadona, 1969a:267 (*Hirticomus*), **syn. nov.** [teste CHANDLER; based on description and identified specimens]  
*prebasalis* Pic, 1955a:130 (*Anthicus*) [synonymized with *biplagiatus* by BONADONA, 1969:267]

### ***Notoxus monoceros* (Linnaeus, 1760) and subspecies**

*Notoxus monoceros* (Linnaeus, 1760) is one of the best known European members of the Anthicidae, and is found throughout Europe to the Russian Far East. Additional species described and placed near *N. monoceros* are *N. elongatus* LaFerté-Sénéctère, 1849 from eastern European Russia to western Siberia; *N. trinotatus* Pic, 1894 from Mongolia to the Russian Far East; and *N. daimio* Lewis, 1895 from the Russian Far East and Japan. All were maintained as separate species until HEBERDEY (1936a–b) revised the *monoceros*-group, and placed these names as subspecies of *N. monoceros*, based primarily on similarity of the male genitalia, color patterns, and form of the pronotal horn. Authors have since treated these names in several ways: as subspecies (e. g. BUCCIARELLI 1980; BONADONA 1991; UHMANN 1992a); as varieties while citing subspecies of other anthicid species, thus clearly placing the varietal names

as infrasubspecific (e. g. UHMANN 1985); as simple varieties (e. g. TELNOV 1998), which also effectively places them as junior synonyms since varieties are not an available category after 1960 [Article 45.6.3]; and as valid species (LAFER 1996 for *N. daimio*).

HEBERDEY (1936a–b) provided excellent illustrations of the male genitalia in dorsal view, and certain small differences are apparent in the forked apex of the penis for the species near *N. monoceros*. These differences were checked using identified specimens, and were found to hold up well in defining three of his four subspecies. HEBERDEY found the genitalia of *N. daimio* and *N. trinotatus* to be identical, and upon recent inspection of a syntype of *N. daimio* and specimens of *N. trinotatus*, these two taxa cannot be separated using any reliable feature (teste CHANDLER). *Notoxus daimio* Lewis, 1895 is here placed as a junior synonym of *N. trinotatus* Pic, 1894. **New synonymy.**

HEBERDEY obviously had looked very closely at the male genitalia, but apparently did not examine the parameres in lateral view. In lateral view the parameres of *N. elongatus* are strongly constricted in the apical fourth, and are produced as a narrowed extension that is acutely rounded at the apex. This form is very different from that found in the other two subspecies, where the dorsal and ventral margins of the parameres are largely parallel until they are abruptly and bluntly rounded at the apex to a small tooth near the ventral margin. The angles and lengths of the elytral tactile setae of these three subspecies also vary consistently. *Notoxus monoceros* has the elytral tactile setae raised at about an average angle of 60° with the average length varying from 0.20–0.22 mm (rarely shorter to 0.18 mm); for *N. elongatus* these setae are raised at an average angle of about 45° and the average length is about 0.16 mm; *N. trinotatus* has these setae raised at an average angle of 30–35° and the average length is about 0.16 mm.

Taking into account the differences in paramere form, differences in lengths and angles of the elytral tactile setae, and the small but consistent differences in the penis apex for these three subspecies, we feel that *N. elongatus* LaFerté-Sénéctère, 1849 and *N. trinotatus* Pic, 1894 should be returned to the status of full species. **Revised status.** The respective synonymies of these species are listed below. HEBERDEY (1936b) placed a number of the names as “ab.” and thus were implicitly treated as junior synonyms since he also treated subspecies in his paper. However, it is not clear whether HEBERDEY should be cited as the original author in placing

these names as junior synonyms, since this situation is not explicitly treated by the ICZN (1999). BONADONA (1991) clearly treated all but one of the relevant names as junior synonyms of *N. monoceros*. We synonymize below the one name overlooked by BONADONA, but HEBERDEY's act may one day be awarded precedence.

*Notoxus monoceros* (Linnaeus, 1760:185) (*Attelabus*)

*biinterruptus* Pic, 1900a:66 [synonymized by HEBERDEY (1936b:166)]

*cucullatus* Geoffroy, 1785:162 [synonymized by OLIVIER (1811:393)]

*immaculatus* Pic, 1899:19 [placed as ab. by HEBERDEY (1936b:166); listed as synonym by BONADONA (1991:27)]

*integer* LaFerté-Sénéctère, 1849a:10 [synonymized by HEBERDEY (1936b:166)]

*latemaculatus* Pic, 1892b:139, **syn. nov.** [based on placement by HEBERDEY (1936b:166) as an "ab."]

*obscuricollis* Pic, 1916:13 [synonymized by HEBERDEY (1936b:166)]

*platycerus* LaFerté-Sénéctère, 1849a:12 [placed as ab. by HEBERDEY (1936b:166); listed as synonym by BONADONA (1991:27)]

*septemmaculatus* Roubal, 1933b:139 [synonymized by HEBERDEY (1936b:166)]

*subjunctus* Pic, 1911a:97 [placed as ab. by HEBERDEY (1936b:166); listed as synonym by BONADONA (1991:27)]

*unicornis* Westhoff, 1882:189 [placed as ab. and thus synonymized by TENENBAUM (1918:25)]

*Notoxus elongatus* LaFerté-Sénéctère, 1849a:13

*biconjunctus* Pic, 1900b:90 [placed as ab. by HEBERDEY (1936b:166); listed as synonym by BONADONA (1991:27)]

*Notoxus trinotatus* Pic, 1894a:10

*mongolicus* Pic, 1914f:74 [synonymized by HEBERDEY (1936b:166)]

*subobliteratus* Pic 1903b:88 [synonymized by HEBERDEY (1936b:166)]

*daimio* Lewis, 1895:426, **syn. nov.** [teste CHANDLER; based on syntype and identified specimens]

#### Other new synonymies

*Anthicus fatuus* var. *dilutius* Truqui, 1855:350 **syn. nov.** of *Cyclodinus fatuus* (Truqui, 1855:350) [teste NARDI; based on description]

*Anthicus mauritiensis* var. *corporaali* Pic, 1923b:20, **syn. nov.** of *Stricticollis tobias* (Marseul, 1879:125) [teste TELNOV; based on description]

*Anthicus nectarinus* var. *testaceus* Pic, 1941b:5, **syn. nov.** of *Microhoria nectarina* (Panzer, 1794:7) [teste CHANDLER; based on description]

- Anthicus nigrofasciatus* Truqui, 1855:354, **syn. nov.** of *Cyclodinus humilis* (Germar, 1824:6) [teste NARDI; based on description]
- Anthicus nipponicus* Nomura, 1960:47, **syn. nov.** of *Stricticollis coreanus* (Pic, 1938c:13) [teste TELNOV; based on description]
- Anthicus ornatus* Truqui, 1855:358, **syn. nov.** of *Stricticollis transversalis transversalis* (Villa & Villa, 1833:35) [teste TELNOV; based on description]
- Anthicus phoenicius* var. *dilutius* Truqui, 1855:357, **syn. nov.** of *Omonadus phoenicius* (Truqui, 1855:356) [teste NARDI; based on description]
- Anthicus phoenicius* var. *obscurius* Truqui 1855:357, **syn. nov.** of *Omonadus phoenicius* (Truqui, 1855:356) [teste NARDI; based on description]
- Anthicus scoticus* Rye, 1872:10, **syn. nov.** of *Anthicus* (*Anthicus*) *flavipes flavipes* (Panzer, 1796b:22) [teste TELNOV; type examined]
- Anthicus testaceofasciatus* Pic, 1894c:73, **syn. nov.** of *Microhoria mactae* (Pic, 1894c:73) [teste CHANDLER; based on description]
- Anthicus velatus* var. *mauritanica* [*sic!*, improperly formed] Pic, 1952b:492 [not *A. mauritanicus* Lucas, 1843], **syn. nov.** of *Cordicollis velatus* (Marseul, 1879:115) [teste NARDI; based on description]
- Formicomus longispinus* var. *formosanus* Pic, 1912:7. KEJVAL (2002:249) placed incorrectly as infrasubspecific; validated by MIWA (1931:180) as subspecies, **syn. nov.** of *Anthelephila baeri* (Pic, 1903a:645) [teste NARDI; based on KEJVAL (2002)]
- Leptaleus minutus* Bonadona, 1969a:273, **syn. nov.** of *Leptaleus senarensis* (Pic, 1907c:322) [teste TELNOV; type examined]
- Leptaleus truncatulus* Fairmaire, 1892:116, **syn. nov.** of *Leptaleus klugii klugii* (LaFerté-Sénectère, 1849f:6) [teste TELNOV; type examined]
- Mecynotarsus tenuipes* var. *obscurior* Pic, 1943:4, **syn. nov.** of *Mecynotarsus tenuipes* Champion, 1891:189 [teste CHANDLER; based on description]
- Mecynotarsus tenuipes* var. *pallidior* Pic, 1943:4, **syn. nov.** of *Mecynotarsus tenuipes* Champion, 1891:189 [teste CHANDLER; based on description]
- Notoxus rubetorum* var. *dilutius* Truqui, 1855:343, **syn. nov.** of *Notoxus rubetorum* Truqui, 1855:343 [teste NARDI; based on description]
- Notoxus rubetorum* var. *obscurius* Truqui, 1855:343, **syn. nov.** of *Notoxus rubetorum* Truqui, 1855:343 [teste NARDI; based on description]

### Subspecific status for varietal names

The code no longer permits the use of varietal names. If the names were validly described as varieties before 1961 and their status has not changed, then they are available names that automatically become subspecies [Article 45.6.4]. Two of the following names were originally infrasubspecific and were subsequently validated as subspecies by other authors, but these acts were not noticed by other authors. The coauthors are not familiar with most of the remaining taxa, and so cannot comment on their validity. A number of widespread Palaearctic species have had varieties described from outside the Palaearctic Region and lack currently included subspecies. These extralimital varieties are here cited as subspecies to provide the basis for treating the relevant Palaearctic taxa as subspecies in the forthcoming Palaearctic catalogue of Coleoptera. All following names were described as varieties.

*Anthelephila anceyi rathjensi* Pic, 1957:440 (*Formicomus*) **stat. nov.**, Yemen

*Anthelephila bispilifasciata obscuripennis* Pic, 1898b:67 (*Formicomus*) **stat. nov.**, Djibouti

*Anthicus (Anthicus) abyssinicus adenensis* Pic, 1957:442 **stat. nov.**, Yemen

*Anthicus (Anthicus) fortepunctatus similior* Pic, 1955b:1045 **stat. nov.**, Mauritania

*Anthicus (Anthicus) testaceicolor subsuturalis* Pic, 1913a:133 **stat. nov.**, Taiwan

*Cyclodinus minutus truncaticeps* Koch, 1934:121 (*Anthicus*), Spain and Greece [originally infrasubspecific under Article 45.6.4; validated as subspecies by KOCHER (1956:27), Article 45.6.4.1]

*Endomia nigripennis* var. *reducteapicalis* Pic, 1955a:131, Rwanda [originally infrasubspecific under Article 45.6.4, validated as *Endomia tenuicollis reducteapicalis* by BONADONA (1960b:319), Article 45.6.4.1]

*Leptalepus klugii obscurior* Pic, 1947a:8 **stat. nov.**, Senegal

*Macratria griseosellata blaisei* Pic, 1911b:118 **stat. nov.**, Vietnam

*Macratria pallidicornis distinctipes* Pic, 1901a:792, Indonesia

*Microhoria superba pueli* Chobaut, 1903:170 (*Anthicus*), Algeria

*Notoxus raffrayi brittoni* Pic, 1957:436 **stat. nov.**, Yemen

*Notoxus raffrayi erythreus* Pic, 1914a:183 **stat. nov.**, Eritrea

*Notoxus schimperi unifasciatus* Pic, 1914c:182 **stat. nov.**, "Afrique orientale." (also see below under Species homonyms)

*Pseudoleptaleus unifasciatus erythreanus* Pic, 1907a:64 (*Leptaleus*) **stat. nov.**, Eritrea  
*Pseudoleptaleus unifasciatus lesnei* Pic, 1932b:16 (*Leptaleus*) **stat. nov.**, Mozambique  
*Pseudoleptaleus unifasciatus sublatus* Pic, 1914a:181 (*Leptaleus*) **stat. nov.**, Kenya  
*Sapintus (Sapintus) apicatus birmanicus* Pic, 1907b:341 (*Anthicus*) **stat. nov.**, Myanmar  
*Stricticollis amaniensis diversicolor* Pic, 1913b:164 (*Anthicus*), Tanzania

### **Species homonyms** Homonyms receiving action

Article 23.9.5 states that replacement names must not be automatically designated for primary homonyms that were placed in separate genera before 1900, and that these cases must be sent to the ICZN for a ruling if a replacement name is judged necessary. Meanwhile, the prevailing usage is to be maintained. For those primary homonyms that have been congeneric after 1899 this article is confusingly written, and we have interpreted it to indicate that replacement names may be proposed at the discretion of the authors. Since we are attempting to resolve or discuss all current and potential problems in this paper, we propose replacement names for all junior primary homonyms that have been congeneric after 1899, and in a following section briefly document those that were placed in separate genera before 1900.

#### ***Anthicus irregularis* Pic, 1932 and *A. irregularis* Nomura, 1962**

PIC (1932a:18) described *Anthicus irregularis* from Algeria, and forty years later NOMURA (1962:4) described another *A. irregularis* from the Ryukyu Islands (Japan). Since then SAKAI (1985:423) transferred *A. irregularis* Nomura to *Sapintus* Casey, 1895. The PIC species is known only from the original description, while the species of NOMURA has been cited a few times in the Japanese literature. The two names do not meet the conditions necessary to maintain prevailing usage [Article 23.9.1], neither name has been used enough to threaten stability or cause confusion [Article 23.9.3], so a replacement name is here designated for the junior homonym. The replacement name *Sapintus nomurai* Nardi, **nom. nov.** is here created for *A. irregularis* Nomura. This name is a patronym based on the name of the original author.

***Anthicus longipygus* Pic, 1917 and *A. longipygus* Pic, 1919**

PIC (1917a:9) described *Anthicus longipygus* from Madagascar, and later (1919b:10) described another *Anthicus longipygus* from Syria. The Syrian species was listed in the subgenus *Microhoria* by WINKLER (1927: 850), with *Microhoria* recognized as a genus by BONADONA (1952). The Madagascan species was placed in *Cordicollis* by BONADONA (1958a:92, as *Cordicomus*). The replacement name *Microhoria winkleri* Telnov, **nom. nov.** is proposed here for the Syrian species, which is a patronym for A. WINKLER, author of the last catalogue of Palaearctic Coleoptera.

***Anthicus subcrucifer kaszabi* Bonadona, 1964  
and *A. kaszabi* Medvedev, 1975**

BONADONA (1964:231) described *Anthicus subcrucifer kaszabi* from Afghanistan, while MEDVEDEV (1975:92) later described *A. kaszabi* from Mongolia. These two names are primary homonyms, with MEDVEDEV's name here transferred to the genus *Microhoria* and given the replacement name *Microhoria medvedevi* Telnov, **nom. nov.**, which is a patronym based on the name of the original author.

***Anthicus plicatipennis* Pic, 1936 and *A. plicatipennis* Pic, 1954**

PIC (1936b:29) described *Anthicus plicatipennis* from Morocco, and later (1954:64) described another *A. plicatipennis* from northern Fujian, China. The Chinese species was placed in *Clavicollis* by TELNOV (2001: 25, as *Clavicomus*), and the Moroccan species is here transferred to the same genus (see above under New combinations). The replacement name *Clavicollis wuyishanensis* Nardi, **nom. nov.** is proposed for the Chinese species, and is based on the mountains (Wuyi Shan) present at its type locality.

***Anthicus rufescens* Pic, 1893 and *A. rufescens* Müller, 1908**

The name *Anthicus rufescens* was first proposed by PIC (1893:74) for a species from "Asie-Mineure" [= Turkey], which was subsequently placed in the subgenus *Anthicus* (*Immichoria*) (PIC 1911c:71). This subgenus was first explicitly transferred from *Anthicus* to *Microhoria* Chevrolat by BONADONA (1952:234). MÜLLER (1908:316) later proposed the homonym *A. gracilis rufescens* from Croatia, with the nominate species originally included in the subgenus *Cordicollis* (Marseul, 1879). This subgenus was later elevated to the generic level by BONADONA (1958b:288, as *Cordicomus*), where it remains today. The two names do

not meet the conditions necessary to maintain prevailing usage [Article 23.9], so a replacement name is here designated for the junior homonym. The replacement name *Cordicollis muelleri* Nardi **nom. nov.** [new rank, based on examination of the types, teste NARDI] is here created for *A. gracilis rufescens* Müller, with the replacement name being a patronym based on J. MÜLLER.

#### ***Anthicus tolanus* var. *scotti* Pic, 1951 and homonyms**

*Anthicus tolanus* var. *scotti* Pic (1951a:134) from Ethiopia was recognized as a member of *Omonadus* by BONADONA (1962:347), and was implicitly placed as a synonym of *O. tolanus* by PIC (1951a) when he treated this name as a variety while using the subspecies rank for other names. PIC (1957:448) also described an *Anthicus (Immicrohoria) scotti* from Yemen, with *Immicrohoria* being treated as a subgenus of *Microhoria* by BONADONA (1952:234), and later placed as a junior synonym of *Microhoria* (NARDI, 2003). However, TELNOV (pers. comm.) recently examined the type of this species, and found that it was a true *Anthicus*. HILLE (1984:21) later added *Anthicus (Aulacoderus) scotti* Hille from South Africa.

*Aulacoderus* was originally described as a subgenus of *Anthicus*. It was first treated as a genus by PIC (1897b:125) in a list of species taken during a trip in Algeria, but has since been erratically treated as a subgenus (e. g. PIC 1911c; HILLE 1984, 1988) or as a valid genus (e. g. KREKICH-STRASSOLDO 1913, 1914; PIC 1951b, 1952c, 1952d; ALFIERI 1976; UHMANN 1976, 1978; BUCCIARELLI 1980; BONADONA 1991; ANGELINI et al., 1995; TELNOV 2002). It is recognized as a valid genus here. The three homonyms of *Anthicus scotti* do not meet the conditions necessary to maintain prevailing usage [Article 23.9], so replacement names must be designated for the junior homonyms. The replacement name *Anthicus yemenitus* Nardi, **nom. nov.** is here proposed for *A. scotti* Pic, 1957; the replacement name *Aulacoderus hilleianus* Nardi, **nom. nov.** is here proposed for *A. scotti* Hille. The first name is based on the country holding the type locality, and the second name is based on the name of the original author.

#### ***Anthicus subaeneus* LaFerté-Sénéctère, 1847 and *A. subaeneus* LaFerté-Sénéctère, 1849**

LAFERTÉ-SÉNECTÈRE (1847:378) provided a brief description of *Anthicus subaeneus* from “Andalousie” (Spain) at the end of his de-



scription of *A. pauperculus*. Two years later LAFERTÉ-SÉNECTÈRE proposed the replacement name *A. subaeneus* (1849h:181) for a species described as *A. unicolor* Schmidt by KOLENATI (1846:37) from “Elisabethopolin” (Azerbaijan). KOLENATI did not cite a reference after this name, as he did for species described by other authors, so this name has been treated as a valid description by KOLENATI, though it is a junior homonym of *Anthicus unicolor* Schmidt, 1842a:179. *Anthicus subaeneus* LaFerté-Sénectère, 1849 was listed in the subgenus *Tenuicollis* by WINKLER (1927:845, as *Tenuicomus*), which was raised to the level of genus by BONADONA (1958b:297). Based on the association with *A. pauperculus*, the senior homonym may also be a member of *Tenuicollis*, but the brief description does not adequately support this assumption, and we leave it in *Anthicus* at this time. The type specimen may possibly be found in the GHILIANI Collection at the Regional Museum of Natural Sciences of Turin (POGGI & CONCI 1996). The senior homonym has been completely overlooked after 1899, but the junior homonym has been cited by only two authors in two papers during the past 50 years (teste CHANDLER). The two names do not meet the conditions necessary to maintain prevailing usage [Article 23.9.1], neither name has been used enough to threaten stability or cause confusion [Article 23.9.3], and the names were congeneric after 1899 [Article 23.9.5]. The replacement name *Tenuicollis duplex* Nardi, **nom. nov.**, is here proposed for *A. subaeneus* LaFerté-Sénectère, 1849, and is based on the Latin word for double (“*duplex*”). We here place the senior homonym as a **nomen dubium**.

#### ***Anthicus carthageniensis* var. *subopaculus* Pic, 1919**

#### **and *A. subopaculus* Pic, 1936**

PIC (1919a:68) described *Anthicus carthageniensis* var. *subopaculus* from Cartagena (Spain), with the nominate species being placed earlier in the subgenus *Cyclodinus* by PIC (1895:52), which was first treated as a distinct genus by BONADONA (1958a:101). This taxon was later placed in synonymy with *C. salinus carthageniensis* (Pic, 1892) by BONADONA (1988). NARDI (2000) incorrectly treated *A. carthageniensis* var. *subopaculus* Pic, 1919 as an infrasubspecific entity (unavailable name) because it was described from the same locality of the nominate subspecies, but in fact it is an available name [Article, 45.6.4]. PIC (1936a:25) later described another *A. subopaculus* from Boulhaut (Morocco). These two primary homonyms do not meet the conditions necessary to maintain prevailing usage [Article 23.9] so a replacement name is here designated

for *A. subopaculus* Pic, 1936. On the basis of study of the holotype (cf. NARDI, 2000), this species is transferred to the genus *Cordicollis* under the replacement name *Cordicollis cyclodiniiformis* Nardi, **nom. nov.** The replacement name refers to the *Cyclodinus*-like appearance of the holotype, which lacks the basal pronotal tubercles typical of *Cyclodinus*.

***Anthicus subtilis* Gistel, 1831 and *A. subtilis* LaFerté-Sénectère, 1849**

GISTEL (1831:304) described *Anthicus subtilis* from the Ionic Islands (Greece), and it is the senior homonym to *A. subtilis* LaFerté-Sénectère, (1849f:34) from the Caribbean. GISTEL's name has not been used in the literature since 1880, but the name of LAFERTÉ-SÉNECTÈRE has been treated in only two publications by two authors for the past 50 years (teste CHANDLER). For this reason, this case does not meet the requirements for reversing precedence [Article 23.9.1], and the problem is easily resolved by creating a replacement name for the junior homonym. *Anthicus caribe* Chandler, **nom. nov.** is here created for *A. subtilis* LaFerté-Sénectère. The replacement name is based on the name of the native American group first encountered by the early European explorers to the New World.

From the description *A. subtilis* Gistel is probably a member of *Microhoria*, but this may never be resolved. The type originated from the collection of L. PARREYSS, which was later incorporated into the collections of J. DE CRISTOFORI and G. JAN (HORN 1926) and deposited in Milan. Unfortunately this collection was destroyed before 1927 (POGGI & CONCI 1996), and the type was presumably destroyed with the collection. For this reason we place *Anthicus subtilis* Gistel as a **nomen dubium**, and it will be necessary to designate a neotype if the name is ever to be reestablished.

***Anthicus uniformis* Krekich-Strassoldo, 1931 and *A. uniformis* Pic, 1938**

KREKICH-STRASSOLDO (1931:27) first described *Anthicus uniformis* from Nainital (northern Himachal Pradesh, India), as one of a group of species that he placed in the subgenus *Clavicollis* (as *Clavicomus*). PIC (1938c:13) followed by describing the homonym *A. uniformis* from "Transcaspienne: Tedjen" (Turkmenistan). PIC's species has never been treated since its description, and it is still placed in the genus *Anthicus*, while placement of KREKICH-STRASSOLDO's species in the genus *Clavicollis* was recently confirmed by UHMANN (1986:310, as *Clavicomus*). *Clavicollis* was first recognized as a valid genus by BONADONA (1960a:55, as *Clavicomus*), and these two species have resided in differ-

ent genera since 1960. The two names do not meet the conditions necessary to maintain prevailing usage [Article 23.9.1], so a replacement name is here designated for the junior homonym. The replacement name *Anthicus pseudoruficeps* Nardi, **nov. nov.** is here proposed for *A. uniformis* PIC, and is based on PIC's comparison of this species to *A. ruficeps* Pic, 1913.

***Notoxus quadrimaculatus* Guérin-Ménéville, 1838  
and *N. quadrimaculatus* Heyden, 1887**

GUÉRIN-MÉNEVILLE (1838:106 [publication date established by SHERBORN & WOODWARD (1906:336)]) described *Notoxus quadrimaculatus* from Amboine (New Guinea), and this species has since been mentioned only by LAFERTÉ-SÉNECTÈRE (1849h:181). LAFERTÉ-SÉNECTÈRE commented that he had seen the debris of the type, and based on the remaining mouthparts and a note sent to him by GUÉRIN-MÉNEVILLE, this species was not a member of the Anthicidae, but he did not place it in another genus or family. Based on the figures in Volume 3 (pl. 5, fig. 8A–F) that accompany the text volumes, it is not an anthicid and is probably a member of the Salpingidae (teste John LAWRENCE). We have not found any alternate placement of GUÉRIN-MÉNEVILLE's species by another author.

HEYDEN (1887:315) later described a *N. quadrimaculatus* from Kazakhstan, which is still a member of *Notoxus* (KEJVAL 1999), and PIC (1902:1) described *Notoxus quadrimaculatus* var. *bangi* from Aulie-Ata (Kazakhstan). PIC's name was listed as a synonym by WINKLER (1927: 834, as *N. quadrimaculatus* ab. *bangi*), and formally placed as a junior synonym by KEJVAL (1999:14). While GUÉRIN-MÉNEVILLE's name has not been used after 1899, HEYDEN's species has been mentioned in only two papers by two authors in the past 50 years (teste CHANDLER), so one of the conditions for reversal of precedence is not met [Article 23.9.1.2]. The single synonym, *Notoxus bangi* Pic, 1902 is here selected as the replacement name for this species [Article 23.3.5] [**New Status**].

***Notoxus schimperi* var. *unifasciatus* Pic, 1914  
and *N. unifasciatus* Pic, 1947**

PIC (1914c:182) described *Notoxus schimperi* var. *unifasciatus* from “Afrique orientale,” but this variety has never been treated since then and is here raised automatically to the level of subspecies [Article 45.6.4] (see list above). PIC (1947b:15) later described *N. unifasciatus* from “Arabie,”

and today this species is known from Saudi Arabia (UHMANN 1998). These two names are primary homonyms, and the replacement name *Notoxus abditus* Nardi, **nom. nov.** is here proposed for the species from Saudi Arabia. The replacement name is based on the Latin word for concealed (*abditus*).

### ***Tomoderus bimaculatus* Pic, 1952 and *T. bimaculatus* Uhmann, 1988**

PIC (1952a:70) described *Tomoderus bimaculatus* from the Belgian Congo, with this name being subsequently placed as a junior synonym of *T. fasciatipennis* Pic, 1942 by BONADONA (1961:20). UHMANN (1988:396) created a primary homonym when he described *T. bimaculatus* from Taiwan. The replacement name *Tomoderus uhmanni* Chandler, **nom. nov.** is here proposed for the Taiwanese species, and is a patronym based on name of the author.

## **Primary homonyms placed in separate genera before 1900**

### **Names proposed by FABRICIUS, 1801**

*Anthicus ruficollis* Fabricius, 1801 and *A. ruficollis* Schmidt, 1842

FABRICIUS (1801) described *Anthicus ruficollis* from “America meridionali,” which LAFERTÉ-SÉNECTÈRE (1849c:4; 1849h:173–174) subsequently placed in *Statira* Serville, 1828 (Tenebrionidae: Lagriinae), where it remains today (BLACKWELDER 1944–1947). SCHMIDT (1842a:172) described the junior homonym *A. ruficollis* from southern France, which was placed as a synonym of *A. terminatus* Schmidt, 1842 by LAFERTÉ-SÉNECTÈRE (1849h:140). It remained as a junior synonym in the subgenus *Bifossicollis* (Marseul, 1879:208), and genus *Microhoria* (BONADONA, 1955:117) until BONADONA (1991:147, footnote) reinstated it as a valid species. LAFERTÉ-SÉNECTÈRE (1849c:4) introduced some confusion by apparently referring to an additional homonym, *A. ruficollis* Saunders from North America, which was cited by PIC (1901b:130, 1911c:71), LENG (1920:164), and POOLE & GENTILI (1996:53, as *Sapintus ruficollis* Saunders, 1834). The species in question is *Anthelephila ruficollis* Saunders, 1834 from India, which has never been placed in the genus *Anthicus* and is not a North American species.

PIC (1892:43) recognized the homonymy between “une espèce américaine” (author not stated) and SCHMIDT, and proposed the replace-

ment name *A. stettini*. Pic (1901b:130) later indicated that *A. stettini* was proposed due to the homonym "*Anthicus*" *ruficollis* Saunders, and was based on the citation by LAFERTÉ-SÉNECTÈRE (1849c:4). While the attribution of the senior homonym is incorrect, there is a valid senior homonym described by FABRICIUS. We here recognize PIC's name as a valid replacement name, and SCHMIDT's species from southern France should be known as *Microhoria stettini* (Pic, 1892).

#### ***Anthicus fasciatus* Fabricius, 1801 and *A. thoracicus* Fabricius, 1801**

Two of the other New World species of *Anthicus* described by FABRICIUS (1801) are currently "lost" names. *Anthicus thoracicus* (p. 291) from "Carolina" (U.S.A.) was tentatively placed in *Pedilus* Fischer von Waldheim, 1822 (Pyrochroidae: Pedilinae) by LAFERTÉ-SÉNECTÈRE (1849h:174), and listed as a questionable anthicid by MELSHEIMER et al. (1853:150). This name is the senior primary homonym of *A. thoracicus* LaFerté-Sénectère, 1849 from Louisiana, which is currently a junior synonym of *Vacusus vicinus* (LaFerté-Sénectère, 1849). *Anthicus fasciatus* (p. 290) from "America meridionali" [probably Brazil] was placed in "*Hydnocera* Newman (*Phyllobaenus* Dejean, [1836])" (Cleridae) by LAFERTÉ-SÉNECTÈRE (1849h:173), and is the senior primary homonym of *A. fasciatus* Schilsky, 1888, currently a junior synonym of *A. bimaculatus* (Illiger, 1801). While no nomenclatural action is immediately required, both of FABRICIUS' names have been overlooked by the better known catalogues of New World (LENG 1920; BLACKWELDER 1944–1947, POOLE & GENTILI 1996) and world Coleoptera (GEMMINGER & HAROLD 1870). Consultation with specialists in both families revealed that the two names are not recorded in other catalogues specific to these families, and we bring attention to this oversight here.

#### ***Anthicus bengalensis* Wiedemann, 1823 and *A. bengalensis* Pic, 1894**

WIEDEMANN (1823:70) described *Anthicus bengalensis* from Bengal (India), which was transferred to *Anthelephila* Hope, 1833 by LAFERTÉ-SÉNECTÈRE (1849c), where it remains today (cf. KEJVAL 2003). PIC (1894d:182) described the homonym *Anthicus bengalensis* from Bengal (India), which is still placed in this genus (PIC 1911c; KREKICH-STRASSOLDI 1928), though KREKICH-STRASSOLDI (1928:102) did note it as being similar to species now placed in *Omonadus*. The senior homonym was placed in a separate genus in 1849, before the junior homonym was described.

***Anthicus binotatus* Gebler, 1829 and *A. binotatus* Pic, 1903**

GEBLER (1829:136) described *Anthicus binotatus* from Barnaul and Lokot' (western Siberia), and was moved to *Notoxus* by LAFERTÉ-SÉNECTÈRE (1849a). PIC (1903a:647) described *A. binotatus* from The Philippines, which remains in *Anthicus* today (PIC 1911c). The senior homonym was placed in a separate genus in 1849, before the junior homonym was described.

***Anthicus caeruleipennis* LaFerté-Sénectère, 1847  
and *A. caeruleipennis* Pic, 1904**

LAFERTÉ-SÉNECTÈRE (1847:369) described *Anthicus (Anthelephila) caeruleipennis* from Algeria, which was shortly thereafter transferred by to *Formicomus* LaFerté-Sénectère, 1849 (LAFERTÉ-SÉNECTÈRE 1849d). It is now known as *Anthelephila caeruleipennis* (cf. KEJVAL 2003). PIC (1904:12) described an *Anthicus caeruleipennis* from South Africa, which is still placed in this genus (HILLE 1961:252). The senior homonym was placed in a separate genus in 1849, before the junior homonym was described.

***Anthicus compressicollis* Motschulsky, 1839  
and *A. compressicollis* Pic, 1914**

MOTSCHULSKY (1839:59) described *Anthicus compressicollis* from Georgia, which was transferred to *Tomoderus* LaFerté-Sénectère, 1849 by LAFERTÉ-SÉNECTÈRE (1849e), and later placed in *Pseudotomoderus* Pic, 1892 by BONADONA (1961). PIC (1914e:20) described *Anthicus compressicollis* from Brazil, which was moved to *Acanthinus* by WERNER (1961:112), and it is now placed in that genus as *incertae sedis* because the type could not be found in the PIC collection (WERNER 1970:873). The senior homonym was placed in a separate genus in 1849, before the junior homonym was described.

***Anthicus constrictus* Say, 1826 and homonyms**

SAY (1826:244) described *Anthicus constrictus* from the U.S.A., with CURTIS (1838:715) subsequently describing another *A. constrictus* from England. LAFERTÉ-SÉNECTÈRE (1849e:8) transferred *A. constrictus* Say to *Tomoderus* LaFerté-Sénectère, 1849 where it has remained, while *A. constrictus* Curtis was formally placed in *Cyclodinus* Mulsant & Rey by BUCCIARELLI (1959:184, as *C. conscriptus* [*sic!*]). The two names have not been placed in the same genus since 1849. A third homonym based on a species described from Australia, *A. constrictus* Macleay, 1872 was

given the replacement name *A. denominandus* by PIC (1923a:3, footnote), and also unnecessarily by KOCH (1939:251) as *A. devillei*, which must be placed as a junior synonym.

***Anthicus occipitalis* Dufour, 1843 and *A. occipitalis* Heberdey, 1938**

DUFOUR (1843:71) described *Anthicus occipitalis* from France, and HEBERDEY (1938:259) described *A. (Acanthinus) occipitalis* from Brazil. DUFOUR's species was listed in *Ochthenomus* Schmidt, 1842 by GEMMINGER & HAROLD (1870:2103), and it is now known as *Endomia occipitalis*. *Anthicus (Acanthinus) occipitalis* Heberdey from Brazil was retained in *Acanthinus* when WERNER (1961:112) raised this taxon to the level of genus, and this species remains there today. The senior homonym was placed in a different genus by 1870, before the junior homonym was described.

***Anthicus scabricollis* LaFerté-Sénéctère, 1847  
and *A. scabricollis* Champion, 1895**

LAFERTÉ-SÉNECTÈRE (1847:368) described *Anthicus (Amblyderus) scabricollis* from Algeria as the type species of this subgenus, with *Amblyderus* later being raised to the level of genus by LAFERTÉ-SÉNECTÈRE (1849b). CHAMPION (1895:258) described another *A. scabricollis* from western Australia, and still remains in the genus *Anthicus* (PIC 1911c). The senior homonym was placed in a separate genus by 1849, before the junior synonym was described.

***Formicomus parallelus* Solier, 1851 and *F. parallelus* Marseul, 1879**

MARSEUL (1879:50) described *Formicomus parallelus* from “Mésopotamie”, which is now a member of *Anthelephila* due to the recent placement of *Formicomus* as a junior synonym of that genus (KEJVAL 2003). SOLIER (1851:278) later described a *F. parallelus* from Chile. SOLIER's species was initially transferred to *Anthicus* by FAIRMAIRE & GERMAIN (1863:249), and later placed in *Ischyropalpus* LaFerté-Sénéctère, 1849 by WERNER (1966:196), where it remains today. GIACHINO (1982:394) listed *F. parallelus* Solier, but this publication was simply a catalogue of the named species found in the historic SPINOLA collection, and does not count as a validating use of the name [Article 23.9.6]. KEJVAL (2000:414) briefly discussed this problem, while referring to an older edition of the code. The senior homonym was placed in a separate genus by 1863, before the junior synonym was described.

### ***Notoxus ater* Thunberg, 1787 and homonyms**

*Notoxus ater* was first described by THUNBERG (1787:45) from Sweden, and shortly thereafter PANZER (1796a:15) described another *N. ater* from Germany. PIC (1914c:182) described a third *N. ater* from Tanzania, which is a member of *Notoxus* today. PANZER's species was placed in *Anthicus* by SCHÖNHERR (1808:56), while THUNBERG's species was subsequently treated only when BURAKOWSKI et al. (1987), MROCKOWSKI & STEFANSKA (1991), and KUBISZ & SZWAŁKO (1998) cited this species as a member of *Anthicus*. The relationship of these two old homonyms was not clarified by these authors, since PANZER's description was not mentioned, though a few papers attributing the name to PANZER were listed by BURAKOWSKI et al. (1987:128). This is surprising since PANZER's authorship of *A. ater* has been cited in all major publications, and this species is well-known in the northern European countries and Asiatic Russia. THUNBERG's types have never been examined, and are held at the University of Uppsala in Sweden.

Bo SVENSSON (University of Uppsala), brought this problem to the attention of Drs. Bengt ENHSTRÖM and Lars HEDSTRÖM. They found two specimens in THUNBERG's material. The first was labeled as: //ater beta. Ups. / Uppsala Univ. Zool. Mus., Thunbergsaml., nr: 14610, *Anthicus ater* Sv. TYP// (a female); and the second with the labels: //ater alfa. Sv. / Uppsala Univ. Zool. Mus., Thunbergsaml., nr: 6592, *Anthicus ater* Sv. TYP// (a male). Dr. ENHSTRÖM confirmed that this species is conspecific with the species commonly identified as *Anthicus ater* (Panzer), and Dr. HEDSTRÖM suggested that the female specimen would make the best choice as a lectotype, since it was in better condition. In order to fix the identity of this name, we here designate the specimen numbered "14610" as the Lectotype, and the specimen numbered "6592" as a Paralectotype.

#### **Lectotype designation.**

Since PANZER's types are in Berlin and he provided a colored illustration along with his description, the identity of his species has been established in many papers. It seems clear that the dark color of this species, which is common in both Germany and southern Sweden, led to its description under the same name by two different authors. The synonymy of these two homonyms is confirmed, with the name of THUNBERG (1787) being the oldest. Unfortunately, the senior homonym of THUNBERG remained in *Notoxus* until 1987, which places the junior objective homonym *N. ater* Pic, 1914 in direct conflict after 1899. NARDI (in prep.) is



addressing this problem within the context of other problems with *N. ater* Pic.

***Notoxus bifasciatus* Rossi, 1792 and *N. bifasciatus* Fabricius, 1792**

ROSSI (1792:48) described *Notoxus bifasciatus* from Tuscany (Italy) in the same year that FABRICIUS (1792:210) described a second *N. bifasciatus* from Lapponia (northern Scandinavia). EVENHUIS (1997) has provided dates of publication for both papers, with ROSSI's paper appearing after March, 1792, and FABRICIUS' book dated December 22, 1792, establishing ROSSI's name as the senior homonym. ROSSI's species was later moved to *Anthicus* by SCHMIDT (1842a:170), and then to *Omonadus* by UHMANN (1985:188). PAYKULL (1798:253) placed FABRICIUS' species in the genus *Hypulus* Paykull, 1798 (Melandryidae), where it resides today. The two homonyms have not been in the same genus since 1798.

Under the perception that FABRICIUS' name was senior, BISTRÖM (1977) replaced ROSSI's name with its sole junior synonym, *Anthicus kolenatii* Kolenati, 1846:35. This name has been used in recent papers treating the Scandinavian fauna (cf. LUNDBERG 1986; HANSEN 1996), but this act was unnecessary, since the ROSSI name is the senior homonym.

***Notoxus bimaculatus* Illiger, 1801 and *N. bimaculatus* Pic, 1914**

ILLIGER (1801:80) described *Notoxus bimaculatus* from Prussia, which was subsequently placed in *Anthicus* by SCHÖNHERR (1808:57) where it resides today. In 1914 PIC described two separate taxa as *N. bisbimaculatus*: one from from "Kilimandjaro" (Tanzania) (PIC 1914b:39), and another from "Afrique occidentale" (PIC 1914c:183). Shortly thereafter PIC (1914d:250, footnote) proposed the replacement name *N. bimaculatus* for his junior homonym, without giving a specific reason for the change ("une erreur s'est glissée pour un nom spécifique de *Notoxus* Geofr."), and created a new junior homonym. The homonyms *N. bimaculatus* were never in conflict after 1899.

***Notoxus niger* Olivier, 1811 and *Notoxus niger* Buck, 1958**

OLIVIER (1811:397) described *Notoxus niger* from Italy, which was subsequently transferred to *Anthicus* by LAFERTÉ-SÉNECTÈRE (1849h:174), where it resides today. BUCK (1958:15) described another *N. niger* from Mukana-Lusinga (The Congo), and remains in *Notoxus* today. The two homonyms have never been in conflict after 1899.

## Unavailable names

The following names were attributed to Palaearctic species or genera, and are unavailable for a number of reasons based on the current code of nomenclature (ICZN, 1999). The pertinent articles are: 1) they are described as an aberration (“ab.”) [Article 45.6.2] or if after 1960 they were described as a “form or “variety” [Article 45.6.3]; 2) a genus-level name was proposed without a type species designation after 1930 [Article 13.3]; 3) based on examination of the work they are clearly infrasub-specific [Article 45.6.1]; 4) **nomina nuda**, printing errors, or different concurrent spellings [Article 24.2.4]; 5) the work was handwritten [Article 8.4]; 6) when one of multiple alternate spellings is fixed by the first reviser, the other spelling is unavailable [Article 24.2.4]. If an author refers to a subspecies in a paper, all new varietal names in that paper are then treated as being infrasubspecific, and are unavailable unless validated in a later paper [Article 45.6.4.1].

LAFERTÉ-SÉNECTÈRE (1849i:323–326) listed most of the **nomina nuda** produced before 1849 that were in the catalogues of DEJEAN (1836) and STURM (1826) as well as those produced by other workers, but for some reason did not include the **nomina nuda** that were listed as synonyms in these catalogues. GEMMINGER & HAROLD (1870) included many of the known **nomina nuda** as synonyms in their catalogue. The **nomina nuda** and errors listed here are supplemental to these previous works. Their listing is important in clarifying dates of publication, correct spellings of genera and of type species of genera, mystery names in papers or catalogues, or are some of the more important misprints of species names in the past 50 years.

*Amblyderes* Reitter, 1891:266 [incorrect spelling for *Amblyderus* LaFerté-Sénectère, 1847]

*Aneblyderes* LaFerté-Sénectère, 1847:368 [incorrect original spelling for *Amblyderus* LaFerté-Sénectère, 1847, see above]

*Anthicus andalusiacus* var. *supraniger* Pic, 1930:11 [**infrasubspecific**]

*Anthicus angustatus* var. *vendeensis* Pic, 1931b:13 [**infrasubspecific**]

*Anthicus antherinus* ab. *irenae* Donisthorpe, 1935a:3 [**ab.**]

*Anthicus antherinus* *bivulneratus* Sahlberg, 1900:92 [**nomen nudum**]

*Anthicus antherinus* ab. *bokori* Kaszab, 1956:168 [**ab.**]

*Anthicus antherinus* ab. *mihoki* Kaszab, 1956:168 [**ab.**]

*Anthicus antherinus* var. *sophiae* Roubal, 1932:129 [**nomen nudum**]

*Anthicus aralensis* Reitter, in HAUSER, 1894:29 [**nomen nudum**] [later described by PIC (1901c:34)]

*Anthicus arboreanus* Dodero, in SAINTE-CLAIRE DEVILLE (1910:325) [**nomen nudum**]

*Anthicus armatus* var. *rufibasis* Pic, 1903c:170 [**infrasubspecific**]

*Anthicus axillaris* var. *polonicus* Bonadona, 1953b:260 [**infrasubspecific**]

*Anthicus balcaicus* Mulsant & Rey, 1866:114 [incorrect spelling for *baicalicus* Mulsant & Rey, 1866]

*Anthicus bifasciatus* ab. *dorothyae* Donisthorpe, 1935b:124 [**ab.**]

*Anthicus bijubatus* var. *laterufescens* Pic, 1930:10 [**infrasubspecific**]

*Anthicus bijubatus* var. *murcianus* Pic, 1930:10 [**infrasubspecific**]

*Anthicus bisuniguttatus* var. *prebasalis* Pic, 1955a:130 [**infrasubspecific**]

*Anthicus bremeri* ab. *pseudolavagnei* Puel, 1919:55 [**ab.**]

*Anthicus bremeri* ab. *therondi* Pic, 1938b:11 [**ab.**]

*Anthicus brevicornis* var. *coloratus* Koch, 1931:77 [**infrasubspecific**]

*Anthicus cojugatus* Klug, in GIACHINO, 1982:394 [**nomen nudum**]

*Anthicus costae* Costa, in MARSEUL, 1879:257 [**nomen nudum**] [see also PIC (1897a)]

*Anthicus crinitus* var. *reductesignatus* Pic, 1921:30 [**infrasubspecific**]

*Anthicus dejeanii* var. *mediodiversus* Pic, 1931b:13 [**infrasubspecific**]

*Anthicus dejeanii* ab. *stocki* Sainte-Claire Deville, 1910:326 [**ab.**] [later described by KREKICH-STRASSOLDO (1929:171)]

*Anthicus dichrous* var. *messinensis* Pic, 1932a:18 [**infrasubspecific**]

*Anthicus duplicatus* Desbrochers des Loges, as synonym of *A. instabilis* ab. *geminipilis* Desbrochers des Loges, 1875 in REITTER (1906:441) [**nomen nudum**]

*Anthicus fasciatus* ab. *kekichi* Pic, 1931b:14 [**ab.**]

*Anthicus floralis* var. *linnei* Sahlberg, 1913b:191 [**infrasubspecific**]

*Anthicus fulvus* Romano, in RAGUSA, 1898:228, footnote [**nomen nudum**]

*Anthicus ghilianii* ab. *bifasciatipennis* Koch, 1940:79 [**ab.**]

*Anthicus globipennis quercicola* var. *evanescens* Sahlberg, 1913a:59 [**infrasub-specific**]

*Anthicus goebelii* var. *intermedius* Koch, 1931:77 [**infrasubspecific**]

*Anthicus gracilis* ab. *mimogracilior* Pic, 1940:1 [**ab.**]

*Anthicus gracilis* var. *gracilior* ab. *pallidicollis* Pic, in CAILLOL (1914:222) [**nomen nudum**]

*Anthicus hafidi* ab. *atlasicus* Chobaut, 1923:76 [**ab.**]

*Anthicus hafidi* ab. *conjunctefasciatus* Chobaut, 1923:76 [**ab.**]

*Anthicus hafidi* ab. *obscurifasciatus* Chobaut, 1923:76 [**ab.**]

*Anthicus hafidi* ab. *reductefasciatus* Chobaut, 1923:76 [**ab.**]

*Anthicus humilis* ab. *lavagnei* Puel, 1919:55 [**ab.**]

*Anthicus incanus* Klug, in GIACHINO, 1982:394 [**nomen nudum**]

*Anthicus instabilis* ab. *mirificus* Chobaut, 1923:75 [**ab.**]

*Anthicus instabilis* ab. *sabuletoides* Schatzmayr & Koch, 1934:227 [**ab.**]

*Anthicus laeviceps* ab. *aguelmanensis* Pic 1938b:11 [**ab.**]

*Anthicus leonhardi* Krekich-Strassoldo, in HOLDHAUS (1911:447) [**nomen nudum**] [later described by KREKICH-STRASSOLDO (1913:229)] [see also NARDI, 2003]

*Anthicus longiceps* var. *mactarensis* Pic, 1932a:18 [**infrasubspecific**]

*Anthicus longipilis* ab. *delarouzei* Pic, 1934:23 [**ab.**]

*Anthicus longipilis* var. *humilicolor* Chobaut, in CAILLOL (1955:681) [**nomen nudum**]

*Anthicus magnini* Pic. Only the description of *Anthicus magnini basithorax* Pic, 1941a:3, from Crete (Greece) has been found, but not that of *Anthicus magnini*. The second name is treated as *Anthicus basithorax* Pic in the forthcoming Palaearctic Catalogue of Coleoptera, while *Anthicus magnini* Pic is here placed as a **nomen nudum**.

*Anthicus mincii* LaFerté-Sénéctère, in MARSEUL (1876:470) [**nomen nudum**]

*Anthicus nigronasutus* Pic, in PIC & LINDBERG (1932:32) [probable incorrect spelling for *A. nigroterminatus* Pic, 1909]

*Anthicus obliquatus* Klug, in GIACHINO, 1982:394 [**nomen nudum**]

*Anthicus ouedi* Pic, 1894c:72 [**nomen nudum**]

*Anthicus peyerimhoffi* ab. *sinaiticoides* Koch, 1935b:140 [**ab.**]

*Anthicus plagiostolus* Bonadona, in PARDO ALCAIDE, 1955:53 [**nomen nudum**, later described as *Cordicomus plagiostolus* Bonadona, 1958b:288]

*Anthicus plumbeus* var. *seynensis* Pic, 1931b:14 [**infrasubspecific**]

*Anthicus pruinosis* LaFerté-Sénéctère, in GIACHINO (1982:394) [**nomen nudum**]

*Anthicus pullus* Bonadona, in TELNOV, 2002:24 [lapsus for unavailable *Cordicomus pullus* Bonadona, 1964]

*Anthicus quadriguttatus* ab. *ruiderensis* Fuente, 1924:204 [**ab.**]

*Anthicus salinus* ab. *camarguensis* Puel, 1919:52 [**ab.**]

*Anthicus sellatus* ab. *albicola* Roubal, 1950:23 [**ab.**]

*Anthicus sellatus* ab. *humeralis* Krogerus, 1922:114 [**ab.**]

*Anthicus sellatus* ab. *suturalis* Roubal, 1950:22 [**ab.**]

*Anthicus sellatus* ab. *trimaculatus* Roubal, 1950:22 [**ab.**]

*Anthicus sidialiensis* Pic, in BONADONA, 1953a:98, footnote [**nomen nudum**]

*Anthicus spadiceus* Bonadona, in KOCHER (1956:103) [**nomen nudum**, later described as *Anthicus spadiceus* Bonadona, 1958b:287]

*Anthicus subaereus* var. *pardoi* Bonadona, in KOCHER (1969:69) [**nomen nudum**, later described as *Tenuicomus subaereus* ssp. *pardoi* Bonadona, 1977:4]

*Anthicus terminatus* var. *vitalei* Koch, 1935a:265 [**infrasubspecific**]

*Anthicus tristis* ab. *tifletensis* Pic, 1939a:17 [**ab.**]

*Anthicus unicolor* var. *rudepunctatus* Roubal, 1936:271 [incorrect spelling of unavailable *rudesculpturatus* Roubal, 1933]

*Anthicus unicolor* var. *rudesculpturatus* Roubal, 1933a:77 [**infrasubspecific**]

*Anthicus venustus* var. *alpinus* Pic, 1894c:75 [**nomen nudum**] [see also NARDI 2003]

*Biparticolles* Marseul, 1879:68 [incorrect alternate spelling of *Biscissicolles* Marseul, see MARSEUL, 1879:230; 1887:353 as first reviser]  
*Bissicomus* Pic, 1894b:43 [incorrect original spelling of *Birricomus*, see PIC 1894c:79 as first reviser]  
*Carteromerus* LaFerté-Sénéctère, 1849d:2 [**no included species**]  
*Clavicomus optabilis* form *marysae* Merceron, 1986:61 [**form unavailable after 1960**]  
*Cordicomus pullus* Bonadona, 1964:225 [**nomen nudum**]  
*Cyclodinus aulicatus* (Pic), in UHMANN 1985:184 [**nomen nudum**]  
*Cyclodinus larvipennis* ssp. *Focarilei* Bucciarelli, in BINAGHI (1965:5) [**nomen nudum**]  
*Endomia lefebvrei* var. *nigrita* Bonadona, 1960b:305 [**infrasubspecific**] [see also NARDI 2004]  
*Endomia unifasciata* ab. *insularis* Pic, 1934:33 [**ab.**] [see also NARDI 2004]  
*Formicomus ionicus* var. *mochii* Koch, 1935a:257 [**infrasubspecific**]  
*Formicomus pedestris* ab. *latebasalis* Pic 1939a:17 [**ab.**]  
*Fossicolles* Marseul, 1879:67 [incorrect alternate spelling of *Bifossicolles* Marseul, see MARSEUL, 1879:187; 1887:353 as first reviser]  
*Liparoderus alutacea* Bonadona, 1958b:296 [incorrect spelling of *A. alutaceiceps* Pic, 1916]  
*Macrarthria* Erichson, 1839:307 [incorrect spelling of *Macratrria* Newman, 1838]  
*Mecynotarsus bison insignitus* Pic, 1907c:321 [**nomen nudum**]  
*Mecynotarsus serricornis* ab. *humeralis* Heberdey, 1942:470 [**ab.**]  
*Microhoria amata* Bonadona, in KOCHER, 1956:104 [**nomen nudum**, later described by BONADONA (1958b:291)]  
*Microhoria bicolor* Pic, in KOCHER, 1956:40 [incorrect spelling for *A. bicoloriceps* Pic, 1932]  
*Microhoria rubrofasciata* var. *ansata* Bonadona, 1954:277 [**infrasubspecific**]  
*Microhoria paykullii* var. *cobosi* Bonadona, 1954:280 [**infrasubspecific**]  
*Monocerus* Megerle von Mühlfeld, in DAHL, 1823:47 [**work unavailable: ICZN 1964, Opinion 710**] [name validated by VILLA & VILLA, 1833:20 (= *Notoxus* Geoffroy, 1762)]  
*Notoxus appendicinus* ab. *biconjunctus* Heberdey, 1936a:147 [**ab.**]  
*Notoxus appendicinus* ab. *conjunctus* Heberdey, 1936a:147 [**ab.**]  
*Notoxus appendicinus* ab. *csikii* Kaszab, 1956:167 [**ab.**]  
*Notoxus appendicinus* ab. *maculatus* Heberdey, 1936a:147 [**ab.**]  
*Notoxus appendicinus* ab. *semimaculatus* Heberdey, 1936a:147 [**ab.**]  
*Notoxus appendicinus* ab. *semiornatus* Heberdey, 1936a:147 [**ab.**]  
*Notoxus brachycerus* ab. *sesinoi* Luigioni, 1920:209 [**ab.**]  
*Notoxus cavifrons* ab. *biconjunctus* Heberdey, 1936a:150 [**ab.**]  
*Notoxus hirtus* ab. *biconjunctus* Heberdey, 1936a:158 [**ab.**]  
*Notoxus hirtus* var. *montanus* Heberdey, 1936a:159 [**infrasubspecific**]  
*Notoxus hirtus* var. *montanus* ab. *bimaculatus* Heberdey, 1936a:160 [**ab.**]

*Notoxus hirtus* var. *montanus* ab. *postornatus* Heberdey, 1936a:160 [ab.]  
*Notoxus hirtus* var. *montanus* ab. *subjunctus* Heberdey, 1936a:160 [ab.]  
*Notoxus hirtus* ab. *punctulatus* Heberdey, 1936a:158 [ab.]  
*Notoxus hirtus* ab. *subornatus* Heberdey, 1936a:158 [ab.]  
*Notoxus interruptus* Pic, 1917b:256 [nomen nudum]  
*Notoxus lancifer sedilloti* ab. *communis* Heberdey, 1936a:140 [ab.]  
*Notoxus mauritanicus mauritanicus* ab. *connexus* Heberdey, 1936a:152 [ab.]  
*Notoxus mauritanicus mauritanicus* ab. *semimaculatus* Heberdey, 1936a:152 [ab.]  
*Notoxus monoceros daimio* ab. *biconjunctus* Heberdey, 1936b:175 [ab.]  
*Notoxus monoceros daimio* ab. *tenuiornatus* Heberdey, 1936b:175 [ab.]  
*Notoxus monoceros elongatus* ab. *tenuijunctus* Heberdey, 1936b:173 [ab.]  
*Notoxus monoceros* ab. *interruptus* Rüschkamp, 1927:176 [ab.]  
*Notoxus monoceros* var. *achardi* Pic, 1931b:14 [infrasubspecific]  
*Notoxus monoceros monoceros* ab. *bimaculatus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *concolor* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *continuus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *ornatus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *semimaculatus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *tenuijunctus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros monoceros* ab. *tenuiornatus* Heberdey, 1936b:168 [ab.]  
*Notoxus monoceros* ab. *vavrae* Zoufal, 1926:49 [ab.]  
*Notoxus numidicus* ab. *theryi* Pic, 1939b:21 [ab.]  
*Notoxus rodriguii* Latreille, 1804:357 [incorrect original spelling]  
*Notoxus sareptanus* ab. *continuus* Heberdey, 1936b:161 [ab.]  
*Notoxus siculus* ab. *connexus* Heberdey, 1936a:155 [ab.]  
*Notoxus simulans* ab. *bimaculatus* Heberdey, 1936b:164 [ab.]  
*Notoxus simulans* ab. *femininus* Heberdey, 1935:305 [ab.]  
*Notoxus simulans* ab. *masculus* Heberdey, 1935:305 [ab.]  
*Notoxus simulans* ab. *obscurus* Heberdey, 1935:305 [ab.]  
*Notoxus slovakensis* Laco, 1929:3 [work unavailable, handwritten in Slovak]  
*Notoxus tetragraphus* Reitter, in PIC, 1896:178 [nomen nudum]  
*Notoxus trinotatus* ab. *achillei* Pic, 1937:75 [ab.]  
*Notoxus trifasciatus* form *fritschi* Roubal, 1936:267 [infrasubspecific]  
*Notoxus trifasciatus* ab. *unimaculatus* Marcu, 1957:532 [ab.]  
*Notoxus turbidus* Kejval & Nardi, in TELNOV, 2003:287 [nomen nudum]  
*Platyoria* Bonadona, 1952:234 [incorrect alternate spelling for *Platyhoria*, see BONADONA (1952:236); NARDI 2003:58, as first reviser]  
*Ochthenomus unifasciatus* var. *caucasicus* Baudi di Selve, in SCHNEIDER & LEDER (1878:251) [nomen nudum] [later described by BAUDI DI SELVE 1878:20]  
*Pseudohomaligus* Paulus, 1972:84 [no type species designated]  
*Spiniferes pliginiskyi* Reitter, in UHMANN (1985:187) [nomen nudum]

*Steriphodon alfieri* Pic, in ALFIERI, 1976:144 [**nomen nudum**]  
*Sticticomus* Pic, 1894b:42 [incorrect original spelling for *Stricticomus* Pic, see PIC  
(1894c:70) as first reviser]  
*Tomoderus impressicollis* Motschulsky, in REITTER (1884:258) [incorrect spelling  
for *A. compressicollis* Motschulsky, 1839]  
*Tomoderus serbicus* Reitter, in HEYDEN (1883:140) [**nomen nudum**]

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