Catalogue of type specimens of beetles (Coleoptera) deposited in the National Museum, Prague, Czech Republic*

Scarabaeoidea: Lucanidae and Passalidae

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Abstract. Type specimens from the collection of beetles (Coleoptera) deposited in the Department of Entomology, National Museum, Prague, are currently being catalogued. In this part of catalogue dealing with scarabaeoid families Lucanidae and Passalidae, we present information on types of Lucanidae (five taxa of Lucaninae, four taxa of Syndesinae), and Passalidae (one taxon of Aulacocyclinae, ten taxa of Passalinae). Passalids, all from Nickerls’ collection, were previously studied by August Ferdinand Kuwert; comments are given also on specimens of 12 taxa labelled as types incorrectly.

Key words. Catalogue, types, National Museum Prague, Scarabaeoidea, Lucanidae, Passalidae

Introduction

The Department of Entomology of the National Museum, Prague (NMP; NMPC when referring to the collection) holds an important collection of insects from all zoogeographical regions, including numerous species-group type specimens, whose number is estimated to be several tens of thousands (the majority of them belonging to Coleoptera), and the presence of some of them in the collection is still largely unknown. Following the International Code of Zoological Nomenclature which encourages institutions to catalogue and make accessible the type material under their care (ICZN 1999: Recommendation 72F), BEZDĚK & HÁJEK (2009)

* Catalogue of type specimens in NMPC, part 14
started with cataloguing types in the NMPC to improve the knowledge about the collections and provide information to the entomological community. This effort has already resulted in 14 parts, most of them devoted to beetle superfamily Scarabaeoidea (BEZDĚK & HAJEK 2009, 2010a,b, 2011, 2012, 2013), other Coleoptera families (e.g. BATELKA & HAJEK 2015), as well as Polynoeoptera (MACHÁČKOVÁ & FIKÁČEK 2014), Hemiptera: Heteroptera (e.g. KMENT et al. 2015) and Sternorrhyncha (MALENOVSKÝ et al. 2016), and Diptera (TKOČ et al. 2014). The present part deals with two scarabaeoid families, Lucanidae and Passalidae. Along with the paper, photos of most types and a copies of their original descriptions are available on request.

As in the previous parts, we present brief information about the most important collections/specialists mentioned in the catalogue:

Types from the collection of David Král (born 1959) comprise the complete type material (70 holotypes and 445 paratypes) from the collection of this Czech specialist on Scarabaeoidea. Most lucanids mentioned in this catalogue were described by D. Král himself.

The collection of František Antonín Nickerl (1813–1871), Otakar Nickerl sen. (1838–1920) and Otakar Nickerl jun. (1873–1904) represents one of the oldest and largest collections in the NMP. It is important as it contains a number of types from the 19th century, Nickerl’s active communications, exchanges and purchases of material brought; the most important part for the present catalogue are Passalidae types of German entomologist August Ferdinand Kuwert (1828–1894), who participated in scientific treatment of Nickerl’s collection.

KUWERT (1890, 1891, 1896, 1897, 1898a,b) described the largest number of taxa in the family Passalidae: more than 400 species, and numerous higher taxa from genera to superfamilies. Kuwert also studied material from various European public institutions and private collections including Nickerls’ collection examined here. He established a considerable personal collection of passalids for his time. After his death in 1894, his collection was acquired by René Oberthür (Rennes, France), then by the Muséum national d’Histoire naturelle, Paris (MNHN), where it was transferred definitively in 1952.

However, there are at least two notable technical problems in the otherwise impressive work of Kuwert on passalids. 1) His main piece – Die Passaliden dichotomisch Bearbeitet (KUWERT 1896, 1897, 1898a,b) was published posthumously in Novitates Zoologicae in London by W. Rothschild, E. Hartert and K. Jordan. Despite the valuable contribution of these editors, numerous mistakes were not corrected. Moreover, the voluminous manuscript, written in somewhat complicated German, did not facilitate the task of the English-speaking publishers. Some of these aspects on Kuwert’s monography were discussed in a general way, in particular in Jordan’s preface in KUWERT (1896), and by GRAVELY (1914, 1918) and BOUCHER (2006). 2) There is an unusual characteristic of Kuwert’s types. Most of them are in his collection and almost all have a handwritten label following the same method: a large rectangular label, one kind of thin white paper, clearly written with black ink, with the name of species (usually without genus name), followed by his author (nearly always abbreviated ‘Kuw.’), and one or several locality(ies) of origin. However, specimens studied and identified by Kuwert in other collections sometimes contain, on the identification label, the word ‘type’, by Kuwert. Yet, these specimens are not types, because the number of specimens and/or information on labels do not correspond with the original descriptions. In reality, the note ‘type’ means ‘compared with type’ in the Kuwert’s approach. This confusing fact was shown in various species of the American genus Veturius Kaup, 1871 (see BOUCHER 2006). It is thus essential, in studying
identifications by Kuwert, to recognize the specimens with accuracy and to compare them in detail with the successive descriptions of taxa by the author. Moreover, it is rather frequent to find confusions, inconsistencies and/or corrections by Kuwert concerning the geographical origin of his samples, including types.

Here, specimens of 11 of the 23 species of passalids labelled as ‘types’, in Nickerls’ collection, are considered syntypes. These 11 species in Nickerls’ collection were described by Kuwert in 1891. Consequently, it would seem that Kuwert studied the collection only once. The species are from Asia and America and belong to various tribes. Among recognized syntypes there is no taxon from Africa or Madagascar.

Material and methods

The classification of Scarabaeoidea used in this catalogue follows Bouchard et al. (2011). Higher classification of the family Lucanidae is adopted from Huang & Chen (2013a) and that of Passalidae follows Boucher (2006).

Within each subfamily, genera and species are arranged alphabetically. Each entry includes:

– the name of the taxon in original combination.
– the name of the taxon in original combination and spelling, with the author and year of description. Pagination, figures and plates are also given.
– the name-bearing type, number of specimens (including sex if known) and exact label data. Our remarks are found in square brackets: [p] – preceding data are printed, [hw] – preceding data are handwritten. Separate labels are indicated by a double slash ‘//’ and lines within each label are separated by a slash ‘/’.
– the current taxonomic status.
– any taxonomic problems and inconsistencies are mentioned under Remarks.

Full reference to each publication can be found in References.

The total body length of passalid specimens was measured as complementary information helping in identification of possible type specimens. The length was taken from the anterior border of evaginated labrum (or possibly from the apex of mandibles according to the literature) to the apex of elytra.

Catalogue

Lucanidae
Lucaninae

Dorcus prochazkai Schenk, 2003

Dorcus prochazkai Schenk, 2003: 17, Figs 9a, b.

One paratype is deposited in NMPC (ex coll. D. Král).


Current status. Valid species.
**Eurytrachelus mencius** Kriesche, 1935


One paratype is deposited in NMPC (general collection).


**Current status.** *Dorcus mencius* (Kriesche, 1935), see, e.g. Huang & Chen (2013b).

**Lucanus szetschuanicus** Hanuš, 1932


Two syntypes are deposited in NMPC (general collection).

**Syntype (♂):** ‘Giufu-Shan / Szechuan / Em. Reitter [p] // Lucanus / szechwanensis Hanuš / n. sp. ♂ [hw].’

**Syntype (♀):** ‘Giufu-Shan / Szechuan / Em. Reitter [p] // szetschwanensis / Hanuš [p].’

**Current status.** Valid species.

**Lucanus (Pseudolucanus) xerxes** Král, 2004


The holotype and one paratype are deposited in NMPC (ex coll. D. Král).


**Paratype (♂):** ‘IRAN - prov. Fars, 2. VII. 2001 / Fort Setif mt., 2600 m / 10 km S.W. f Dast-e-Arzhan / 29.34.57N, 51.55.03E / lgt. M. Kalabza [p] // Pseudolucanus / xerxes sp. nov. ♂ / PARATYPUS No. 32 / David Král det. 2004 [p, red label].’

**Current status.** *Lucanus xerxes* Král, 2004, see, e.g. Bartolozzi et al. (2016).

**Sphaenognathus lindenii** Murray, 1857

*Sphaenognathus Lindenii* Murray, 1857: 222, Pl. III, Figs 1, 1a, 1b, 2, 2a, 2b.

*Sphaenognathus Lindenii* Murray, 1858: 209, Pl. X, Figs 1, 1a, 1b, 2, 2a, 2b.

One paralectotype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** Murray published the article with description of *S. lindenii* nearly simultaneously in two different journals (Murray 1857, 1858). The description was based on an unsta¬ted number of specimens of both sexes. Murray had numerous specimens at his disposal (Murray 1857: 225); he supplied some of them to other entomologists (Murray 1857: 222). The designation of lectotype was published by Chalumeau & Brochier (2007). Because there is no doubt about the authenticity of the specimen housed in NMPC, we consider it an additional paralectotype.
Syndesinae

**Ceruchus katerinae Král, 1995**


The holotype and one paratype are deposited in NMPC (ex coll. D. Král):


**Current status.** *Ceruchus katerinae katerinae* Král, 1995, see Li (2015).

**Ceruchus niger Boucher & Král, 1997**

*Ceruchus niger* Boucher & Král, 1997: 42, Figs 5, 12, 17, 19, 29–31, 38, 43, 47.

Three paratypes are deposited in NMPC (ex coll. D. Král).

**Paratype (♂):** ‘YUNNAN 3800-4600 m / 27.19N 100.08E / HABASHAN mts. / E slope 15/7.92 / David Král leg. [p] // Ceruchus / niger sp. n. / PARATYPUS / S. Boucher & D. Král det. 1997 [p, red label]’.

**Paratype (♀):** ‘YUNNAN, 3500 m / 27.10N 100.13E / YULONGSHAN mts. / 16.-19. 6. 1993, V. Kubáň [hw] // Ceruchus / niger sp. n. / PARATYPUS / S. Boucher & D. Král det. 1997 [p, red label]’.


**Current status.** Valid species.

**Ceruchus reginae Boucher & Král, 1997**

*Ceruchus reginae* Boucher & Král, 1997: 44, Figs 7, 11, 18, 20, 34.

The holotype is deposited in NMPC (ex coll. D. Král).


**Current status.** Valid species.

**Sinodendron yunnanense Král, 1994**

*Sinodendron yunnanense* Král, 1994: 48, Figs 1, 4–6.

The holotype and one paratype are deposited in NMPC (ex coll. D. Král).


**Current status.** Valid species.
Passalidae

Aulacocyclinae

*Aulacocylus glabriusculus* Kuwert, 1891


One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** This specimen belongs to the same series as the specimens also labelled ‘C. Ribbe 1883’ in Kuwert’s collection.

Passalinae: Leptaulacini

*Leptaulax ribbei* Kuwert, 1891

*Leptaulax ribbei* Kuwert, 1891: 188.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** The locality and total length of the syntype (20 mm) do not correspond with the data in the original description: ‘Süd-Celebes’ and 16 mm. However, Kuwert (1898b) corrected length of this species to 20–21 mm. Because the specimen from NMPC is conspecific with syntypes from Kuwert’s collection, fits with primary description, and bears identification label written by Kuwert himself, we consider it a member of the original type series. Its locality label seems to be erroneous.

Passalinae: Macrolinini

*Aceraius ceylonicus* Kuwert, 1891

*Aceraius ceylonicus* Kuwert, 1891: 163.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** The locality of this syntype does not agree with the original description, which is ‘Ceylon’. Later on, Kuwert (1898b) indicated distribution of this species as ‘Ceylon, Sikkim’. According to the current knowledge, the species is distributed in Sikkim, but not in Ceylon.
(ZANG 1905, GRAVELY 1914). The specimen in NMPC belongs to the same species as the one in Kuwert’s collection in MNHN. Both specimens have the length as given in the original description, and with the same handwritten label ‘Helfer’. There is no doubt that the original locality has been corrected by Kuwert, and that both specimens form the type series. Johann Wilhelm Helfer (1810–1840), an employee of the British East India Company, collected both in northeastern India and Tenasserim, but not in Ceylon. The mislabelling of the specimen might have happened after Helfer’s sudden death in Andaman Islands in 1840, and the re-location of his collection to Europe.

**Aceraius helferi** Kuwert, 1891

_Aceraius helferi_ Kuwert, 1891: 163.

Two syntypes are deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** The localities of these syntypes do not agree completely with the original type locality, which is ‘Tenasserim, Philippinen ?’. Later on, KUWERT (1898b) indicated only ‘Tenasserim’. Indeed, the species is distributed from Tenasserim up to Indochina, but not in the Philippines. Specimens in NMPC belong to the same species as the ones in Kuwert’s collection. All of them have the length as given in the original description, and certainly they come from the same series as the specimen with a handwritten label ‘Helfer’ in Kuwert’s collection (see also remark under _A. ceylonicus_ for explanation of the mislabelling of the specimens).

**Aceraius hirsutus** Kuwert, 1891

_Aceraius hirsutus_ Kuwert, 1891: 163.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Valid species.

**Remark.** Kuwert frequently mixed the localities Tenasserim and Sikkim. KUWERT (1891) indicated only ‘Sikkim’, and KUWERT (1898b) ‘Sikkim, Assam, Burma’. The species is known from all three of these territories (GRAVELY 1914, HINCKS & DIBB 1935). The specimen from NMPC belongs to the same species as specimens in Kuwert’s collection. All of them are somewhat larger than stated in the original description but they certainly came from the same original series labelled ‘Helfer’ (see remark under _A. ceylonicus_ for explanation of the mislabelling of the specimens).
**Basilianus interrogationis Kuwert, 1891**

_Basilianus interrogationis_ Kuwert, 1891: 164.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Junior subjective synonym of _Ophrygonius cantori_ (Percheron, 1844), see e.g. Hincks & Dibb (1935).

**Remark.** The locality of the syntype does not agree exactly with the original type locality, which is ‘Sikkim’. However, we follow the same principle as in the previous species, _A. hirsutus_. The specimen in NMPC belongs to the same species as specimens in Kuwert’s collection. All of them have the length as in the original description, and certainly they came from the same series as the specimen from ‘Helfer’ in the Kuwert’s collection.

**Gonatas major Kuwert, 1891**

_Gonatas major_ Kuwert, 1891: 169.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Junior subjective synonym of _Gonatas schellongi_ Kuwert, 1891, see e.g. Hincks & Dibb (1935).

**Remark.** This specimen belongs to the same species as the one in Kuwert’s collection in MHNN, also from Aru Isl. Its total length corresponds to the original description. All the specimens identified by Kuwert seem to come from the same series.

**Passalinae: Passalini**

**Neleuops rhodocanthopoides Kuwert, 1891**

_Neleuops rhodocanthopoides_ Kuwert, 1891: 179.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** _Scalmus rhodocanthopoides_ (Kuwert, 1891), see Boucher (2015).
**Pertinax minutissimus Kuwert, 1891**

_Pertinax minutissimus_ Kuwert, 1891: 178.

One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** _Passalus minutissimus_ (Kuwert, 1891), see Boučker (2015). This species from southeastern South America does not belong to _Pertinax_ Kaup, 1869 sensu Boučker (2015) and is temporarily kept in _Passalus_ Fabricius, 1792 sensu lato.

**Remark.** The specimen of this rare species is conspecific with the specimen identified by Kuwert in his collection. As the number of specimens is not indicated in the original description, we consider this one a syntype, although it does not bear Kuwert’s handwritten original label.

**Passalinae: Proculini**

**Veturius criniceps Kuwert, 1891**


One syntype is deposited in NMPC (ex coll. Nickerl).


**Current status.** Junior subjective synonym of _Veturius (Ouayana) cirratus_ Bates, 1886, see Boučker (2006).

**Remark.** The type locality is erroneous; the species is distributed from southern Central America to northern Andes (Boučker 2006).

**Veturius tuberculifrons Kuwert, 1891**


One paralectotype is deposited in NMPC (ex coll. Nickerl).


**Current status.** _Veturius (Veturius) tuberculifrons_ Kuwert, 1891, see Boučker (2006).

**Remark.** As in the case of _V. criniceps_, the type locality is erroneous. _Veturius tuberculifrons_ is restricted to Central America (Boučker 2006). The designation of lectotype was published by Boučker (1988). Because there is no doubt about the authenticity of the specimen housed in NMPC, we consider it an additional paralectotype.
Notes on other specimens identified by Kuwert which are not considered primary types

In Nickerls’ collection, there are specimens of twelve Kuwert’s species supposed to be identified by Kuwert himself, but they are not considered types.

Passalidae
Aulacocyclinae: Aulacocyclini

*Aulacocyclus parreyi var. aruensis* Kuwert, 1891


**Remark.** The length of this specimen (21 mm) is much smaller than indicated in the primary description (Kuwert 1891). Moreover, this specimen seems not to be conspecific with the true syntype from Kuwert’s collection.

Passalinae: Passalini

*Neleus carinaefrons* Kuwert, 1891

One unsexed specimen: ‘N. carinaefrons / Kuwert typ / 27 [hw Nickerl]’.

**Remark.** The specimen without a locality label could be the one of the length of 32 mm cited by Kuwert (1898b). However, Kuwert (1891) stated the length of this species to be 37 mm and the type locality ‘Mérida, Caucasthal’, which corresponded to the specimen in Kuwert’s collection only. This species belongs to *Passalus* sensu Boucher (2015) and is currently a junior subjective synonym of *P. punctiger* Le Peletier & Serville, 1825.

*Neleus tlascala var.? chilensis* Kuwert, 1891


**Remark.** This specimen, with no label by Kuwert, probably belongs to the same species as the specimen identified by Kuwert himself in his collection. Nevertheless, it is not considered a syntype, because Kuwert (1891) stated the length of this species to be 41 mm (the above mentioned specimen is slightly smaller, 40 mm) and the type locality ‘Chili’, which corresponded to the specimen in Kuwert’s collection only. The species is a *Passalus* sensu Boucher (2015) and is currently a junior subjective synonym of *P. punctiger* Le Peletier & Serville 1825.
Rhodocanthopus glabrior Kuwert, 1891

Rhodocanthopus glabrior Kuwert, 1891: 181.


Remark. This specimen has identification labels with indications which do not correspond to the original description – the species was described as a separate species, not as a variety. Moreover, there is no locality on the label handwritten by Kuwert. It belongs to the same species as the specimen in Kuwert’s collection with the origin ‘Caucasthal’ – the same spelling is used also in the original description. This species is currently valid as Epipleurothrix glabrior (Kuwert), since Boucher’s (2015) redefinition of the genus Epipleurothrix Zang, 1905.

Passalinae: Solenocyclini

Didimus latro Kuwert, 1891

Didimus latro Kuwert, 1891: 191.


Remark. These specimens bear no label from Kuwert, moreover they are smaller (body length 19–20 mm) than indicated in the primary description. Type locality is also different (‘Ashante’).

Eumelosomus wissmanni Kuwert, 1891

Eumelosomus wissmanni Kuwert, 1891: 190.


Remark. This specimen, with no label from Kuwert, does not correspond to the original description, and also the type locality is different (‘Ashante’). Moreover, E. wissmanni is currently classified as distinct species within the genus Didimus Kaup, 1871, while the specimen from Nickerls’ collection belongs to Didimus africanus (Percheron, 1844).

Passalinae: Leptaulacini

Leptaulax aurivillii Kuwert, 1891

Leptaulax aurivillii Kuwert, 1891: 189.


Remark. This Leptaulax specimen is different (although very near) from the specimens in Kuwert’s collection. It differs in total body length (22 mm) and locality label. Syntypes in
Kuwert’s collection fit original description including body length (24 mm) and type localities ‘Assam’ and ‘Old Calabar’. Exceptionally, one of these syntypes bears the indication ‘Type’ handwritten by Kuwert.

**Leptaulax separandus Kuwert, 1891**

Leptaulax separandus Kuwert, 1891: 190.


**Remark.** This *Leptaulax* specimen is conspecific with the type from Kuwert’s collection, but it is smaller (body length 25 mm) than indicated in the primary description (27 mm).

**Stephanocephalus cazicus Kuwert, 1891**

Stephanocephalus cazicus Kuwert, 1891: 188.


**Remark.** Kuwert (1891: 188) clearly stated that this species was described according to only one specimen: ‘Nur 1 Stück’. The above mentioned specimen is somewhat smaller (17 mm) than indicated in the primary description and is not conspecific with the holotype in Kuwert’s collection. This species was transferred to *Leptaulax* by Kuwert (1898b), then to *Stephanocephalus* (Hincks & Dibb 1935), and finally back to *Leptaulax*. The type locality was identified as erroneous and replaced by an undetermined Asiatic region (see Boucher 1989). The current status of the species within *Leptaulax* remains to be clarified.

**Stephanocephalus stellaris var.? colombinus Kuwert, 1891**

Stephanocephalus stellaris var.? colombinus Kuwert, 1891: 188.


**Remark.** This specimen is not conspecific with the type from Kuwert’s collection and it does not correspond to the original description, which indicates a total length of 23 mm (the above mentioned specimen is smaller, 20.5 mm) and the type locality ‘Columbia’. The taxon has been listed within *Stephanocephalus* Kaup, 1869 – the incertae sedis group of the family Passalidae (Hincks & Dibb 1935), then it was transferred to *Leptaulax* Kaup, 1868. Its type locality was identified as erroneous and replaced by an undetermined Asiatic region (see Boucher 1989). The current status of the species within *Leptaulax* remains to be clarified.

**Passalinae: Macrolinini**

**Aceraius meyeri Kuwert, 1891**

Aceraius meyeri Kuwert, 1891: 163.


**Remark.** This is an immature specimen, with no label from Kuwert. It does not correspond to the original description, which states a total length of 35 mm (the above mentioned specimen
is smaller, 32 mm) and the type locality ‘Singapore (Java? Borneo?)’. The true syntype in Kuwert’s collection in MNHN is 35 mm long and labelled ‘Singapore’. *Aceraius meyeri* is currently a junior subjective synonym of *A. laevicollis* (Illiger, 1800).

**Episphenoides muelleri** Kuwert, 1891

*Episphenoides muelleri* Kuwert, 1891: 165.


**Remark.** Both specimens have no label from Kuwert. They do not correspond to the original description, which indicates a total length of 45 mm (the above mentioned specimens are smaller, 42 mm), moreover, they are not conspecific with the syntype from Kuwert’s collection in MNHN. Kuwert’s syntype in MNHN fits well the primary description including the total length of the specimen. *Episphenoides muelleri* is currently a junior subjective synonym of *Mastochilus australasicus* (Percheron, 1841).

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