



<http://dx.doi.org/10.11646/zootaxa.3941.3.3>

<http://zoobank.org/urn:lsid:zoobank.org:pub:63124E91-5887-4F87-A995-01F079309B44>

A review of species of the genus *Apalochrus* Erichson (Coleoptera, Malachiidae)

SERGEI E. TSHERNYSHEV

Institute of Systematics and Ecology of Animal, Siberian Branch of the Russian Academy of Sciences, Frunze Street, 11, Novosibirsk 630091, Russia. E-mail: sch-sch@mail.ru

Abstract

The genus *Apalochrus* Erichson, 1840 (Coleoptera, Cleroidea, Malachiidae) is revised. All seven species and subspecies of the genus have been discussed and described, all materials studied have been listed and the known distributions reported. Figures of male habitus, genitalia, and distribution map are supplied; a determination key is also provided. One new status and two new synonymies are proposed: *A. femoralis pallipes* Motschulsky, 1860 **stat. n.**; *A. flavicornis* Abeille de Perrin, 1890 = *A. femoralis pallipes* Motschulsky, 1860 **syn. n.** and *A. notatus mongolicus* Evers, 1968 = *A. notatus* (Zoubkoff, 1833) **syn. n.**

Key words: Coleoptera, Cleroidea, Malachiidae, *Apalochrus*, new synonymy, new locality, Central Asia, China, Russia

Introduction

The genus *Apalochrus* was established by Erichson, in 1840, without designation of a type species (Erichson, 1840). It included many soft-winged flower beetles, often with indistinct male secondary sexual characters but sometimes with serrate (or flabellate) male antennae or with a comb on males' anterior tarsi. It was a non-natural, heterogeneous group, likely to undergo future splittings. Nineteen years later, Thompson (1859) designated *Apalochrus femoralis* Erichson, 1840, as type species (see Mayor 2003).

Unaware of that, Abeille de Perrin (1891) proposed a separate genus, *Paratinus*, for six species of *Apalochrus*: *P. femoralis* (Erichson), *P. flavicornis* (Abeille de Perrin), *P. pallipes* (Motschulsky), *P. flavicollis* (Schaufuss), *P. fulvicollis* (Gebler) and *P. notatus* (Zoubkoff). The main diagnostic characters for *Paratinus* were monochrome elytra and male anterior tarsi simple (second article lacking comb).

Many years later, Evers (1987), unaware of the Thompson paper, designated *Apalochrus azureus* Erichson, 1840 as type species of *Apalochrus*, so including in this genus all tropical representatives with modified male tibiae.

Eventually it was Mayor (2003) who, taking into account the Thompson designation, recognized *Paratinus* as a junior objective synonym of *Apalochrus*; as a consequence all the species belonging to *Paratinus* Abeille were transferred to *Apalochrus* Erichson (see Mayor 2007: 416): *A. femoralis* Erichson 1840, *A. flavicollis* Schaufuss 1870, *A. flavicornis* Abeille de Perrin, 1890, *A. notatithorax* Pic, 1937, *A. notaticollis* Solsky, 1882, *A. turkestanicus* Pic, 1907, *Malachius fulvicollis* Gebler, 1845, *M. notatus* Zoubkoff, 1833, *A. notatus mongolicus* Evers, 1968, and *A. pallipes* Motschulsky, 1860.

The list of species and main characters for *Apalochrus* being now clear, a few problems remained. The taxonomic status of *A. pallipes*, *A. notatithorax*, and *A. turkestanicus* is unclear; characters allowing differentiation of *A. femoralis* from *A. flavicornis* are uncertain and distribution of all species is not well defined; Furthermore, *Apalochrus* species being rather homogeneous due to absence of secondary sexual male characters, a detailed re-description of each species has been thought advisable and is presented below.

I am also indebted with Dr Darren Pollock (Eastern New Mexico University) who did a linguistic revision of the English text. This study was supported by the Federal Fundamental Scientific Research Programme for 2013–2020, project no. VI.51.1.7.

References

- Abeille de Perrin, E. (1890) Études sur les Malachides. *Revue d'Entomologie*, 9, 35–55.
- Abeille de Perrin, E. (1891) Malachiidae. Malachides d'Europe et pays voisins. *Annales de la Société Entomologique de France*, 60, 115–230, 405–446, plates 6–7.
- Erichson, W.F. (1840) Entomographien, Untersuchungen in dem Gebiete der Entomologie, mit besonderer Benutzung der Königl. Sammlung zu Berlin, Erstes Heft, III Die Malachien, 44–134.
- Evers, A.M.J. (1968) Malachiidae aus der Mongolei. Ergebnisse der Mongolisch-Deutschen Biologischen Expeditionen seit 1962, Nr. 37. (40. Beitrag zur Kenntnis der Malachiidae). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 44, 123–124.
<http://dx.doi.org/10.5962/bhl.title.47509>
- Evers, A.M.J. (1987) Synopsis der Gattung *Apalochrus* Er. und der verwandten Gattungen der Welt (Col., Malachiidae). 63. Beitrag zur Kenntnis der Malachiidae. *Annalen Zoologische Wissenschaften*, 253, 1–73.
- Fery H. & Petrov P.N. (2005) Nomenclatural, taxonomic, and faunistic notes on selected species of *Hydroporus* Clairville, 1806 (Coleoptera: Dytiscidae). *Russian Entomological Journal*, 14 (4), 251–262.
- Gebler, F.A. von (1845) Charakteristik der von Hr. Schrenk in den Jahren 1841–1843 in den Steppen der Dsungarei gefundenen neuen Coleopterenarten. *Bulletin de la Academie Impériale des Sciences de St.-Petersbourg, Classe Physico-Mathématique*, Series 2, 3, 97–106.
- Gebler, F.A. von (1860) Verzeichniss der von Herrn Dr. Schrenk in den Kreisen Ajagus und Kakaraly in östlichen Kirgisiensteppe und in der Songarey in den Jahren 1840 bis 1843 gefundenen Käferarten. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 33 (2), 1–39.
- Greiner, J. (1937) Pars 159. Malachiidae. In: Schenkling, S. (Ed.), *Coleopterorum Catalogus*, W. Junk, Berlin, 199 pp.
- ICZN (International Commission on zoological Nomenclature) (1999) *International Code of Zoological Nomenclature*. 4th Edition. The International Trust for Zoological Nomenclature c/o The Natural History Museum, London, 306 pp.
- Mayor A.J. (2003) Nomenclatorial corrections for Dasytidae and Malachiidae (Coleoptera). *Insecta Mundi*, 17 (1–2), 85–96.
- Mayor, A.J. (2007) Family Malachiidae Fleming, 1821. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 4*. Apollo Books, Stenstrup, pp. 415–454.
- Motschulsky, V. de (1860) Coléoptères de la Sibérie orientale et en particulier des rives de l'Amour. *Schrenck, Reisen und Forschungen im Amurlände*, 2, 77–257, 6 plates, 2 color, 1 map. [St. Petersburg]
- Peyron, E. (1877) Étude sur les Malachiides d'Europe et du bassin de la Méditerranée. M. de Marseille, Paris, 312 pp.
- Pic, M. (1907) Coléoptères paléarctiques nouveaux. *L'Échange, Revue Linnéenne*, 23, 97–100.
- Pic, M. (1936a) Nouveaux Coléoptères paléarctiques. *L'Échange, Revue Linnéenne, hors-texte*, 51 (463), 1–4.
- Reitter, E. (1889) Neue Coleopteren aus Europa, den angrenzenden Ländern und Sibirien, mit Bemerkungen über bekannte Arten. Siebenter Theil. *Deutsche Entomologische Zeitschrift*, 33, 273–288.
- Schaufuss, L.W. (1872) Phosphaenopterus. Nov. gen. Malacodermata. *Entomologische Zeitung (Stettin)*, 28, 81–86.
- Silverageim, G.K. (1852) Kirgizskaya steppe of West Siberia. *Voenna-strategicheskoe obozrenie Rossiiskoi Imperii*, XVII (3), Saint-Petersburg: Departament Generalnogo Shtaba, 74, 3 plates. [in Russian]
- Solsky, S.M. de. (1872) Matériaux pour l'entomologie de la Russie. *Horae Societatis Entomologicae Rossicae (1871)*, 8, 177–186.
- Solsky, S.M. de. (1882) Neue und wenig bekannte Käfer des russischen Reiches und seiner angrenzenden Länder. *Trudy Societatis Entomologicae Rossicae (1881–82)*, 13, 31–84.
- Thomson, C.G. (1859) Skandinavien Coleoptera, synoptiskt bearbetade. Vol.I. Lund. 290 pp.
- Vorbringer, G. (1910) Sammelbericht aus Ostpreussen für das Jahr 1909 (Col.). *Deutsche Entomologische Zeitschrift*, 54 (5), 576–577.
- Wewalka G. (1992) Revisional notes on Palaearctic species of the *Hydroporus planus* group (Coleoptera: Dytiscidae). *Koleopterologische Rundschau*, 62, 47–60.
- Zubkov (=Zoubkoff), B. (1833) Nouveaux coleopteres recueillis en Turcmenie. *Bulletin de la Societe Imperiale des Naturalistes de Moscou*, 6, 310–340.