# Psammodiini (Coleoptera: Scarabaeidae: Aphodiinae): Supplementary contributions to the first and second editions of the Catalogue of Palaearctic Coleoptera

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**Abstract.** Explanations are provided, concerning changes in information on Psammodiini (Coleoptera: Scarabaeidae: Aphodiinae) in the second edition of the Catalogue of Palaearctic Coleoptera (the manuscript of which is supposed to go to press) compared to the first edition (which appeared in 2006). These are data, which cannot be detailed in the Catalogue itself because of the obligatory structure of the Catalogue text. Some omissions, misprints or other errors are corrected. Recently published records are added. New distributional data resulting from the study of material deposited in private as well as institutional collections are included.

#### INTRODUCTION

The authors of the work presented here participated in the previous compilation of data about the distribution of Psammodiini for the first edition of the Catalogue of Palaearctic Coleoptera (Rakovič et al. 2006). They were recently asked by the editors to compile a new updated text for the second edition of the Catalogue (Löbl & Löbl in press). Of course, due to the comprehensive nature of the Catalogue dealing with all the groups of Coleoptera, in the text for the second edition, it is furthermore necessary to continue in adhering to the general concise structure (using of distributional data on the occurrence of particular species in individual countries and avoiding more detailed information). On the other hand, further explanatory notes are very useful and desirable, and that is why the authors decided to summarize them here.

For this purpose, and having in mind the clearness and compatibility with the Catalogue, the consideration of the taxa in the text below is arranged in the same order as in the Catalogue, with omitting species, for which no supplementary and/or explanatory data or corrections were necessary, but with including species for which interesting material has been studied by the present authors.

#### MATERIAL AND METHODS

The compilation of data on particular species was based on the literature available. Further data were obtained by studying materials kept in the following collections (curators are in parentheses):

DKCP David Král collection, deposited in NMPC;

IRSN Institut royal des Sciences naturelles de Belgique, Brussels, Belgium (Alain Drumont);

LMCT Ladislav Mencl private collection, Týnec nad Labem, Czech Republic;

MRCD Miloslav Rakovič private collection, Dobřichovice, Czech Republic;

NMHB Naturhistorisches Museum, Basel, Switzerland († Michel Brancucci, Matthias Bohrer);

NMPC National Museum, Prague, Czech Republic (Jiří Hájek);

ZFMK Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany (Dirk Ahrens).

The abbreviations and literature sources are quoted below for each particular species. The distributional data on particular species are in agreement with those presented in the expected second edition of the Catalogue (Rakovič et al. in press), unless otherwise mentioned (for example as to the use of geographic terms Crimea or Uttarakhand).

Remarks of the authors and comments are indicated in brackets.

#### LIST OF TAXA CONCERNED

# tribe Psammodiini Mulsant, 1842 subtribe Psammodiina Mulsant, 1842 genus *Brindalus* Landin, 1960 *Brindalus porcicollis* (Illiger, 1803)

**Distribution.** Europe: Albania, Azores, France, Great Britain, Greece, Italy, Malta, Montenegro, Portugal, Spain; North Africa: Algeria, Canary Islands, Egypt, Libya, Morocco, Tunisia; Asia: Israel, Cyprus, Lebanon, Syria, Turkey.

**Notes.** For the second edition of the Catalogue, we decided to add Albania (mentioned by Pittino 1980a), Cyprus (mentioned by Ziani 1997), Montenegro (mentioned by Ziani et al. 2015) and to delete Austria which was formerly considered probably based on incorrect locality data as suggested by Pittino (1980a). It is to note that the occurrence in Egypt is not mentioned by Pittino 1980a, but is considered by Baraud (1985). Pittino (1980a) also did not mention Great Britain and Italy, but Great Britain is mentioned by Horion (1958) and particularly in a more recent and detailed faunistic work by Mann & Booth (2000); Italy is mentioned by Baraud (1992) and also (from circumsardinian islands) by Carpaneto et al. (1997); on the other hand, we have not checked any specimens from Italy and a possibility cannot be excluded that these findings actually concern *Brindalus rotundipennis* (Reitter, 1892). Israel is mentioned by Chikatunov & Pavlíček (1997).

# genus *Diastictus* Mulsant, 1842

# Diastictus vulneratus Sturm, 1805

**Distribution.** Europe: present in most West-, Central-, South- and East-European countries, north to Denmark and Baltic countries, south to Italy and Greece but absent in Spain and Portugal; Asia: West Siberia.

**Notes.** In the second edition of the Catalogue, an abbreviation will be corrected: BE (for Belgium) instead of BG. The occurrence in Slovakia will be supplemented (published for example by Juřena et al., 2008). Important accurate data were presented by Shokhin (2006, 2007) from southern Russia (Volgograd Region and Rostov Region). Horion (1958) also mentioned specimens from the Asian part of Russia (West Siberia, Barnaul).

# genus *Granulopsammodius* Rakovič, 1981

## Granulopsammodius loebli (Pittino, 1980)

Material examined. Algeria: El Goléa dune, 21.ii.1928, Mission du Hogar, compared with type, Det. R. Pittino, loebli m. det. R. Pittino 1982, 1 specimen in MRCD; Beni Abbes, 27.-28.iv.1987, sand dunes, David Král lgt., 1 specimen in DKCP;

Ain Sefra, 8.iv.1988, [O.] Kapler lgt., 1 specimen in DKCP. **Morocco:** Hamid, 96 km S of Zagora, 12.-13.vi.1996, Batelka & Podroužková lgt., 1 specimen in DKCP.

**Distribution.** A North-African species, so far known from Algeria and Tunisia (Baraud 1985, Pittino 1980b, Rakovič 1986, Rakovič et al. 2006). **First record from Morocco.** 

**Notes.** Due to the finding quoted in the above paragraph Material examined, Morocco will be added in the second edition of the Catalogue. The specimens from Algeria were included here in the paragraph Material examined in support of the occurrence of the species there.

#### Granulopsammodius plicatulus (Fairmaire, 1892)

**Material examined. Mauritania:** Ouadáne, old town, 20°56'N 11°37'W, 440 m, 18.x.2010, A. Reiter Igt. 1 specimen in MRCD, 3 in NMPC. **Oman:** Vadi Bani, Awf (Western Hajar Mts. near Rastaq), 23°17'N 57°25'E, 500 m, 7.iii.1987, M. D. Gallangher, 2 specimens in DKCP, several specimen in NHMB; Dhofar Prov., Qitbit resthouse, 19°10'N 54°30'E, 150 m, 24.iii.2012, under street lights, A. Reiter Igt., 1 specimen in NMPC. **Yemen, Suqutra:** Noged plain (sand dunes), Sharet Halma vill. env., 12°21.9'N 54°05.3'E, 20 m, 10.-11.xi.2010, Jiří Hájek Igt., 1 specimen in MRCD, 15 in NMPC.

**Distribution.** Widely distributed in the north-eastern part of the Afrotropical Region (Ethiopia, Djibouti, Somalia and Sudan), North Africa (Algeria, Egypt, Libya and Morocco) and the Arabian Peninsula from which it has been recorded so far from Saudi Arabia and Yemen (Baraud 1985, Pittino 1980a, 1984b; Rakovič 1978b, 1998; Rakovič et al. 2006). Based on the finding from Mauritania, within the framework of the Afrotropical Region, the species distribution continues from North Africa not only in south-east direction, but also in south-west direction, which is not surprising, when taking into account the presence of desert biotopes in North Africa and Mauritania. **First records from Oman and Mauritania.** 

**Notes.** The occurrence in Morocco and Saudi Arabia is omitted in the first edition of the Catalogue and will be thus supplemented in the second edition together with the occurrence in Oman (new to Oman, as shown above in the paragraph Material examined). Baraud (1982) also noted that the species can be expected in southern Tunisia, but this assumption has not yet been supported by any finding.

# Granulopsammodius sinicus (Rakovič, 1986)

Distribution. China.

**Notes.** Only the holotype is known and its locality label bears the name of the country only (Rakovič 1986). The species has not been collected since then and thus, more detailed specification of its occurrence is impossible.

# Granulopsammodius transcaspicus (Petrovitz, 1961)

**Distribution.** South Russia, Turkmenistan, Uzbekistan.

**Notes.** South-European territory of Russia will be added in the second edition of the Catalogue. The species was reported by Shokhin (2007) from the Astrakhan Region.

# genus Leiopsammodius Rakovič, 1981 Leiopsammodius aegialius Ádám, 1986

**Material examined. Turkey:** Antalya Prov., N of Çakiş vill., Köprüçay riv., 36°54'40"N 31°10'59"E, 17 m, 3.iii.2014, sandy bank, David Král Igt., 1 specimen in DKCP; Adana, Boettger, 1 specimen in NMPC.

**Distribution.** Asian part of Turkey.

**Note.** The species was described from Turkey, but its further finding in the country, as shown here in the paragraph Material examined, is quite interesting.

#### Leiopsammodius belloi (Pierotti, 1981)

Material examined. Greece: Thessalia, Kalambaka, 22.iv.1993, V. Skoupý lgt., 1 specimen in DKCP.

**Distribution.** Greece, Asian part of Turkey.

**Note.** The material examined is of interest, since it offers new faunistic data from the country, which was the species originally described from.

#### Leiopsammodius gestroi (Clouët des Pesruches, 1900)

**Material examined. India, Arunachal Pradesh:** Hunli vicinity, 28°19'32"N 95°57'31"E, 1300±100 m, 26.v.-1.vi.2012,flight intercept trap, L. Dembický lgt., 1 specimen in DKCP, 3 in ZFMK.

**Distribution.** Probably widely distributed in the Oriental Region and transition zone adhering to the Palaearctic Region. So far known from Myanmar, Cambodia, South Korea, Nepal, Uttarakhand, Pakistan and Afghanistan (Balthasar 1964, Kim 2012, Pittino 1979, Rakovič 1981, Rakovič & Král 1996, Rakovič et al. 2006). **First record from Arunachal Pradesh (India).** 

**Note.** Arunachal Pradesh will be added in the second edition of the Catalogue.

# Leiopsammodius indicus (Harold, 1877)

**Distribution.** Pakistan, Yemen (see the note below concerning a specimen labelled "Aden"), and Taiwan. Widely distributed in the Oriental Region as well as in the Afrotropical Region.

**Notes.** Omitted in the first edition. To be supplemented in the second edition, particularly based on data by Pittino (1984a), who pointed out the fact that he has not seen any specimen from Saudi Arabia, but examined an old specimen labelled "Aden" without further data; he considered that the occurrence in southern Arabian Peninsula "appears highly reliable, considering the wide distribution", but the record should be confirmed by further findings.

# Leiopsammodius laevicollis (Klug, 1845)

**Material examined. Oman:** Wadi Bani, Awf (Western Hajar Mts. near Rastaq), 23°17′N 57°25′E, 500 m, 7.iii.1987, M. G. Gallagher Igt., 3 specimen in DKCP, several specimens in NHMB.

**Distribution.** North Africa: Algeria, Egypt, Libya, Morocco, Tunisia; Asia: Israel, Oman, Saudi Arabia, Syria, Yemen; the Afrotropical Region (Sudan, East Africa, Zaire - cf. e.g. Pittino (1984a), Rakovič & Král (1996)). The species was surprisingly reported from South Korea by Kim (1987) ("... from the littoral sand dune of the east sea cost of Korea"), but the same author (Kim 2012) later advised that this was an individual found resulting from an introduction with a luggage or boat; we quite adhere to this explanation. **First record from Oman.** 

**Notes.** For reasons explained in the two preceding paragraphs, Oman will be added in the second edition of the Catalogue; South Korea will be omitted in agreement with Kim (2012).

#### Leiopsammodius nomurai Masumoto, 2012

**Distribution.** Taiwan (Kenting Park).

**Notes.** A species recently described by Masumoto in Masumoto et al. (2012). To be added in the second edition of the Catalogue.

#### Leiopsammodius pelluscens (Petrovitz, 1961)

**Distribution.** Pakistan, Saudi Arabia, the Oriental Region (East India).

**Notes.** Saudi Arabia reported by Pittino (1984a). Omitted in the first edition; to be added in the second edition of the Catalogue.

## genus Psammodius Fallén, 1807

#### Psammodius asper (Fabricius, 1775)

**Distribution.** Europe: Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Central-European territory of Russia, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Great Britain, Germany, Hungary, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Moldavia, Montenegro, Netherlands, Norway, North-European territory of Russia, Poland, Romania, Slovakia, Slovenia, South-European territory of Russia, Sweden, Switzerland, Ukraine; Asia: Iran, Kazakhstan, Mongolia, East Siberia, West Siberia. Valuable data from southern parts of Russia were relatively recently published by Shokhin (2007) who reported the species from the Volgograd Region, Rostov Region and Kalmykia. Shokhin et al. (2012) also mentioned it from Dagestan. Detailed information on the occurrence in Bohemia, Moravia, Slovakia and Transcarpathian Ukraine was summarized by Král & Vitner (1996).

**Notes.** The distribution of *Psammodius asper* is a very complicated problem due to the fact that data from some countries either are likely to concern or definitely concern different allied species. This was discussed by Pittino (2007) in the most recent comprehensive treatise on West-Palearctic *Psammodius* species. We decided to delete these countries (Serbia, Portugal, Spain, and European as well as Asian parts of Turkey) and, on the other hand, also based on information from the above mentioned work by Pittino (2007), to add Armenia, Azerbaijan, Moldavia, Montenegro and West Siberia in the second edition of the Catalogue.

#### Psammodius asperoides Pittino, 2007

Material examined. Bulgaria: Ograzhden Mts., Lebnica riv., 30.iv.1986, David Král lgt., 1 specimen in DKCP. Greece: Xanthi Prov., Gerakas env., 200 m, 12.iv.2003, K. Adamík & I. Boščík lgt., 3 specimens in DKCP

**Distribution.** Bulgaria, Greece.

**Notes.** A species relatively recently described by Pittino (2007) from Greece (Greek Macedonia and Thrace). From Bulgaria (Sandanski) reported by Minkina et al. (2014). To be added in the second edition of the Catalogue.

#### Psammodius basalis Mulsant & Rey, 1870

**Distribution.** Europe: Azores, Bulgaria, Crimea, France, Greece, Italy, Romania, South-European territory of Russia, Spain, Turkey, Ukraine; Asia: Cyprus; the Nearctic Region (introduced into Eastern US). Shokhin (2007) reported the species from the Krasnodar Region. Data on its occurrence in Cyprus come from Ziani (1997).

**Notes.** The South-European territory of Russia and Cyprus should be added in the second edition of the Catalogue.

#### Psammodius caucasicus Pittino & Shokhin, 2006

**Material examined. Georgia:** Mzcheta pr. Tbilisi, Aragwiufer, Hochwassergenist, 12.-13.vii.1987, Wrase & Schülke Igt., 3 specimens in DKCP; Chvishepse flum., 7.-9.vi.[19]79, [J.] Voříšek Igt., 1 specimen in DKCP.

**Distribution.** Georgia, South-European territory of Russia (North Ossetia, the Krasnodar Region, the Kabardino-Balkar Republic), Asian part of Turkey (north-eastern Anatolia).

**Notes.** A species recently described by Pittino & Shokhin (2006). To be added in the second edition of the Catalogue.

#### Psammodius danubialis Ádám, 1989

Material examined. Hungary: Fülepháza (SW env.), 3.-4.vii.2002, sands, Vít. Kubáň lgt., 2 specimens in DKCP.

**Distribution.** Austria, Hungary, Serbia, Slovakia. Records from Austria and Slovakia were published by Král (2006).

**Notes.** Described from Hungary and Serbia (Ádám 1998). The findings from other countries to be added in the second edition of the Catalogue.

#### Psammodius generosus Reitter, 1892

**Distribution.** Europe: Armenia, Azerbaijan, South-European territory of Russia; Asia: Kazakhstan, Turkmenistan, Uzbekistan. The occurrence in the South-European territory of Russia (Astrakhan, Kalmykia, Dagestan) was published by Shokhin (2007), in Azerbaijan (at the Caspian Sea) by Shokhin et al. (2014).

**Notes.** The occurrence in the South-European territory of Russia and in Azerbaijan will be added in the second edition of the Catalogue.

## Psammodius kobayashii Nomura, 1973

**Distribution.** Japan, Taiwan.

**Notes.** Psammodius kondoi Masumoto, 1984 was proposed by Masumoto et al. (2012) as a junior synonym of *P. kobayashii* Nomura, 1973. In the second edition of the Catalogue, the name *P. kondoi* will be thus removed from the list of valid *Psammodius* species and added as a synonym under *P. kobayashii*.

#### Psammodius laevipennis Costa, 1844

**Distribution.** Europe: Albania, Azerbaijan, Bosnia Herzegovina, Bulgaria, Croatia, France, Greece, Hungary, Italy, Macedonia, Portugal, Romania, Serbia, Slovakia, Slovenia, South-European territory of Russia, Spain, Turkey, Ukraine; North Africa: Algeria, Morocco, Tunisia; Asia: Cyprus, Israel, Jordan, Lebanon, Syria, Turkey; introduced into some eastern states of the USA. Cyprus was reported by Ziani (1997). Findings from Slovakia and also a location from Transcarpathian Ukraine were published by Král & Vitner (1996). Shokhin (2007) reported the species from the Volgograd Region, Rostov Region, Krasnodar Region and North Ossetia.

**Notes.** The occurrence in North Africa is supplemented based on Baraud (1985).

#### Psammodius macnamarae Pittino, 1984

**Distribution.** Nepal, N. India (Uttarakhand).

**Notes.** All the locations of the type material belonged to a part of Uttar Pradesh, which is currently an independent state of India referred to as Uttarakhand. In the second edition of the Catalogue, it is supposed to be furthermore denoted by the abbreviation UP. We believe that only this (mountainous) part of former whole Uttar Pradesh territory is inhabited by Palearctic insects.

#### Psammodius maruyamai Ochi, Kawahara & Inagaki, 2011

Distribution. Japan.

**Notes.** A species recently described by Ochi et al. (2011) from Japan (Tanegashima, Kyushu, Shikoku, W. Honshu); to be added in the second edition of the Catalogue.

#### Psammodius nocturnus Reitter, 1892

Distribution. Europe: Greece, Italy; North Africa: Algeria, Tunisia; Asia: Lebanon, Israel, Cyprus, Turkey.

**Notes.** The occurrence in all the countries mentioned in the preceding paragraph, except for Great Britain (erroneously added in the Vol. 4 of the Catalogue of Palaearctic Coleoptera (Löbl & Smetana 2007: 25)), was either verified or noted as new (Algeria and Greece) by Pittino (2007).

#### Psammodius pierottii Pittino, 1979

**Distribution.** Europe: Albania, Austria, France, Germany, Greece, Hungary, Italy, Slovakia, Spain, Switzerland, Turkey; North Africa: Algeria, Tunisia; introduced into the Eastern US.

**Notes.** Only countries reliably inhabited by the species according to Pittino (2007) are mentioned in the preceding paragraph and thus, in the second edition of the Catalogue, Turkey will be deleted and Algeria and Tunisia will be added compared to the first edition.

## Psammodius plicicollis Erichson, 1848

**Distribution.** Europe: France, Greece, Italy, Portugal; North Africa: Algeria.

**Notes.** The occurrence in the countries shown above is quite reliable; verified by Pittino (2007). Compared to the first edition of the Catalogue, Greece and Algeria will be added in the second edition. A fact pointed out by Pittino (2007) is of interest that in the West-European countries, the species is known from inland as well as seashore locations.

#### Psammodius sefrensis (Petrovitz, 1961)

**Distribution.** Algeria, Tunisia.

**Notes.** The occurrence in Tunisia, as reported by Ádám (1979), omitted in the first edition of the Catalogue, will be added in the second edition.

#### genus Rakovicius Pittino, 2006

Note. A genus recently proposed by Pittino (2006: 13). To be added in the second edition of the Catalogue.

#### Rakovicius ainu (Lewis, 1895)

**Distribution.** Japan.

**Notes.** Described as *Psammodius*, later transferred to *Petrovitzius* by Rakovič (1979). Chosen as a type species of a recently established genus *Rakovicius* by Pittino (2006). To be removed from *Petrovitzius* and included here under *Rakovicius* for the second edition of the Catalogue.

#### Rakovicius coreanus (Kim, 1980)

**Distribution.** Japan (Tsushima Island and the Ryukus), S. Korea (Pittino 2006).

Notes. Described as Psammodius. To be removed from Psammodius and included here under Rakovicius.

#### Rakovicius Ianae Masumoto, 2012

**Distribution.** Taiwan.

**Notes.** A species recently described by Masumoto et al. (2012). To be included into the second edition of the Catalogue.

#### Rakovicius subopacus (Nomura, 1973)

Distribution, Taiwan

**Notes.** Transferred from *Psammodius* to *Rakovicius* by Masumoto et al. (2012) with simultaneous proposal of *Rakovicius kawaii* Pittino, 2006 as a junior synonym of *R. subopacus*. Both acts will be reflected in the second edition of the Catalogue.

# genus *Tesarius* Rakovič, 1981 *Tesarius mcclayi* Cartwright, 1955

**Distribution.** Great Britain (introduced); the Nearctic Region.

**Notes.** A second species of the genus, which was shown to occur in Great Britain (introduced from the USA), should be added in the second edition of the Catalogue. See for example Mann (2012).

subtribe Rhyssemina Pittino & Mariani, 1986 genus *Bordatius* Pittino & Mariani, 1986 *Bordatius tingitanus* Pittino & Mariani, 1986

Material examined. Morocco: Ifrane, 23.iv. 1995, J. Stanovský lgt., 1 specimen in DKCP.

**Distribution.** Morocco.

genus *Myrhessus* Balthasar, 1956 *Myrhessus kubotai* Ochi, Kawahara & Inagaki, 2012

**Distribution.** Japan (Yakushima Is.).

**Notes.** A species recently described by Ochi et al. (2012). To be added in the second edition of the Catalogue.

#### Myrhessus nishinoi Ochi, Kawahara & Inagaki, 2012

**Distribution.** Japan (Honshu).

**Notes.** A species recently described by Ochi et al. (2012). To be added in the second edition of the Catalogue.

#### Myrhessus yorikoae Ochi, Kawahara & Inagaki, 2006

**Distribution.** Japan

**Notes.** A species recently described by Ochi et al. (2006a). To be added in the second edition of the Catalogue.

# genus Neotrichiorhyssemus Rakovič & Král, 1997 Neotrichiorhyssemus hauseri (Balthasar, 1933)

**Distribution.** Taiwan; the Oriental Region.

**Notes.** Described from Borneo. From Taiwan reported by Masumoto (1977). To be added in the second edition.

#### Neotrichiorhyssemus kentingensis Masumoto, Ochi & Lan, 2013

**Distribution.** Taiwan (Kenting area, the southernmost part of Taiwan).

**Notes.** A species recently described by Masumoto et al. (2013). To be added in the second edition of the Catalogue.

# genus *Pararhyssemus* Balthasar, 1956 *Pararhyssemus coluber* (Mayet, 1887)

**Material examined. Yemen:** Ma'rib governorate, dam SW of Ma'rib, 15°24'00"N 45°16'06"E, 1100 m, 8.-9.x.2005, at light, David Král Igt., 6 specimens in NMPC.

**Distribution.** North Africa: Algeria, Egypt, Morocco, Tunisia; Asia: Afghanistan, Iran, Saudi Arabia, Sinai, Turkmenistan, Yemen, United Arab Emirates; Afrotropical Region (Ethiopia, Kenya, Niger, Somalia - Pittino (1984a)); the Oriental Region (India: Rajasthan - Král & Šípek (2013)). **First record from Yemen.** 

**Notes.** Most data were verified and will be corrected, whenever necessary, based on works by Alfieri (1976) and Pittino (1984 a, b), record from the UAE is by Janikova [undated]. The occurrence in Turkmenistan (Kopet Dagh; Turkmeno-Khorasan Mountains) will be added in the second edition of the Catalogue based on data presented by Shokhin (2006) and Shokhin et al. (2014).

genus Pittinius Rakovič & Král, 1997
Pittinius farkaci Rakovič, Král & Mencl, 2014

**Distribution.** Nepal (Chitwan National Park).

**Note.** A recently described species (Rakovič et al. 2014). To be included in the second edition of the Catalogue.

#### Pittinius omnisetosus Rakovič & Král, 1997

**Distribution.** Nepal (Chitwan National Park), N. India (Uttarakhand).

**Note.** The occurrence in N. India (Uttarakhand) will be added in the second edition of the Catalogue based on work by Rakovič et al. (2014). See the note with *Psammodius macnamarae* above as to the geographical terms Uttarpradesh and Uttarakhand.

#### genus Platytomus Mulsant, 1842

#### Platytomus jailensis Apostolov & Maltzev, 1986

Distribution. Crimea.

**Notes.** Considered by Shokhin (2006) and Martynov (2010, 2012) as a junior synonym of *Platytomus laevistriatus*. Established as a valid species by Martynov & Shokhin (2014). To be included in this way in the second edition of the Catalogue.

#### Platytomus laevistriatus (Perris, 1870)

Distribution. Europe: France, Italy (Sardegna, Sicilia), Malta; North Africa: Algeria, Tunisia.

**Notes.** In the list of countries, Spain should be deleted in the second edition of the Catalogue, particularly based on Pittino & Mariani (1986).

## Platytomus mongolicus (S. I. Medvedev, 1974)

**Material examined. China, Xinjiang Prov.:** W. Taklamakan desert, Yarkan He river valley, 39°21.953'N 78°11.639'E, 1140 m, 9.-12. vi.2013, tugay forest, Floriani Igt., 13 specimens in IRSN, 4 in MRCD, 2 in DKCP, 2 in LMCT.

**Distribution.** Asia: Beijing, Far East ("Siberia, Amur reg."), Kazakhstan, Mongolia, Xinjiang.

**Notes.** Kazakhstan will be supplemented in the second edition of the Catalogue based on Pittino & Mariani (1986), who also mentioned two specimens from there.

#### Platytomus tibialis (Fabricius, 1798)

**Distribution.** Europe: Albania, Azores (introduced), Bosnia Herzegovina, Croatia, France, Greece, Italy, Malta, Romania; North Africa: Algeria, Canary Islands, Egypt, Libya, Morocco, Madeira Archipelago, Tunisia; Asia: Cyprus, Israel, Lebanon, Syria, Turkey; the Australian Region (West Australia), introduced; the Nearctic Region, introduced.

Pittino & Mariani also mentioned four specimens from Central Asia (Syr Darja region) and Shokhin (2006) reported one specimen from Hungary without further data; these findings probably should not be included into the Catalogue.

**Notes.** Information about the occurrence in the peninsula Crimea will be deleted in the second edition of the catalogue. It was based on two specimens examined by Pittino & Mariani (1986), which are most likely to belong to *Platytomus jailensis* (see above), which was not known as a valid species that time. The erroneously used acronym (NTR for the Neotropical Region) will be replaced by NAR - the Nearctic Region (the species was reported from the US West Coast, California).

#### Platytomus variolosus (Kolenati, 1846)

**Distribution.** Europe: Azerbaijan, Armenia, Kazakhstan, South-European territory of Russia, Crimea; Asia: Afghanistan, Far East ("Siberia, Amur reg."), Kazakhstan, Tajikistan, Turkmenistan, Turkey, Uzbekistan, Xinjiang.

**Notes.** Shokhin (2008) reported the species from the following areas of the South-European territory of Russia: Dagestan, Kalmykia, Volgograd Region, Astrakhan Region, Stavropol Region, Chechen-Ingushetia.

#### Platytomus yadai (Ochi, Kawahara & Inagaki, 2006)

Distribution. Japan (Okinawa), Qatar.

**Notes.** A species recently described by Ochi et al. (2006b). The occurrence in the two remote countries seems to be surprising. Ochi et al. (2006b) described the species under the name *Leiopsammodius yadai* and subsequently transferred it into *Platytomus* (Ochi et al. 2007). Bordat (2007) described *Platytomus qatarensis* from Qatar and later, Keith & Bordat (2011) synonymized it with the species discussed here. When taking into account the worldwide distribution of the genus, one can assume that the species was introduced into Japan by shipping.

#### genus Pleurophorus Mulsant, 1842

#### Pleurophorus akamasicus Pittino & Miessen, 2007

Distribution. Cyprus.

**Notes.** A species recently described from W. Cyprus by Pittino & Miessen (2007). To be included in the second edition of the Catalogue.

# Pleurophorus anatolicus Petrovitz, 1961

**Distribution.** Europe: Azerbaijan, Armenia, Greece (Rhodes), Turkey; Asia: Cyprus, Iran, Iraq, Israel, Jordan, Lebanon, Syria, Turkmenistan, Turkey.

**Notes.** Some data omitted in the first edition of the Catalogue will be supplemented in the second edition based on the work by Pittino and Mariani (1986). Data, concerning the occurrence of the species in Turkmenistan according to Shokhin (2006) (Kopet Dagh) and Sokhin et al. (2014) (Turkmeno-Khorasan Mountains) will also be added.

# Pleurophorus apicipennis Reitter, 1892

**Distribution.** Afghanistan, Iran, Kyrgyzstan, Kazakhstan, Pakistan, Tajikistan, Turkmenistan, Turkey, Uzbekistan, Xinjiang.

**Notes.** Relatively recently published data from Turkmenistan by Shokhin (2006) (from Nebit Dagh, Khasard Reserve and Kszyl-Takyr) and by Shokhin et al. (2014) (from the SE Coast of the Caspian Sea, Krasnovod Plateau and Turkmeno-Khorasan Mountains) will be added in the second edition of the Catalogue.

# Pleurophorus arabicus Pittino & Mariani, 1986

**Distribution.** Europe: Azerbaijan, South-European territory of Russia; Asia: Iran, Iraq, Jordan, Oman, Pakistan, Saudi Arabia, Turkmenistan.

**Notes.** From the South-European territory of Russia reported by Shokhin (2007) (from the Rostov Region, Astrakhan Region and Kalmykia).

#### Pleurophorus caesus (Panzer, 1796)

**Distribution.** Widely distributed throughout the West Palearctic. Present essentially in all the West-European, Central-European, South-European and East-European countries, North Africa, Asia Minor, Near East, Central Asia and Kazakhstan, West to the Caspian Sea. Introduced into the Afrotropical, Nearctic and Neotropical Regions.

**Notes.** Still most important data are those presented by Pittino & Mariani (1986). They pointed out the fact that many reports concerning the occurrence of the species call for confirmation. They also studied a single specimen from Japan; we tend to believe that this was a case of introduction. More recent data about the distribution were summarized by Shokhin (2006). Martynov (2012) reported the occurrence of the species from many regions of Ukraine and also mentioned it in the list of species from Crimea (Martynov 2010). The occurrence in the South-European territory of Russia was studied by Shokhin (2007) with giving findings from the Rostov Region, Krasnodar Region, Stavropol Region, North Ossetia, Chechen-Ingushetia and Dagestan.

#### Pleurophorus maghrebinicus Pittino & Mariani, 1986

**Distribution.** Greece (Thessaloniki), Italy (Sicily); North Africa: Algeria, Morocco, Tunisia.

**Notes.** Omitted in the first edition. To be added in the second edition of the Catalogue.

#### Pleurophorus tonkinensis Balthasar, 1933

**Distribution.** Taiwan; the Oriental Region (Vietnam - Pittino & Mariani (1986)).

**Notes.** The species will be included in the second edition for completeness' sake, but Pittino & Mariani (1986) wrote that "The previous records from Taiwan (Nomura, 1973; Masumoto, 1977) should only be accepted with due reservation ...". We are afraid that this question has not yet been satisfactorily solved.

# genus Rhyssemodes Reitter, 1892

# Rhyssemodes bouvieri Clouët des Pesruches, 1901

**Distribution.** China (Beijing, Nei Mongol, Tianjin), Mongolia.

**Notes.** The distributional data will be refined based on works published by Clouët (1901), Nikolajev & Puntsagdulam (1984) and Rakovič (1982).

# Rhyssemodes nox lablokoff-Khnzoryan, 1971

**Distribution.** Turkmenistan (E. Karakum Desert).

**Notes.** The species will be revalidated in the second edition of the Catalogue within the framework of the section New acts and comments (Rakovič & Král in press) and thus added under the genus *Rhyssemodes*.

#### Rhyssemodes orientalis Mulsant & Godart, 1875

Material examined. China, Qinghai Prov.: 6.6 km NW of Golmud, 36°26.7'N 94°51.2'E, 2805 m, D. Král, J. Hájek

& J. Růžička lgt., 16 specimens in DKCP. - **Xinjiang Prov.:** W. Taklamakan desert, Yarkan He river valley, 39°21.953'N 78°11.639'E, 1140 m, 9.-12.vi.2013, tugay forest, Floriani lgt., 97 specimens in IRSN, 14 in MRCD. **Mauritania:** Tergit oasis, 301 m, 20°15'N, 13°05'W, 21. x. 2010, A. Reiter lgt., a single specimen in MRCD. **Ethiopia:** Dire Dava, 9°39.27'N, 41°55.813'E, 1133 m, 1. vi. 2011, V. Hula & J. Niedobová leg. 3 specimens in NMPC, 1 in MRCD. **Yemen:** Ma'rib governorate, dam SW of Ma'rib, 15°24'00"N 45°16'06"E, 1100 m, 8.-9.x.2005, at light, David Král lgt., 23 specimens in NMPC.

**Distribution.** Europe: Azerbaijan, Armenia, Spain; North Africa: Algeria, Canary Islands, Egypt, Libya, Morocco, Tunisia; Asia: Afghanistan, Iran, Israel, Kazakhstan, Lebanon, Mongolia, Qinghai, Saudi Arabia, Sinai, Tajikistan, Turkmenistan, Turkey, Uzbekistan, Xinjiang, Yemen; Afrotropical Region Sudan, Ethiopia, Mauritania). **First records from the Qinghai and Xinjiang Provinces (China) and Yemen. First record from Mauritania.** 

**Notes.** From China, the species was mentioned in general by Nikolajev (1987); without further data. We have seen specimens from Qinghai and Xinjang, but when taking into account the wide distribution of the species in the Palaearctic Region, it can also be reasonably expected in other areas of the country. As far as the Afrotropical Region is concerned, it is to point out the fact that the species continues occurring from North Africa in the south-west direction to Mauritania and in the south-east direction to Sudan and Ethiopia; in Sudan, it is found very frequently and was reported by Rakovič (1985) from the following territories (that time provinces of Sudan): Northern Province, Khartoum, Kassala, Blue Nile, Darfur; in materials from Ethiopia, only individual specimens are usually encountered.

#### Rhyssemodes sindicus Pittino, 1984

Material examined. China, Yunnan: Yongkou, 6. vii.-11.vii.2010, lgt J. Kučera, 4 specimens in MRCD.

**Distribution.** Asia: Beijing, Henan, Iran, Nepal, Pakistan, Taiwan, Uttarakhand, Yunnan. See the note concerning the territory of Uttarakhand with the *Psammodius macnamarae* above. Widely spread and frequently occurring essentially throughout the Oriental Region (see e. g. Král & Šípek 2013 and Pittino 1984b, for details). **First record from Yunnan (China).** 

## Rhyssemodes transcaspicus Rakovič, 1982

**Distribution.** Europe: South-European territory of Russia; Asia: Uzbekistan.

**Notes.** The occurrence in Uzbekistan is based on the text on the holotype locality label: "Golodnaya step". The presence of the species in the South-European territory of Russia was demonstrated by Shokhin (2007) in his work dealing with the fauna of Southern Russia (in the Astrakhan Region and Kalmykia) and within the framework of a treatise on the fauna of areas adjacent to the Caspian Sea (also in the Astrakhan Region). The species was synonymized by Nikolajev (1987) with *Rhyssemodes tenuisculptus* Reitter, 1892, but considered as a different species by Shokhin (2002). It will be thus added as a valid species in the second edition of the Catalogue.

# genus *Rhyssemus* Mulsant, 1842 *Rhyssemus algiricus* P. H. Lucas, 1846

**Distribution.** Europe: Italy, Spain; North Africa: Algeria, Morocco, Tunisia.

**Notes.** Italy included based on Ziani (1995).

# Rhyssemus annaedicatus Pierotti, 1980

Material examined. Albania: Bogovë pr. Çorovoda, Osum river, 4.vii.2012, at light, P. Vonička lgt., 12 specimens in

DKCP; Pjezgë pr. Durrës, Erzen river., 3.vii.2012, at light, L. Blažej lgt., 10 specimens in DKCP; Shopet pr. Lezha, Mat river, 2.vii.2012, at light, L. Blažej lgt., 6 specimens in DKCP. **Bulgaria:** Harmanli 25.vi.1974, , David Král lgt., several tens specimens in DKCP; Kresna village env., cca 600 m, 29.v.1978, Karel Majer lgt., 1 specimen in DKCP. **Greece:** Macedonia mer., Rentina - Modi, 3.-20.vii.2002, Zdeněk Kraus lgt., 1 specimen in DKCP; Macedonia mer., Amfipolis, 40°49'N 23°49'E, 15.vii.-12.viii.2007, Zdeněk Kraus lgt., 1 specimen in DKCP. **Republic of Macedonia:** Gevgelija env., at river Vardar, 3.vi.1985, J. Vitner lgt., on compact soil, 1 specimen in DKCP.

**Distribution.** Europe: Bulgaria, Greece, Italy, Macedonia, Montenegro; Asia: Turkey, Syria. **First record from Albania and Republic of Macedonia.** 

Notes. The distribution will be supplemented based on data from Baraud (1992) and Minkina et al. (2014).

#### Rhyssemus asperocostatus Fairmaire, 1892

**Material examined. Yemen:** Dharan gov., 2 km E of Hammam Ali, 14°40'N 44°10'E, 1677 m, 29.x.2005, at light, David Král lgt., 9 specimens in NMPC; Ma'rib gov., dam SW of M'arib, 15°24'00"N 45°16'06"E, 1100 m, 8.-9. x. 2005, at light, David Král lgt., 4 specimens in NMPC; Ta'izz gov., S of Najd an Ashamah, 13°20'02N" 44°04'30"E,1480 m, 24.x.2005, at light, David Král lgt., 1 specimen in NMPC; Abyan gov., Lawdar W. env., N13°52'36" E45°48'01", 1150 m, 22.-23. x.2005, at light, David Král lgt., 3 specimens in NMPC; Hadramwt gov., Wadi Idim, Sah env., 14°40'51"N 48°52'04"E,728 m, 10.-11.x.2005, at light, David Král lgt., 1 specimen in NMPC.

**Distribution.** Arabian Peninsula: Saudi Arabia, Yemen; the Afrotropical Region (Eritrea, Ethiopia, Somalia - (Pittino 1984a)).

**Notes.** Originally described from the Afrotropical Region, but reported by Pittino (1984a) from many locations in Saudi Arabia and one location in South Yemen. Data on recently collected specimens from further locations in Yemen are presented above in the paragraph Material examined.

# Rhyssemus bedeli Clouët des Pesruches, 1901

**Distribution.** Algeria, Tunisia; the Afrotropical Region (Mauritania).

**Notes.** From Algeria and Mauritania verified by Pittino (1984b). From Tunisia reported by Baraud (1985) and Hollande et al. (1985).

#### Rhyssemus berytensis Marseul, 1878

**Distribution.** Europe: Greece, Bulgaria; Asia: Cyprus, Iran, Iraq, Israel, Lebanon, Turkey.

**Notes.** In the list of countries, Bulgaria will be added (reported by Minkina et al. (2014)), and Macedonia will be deleted (the occurrence quoted from Macedonia in the first edition actually concerned Greek Macedonia).

#### Rhyssemus brevitarsis Pittino, 1984

**Material examined. Yemen:** Abyan gov., Lawdar W. env., N13°52'36" E45°48'01", 1150 m, 22.-23. x.2005, at light, David Král lgt., 1 specimen in NMPC; Ma′rib gov., dam SW of M′arib, 15°24'00"N 45°16'06"E, 1100 m, 8.-9. x. 2005, at light, David Král lgt., 8 specimens in NMPC; San′a NW env., Wadi Dhahr, 15°26'43"N 44°57'34"E, 224 m, 6.x.2005, David Král lgt., 2 specimens in NMPC.

**Distribution.** Known from the Arabian Peninsula only, widely distributed in Saudi Arabia, and also recorded from Oman (El-Hawagry et al. 2013, Pittino, 1984a, Rakovič et al. 2006). **First record from Yemen.** 

#### Rhyssemus freudei Balthasar, 1960

**Material examined. Nepal:** Chitwan National Park, Saura, 22.-26.v.1990, S. Bílý Igt., 2 specimens in MRCD; prov Bheri, Nepalguni, Hotel Batika. 28°02.59'N, 81°36.56'E, 230 m, 18.vi.1999, leg. M. Hartmann, 1 specimen in MRCD. **India, Uttarakhand** [currently an independent state of India separated from Uttar Pradesh]: [Chamoli distr.], Karnaprayag env., 6 specimens in MRCD.

**Distribution.** Nepal, N. India (Uttarakhand), Pakistan; the Oriental Region (Bangladesh). Some further data can be mentioned based on Pittino (1984b): Rawalpindi and Waziristan from NW Pakistan, Rangpur and Dinajpur from Bangladesh.

#### Rhyssemus germanus (Linnaeus, 1767)

**Distribution.** Widely spread throughout Europe (nearly 40 countries quoted in the Catalogue); in North Africa known from Morocco, Tunisia; in Asia from China, Kazakhstan, Mongolia, Far East of Russia, Syria, Tajikistan, Turkmenistan, Turkey, Uzbekistan. Introduced into the North-Eastern US (cf. e.g. Gordon & Cartwright 1980 and Gordon & Pittino 1992).

**Notes.** In the second edition of the Catalogue, Montenegro and Serbia will be included to reflect the separation of Montenegro. The South-European territory of Russia will be furthermore included based on results published by Shokhin (2007), demonstrating the occurrence of the species in Dagestan, Kalmykia, the Rostov Region, Volgograd Region and Krasnodar Region, and also those published by Shokhin et al. later (2014), dealing with the fauna of areas adjacent to the Caspian Sea, reporting the presence of the species in Kalmykia and in the South-West Coast of the Caspian Sea and Terst-Kumsk sands.

#### Rhyssemus granosus Klug, 1842

**Distribution.** A prevalently Afrotropical species, occurring mainly in West Africa and East Africa, but the area of its distribution continues northward to Egypt and eastward to the Arabian Peninsula.

**Notes.** As to the Arabian Peninsula, Oman, United Arab Emirates and Qatar should be added in the second edition based on works by Pittino (1984a) and Keith & Bordat (2011).

#### Rhyssemus hamatus Petrovitz, 1963

**Distribution.** Nepal, Pakistan; the Oriental Region (Bangladesh, India, Myanmar, Sri Lanka, Thailand - Pittino 1984b).

**Notes.** Based on a work by Pittino et al. (2013), the species and data on its distribution will be added in the second edition of the Catalogue.

# Rhyssemus histrio Balthasar, 1961

**Distribution.** Europe: Azerbaijan, Asia: Iran, Afghanistan, Iran, Turkmenistan.

**Notes.** Turkmenistan will be added in the second edition; reported by Shokhin et al. (2014) from Turkmeno-Khorasan Mountains.

#### Rhyssemus indicus Clouët des Pesruches, 1901

**Material examined. India, Uttarakhand** [currently an independent state of India separated from Uttar Pradesh]: Haridwar, Chila, 300 m, 9.-14. viii. 199., M. Snížek lgt., 2 specimens in MRCD.

Distribution. Nepal, Uttarakhand; the Oriental Region (India, Sri Lanka). See the note with Psammodius

macnamarae Pittino above, as to the geographical terms Uttarpradesh and Uttarakhand.

Note. Uttarakhand should be added in the second edition.

#### Rhyssemus inscitus (Walker, 1858)

**Material examined. Iran:** SE Iran, Tis, 6.-7. iv. 1973, Loc. No. 150, Exp. Nat. Mus. Praha, 5 specimens in MRCD. India, Uttarakhand [currently an independent state of India separated from Uttar Pradesh]: Haridwar, Chila, 300 m, 9.-14. viii.199., M. Snížek lgt., 3 specimens in MRCD; Kotdwara env., 1.-3.viii.1994, M. Snížek leg., 3 specimens in MRCD. **Nepal:** near Birganj, Lothar, 450 ft., 8.ix.1967, Can. Nepal Exped., 5 specimens in MRCD.

**Distribution.** Iran, Nepal, Pakistan, Uttarakhand, Taiwan; throughout the Oriental Region; Afotropical Region (known from Madagascar and the Mascarene Islands, but absent in continental Africa); Australian Region (Australia, N. Caledonia, PNG, Pacific islands).

We have seen many specimens from different locations, but the above paragraph Material examined is presented here in support of the distribution in particular Palearctic areas, since in summarizing works, the distribution is frequently handed without further data. Taiwan was mentioned by Masumoto (1977).

#### Rhyssemus interruptus Reitter, 1892

**Distribution.** Europe: Azerbaijan, Armenia, South-European territory of Russia; Asia: Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan.

**Notes.** The South-European territory of Russia was quoted by Shokhin et al. (2012): the first record from Dagestan (Samur). To be supplemented in the second edition.

#### Rhyssemus macedonicus Bénard, 1923

**Distribution.** Europe: Greece (Greek Macedonia); Asia: Iran, Turkey.

**Notes.** Baraud (1992) mentioned Turkey and Iran without further data. The species is likely to occur in Turkey, but the occurrence of any European species of *Rhyssemus* in Iran is rather questionable.

#### Rhyssemus meridionalis Reitter, 1890

Distribution. Europe: Greece, "Caucasus"; Asia: Turkey.

Notes. Turkey should be added in the second edition. Asia Minor was mentioned by Shokhin (2007).

# Rhyssemus parallelus Reitter, 1892

**Distribution.** Europe: Italy (Sardinia, Sicily); North Africa: Algeria, Morocco, Tunisia.

Notes. Italy will be added in the second edition (mentioned by Baraud, 1992).

# Rhyssemus plicatus (Germar, 1817)

**Material examined. Albania:** Akerni env., 40°34'53"N 19°23'20"E, ca sea level, 13.-14.iv.2015, 9 specimens in DKCP. **Greece:** Corfu, Moczarski [lgt.], 1 specimen in NMPC; Corfu, Pantokrator, 1 specimen in NMPC.

**Distribution.** Europe: Albania, Bosnia Herzegovina, Croatia, France, Greece, Italy, Malta, Spain; North Africa: Algeria, Morocco, Tunisia.

**Notes.** Albania was mentioned by Baraud (1992), Bosnia Herzegovina by Lelo (2006). To be included in the second edition. **First record from Greece.** 

#### Rhyssemus punctatissimus Pittino, 1984

**Distribution.** The Arabian Peninsula: Saudi Arabia, Yemen (Wadi Sharez). The Afrotropical Region (Ethiopia - provinces of Gamu-Gofa, Harrar, Shoa, Sidamo - Pittino (1984b)).

**Notes.** Based on the literature, we formerly considered the species to be known from the Afrotropical Region only. The first author (M. R.) found a specimen in his collection from Yemen (identified by R. Pittino). The species should be thus added in the second edition of the Catalogue.

#### Rhyssemus puncticollis Brown, 1929

Distribution. Europe: Austria, Czech Republic, Germany, Latvia, Poland; the Nearctic Region (introduced).

**Notes.** Rößner (2012) found *R. puncticollis*, described by Brown (1929) from the USA, but having its origin in the Palearctic Region and being previously mostly confused with *R. germanus* there, to be a valid species. Its occurrence in Austria and Germany was recently discussed by Rößner (2012), in the Czech Republic by Král & Rakovič (2012), in Bulgaria by Minkina (2013) and in Latvia and Poland by Byk & Minkina (2014). The species will be thus included in the second edition of the Catalogue.

#### Rhyssemus rubeolus Harold, 1871

**Material examined. Yemen, Suqutra:** Hadiboh env., ca 10-100 m, 21.xi.-12.xii.2003, intravillan, at light, David Král lgt., Yemen-Socotra 2003 Expedition, Jan Farkač, Petr Kabátek & David Král, 5 specimens in NMPC.

**Distribution.** Saudi Arabia; the Afrotropical Region (Ethiopia, Niger, Somalia (Pittino 1984a)). **First record from Yemen (Sugutra).** 

#### Rhyssemus saoudi Pittino, 1964

**Distribution.** Saudi Arabia, Yemen.

Notes. Yemen should be supplemented. Reported by Pittino (1984a) from "Aden Prot.".

# Rhyssemus thailandicus Pittino, 1996

Distribution. China: Guangxi; the Oriental Region (India, Indonesia, Malaysia, Thailand, Vietnam).

**Notes.** The distributional data are based on a work by Pittino et al. (2013) and the species should be included in the second edition of the Catalogue due to its occurrence in China.

#### Rhyssemus vinodolensis Petrovitz, 1963

Distribution. Croatia, Greece.

Notes. Greece should be added (reported by Baraud (1992)).

# genus *Trichiorhyssemus* Clouët des Pesruches, 1901 *Trichiorhyssemus lasionotus* Clouët des Pesruches, 1901

**Distribution.** China (Tien Tsin [= Tianjin] - Clouët des Pesruches (1901)), Taiwan. **Notes.** From Taiwan mentioned by Masumoto (1977). To be added in the second edition. Not present in

Japan, as stated by Pittino & Kawai (2007). Japan should be thus deleted in the second edition.

#### Trichiorhyssemus microtrichius Ochi, Kawahara & Inagaki, 2011

**Distribution.** Japan (Tanegashima Island).

**Notes.** A species recently described by Ochi et al. (2011). To be added in the second edition.

#### Trichiorhyssemus yumikoae Pittino & Kawai, 2007

**Distribution.** China (Fujian, Namoa Island), Japan (Okinawa shotō), Taiwan.

Notes. A species recently described by Pittino & Kawai (2007). To be added in the second edition.

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#### **REFERENCES**

ÁDÁM L. 1979: Lamellicornia from Tunisia (Coleoptera, Scarabaeoidea). Folia Entomologica Hungarica 32: 5-9.

ÁDÁM L. 1989: A new Psammodius species from Hungary. Folia Entomologica Hungarica 50: 5-7.

ALFIERI A. 1976: The Coleoptera of Egypt. Mémoires de la Société Entomologique d'Égypte 5: 1-361.

BALTHASAR V. 1964: Monographie der Scarabaeidae und Aphodiidae der palaearktischen und orientalischen Region. Coleoptera Lamellicornia. Band 3. Aphodiidae. Prag: Verlag der Tschechoslowakischen Akademie der Wissenschaften, 652 pp., 2 pls.

BARAUD J. 1985: Coléoptères Scarabaeoidea. Faune du Nord de l'Afrique du Maroc au Sinaï. Encyclopédie Entomologique 46. Paris: Lechevalier, 651+1 pp.

BARAUD J. 1992: Coléoptères Scarabaeoidea d'Europe. Faune de France, France et régions limitrophes, 78. Paris & Lyon: Fédération Française des Sociétés de Sciences Naturelles & Société Linnéenne de Lyon, 856 pp.

BORDAT P. 2007: Une nouvelle espèce de *Platytomus* du Qatar (Coleoptera, Aphodiidae). *Nouvelle Revue d'Entomologie* (N. S.) 24: 80-81.

BROWN W. J. 1929: Studies in Scarabaeidae II. The Canadian Entomologist 61: 86-93.

BYK A. & MINKINA Ł. 2014: *Rhyssemus puncticollis* Brown, 1929 (Coleoptera: Scarabaeidae: Aphodiinae: Psammodiini): A New Record for the Fauna of Poland and Latvia. *The Coleopterists Bulletin* 68: 377-383.

CARPANETO G., DELLACASA G., DELLACASA M., PIATELLA E. & PÓGGI R. 1997: Ricerche zoologiche della nave oceanografica "Minerva" (C.N.R.) sulle isole circumsarde. XXVI. Catalogo faunistico zoogeografico dei coleotteri scarabaeoidei (Coleoptera, Scarabaeoidea). Annali del Museo Civico di Storia Naturale "G. Doria" 91: 511-539.

CHIKATUNOV V. & PAVLÍČEK T. 1997: Catalogue of the beetles (Coleoptera) in Israel and adjacent areas: 1. Scarabaeoidea. Klapalekiana 33: 37-65.

CLOUËT L. 1901: Essai monographique sur le genre Rhyssemus (Coléoptères - Tribu des Aphodiides). Mèmoires de la Société de Belgique 8: 7-124.

EL-HAWAGRY M. S., KHALIL M. W., SHARAF M. R., FADL H. H. & ALDAWOOD A. S. 2013: A preliminary study on the insect fauna of Al-Baha Province, Saudi Arabia, with descriptions of two new species. *ZooKeys* 274: 1-88.

GORDON R. D. & CARTWRIGHT O. L. 1980: The Western Hemisphere species of Rhyssemus and Trichiorhyssemus (Coleoptera: Scarabaeidae). Smithsonian Contributions to Zoology 317: 1-29.

GORDON R. D. & PITTINO R. 1992: Current status of the American genera and species of Psammodiini (Coleoptera: Scarabaeidae: Aphodiinae). The Coleopterists Bulletin 46: 260-273.

HOLLANDE A., THÉROND J. & DELLACASA G. 1998: Aphodiidae du Nord de l'Afrique (Coleoptera, Scarabaeoidea). Monografie Museo Regionale di Scienze Naturali. Torino 21:1-280.

HORION A. 1958: Faunistik der Mitteleuropäischen Käfer. Band VI: Lamellicornia (Scarabaeidae-Lucanidae). Überlingen - Bodensee: A. Feyel Verlag, xxiv + 343 pp.

JANIKOVA M. [undated]: Coleoptera. Beetles Checklist. Muscat: Sultanate of Oman, Ministry of Heritage and Culture, Natural History Museum, 39 pp.

JUŘENA D., TÝR V. & BEZDĚK A. 2008: Příspěvek k faunistickému výzkumu listorohých brouků (Coleoptera: Scarabaeoidea) na území České republiky a Slovenska. (Contribution to the faunistic research of Scarabaeoidea (Coleoptera) in the territory of

- the Czech Republic and Slovakia). Klapalekiana 44 (Supplementum): 17-176 (in Czech, English summary).
- KEITH D. & BORDAT P. 2011: Sur la faune des Scarabaeoidea du Qatar (Coleoptera). Nouvelle Revue d'Entomologie (N. S.) 27: 183-189.
- KIMJ. I. 1987: Taxonomic study on the Korean Laparosticti (Scarabaeoidea) VII. Two unrecorded and non-Palearctic species of the genus *Psammodius* (Aphodiidae) from Korea. *The Korean Journal of Entomology* 17: 171-174.
- KIMJ. I. 2012: Insect Fauna of Korea. Volume 12, Number 3. Arthropoda: Insecta: Coleoptera: Scarabaeoidea: Laparosticti. Seoul: National Institute of Biological Resources, Ministry of Environment, 209 pp.
- KRÁL D. 2006: First records of *Psammodius danubialis* (Coleoptera, Scarabaeidae) in Austria and Slovakia. *Biológia* (Bratislava) 61: 604.
- KRÁL D. & RAKOVIČ M. 2012: Faunistic Records from the Czech Republic 338. Coleoptera, Scarabaeoidea, Aphodiinae. Rhyssemus puncticollis Brown, 1929. Klapalekiana 48: 291-292.
- KRÁL D. & ŠÍPEK P. 2013: Aphodiinae (Coleoptera: Scarabaeidae) of the Goa, Maharashtra and Rajasthan (India) with description of Aphodius (Gilletianus) rajawatorum sp. nov. Acta Entomologica Musei Nationalis Pragae 53: 633-648.
- KRÁL D. & VITNER J. 2012: Distribution of *Psammodius* species in Bohemia, Moravia and Slovakia (Coleoptera: Scarabaeidae). *Klapalekiana* 32: 59-70.
- LELO S. 2006: Popis balegara (Insecta: Scarabaeoidea) Bosne i Hercegovine. Prilozi Fauni Bosne i Hercegovine 2: 8-31.
- LÖBL I. & LÖBL D. (eds.): Catalogue of Palaearctic Coleoptera. Volume 3. Revised and Updated Edition. Scarabaeoidea Scirtoidea Dasciloidea Buprestoidea Byrrhoidea. Leiden: E. J. Brill, in press.
- LÖBL I. & SMETANA A. 2007: Catalogue of Palaearctic Coleoptera, Vol. 4. Elateroidea Derodontoidea Bostrichoidea Lymexyloidea Cleroidea Cucujoidea. Stenstrup: Apollo Books, 933 pp.
- MANN D. J. 2012: 23. Family Scarabaeidae. Pp. 55-58. In: DUFF A. G. (ed.): Checklist of Beetles of the British Islands. 2<sup>nd</sup> edition. United Kingdom: Pemberley Books Publishing, 171 pp.
- MANN D. J. & BOOTH R. G. 2000: Brindallus porcicollis (Illiger) (Coleoptera: Scarabaeidae: Psammodiinae) in Britain. British Journal of Natural History, Entomology 13: 137-145.
- MARTYNOV V. V. 2010: Utochneniya i dopolneniya k faunisticheskomu spisku plastichnatousykh zhukov (Coleoptera: Scarabaeoidea) Kryma. Izvestiya Kharkovskogo Entomologicheskogo Obshchestva 20: 11-44.
- MARTYNOV V. V. 2012: Kontrolnyi spisok plastichnatousykh zhukov (Coleoptera: Scarabaeoidea) Ukrainy. *Izvestiya Kharkovskogo Entomologicheskogo Obshchestva* 18: 95-106.
- MARTYNOV V. V. & SHOKHIN I. V. 2014: Opisanie lichniki tretyego vozrasta *Platytomus jailensis* Apostolov et Maltzev, 1986 (Coleoptera Scarabaeidae: Psammodiini). [Description of the third instar larva, of *Platytomus jailensis* Apostolov et Maltzev, 1986 (Coleoptera Scarabaeidae: Psammodiini)]. *Kavkazskiy Entomologicheskiy Byulleten* 10: 213-218 (in Russian).
- MASUMOTO K. 1977: A Revision of the Coprophagid-beetles from Formosa (5). Elytra 5: 25-32.
- MASUMOTO K., KIUCHI M., HAYASHI Y. & TAI-CHUAN W. 2012: Notes on the Psammodiini species from Taiwan (Coleoptera, Scarabaeidae, Aphodiinae). Kogane 13: 125-131.
- MASUMOTO K., OCHI T. & YEN-CHIU L. 2013: Dung Beetles (Scarabaeidae, Coleoptera) from the Kenting Area in Taiwan. Japanese Journal of Systematic Entomology 19: 243-250.
- MINKINA Ł. 2013: Rhyssemus puncticollis Brown, 1929 (Coleoptera, Scarabaeidae, Aphodiini) pierwsze doniesienie dla fauny Bułgarii [Rhyssemus puncticollis Brown, 1929 (Coleoptera, Scarabaeidae, Aphodiini) first record from Bulgaria]. Biuletyn Częstochowskiego Koła Entomologicznego 11: 22-24 (in Polish).
- MINKINA Ł., NOWAK C. & BIDAS M. 2014: First records of *Psammodius asperoides* Pittino, 2007 and *Rhyssemus annaedicatus* Pierotti, 1980 (Coleoptera, Scarabaeidae, Aphodiinae) in Bulgaria. *ZooNotes* 60: 1-4.
- NIKOLAJEV G. V. 1987: Plastichnatousye zhuki (Coleoptera, Scarabaeoidea) Kazakhstana i Srednei Azii. Alma-Ata: Izdatelstvo "Nauka" Kazakhskoy SSR, 232 pp.
- NIKOLAJEV G. V. & PUNTSAGDULAM Zh. 1984: Plastichnatousye (Coleoptera, Scarabaeoidea Mongolskoi Narodnoi Respubliki. *Nasekomye Mongolii* 9: 90-294.
- OCHI T., KAWAHARA M. & INAGAKI M. 2006a: Taxonomic Notes on some Japanese coprophagous lamellicorn beetles (Coleoptera, Scarabaeoidea) VI. Descriptions of three new taxa. *Japanese Journal of Systematic Entomology* 12: 143-149.
- OCHI T., KAWAHARA M. & INAGAKI M. 2006b: Taxonomic notes on some Japanese coprophagous lamellicorn beetles (Coleoptera, Scarabaeoidea). VII. Descriptions of two new taxa of Aphodiidae. *Kogane* 7: 31-36.
- OCHI T., KAWAHARA M. & INAGAKI M. 2007: Transfer of the Japanese species, *Leiopsammodius yadai* Ochi, Kawahara et Inagaki to the genus *Platytomus* Mulsant (Coleoptera, Scarabaeoidea). VII. Descriptions of two new taxa of Aphodiidae. *Kogane* 8: 65-66.
- OCHI T., KAWAHARA M. & INAGAKI M. 2011: Taxonomic notes on some Japanese coprophagous Lamellicorn beetles (Coleoptera, Scarabaeoidea). Description of a new species of the genus *Psammodius* and a new species of the genus *Trichiorhyssemus* (Aphodiidae) from Tanegashima Is., Southwest Japan. *Kogane* 12: 69-77.
- OCHI T., KAWAHARA M. & INAGAKI M. 2012: Two new species of the genus *Myrhessus* from Japan (Coleoptera, Scarabaeidae). Pp. v-viii. In: OKAJIMA S. & ARAYA K. (eds): *The standard of scarabaeoid beetles in Japan*. Tokyo: Gakken, i-viii + 444 pp.

- PITTINO R. 1979: Revisione dei tipi di *Psammodius* Fallén conservati al Museo di Storia Naturale di Genova e descrizione di una nuova specie della regione indocinese (Coleoptera Aphodiidae). *Annali dell Museo Civico di Storia Naturale di Genova* 82: 141-152.
- PITTINO R. 1980a. Revisione del genere *Psammodius* Fallén: 4. Le specie paleartiche del sottogenere *Brindalus* Landin (Coleoptera Aphodiidae). Atti della Societí Italiana di Scienze Naturali e dell Museo Civico di Storia Naturale in Milano 121: 337-359.
- PITTINO R. 1980b. Revisione del genere *Psammodius* Fallén: 3. Le specie del gruppo *plicatulus* del Continente Antico (Coleoptera Aphodiidae). *Revue Suisse de Zoologie* 87: 67-79.
- PITTINO R. 1984a: Insects of Saudi Arabia Coleoptera: Scarabaeoidea: a revision of the family Aphodiidae. Fauna of Saudi Arabia 6: 267-360.
- PITTINO R. 1984b: Taxonomic considerations on types revisions, lectotypes designations and descriptions of new or little known Psammodiini from Palaearctic, Oriental and Ethiopian Regions (Coleoptera, Aphodiidae) (XXVI contribution to the knowledge of Coleoptera, Scarabaeidae). Giornale Italiano di Entomologia 2: 13-98.
- PITTINO R. 2006: Redescription of the genus *Petrovitzius* Rakovič, 1979, and descriptions of *Rakovicius* gen. nov. from East Asia and *R. kawaii* sp. nov. from Taiwan (Coleoptera Aphodiidae Psammodiinae). *Kogane* 7: 11-21.
- PITTINO R. 2007: A Review of the Western Palearctic species of the genus *Psammodius* Fallén, 1807, with description of a new species from Greece (Coleoptera, Aphodiidae, Psammodiinae). *Giornale Italiano di Entomologica* 12: 93-117.
- PITTINO R. & KAWAI S. 2007: A new *Trichiorhyssemus* species from Taiwan, Southwest Japan and Southeast China (Coleoptera, Aphodiidae, Psammodiinae). Kogane 8: 67-74.
- PITTINO R. & MARIANI G. 1986: A revision of the Old World species of the genus *Diastictus* Muls., and its allies (*Platytomus* Muls., *Pleurophorus* Muls., *Afrodiastictus* n. gen., *Bordatius* n. gen.) (Coleoptera Aphodiidae, Psammodiini). *Giornale Italiano di Entomologia* 3: 1-165.
- PITTINO R. & MIESSEN G. 2007: A new species of the genus *Pleurophorus* Mulsant, 1842 from Western Cyprus (Coleoptera, Aphodiidae, Psammodiinae). *Kogane* 8: 75-79.
- PITTINO R., RAKOVIČ M. & MENCL L. 2013: A contribution to knowledge of *Rhyssemus* Mulsant, 1892 species with description of a new species from Laos and proposal of two new synonyms. *Studies and Reports, Taxonomical Series* 9: 193-200.
- PITTINO R. & SHOKHIN I. V. 2006: A new species of the genus *Psammodius* Fallén, 1807 from Northeastern Anatolia and Caucasus (Coleoptera, Aphodiidae, Psammodiinae). *Kogane* 7: 23-26.
- RAKOVIČ M. 1979: A review of the genus *Petrovitzius* (Coleoptera: Scarabaeidae: Aphodiinae). *Acta Entomologica Bohemoslovaca* 76: 337-340.
- RAKOVIČ M. 1982: A revision of the genus *Rhyssemodes* (Coleoptera: Scarabaeidae: Aphodiinae). *Annotationes Zoologicae et Botanicae* 147: 1-20.
- RAKOVIČ M. 1985: Psammodiini of Sudan (Coleoptera: Scarabaeidae: Aphodiinae). *Annotationes Zoologicae et Botanicae* 163: 1-20.
- RAKOVIČ M. 1986: Complementary notes to my revision of old world *Psammodius* species (Coleoptera: Scarabaeidae: Aphodiinae). *Annotationes Zoologicae et Botanicae* 174: 1-19.
- RAKOVIČ M. 1987: A contribution to the knowledge of *Trichiorhyssemus* Clouët species from the Oriental Region, New Guinea and Pacific Islands (Coleoptera, Scarabaeidae, Aphodiinae). *Annotationes Zoologicae et Botanicae* 182: 1-14.
- RAKOVIČ M. 1998: A key to species of the genus *Granulopsammodius* and description of a new species from Iran (Coleoptera: Scarabaeidae: Aphodiinae). *Folia Heyrovskyana* 6: 43-47.
- RAKOVIČ M. & KRÁL D. 1996: A review of the *Leiopsammodius* species of the Malayan subregion (Coleoptera: Scarabaeoidea: Aphodiidae). *Folia Heyrovskyana* 4: 87-92.
- RAKOVIČ M. & KRÁL D. 1997: New taxa, new combinations and current taxonomic status of tribes and genera of Psammodiinae (Coleoptera: Scarabaeoidea: Aphodiidae). Acta Societatis Zoologicae Bohemicae 61: 233-247.
- RAKOVIČ M. & KRÁL D.: New Acts and Comments. In: LÖBL I. & LÖBL D. (eds): Catalogue of Palaearctic Coleoptera. Volume 3. Revised and Updated Edition. Scarabaeoidea Scirtoidea Dasciloidea Buprestoidea Byrrhoidea. Leiden: E. J. Brill (in press).
- RAKOVIČ M., KRÁL D. & BEZDĚK A.: Tribe Psammodiini Mulsant, 1842. In: LÖBL I. & LÖBL D. (eds): Catalogue of Palaearctic Coleoptera. Volume 3. Revised and Updated Edition. Scarabaeoidea Scirtoidea Dasciloidea Buprestoidea Byrrhoidea. Leiden: E. J. Brill (in press).
- RAKOVIČ M. KRÁL D. & LÖBL I. 2006: Tribe Psammodiini Mulsant, 1842. Pp. 144-149. In: LÖBL I. & SMETANA A. (eds): Catalogue of Palaearctic Coleoptera, Vol. 3. Scarabaeoidea Scirtoidea Dasciloidea Buprestoidea Byrrhoidea. Stenstrup: Apollo Books, 690 pp.
- RAKOVIČ M., KRÁL D. & MENCL L. 2014: A second species of the genus *Pittinius* (Coleoptera: Scarabaeidae: Aphodiinae: Psammodiini) from Nepal. *Studies and Reports, Taxonomical Series* 10: 577-586.
- RÖSSNER E. 2012: Die Hirshkäfer und Blatthornkäfer Ostdeutschlands. Erfurt: Verein der Freunde & Förderer des Naturkundemuseums Erfurt e. V., 508 pp.
- SHOKHIN I. V. 2002: Plastichnatousye zhuki (Coleoptera, Scarabaeoidea) nizhnego Povolzhya. *Bioraznoobrazye Nasekomykh Yugo-vostoka Evropeiskoy Chasti Rossii*. 2002: 93-146.
- SHOKHIN I. V. 2006: Obzor rodov Diastictus Mulsant, 1842, Pleurophorus Mulsant, 1842, Platytomus Mulsant, 1842

- i *Pararhyssemus* Balthasar 1955 (Coleoptera: Scarabaeidae: Psammodiini) Rossii i sopredelnykh territoriy [A review of the genera *Diastictus* Mulsant, 1842, *Pleurophorus* Mulsant, 1842, *Platytomus* Mulsant, 1842 and *Pararhyssemus* Balthasar 1955 (Coleoptera: Scarabaeidae: Psammodiini) of Russia and adjacent territories]. *Kavkazskiy Entomologicheskiy Byulleten* 2: 47-55 (in Russian).
- SHOKHIN I. V. 2007: Materiali k faune plastichnatousykh zhukov (Coleoptera, Scarabaeoidea) Yuzhnoy Rossii. Contribution to the fauna of Lamellicorn beetles (Coleoptera, Scarabaeoidea) of Southern Russia, with some nomenclatorial changes in the family Scarabaeidae (in Russian). Kavkazskiy Entomologicheskiy Byulleten 3: 105-185.
- SHOKHIN I. V., ABDURAKHMANOV G. M. & ADILKHANOVA F. G. 2014: Plastichnatousye zhuki (Coleoptera, Scarabaeoidea) poberezhiy i ostrovov Kaspiyskogo Morya [Lamellicorn beetles (Coleoptera, Scarabaeoidea) of the coasts and islands of the Caspian Sea: A survey of the fauna]. Yug Rossii: Ekologia, Razvitie 2014: 60-90 (in Russian).
- SHOKHIN I. V., ABDURAKHMANOV G. M. & OLEINIK D. I. 2012: Plastichatousye zhuki (Coleoptera, Scarabaeoidea) respubliki Dagestan (fauna, ekologia, zoogeografiya). Makhachkala: Eko-press, 122 pp.
- ZIANI S. 1995: Catalogo faunistico ed analisi zoogeographica degli Scarabaeoidea saprocoprophagi della "Romagna Zangheriana" (Coleoptera, Scarabaeoidea). Bolletino dell'Associazione Romana di Entomologia 14(1): 1-38.
- ZIANI S. 1997: Scarabaeoidea Laparosticti di Cipro: un primo quadro d'insieme sulla fauna dell'isola (Coleoptera). Biocosme Mésogéen 49: 169-214.
- ZIANI S., BEZDĚK Å., BRANCO T., HILLERT O., JÁKL S., KRÁL D., MANTIČ M., RÖSSNER E. & SEHNAL R. 2015: New country records of Scarabaeoidea from the Palaearctic region (Coleoptera). Insecta Mundi 409: 1-36.

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