

**NEW RECORDS OF PALAEARCTIC DYNASTID BEETLES (1):
SPECIES FROM PAKISTAN
(Coleoptera, Scarabaeoidea, Dynastidae)**

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Abstract : Five Dynastidae beetle species are reported here for the first time from Pakistan, four of these records also represent the first citations for the Palaearctic Region as defined by Löbl & Smetana. Illustrations of these species are provided.

Résumé : Cinq espèces de dynastes sont pour la première fois signalées du Pakistan parmi lesquelles quatre représentent la première citation pour la région paléarctique sensu Löbl & Smetana. Des photographies de ces espèces sont fournies.

Keywords : Coleoptera, Scarabaeoidea, Dynastidae, Palaearctic Region, Pakistan, new records.

Introduction

The family Dynastidae forms part of the Scarabaeoidea super-family of the order Coleoptera. This group of beetles currently contains more than 1700 species and about 210 genera, which are distributed in most of the biogeographical regions with a prevalence for the tropical areas (Website : <http://site.voila.fr/dynastidae>, update version 9 April 2009).

The Dynastidae species occurring in the Palaearctic Region, as defined by LÖBL & SMETANA (2003), were recently listed by KRELL (2006) in the third volume of the Catalogue of the Palaearctic Coleoptera. In this work, 84 species belonging to 25 genera are reported from this region, eight of which are known to occur in Pakistan. A ninth species, *Phyllognathus dionysius* Fabricius, 1792 has been recently confirmed to inhabit northern Pakistan (DRUMONT *et al.*, 2009).

For the purpose of this note, we have studied the Dynastidae collection of Julien P. M. ROGGEMAN (Voorburg, The Netherlands) acquired by the Institut royal des Sciences naturelles de Belgique, and also the specimens collected by one of the authors (M. ATIQUE AKHTER) from several Pakistani provinces.

The result of this study lead us to record five additional species of Dynastidae for the first time from Pakistan, four of which have not been reported from the Palaearctic Region until now.

Collections examined

ADC: Alain DRUMONT collection (Bruxelles, Belgium)

IRSNB: Institut royal des Sciences naturelles de Belgique (Bruxelles, Belgium)

JPSC: Jochen-P. SALTIN collection (Niedernhausen/Ts., Germany)

New Dynastidae records for Pakistan

Tribe Pentodontini Mulsant, 1842

Alissonotum simile Arrow, 1910

Material studied (5 males, 5 females) :

2 males, Pakistan, [North-West Frontier Province], Temergara, 18.7.[19]86, lumière / Coll. IRSNB, ex coll. J. Roggeman, I.G.: 30.600 / *Microrhynchus kanarensis* Arrow / *Alissonotum simile* Arrow, det. Y. Ponchel 2007 (IRSNB); 2 males, idem, 20.7.[19]86 (IRSNB); 1 female, idem, 22.7.[19]86 (IRSNB); 1 female, idem, 23.7.[19]86 (IRSNB); 1 male, 2 females, Pakistan, North-West Frontier province, Paras, 1.330 m., 34°39.6N-

73°28.0E, 26.VII.2008, leg. Muh. A. Akhter / *Alissonotum simile* Arrow, 1910, Det. A. Drumont, 2009 (ADC); 1 female, idem (JPSC).

Distribution : **India** (Assam, Bihar, Himachal Pradesh & Tamil Nadu states), **Nepal** (central part), **Pakistan** (North-West Frontier Province).

Remarks : ARROW (1910) described *Alissonotum simile* from two places in eastern India (Silhet, Dilkoosha in the Assam state, and from Pusa in Bengal now located in the Bihar state). It was also reported by ENDRÖDI (1969) from southern India (Tranquebar in the Tamil Nadu state). Recently, *A. simile* was also found to occur in the Himachal Pradesh state in north-western part of India (CHANDRA, 2005) and in the central part of Nepal (AHRENS, 2005).

A. simile seems to exhibit a rather wide distribution in the Indian subcontinent and so it is not a surprise to find its occurrence in northern Pakistan, extending its known geographic range slightly to the west.

The records of *A. simile* from Pakistan, together with those just mentioned from Nepal and Himachal Pradesh in India represents the first reports of the species in the Palaearctic Region sensu LÖBL & SMETANA (2003).

Heteronychus sacchari Arrow, 1908

Material studied (3 females) :

2 females, Pakistan, Punjab province, Muree, 27.VII.2008, leg. Muh. A. Akhter / *Heteronychus sacchari* Arrow, 1908, Det. A. Drumont, 2009 / *Heteronychus sacchari* Arrow, R.-P. Dechambre det. 2009 (ADC); 1 female, idem, *Heteronychus sacchari* Arrow, 1908, Det. A. Drumont, 2009 (JPSC).

Distribution : **Bangladesh, Pakistan** (Punjab province).

Remarks : Described by ARROW (1908) from Bengal (Rungpur) in East India which now belongs to the country of Bangladesh, no more data were available recently for *Heteronychus sacchari* (Arrow, 1910; Endrödi, 1969; Endrödi, 1985) until it was collected again in the Punjab province of Pakistan.

Its discovery in Pakistan extends considerably the geographic range of the species to the west of its distribution, and also represents the first report of *Heteronychus sacchari* in the Palaearctic Region sensu LÖBL & SMETANA (2003).

Pentodon bengalense Arrow, 1910

Material studied (5 males, 9 females) :

1 female, Pakistan, [North-West Frontier Province], Temergara, 30.3.[19]86, s. sol / Coll. IRSNB, ex coll. J. Roggeman, I.G.: 30.600 / *Pentodon bengalense* Arrow / *Pentodon bengalense* Arrow, det. Y. Ponchel 2007 (IRSNB); 1 female, idem, 20.5.[19]86 (IRSNB); 2 females, idem, 26.5.[19]86 (IRSNB); 1 female, idem, 27.5.[19]86 (IRSNB); 1 female, Pakistan, North-West Frontier Province, Paras, 1.330 m., 34°39.6N-73°28.0E, 26.VII.2008, leg. Muh. A. Akhter / *Pentodon bengalense* Arrow, 1910, Det. A. Drumont, 2009 (ADC); 1 male, 1 female, Pakistan, Fedral Capital, Islamabad, 11.IX.2009, leg. Muh. A. Akhter; 1 female, Pakistan, North-West Frontier Province, Dader, 15.VII.2007, leg. Zubair, ex. coll. Denis Keith / *Pentodon bengalense* Arrow, 1910, Det. A. Drumont, 2009 (ADC); 4 males, 1 female, Pakistan, Federally Administered Tribal Areas, Khar, Bajor Agency, V-VI.2009, local collectors leg. (ADC & JPSC).

Distribution : **India** (Bihar, Punjab & West Bengal states), **Pakistan** (Federally Administered Tribal Areas, North-West Frontier & Punjab provinces).

Remarks : *Pentodon bengalense* was described by ARROW (1910) based on two females collected in the old Bengal area in East India (from Pusa located in Bihar state and from Rajmahal in West Bengal). The species was also reported from Punjab by ENDRÖDI (1969) (this record most probably concerns the Indian part of the Punjab area). It was therefore logical to also discover *P. bengalense* in the Punjab province of Pakistan. Based on our data set, in this country, the species seems to be rather widely distributed in the northern part.

The records of *Pentodon bengalense* from Pakistan also represent the first report of the species in the Palaearctic Region sensu LÖBL & SMETANA (2003).

Pentodon topali Endrödi, 1974

Material studied (2 males, 1 female) :

1 male, Pakistan, Gilgit province, Naltar, 16.VI.2008, leg. local collector / *Pentodon topali* Endrödi, 1974, Det. A. Drumont, 2009 / *Pentodon topali* Endrödi, det. R.-P. Dechambre det. 2009 (ADC); 1 male, Pakistan, North-West Frontier Province, Swat, Ilam, VI.2008, leg. local collector / *Pentodon topali* Endrödi, R.-P. Dechambre det. 2009 (JPSC); 1 female, Pakistan, Baluchistan province, Khusdar, 13.VII.2008, *Pentodon topali* Endrödi, 1974, Det. A. Drumont, 2009 (ADC).

Distribution : **India** (Bihar), **Pakistan** (Baluchistan, Gilgit, and North-West Frontier Province).

Remarks : This species was described by ENDRÖDI (1974) based on four specimens collected in Manihari Ghat in the Bihar state in East India by Dr. Topal. In ENDRÖDI'S (1985) monograph, this was the only known record for the species. Its discovery in Pakistan extends considerably the geographic range to the west of its known distribution.

The records of *Pentodon topali* from Pakistan also represent the first report of the species in the Palearctic Region sensu LÖBL & SMETANA (2003).

Tribe Phileurini Burmeister, 1847

Eophileurus platypterus (Wiedemann, 1823)

Material studied (2 females) :

1 female, Pakistan, [North-West Frontier Province], Peshawar, 10.8.[19]86, lumière / Coll. IRSNB, ex coll. J. Roggeman, I.G.: 30.600 / *Eophileurus Platypterus* Wied. / *Eophileurus platypterus* (Wiedeman), det. Y. Ponchel 2007 (IRSNB); 1 female, Pakistan, [North-West Frontier Province], Temergara, 2.7.[19]86, lumière / Coll. IRSNB, ex coll. J. Roggeman, I.G.: 30.600 / *Eophileurus Platypterus* Wied. / *Eophileurus platypterus* (Wiedeman), det. Y. Ponchel 2007 (IRSNB).

Distribution : **India** (Haryana, Karnataka, Madhya Pradesh, Maharashtra, Sikkim, Tamil Nadu, Uttar Pradesh & West-Bengal states), **Nepal** (Katmandou), **Pakistan** (North-West Frontier Province).

Remarks : Described from the Bengal area in East India, the species *Eophileurus platypterus* occurs in most parts of India (ARROW, 1910; PRELL, 1913; KRELL, 2006; CHANDRA & AHIRWAR, 2007; YAMAYA & MURAMOTO, 2008). It was also previously recorded from Nepal by NAKANE (1972) but this later record was not taken into account or discussed by KRELL (2006).

Its discovery in Pakistan extends the distribution of the species in the north-western part of its geographic range in the Indian subcontinent.

Results and discussion

The examination of Dynastidae material recently collected in Pakistan has increased knowledge of the fauna of this country. We were able to record for the first time five species for Pakistan including four that were never reported until now from the Palearctic Region sensu LÖBL & SMETANA (2003) and which could be added to the list of species proposed by KRELL (2006). The number of Dynastidae species occurring in Pakistan is now increased to 14 species which are listed below.

As previously observed for the distribution of the species *Phyllognathus dionysius* in Pakistan (DRUMONT et al., 2009), the most part of the localities data mentioned in our paper are coming from the northern half of the country. This is probably best explained by the absence of available data in the literature and in the collections examined from this part of the country. Therefore, when more intensive collects will investigate the provinces from the southern part of Pakistan, especially the whole Balouchistan province, this is evident that more new species of Dynastidae will be found to occur in this country located at the boundary between the Palearctic and the Oriental Regions.

**Provisional checklist of the Dynastidae from Pakistan
based on KRELL (2006) and DRUMONT et al. (2009)**

Tribe Dynastini MacLeay, 1819

Xylotrupes mniszechi ssp. *mniszechi* Thomson, 1859

Tribe Oryctini Illiger, 1798

Oryctes agamemnon ssp. *matthiesseni* Reitter, 1907

Oryctes nasicornis ssp. *illigeri* Minck, 1915

Oryctes rhinoceros (Linnaeus, 1758)

Tribe Pentodontini Mulsant, 1842

Alissonotom crassum Arrow, 1908

Alissonotom piceum (Fabricius, 1775)

Alissonotom simile Arrow, 1910

Heteronychus sacchari Arrow, 1908

Pentodon algerinum ssp. *indicum* Endrödi, 1967

Pentodon bengalense Arrow, 1910

Pentodon idiota ssp. *gumariensis* Petrovitz, 1961

Pentodon topali Endrödi, 1974

Phyllognathus dionysius (Fabricius, 1792)

Tribe Phileurini Burmeister, 1847

Eophileurus platypterus (Wiedemann, 1823)

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Figures 1-5. Habitus, dorsal view : **Fig. 1.** *Alissonotum simile* Arrow : male (Pakistan, North-West Frontier Province, Paras, in ADC); **Fig. 2.** *Heteronychus sacchari* Arrow : female (Pakistan, Punjab province, Muree, in ADC); **Fig. 3.** *Pentodon bengalense* Arrow : male (Pakistan, Fedral Capital, Islamabad, in ADC); **Fig. 4.** *Pentodon topali* Endrödi : male (Pakistan, Gilgit province, Naltar, in ADC); **Fig. 5.** *Eophileurus platypterus* (Wiedemann) : female (Pakistan, Temergara, in IRSNB). Pictures by Noël MAL, colour plate prepared by Jochen-P. SALTIN.

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ADDENDUM

F i g u r e s

***Alissonotum simile* Arrow:**

male (Pakistan, North-West Frontier Province, Paras, *in ADC*)

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***Heteronychus sacchari* Arrow:**

female (Pakistan, Punjab Province, Muree, *in ADC*)

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***Pentodon bengalense* Arrow:**

male (Pakistan, Islamabad, *in ADC*)

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***Pentodon topali* Endrödi:**

male (Pakistan, Gilgit Province, Naltar, *in ADC*)

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***Eophileurus platypterus* (Wiedemann):**

female (Pakistan, Temergara, *in IRSNB*)

Pictures by Noël MAL



Alissonotum simile Arrow:
male (Pakistan, North-West Frontier Province, Paras, *in* ADC)



***Heteronychus sacchari* Arrow:**
female (Pakistan, Punjab Province, Muree, *in ADC*)



***Pentodon bengalense* Arrow:**
male (Pakistan, Islamabad, *in ADC*)



***Pentodon topali* Endrödi:**
male (Pakistan, Gilgit Province, Naltar, *in* ADC)



Eophileurus platypterus (Wiedemann):
female (Pakistan, Temergara, in IRSNB)