

NEW AND INTERESTING RECORDS OF ONITICELLINI AND ONTHOPHAGINI (COLEOPTERA: SCARABAEIDAE: SCARABAEINAE) FROM NEPAL (SECOND CONTRIBUTION TO THE KNOWLEDGE OF NEPALESE SCARABAEIDAE)

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Abstract

New and remarkable records of Nepalese Oniticellini Kolbe, 1905 and Onthophagini Streibel, 1846 (Coleoptera: Scarabaeidae) are presented. For each species the general distribution is given. Ten species (*Liatongus phanaeoides* (Westwood, 1835), *Caccobius* (*Caccophilus*) *himalayanus* Jekel, 1872, *Onthophagus* (*Onthophagiellus*) *crassicollis* Boucomont, 1913, *O.* (*s. str.*) *falsus* Gillet, 1925, *O.* (*Phanaeomorphus*) *procurvus* Balthasar, 1935, *O.* (*Serrophorus*) *atropolitus* d'Orbigny, 1902, *O.* (*s. l.*) *iyengari* Arrow, 1931, *O.* (*s. l.*) *mirandus* Arrow, 1931, *O.* (*s. l.*) *pacificus* van Lansberge, 1885 and *Parascatonomus* (*s. str.*) *sikkimpolitus* Ochi, Kon & Barclay, 2017) are recorded from Nepal for the first time. *Onthophagus* (*s. l.*) *iyengari* Arrow, 1931 is recorded for the first time also from the Palaearctic ecozone. Furthermore, the evidences that the name *Onthophagus armatus* is available from Blanchard (1844) and not Blanchard (1853), as stated by the literature, are provided.

Keywords: Faunistic, new country records, coprophagous scarabs, Nepal.

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INTRODUCTION

Among the material deposited in the Natural History Museum London, including the specimens sampled by the second author during his 2022 Nepal fieldtrip, and in the first author's collection, we found some Oniticellini Kolbe, 1905 and Onthophagini

Streibel, 1846 whose data are worthy of publication. Furthermore, with the support of László Nádai (Budapest, Hungary), who made several entomological trips to Nepal, we obtained access to other interesting records of Onthophagini from this Himalayan country. The present paper deals with such records. It shall be considered as the second contribution

to the knowledge of Nepali Scarabaeidae, after Ziani (2024a). All collecting data of the concerning species are given, and their distribution is specified. We also provide habitat images for some collecting localities.

MATERIAL AND METHODS

Systematic and nomenclature follow Bezděk (2016) for the tribe Oniticellini, and Ziani and Bezděk (2016) for the tribe Onthophagini, with some exceptions: the genus *Liatongus* Reitter, 1892 is treated in the subtribe *Liatongina* Philips, 2016 of Oniticellini (Philips 2016), the year of description of *Onthophagus phanaeoides* Westwood (presently *Liatongus phanaeoides*) is reported to be 1835, and not 1839 (Bousquet 2016), the authorship of the epithet 'Onthophagini' is assigned to Streubel (1846) as in Bouchard and Bousquet (2020) and, finally, *Parascatonomus* Paulian, 1932 is considered at a rank of genus (Kabakov 1992, Ochi & Kon 2017). Furthermore, the name *Onthophagus armatus* is deemed to be available from Blanchard (1844) (see the discussion below).

All taxa are listed alphabetically in the list. All observations are listed chronologically. The number of collected specimens is abbreviated as 'ex.' for one or 'exx' for more than one specimen.

The specimens discussed herein are deposited in the collection of László Nádai, Budapest, Hungary (LNCB), the Natural History Museum, London, United Kingdom (NHMUK) and in the collection of the first author (SZCM).

Labels are optimized and not transcribed *verbatim*.

RESULTS

Scarabaeidae Latreille, 1802

Scarabaeinae Latreille 1802

Oniticellini Kolbe, 1905

Liatongina Philips, 2016

Liatongus phanaeoides (Westwood, 1835)

New material examined. Nepal: Karnali Pradesh, Humla distr., 34.5 km SE–41 km E Simikot, 1655–2625 m, 29°45'10"N 82°4'26"E to 29°41'47"N 82°6'4"E, 23.vi.2022, D. Telnov leg. 1 ex. (NHMUK); Karnali Pradesh, Humla distr., 41 km E Simikot, 2625 m, 29°41'47"N 82°6'4"E, UV light, 23–24.vi.2022, D. Telnov leg. 1 ex. (NHMUK); Karnali Pradesh, Mugu distr., 35 km N Jumla, 2595 m, 29°35'24"N 82°8'43"E, 26.vi.2022, D. Telnov leg. 20 exx (NHMUK, SZCM); Karnali Pradesh, Jumla distr., Jumla, 9 km NNW to Jumla airport, 2365–3550 m, 29°21'26"N 82°9'31"E to 29°16'21"N 82°11'35"E, 2.vii.2022, D. Telnov leg. 2 exx (NHMUK).

Distribution. Pakistan; India: Arunachal Pradesh, Himachal Pradesh and Uttarakhand; China: Chongqing, Fujian, Guizhou, Hebei, Henan, Sichuan, Shanxi and Yunnan; North and South Korea; Japan (Bezděk 2016). China: Xizang (Zhang 2004). India: Jammu and Kashmir (Singh 2020). China: Ningxia, Taiwan; Myanmar; Thailand; Cambodia (Schoolmeesters 2024).

Remarks. First record from Nepal.

Oniticellina Kolbe, 1905

Oniticellus cinctus (Fabricius, 1775)

New material examined. Nepal: Gandaki Pradesh, Pokhara, 900 m, 14/15.ix.1997, L. Nádai leg. 3 exx (LNCB, SZCM); Bagmati Pradesh, Sauraha, Chitwan National Park, 200 m, 18/19.xi.2002, L. Nádai leg. 3 exx (LNCB); *ibidem*, 13.x.2003, L. Nádai leg. 1 ex. (LNCB); *ibidem*, 11.iv.2019, L. Nádai leg. 4 exx (LNCB); Gandaki Pradesh, 50 km E Pokhara, 360 m, 28°1'39"N 84°15'30"E, 27.iii.2024, S. Ziani leg. 1 ex. (SZCM); Gandaki Pradesh, 70 km E Pokhara, 360 m, 27°55'39"N 84°28'59"E, 27.iii.2024, S. Ziani

leg. 1 ex. (SZCM); Gandaki Pradesh, Damauli, 18 km W Pokhara, 390 m, 28°4'47"N 84°14'14"E, 29.iii.2024, S. Ziani leg. 22 exx (SZCM).

Distribution. Pakistan (Noureen et al. 2015). India: Arunachal Pradesh, Himachal Pradesh, Uttarakhand; China: Fujian, Taiwan, Yunnan (Bezděk 2016). Nepal (Shrestha 2005). China: Hainan, Hong Kong; central and southern India; Thailand; Cambodia; Malaysia; Indonesia (Schoolmeesters 2024).

Remarks. The presence of the species in Nepal is herewith confirmed.

Onthophagini Streubel, 1846

Caccobius (Caccophilus) himalayanus Jekel, 1872

New material examined. Nepal: Karnali Pradesh, Humla distr., ~12–13 km SE Simikot, 3000–3445 m, 29°54'23"N 81°55'7"E to 29°53'37"N 81°55'36"E, 18.vi.2022, D. Telnov leg. 1 ex. (NHMUK); Karnali Pradesh, Humla distr., ~12–13 km SE Simikot, 3200–3310 m, 29°54'00"N 81°55'11"E, 18.vi.2022, D. Telnov leg. 1 ex. (NHMUK); Karnali Pradesh, Humla distr., ~21.5 km SE Simikot, 2690–3705 m, 29°49'49"N 81°58'21"E, 20.vi.2022, D. Telnov leg. 2 exx (NHMUK); Karnali Pradesh, Humla distr., 34.5 km SE–41 km E Simikot, 1655–2625 m, 29°45'10"N 82°4'26"E to 29°41'47"N 82°6'4"E, 23.vi.2022, D. Telnov leg. 1 ex. (NHMUK); Karnali Pradesh, Humla distr., 34.5 km SE–41 km E Simikot, 1655–2625 m, 29°45'10"N 82°4'26"E to 29°41'47"N 82°6'4"E, 23.vi.2022, D. Telnov leg. 3 exx (NHMUK, SZCM); Karmali Pradesh, Mugu distr., 35 km N Jumla, 2595 m, 29°35'24"N 82°8'43"E, 26.vi.2022, D. Telnov leg. 2 exx (NHMUK, SZCM).

Distribution. India: Himachal Pradesh, Jammu and Kashmir, Uttarakhand; China: Xizang (Ziani & Bezděk 2016). Central and southern India (Schoolmeesters 2024).

Remarks. First record from Nepal.

Cleptocaccobius inermis (Arrow, 1931)

New material examined. Nepal: Karmali Pradesh, Humla distr., 28 km E–34.5 km SE Simikot, 2530–1655 m, 29°47'29"N 82°1'15"E to 29°45'10"N 82°4'26"E, 22.vi.2022, D. Telnov leg. 3 exx (NHMUK, SZCM).

Distribution. India: Arunachal Pradesh, Himachal Pradesh, Sikkim (Darjeeling district), Uttarakhand (Ziani & Bezděk 2016). Nepal (Shrestha 2005, as *Caccobius*). Western India; Sri Lanka (Schoolmeesters 2024).

Remarks. The presence of the species in Nepal is confirmed.

Onthophagus (Colobonthophagus) tragus (Fabricius, 1792)

New material examined. Nepal: Bagmati Pradesh, Sauraha, Chitwan National Park, 150 m, at light, 6.iv.2010, L. Nádai leg. 3 exx (LNCB, SZCM); Bagmati Pradesh, Meghauli area (Chitwan) / Bharatpur 150 m, 27°33'33"N 84°13'28"E, 31.iii.2024, S. Ziani leg. 5 exx (SZCM).

Distribution. Nepal (Shrestha 2005). China: Chongqing, Fujian, Hebei, Sichuan, Shanxi, Taiwan, Yunnan; South Korea (Ziani & Bezděk 2016). India: Himachal Pradesh, Uttarakhand; China: Guangdong, Hong Kong, Ningxia; central and southern India; Myanmar; Thailand; Laos; Cambodia; Vietnam; Malaysia; Indonesia (Schoolmeesters 2024).

Remarks. Confirmed presence in Nepal.

Onthophagus (Colobonthophagus) trice-ratops Arrow, 1913

New material examined. Nepal: Bagmati Pradesh, Sauraha, Chitwan National Park, 213 m, at light, 4.vi.1983, M. J. D. Brendell leg. 2 exx (NHMUK, SZCM); Bagmati Pradesh, Sauraha, Chitwan National Park, 200 m,

18/19.xi.2002, L. Nádai leg. 6 exx (LNCB); Bagmati Pradesh, Sauraha, 200 m, 11.x.2004, 3 exx (SZCM); Bagmati Pradesh, Jagatpur (Chitwan), 170 m, 27°33'31"N 84°20'29"E, 31.iii.2024, S. Ziani leg. 1 ex. (SZCM).

Distribution. Nepal (Shrestha 2005). India: Arunachal Pradesh (Ziani & Bezděk 2016, as *Onthophagus* (*s. l.*) *triceratops*). Central and southern India (Schoolmeesters 2024).

Remarks. Confirmed presence in Nepal. *Onthophagus triceratops* is morphologically very close to *O. armatus* Blanchard, 1844. The taxonomic position of the two taxa and their systematic relationship need to be clarified further (J. Schönfeld, pers. comm.). For this reason, we prudently assign to *O. triceratops* all the Nepalese specimens examined.

Talking about *Onthophagus armatus*: according to the literature this name is available from Blanchard (1853), but herein we intend to prove that it is available already from Blanchard (1844). September 7, 1837, the two sloops “Astrolabe” and “Zélée”, skippered by the captain Jules Dumont d'Urville, left the port of Toulon for a scientific exploration through the lands of South Pole and Oceania, and returned to France in 1840. The entire expedition report was published in 22 volumes and several atlases (Bousquet 2016) between 1842 and 1854. The Zoology section appeared in the 3rd volume (Jacquinot & Pocheran 1853: mammals and birds; Jacquinot & Guichenot 1853: reptiles and fishes; Jacquinot & Lucas 1853: crustaceans), 4th volume (Blanchard 1853: insects) and 5th volume (Rousseau 1854: seashells and “zoophytes”). The description of *Onthophagus armatus* was included in the 4th volume, published in 1853, in which many other new taxa were also described. Nevertheless, as written above, among the reports of the expedition there are also several atlases grouped in livraisons. The “Zoologie Atlas” contains 140 coloured plates, all of them published some years before the text (Bousquet 2016). In the plate 7 of livraison 21,

considered published in 1844 (Bousquet 2016), there are drawings, made by Charles Émile Blanchard, of both sexes of *Onthophagus armatus*. In the caption of the same plate it can be read: “9. *O. armatus*. Mâle. *Nob.* (Borneo)”, and “10. *Onthophagus armatus*. fem. (Borneo)”, where the “*nob.*” is for “*nobis*” (Cappelli 1928) in Latin for “us” and must be considered as a statement that the species epithet was intentionally introduced as new. Article 12.1 of the Code (ICZN 1999) states that a name published before 1931, to be available, must be accompanied by a description, a definition or an indication of the taxon that it denotes. Article 12.2.7 (ICZN 1999) specifies that the word “indication” is to be understood as the proposal of a new species-group name in association with an illustration of the taxon being named. Such is the case with *Onthophagus armatus* with the drawings published in 1844. Thus, we deem proved that the name of this taxon must be considered available from Blanchard (1844). Of course, the procedure of pre-dating the year of description is to be applied to all the species deemed as new and depicted in the “Zoologie atlas” (Clark & Crosnier 2000). With regard to the *Onthophagini*, nevertheless, all other *Onthophagus* species present in the plate – whose names are available, as said, from 1844 – continue not to have precedence over their senior synonyms (Schoolmeesters 2024). In particular, *Onthophagus flavolineatus* Blanchard, 1844 [*nec* Blanchard, 1853] remains to be a junior synonym of *O. posticus* Erichson, 1842, *O. umbraculatus* Blanchard, 1844 [*nec* Blanchard, 1853] to be considered a junior synonym of *O. auratus* Erichson, 1842, *O. viridiobscurus* Blanchard, 1844 [*nec* Blanchard, 1853] - a junior synonym of *O. discolor* Hope, 1841, and, finally, *O. cupreoviridis* Blanchard, 1844 [*nec* Blanchard, 1853] - a junior synonym of *O. australis* Guérin-Ménéville, 1830.

***Onthophagus* (*Colobonthophagus*) *urellus* Boucomont, 1920**

New material examined. Nepal: Bagmati

Pradesh, Saurah, Chitwan National Park, 213 m, at light, 4.vi.1983, M. J. D. Brendell leg. 2 exx (NHMUK, SZCM).

Distribution. Nepal (Schönfeld & Rohwedder 2022). Southern India; Myanmar (Schoolmeesters 2024).

Remarks. The presence of the species in Nepal is herein confirmed.

***Onthophagus (Indonthophagus) turbatus* Walker, 1858**

New material examined. Nepal: Gandaki Pradesh, 50 km E Pokhara, 360 m, 28°1'39"N 84°15'30"E, 27.iii.2024, S. Ziani leg. 2 exx (SZCM).

Distribution. Sri Lanka (Walker 1858). India (Boucomont 1914). Pakistan; Nepal; Bhutan (Ziani 2024b).

Remarks. Confirmed presence in Nepal.

***Onthophagus (Onthophagiellus) crassicollis* Boucomont, 1913**

New material examined. Nepal: Bagmati Pradesh, Royal Chitwan National Park – Temple Tiger Lodge, 200 m, 15.x.2006, L. Nádai leg. 15 exx (LNCB, SZCM).

Distribution. India: Arunachal Pradesh; China: Yunnan (Ziani & Bezděk 2016). Myanmar; Thailand; Vietnam; Sumatra; Malaysia (Schoolmeesters 2024).

Remarks. First record for Nepal.

***Onthophagus (s. str.) falsus* Gillet, 1925**

New material examined. Nepal: Bagmati Pradesh, Sauraha, Chitwan National Park, 11.iv.2009, L. Nádai leg. 4 exx (LNCB, SZCM).

Distribution. Saudi Arabia; Afghanistan; Pakistan; India (Ziani et al. 2019).

Remarks. First record for Nepal.

***Onthophagus (Palaeonthophagus) marginalis nigrimargo* Goidanich, 1926**

New material examined. Nepal: Gandaki Pradesh, Kagbeni, 2810 m, 13.v.2008, R. Regoli & R. Galli leg. 1 ex. (SZCM).

Distribution. Afghanistan; Pakistan; India: Himachal Pradesh, Kashmir, Uttarakhand; Nepal; China: Xizang (Ziani & Bezděk 2016).

Remarks. As far as we know, *O. marginalis nigrimargo* has been reported only once from Nepal (Kabakov 2006). The species is herein reconfirmed for this Himalayan country.

***Onthophagus (Paraphanaeomorphus) bifasciatus* (Fabricius, 1781)**

New material examined. Nepal: Gandaki Pradesh, Pokhara, 900 m, 12.x.1996, 1 ex. (SZCM); Bagmati Pradesh, Chitwan National Park, 170 m, 27°33'24"N 84°20'13"E, 30.iii.2024, S. Ziani leg. 3 exx (SZCM).

Distribution. India: Sikkim (Darjeeling district), Uttarakhand; Nepal (Ziani & Bezděk 2016). India: West Bengal, Bihar; Myanmar (Arrow 1931). India: Maharashtra (Endrödi 1974). Bangladesh (Biswas & Ghosh 2000). India: Himachal Pradesh, Assam, Harjana, Jharkhand, Kerala, Meghalaya, Punjab; Myanmar (Schoolmeesters 2024).

Remarks. Recorded from Nepal by Petrovitz (1968) and confirmed from the country by Shrestha (2005) and by this paper.

***Onthophagus (Phanaeomorphus) procurvus* Balthasar, 1935**

New material examined. Nepal: Koshi Pradesh, Lukla, 2850 m, 7.iv.2003, L. Nádai leg. 1 ex. (LNCB); Koshi Pradesh, Phakding, 2600 m, 20.x.2010, L. Nádai leg. 5 ex. (LNCB, SZCM); Gandaki Pradesh, Kalopani, Annapurna Range, 5.v.2017, E.

Kucera leg. 2 exx (SZCM).

Distribution. India; China: Shanxi, Sichuan, Yunnan (Hua 2002).

Remarks. First record for Nepal.

***Onthophagus (Serrophorus) atropolitus* d'Orbigny, 1902**

New material examined. Nepal: Gandaki Pradesh, Pokhara, 900 m, 14.ix.1997, L. Nádai leg. 9 exx (LNCB, SZCM).

Distribution. India: Himachal Pradesh, Sikkim (Darjeeling Distr.), Uttar Pradesh (Ziani & Bezděk 2016). Central and southern India; Myanmar; Thailand (Schoolmeesters 2024).

Remarks. First record for Nepal.

***Onthophagus (s. l.) beasoni* Arrow, 1931**

New material examined. Nepal: Gandaki Pradesh, Pokhara, 600 m, 15.xi.2005, 1 ex. (SZCM); Bagmati Pradesh, Chitwan, 11.xi.2008, 1 ex. (SZCM); Bagmati Pradesh, Saurah – Chitwan, 3.iii.2017, E. Kucera leg. 4 exx (SZCM); Gandaki Pradesh, Damauli, 18 km W Pokhara, 390 m, 28°4'47"N 84°14'14"E, S. Ziani leg. 1 ex. (SZCM).

Distribution. India: Uttarakhand, Bihar (Arrow 1931). Nepal (Shrestha 2005). Bangladesh (Schoolmeesters 2024).

Remarks. The species is herein confirmed from Nepal.

***Onthophagus (s. l.) iyengari* Arrow, 1931**

New material examined. Nepal: Bagmati Pradesh, Jagatpur (Chitwan) 170 m, 27°33'31"N 84°20'29"E, 31.iii.2024, S. Ziani leg. 1 ♀ (SZCM).

Distribution. Bangladesh (Arrow 1931).

Remarks. First record from Nepal and the Palearctic ecozone (*sensu* Löbl & Löbl

2016).

***Onthophagus (s. l.) mirandus* Arrow, 1931**

New material examined. Nepal: Karmali Pradesh, Humla distr., 28 km E-34.5 km SE Simikot, 1655-2530 m, 29°47'29"N 82°1'15"E to 29°45'10"N 82°4'26"E, 22.vi.2022, D. Telnov leg. 12 exx (NHMUK, SZCM).

Distribution. India: Himachal Pradesh, Uttarakhand (Ziani & Bezděk 2016). India: Punjab, Rajasthan, Assam (Schoolmeesters 2024).

Remarks. First record from Nepal.

***Onthophagus (s. l.) pacificus* van Lansberge, 1885**

New material examined. Nepal: Bagmati Pradesh, Machan, 500 m, 23.ix.1994, L. Padovani e M. Malmusi leg. 1 ex. (SZCM); Gandaki Pradesh, Pokhara, 1100 m, 15.x.2003, L. Nádai leg. 1 ex. (SZCM); Bagmati Pradesh, Royal Chitwan National Park – Temple Tiger Lodge, 15.x.2006, L. Nádai leg. 15 exx (LNCB, SZCM).

Distribution. India: Arunachal Pradesh, Uttarakhand; China: Yunnan (Ziani & Bezděk 2016). India; Bangladesh; Myanmar; Thailand; Laos; Vietnam; Malaysia; Java; Sumatra; Borneo; Sunda Islands (Schoolmeesters 2024).

Remarks. First record from Nepal.

***Onthophagus (s. l.) sternalis* Arrow, 1931**

New material examined. Nepal: Bagmati Pradesh, Saurah, Chitwan National Park, 213 m, at light, 4.vi.1983, M. J. D. Brendell leg. 1 ex. (NHMUK).

Distribution. India: Bengal, Bihar, Uttarakhand, Maharashtra (Arrow 1931). Nepal (Mahato 2012, 2013). India: Gujarat, Haryana, Jharkhand, Madja Pradesh, Uttar Pradesh; Bangladesh (Schoolmeesters 2024).

Remarks. Confirmed presence in Nepal.

Pradesh, Pokhara, 1100 m, 10.x.2001, 1 ex. (SZCM).

Parascatonomus (*s. str.*) *sikkimpolitus* Ochi, Kon & Barclay, 2017

Distribution. India: Sikkim (Ochi et al. 2017).

New material examined. Nepal: Gandaki

Remarks. First record for Nepal.



Figure 1. Collecting area in Nepal, ~ 13 km SE Simikot, 18.vi.2022. Image courtesy: D. Telnov.



Figure 2. Collecting area in Nepal, ~ 21 km SE Simikot, 20.vi.2022. Image courtesy: D. Telnov.

DISCUSSION

Most of the material collected by the 2022 multi-institutional expedition to Nepal (see Acknowledgements) was sampled in NW part of the country in habitats strongly degraded by overgrazing and deforestation. At numerous places visited, the montane forests have completely vanished or represented by individual trees separated by grazed ground without undergrowth. The diversity of vascular plants in the meadows that replaced the initial forests and now used for grazing of local livestock on slopes appears, with rare exceptions, considerably depleted with only *Rumex* (Polygonaceae) being avoided by the animals and surviving the overgrazing en mass. Erosion is evident at several places since no trees are remaining to fix the soil on slopes. On the other hand, these montane meadows and forest edges are the habitats of several poorly known coprophagous scarabs discussed herein.

For the first time we provide images of the habitats in the Nepal Himalayas for *Caccobius himalayanus* (Figs. 1–2, 4), *Cleptocaccobius inermis*, *Onthophagus mirandus* (Fig. 3), and *Liatongus phanaeoides* (Figs. 4–5). The coprophagous scarabs are using the benefits of abundant dung available from cattle and pack animals and some of these beetle species likely

benefit also from the disappearance of forests and the spread of pastures. The effect of this threat to silvicolous coprophagous scarabs is not yet understood.



Figure 3. One of the collecting areas in Nepal, 28 km E - 34 km SE Simikot, 22.vi.2022. The discussed specimens were collected from warm dung (some minutes old) deposited by mules on the stony road at about +25°C and at full sun exposure. Image courtesy: K. Greķe.



Figure 4. Collecting area in Nepal, 35 km N Jumla, 26.vi.2022. Image courtesy: K. Greķe.



Figure 5. Collecting area in Nepal, ~ 9 km NNW to Jumla airport, 2.vii.2022. Image courtesy: K. Greçe.

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REFERENCES

- Arrow G.J. 1931. The fauna of British India, including Ceylon and Burma. Coleoptera Lamellicornia. Part III (Coprinae). Taylor & Francis, London. 428 pp.
- Bezděk A. 2016. Scarabaeidae, subfamily Scarabaeinae, tribe Oniticellini. In: Löbl I., Löbl D. (eds.): Catalogue of Palaearctic Coleoptera. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Revised and Updated Edition. Brill, Leiden–Boston. Pp. 175–177.
- Biswas S., Ghosh A.K. 2000. Coleoptera: Scarabaeidae: Scarabaeinae. In: *Fauna of Meghalaya, Part 5. Zoological Survey of India State Fauna Series*, Kolkata 4. Pp. 513–623.
- Blanchard E. 1844. Zoologie Atlas. Plates 7 [livraison 12]. In: Hombroen J.B.,

- Jacquinot H. (eds.) 1842–1853: Voyage au Pôle Sud et dans l’Océanie sur les corvettes l’Astrolabe et la Zélée; pendant les années 1837–1838–1839–1840, sous le commandement de M. Dumont-d’Urville, Capitaine de vaisseau; publié par ordre du gouvernement et sous la direction supérieure de M. Jacquinot, Capitaine de vaisseau, publié par ordre de Gouvernement et sous la direction supérieure de M. Jacquinot, Capitaine de vaisseau, commandant de la Zélée. Gide et J. Baudry, Paris. Pls. 140. <https://doi.org/10.5962/bhl.title.103827>
- Blanchard E. 1853. Description des insectes. In: Hombron J.B., Jacquinot H. (eds.): Voyage au Pôle Sud et dans l’Océanie sur les corvettes l’Astrolabe et la Zélée; exécuté par ordre du roi pendant les années 1837–1838–1839–1840, sous le commandement de M. J. Dumont d’Urville, Capitaine de vaisseau, publié par ordre de Gouvernement, sous la direction supérieure de M. Jacquinot capitaine de vaisseau, commandant de la Zélée. Zoologie. Tome 4. Gide et J. Baudry, Paris. 422 pp.
- Bouchard P., Bousquet Y. 2020. Additions and corrections to 'Family-group names in Coleoptera (Insecta)'. *ZooKeys* 922: 65–139. <https://doi.org/10.3897/zookeys.922.46367>
- Boucomont A. 1914. *Onthophagus* asiatiques nouveaux ou peu connus. *Annali del Museo Civico di Storia Naturale di Genova* 46 (= Ser. 3, 6): 210–243. <https://doi.org/10.5962/bhl.part.14786>
- Bousquet Y. 2016. Litteratura Coleopterologica (1758–1900): a guide to selected books related to the taxonomy of Coleoptera with publication dates and notes. *ZooKeys* 583: 1–776. <https://doi.org/10.3897/zookeys.583.7084>
- Cappelli A. 1928. Lexicon Abbreviatarum - Wörterbuch lateinischer und italienischer Abkürzungen wie sie in Urkunden and Handschriften besonders des Mittelalters gebräuchlich sind, dargestellt in über 14000 Holzschnitzzeichnungen. J.J. Weber, Leipzig. 673 pp.
- Clark P.F., Crosnier A. 2000. The zoology of the Voyage au pôle sud et dans l’Océanie sur les corvettes l’Astrolabe et la Zélée exécuté par ordre du roi pendant les années 1837–1838–1839–1840 sous le commandement de M. Dumont-d’Urville (1842–1854): titles, volumes, plates, text, contents, proposed dates and anecdotal history of the publication. *Archives of Natural History* 27 (3): 407–435. <https://doi.org/10.3366/anh.2000.27.3.407>
- Endrödi S. 1974. The scientific results of Dr. Gy. Topál's collecting in India. No. 5. Sammelergebnisse aus der Superfamilie Lamellicornia (Coleoptera). *Acta Musei Silesiae* 23: 1–5.
- Hua L. 2002. Superfamilia Scarabaeoidea. List of Chinese insects. Volume 2. Zhongshan (Sun Yat-sen) University Press, Guangzhou. Pp. 152–188.
- ICZN 1999. International Code of Zoological Nomenclature adopted by the International Union of Biological Sciences (4th Edition). International Trust for Zoological Nomenclature, London. 306 pp.
- Jacquinot H., Guichenot M.A. 1853. Reptiles et Poissons. In: Hombron J.B., Jacquinot H. (eds.): Voyage au Pôle Sud et dans l’Océanie sur les corvettes l’Astrolabe et la Zélée; exécuté par ordre du Roi pendant les années 1837–1838–1839–1840, sous le commandement de M. J. Dumont-D’Urville, Capitaine de vaisseau, publié par ordre de Gouvernement, sous la direction supérieure de M. Jacquinot capitaine de vaisseau, commandant de la Zélée. Zoologie. Tome 3. Gide et J. Baudry, Paris. 56 pp.
- Jacquinot H., Lucas H. 1853. Crustacés. In: Hombron J.B., Jacquinot H. (eds.): Voyage au Pôle Sud et dans l’Océanie sur les corvettes l’Astrolabe et la Zélée;

- exécuté par ordre du Roi pendant les années 1837–1838–1839–1840, sous le commandement de M. J. Dumont-D'Urville, Capitaine de vaisseau, publié par ordre de Gouvernement, sous la direction supérieure de M. Jacquinot capitaine de vaisseau, commandant de la Zélée. Zoologie. Tome 3. Gide et J. Baudry, Paris. 107 pp.
- Jacquinet H., Pucheran J. 1853. Mammifères et Oiseaux. In: Hombron J.B., Jacquinot H. (eds.): Voyage au Pôle Sud et dans l'Océanie sur les corvettes l'Astrolabe et la Zélée; exécuté par ordre du Roi pendant les années 1837–1838–1839–1840, sous le commandement de M. J. Dumont-D'Urville, Capitaine de vaisseau, publié par ordre de Gouvernement, sous la direction supérieure de M. Jacquinot capitaine de vaisseau, commandant de la Zélée. Zoologie. Tome 3. Gide et J. Baudry, Paris. 166 pp.
- Kabakov O.N. 1992. Taksonomicheski status *Parascatonomus* (Onthophagini, Scarabaeidae) s opisaniem novykh vidov iz Yugo-Vostochnoi Azii (Taxonomic status of *Parascatonomus* (Onthophagini, Scarabaeidae) with descriptions of new species from southeastern Asia. In: Medvedev L.N. (ed.): Sistematika i ekologiya nasekomykh V'etnama. Nauka, Moscow. Pp. 196–209 (In Russian).
- Kabakov O.N. 2006. Plastinchatousye zhuki podsemeystva Scarabaeinae (Insecta: Coleoptera: Scarabaeidae) fauny Rossii i sopredel'nykh stran (Scarab beetles of the subfamily Scarabaeinae (Insecta: Coleoptera: Scarabaeidae) of the fauna of Russia and adjacent countries). Tovarishchestvo nauchnykh izdaniy KMK, Moskva. 374 pp. (In Russian).
- Löbl I., Löbl D. 2016. Catalogue of Palaearctic Coleoptera. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Revised and updated edition. Brill, Leiden, Boston. 983 pp. <https://doi.org/10.1163/9789004309142>
- Mahato S.P. 2012. Male Genitalia of Some Nepalese Species [of] *Onthophagus* Latreille (Coleoptera: Scarabaeidae). *Journal of Natural History Museum* 26: 88–92. <https://doi.org/10.3126/jnhm.v26i0.14133>
- Mahato S.P. 2013. Male genitalia of some Nepalese species of *Onthophagus* Latreille and Its taxonomic importance. *Tribhuvan University Journal* 28 (1–2): 311–314. <https://doi.org/10.3126/tuj.v28i1-2.26260>
- Noureen N., Hussain M., Malik M.F., Afsheen F. 2015. New records of dung beetle fauna from Pakistan. *Journal of Entomology and Zoology Studies* 3 (3): 428–430.
- Ochi T., Kon M. 2017. Notes on the coprophagous scarab-beetles (Coleoptera, Scarabaeidae) from Southeast Asia. XXVIII. A new genus and three new subgenera of the genus *Parascatonomus*. *Giornale italiano di Entomologia* 14 (62): 775–792.
- Ochi T., Kon M., Barclay M.V.L. 2017. Notes on the coprophagous scarab-beetles (Coleoptera, Scarabaeidae) from Southeast Asia. XXIX. A review of the nominotypical subgenus of the genus *Parascatonomus*, with descriptions of five new species. *Giornale italiano di Entomologia* 14 (62): 793–812.
- Petrovitz R. 1968. Scarabaeidae aus Indien und Nepal (Coleoptera). I Teil. *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 20 (1–3): 35–38.
- Philips T.K. 2016. Phylogeny of the Oniticellini and Onthophagini dung beetles (Scarabaeidae, Scarabaeinae) from morphological evidence. *ZooKeys* 579: 9–57. <https://doi.org/10.3897/zookeys.579.6183>
- Rousseau L. 1854. Description des mollusques, coquilles et Zoophytes. In: Hombron J.B., Jacquinot H. (eds.): Voyage au Pôle Sud et dans l'Océanie sur

- les corvettes l'Astrolabe et la Zélée; exécuté par ordre du Roi pendant les années 1837–1838–1839–1840, sous le commandement de M. J. Dumont-D'Urville, Capitaine de vaisseau. Zoologie. Tome 5. Gide et J. Baudry, Paris. Pp. viii + 132.
- Schönfeld J., Rohwedder D. 2022. Type specimen designation for *Onthophagus (Colobonthophagus) aenescens* (Wiedemann, 1823) and *O. (Colobonthophagus) urellus* Boucomont, 1919 with notes on the synonymy (Coleoptera: Scarabaeidae: Scarabaeinae). *Bonn Zoological Bulletin* 71 (1): 29–39. <https://doi.org/10.20363/BZB-2022.71.1.029>
- Schoolmeesters P. 2024. World Scarabaeidae Database. In: Bánki O., Roskov Y., Döring M., Ower G., Hernández Robles D.R., Plata Corredor C.A., Stjernegaard Jeppesen T., Örn A., Vandepitte L., Hobern D., Schalk P., DeWalt R.E., Ma K., Miller J., Orrell T., Aalbu R., Abbott J., Adlard R., Aedo C. et al. (eds.): Catalogue of life checklist (Version 2024-01-08). [Accessed in 27.02.2024]. <https://doi.org/10.48580/dfrdl-38g>
- Shrestha P.K. 2005. Notes on Scarabaeinae fauna, their distribution and status in Nepal. *Journal of Natural History Museum* 22: 99–120.
- Singh A.P. 2020. Scarab Beetles (Coleoptera: Scarabaeidae) of Dildar-Karnah (Kupwara, Jammu and Kashmir). *Munis Entomology & Zoology* 15 (2): 521–525.
- Walker F.A. 1858. XXIII. Characters of some apparently undescribed Ceylon Insects. *Annals and Magazine of Natural History* 3 (2): 202–209. <https://doi.org/10.1080/00222935808697009>
- Zhang Y. 2004. Scarabaeoidea. In: Yang X.-K. (ed.): Insects of the Great Yarlung Zangbo Canyon of Xizang, China. China Science and Technology Press, Beijing. Pp. 46–49.
- Ziani S. 2024a. A new species of *Gaindaphodius* Král and Mencl from Nepal (Coleoptera: Scarabaeidae: Aphodiinae). *Insecta Mundi* 1064: 1–7.
- Ziani S. 2024b. Historical and morphological review of the subgenus *Indonthophagus* Kabakov, 2006 of *Onthophagus* Latreille, 1802 (Coleoptera: Scarabaeidae: Scarabaeinae: Onthophagini). *Insecta Mundi* 1038: 1–42.
- Ziani S., Abdel-Dayem M.S., Aldhafer H.M., Barbero E. 2019. An overview of the Onthophagini from the Arabian Peninsula (Coleoptera: Scarabaeoidea: Scarabaeidae). *Zootaxa* 4658 (1): 1–36. <https://doi.org/10.11646/zootaxa.4658.1.1>
- Ziani S., Bezděk A. 2016. Scarabaeidae, subfamily Scarabaeinae, tribe Onthophagini. In: Löbl I., Löbl D. (eds.): Catalogue of Palaearctic Coleoptera. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Revised and Updated Edition. Brill, Leiden, Boston. Pp. 180–204.

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