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10.11609/jott.2022.14.8.21487-21750

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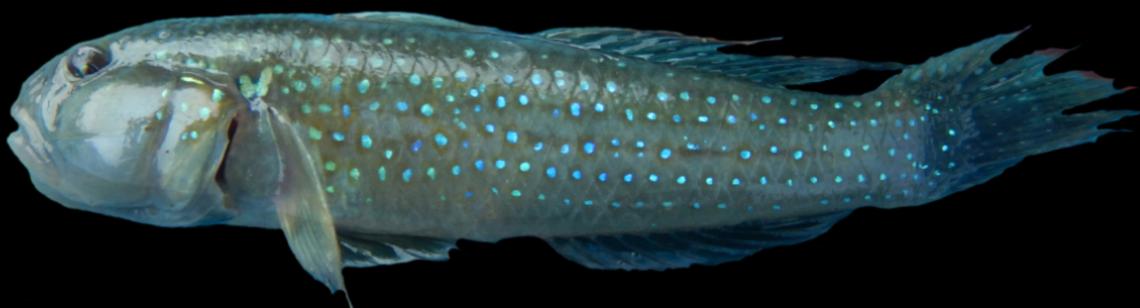
26 August 2022 (Online & Print)

14(8): 21487-21750

ISSN 0974-7907 (Online)

ISSN 0974-7893 (Print)

Open Access





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www.wild.zooreach.org

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www.zooreach.org

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continued on the back inside cover

Cover: Fish species recorded in the Gowthami-Godavari Estuary, Andhra Pradesh: *Lutjanus johnii* (top left), *Triacanthus biaculeatus* (top right), *Acentrogobius cyanomos*, *Elops machnata*, *Trypauchen vagina*, *Oxyurichthys microlepis*. © Paromita Ray.



## Checklist of Carabidae (Coleoptera) in the Chinnar Wildlife Sanctuary, a dry forest in the rain shadow region of the southern Western Ghats, India

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**Abstract:** The first report on the composition of carabids from a natural forest in peninsular India as well as from a dry forest belt in the rain shadow region of the Western Ghats is provided, with data on the subfamilies, tribes, genera, species, geographic range, collection techniques, and the relevant literature details for all the listed species. Fifty-four species belonging to 11 subfamilies and 31 genera were recorded. Harpalinae, Lebiinae, and Scaritinae with 15, 14, and seven species, respectively, are the species-rich subfamilies. The species list also includes two first records from India, four first records from southern India, and six species endemic to the Western Ghats and Sri Lanka biodiversity hot spot.

**Keywords:** Carabids, Eastern slope, endemism, first Indian record, ground beetles, peninsular India.

സംഗ്രഹം: ഉപകൂടുംബങ്ങൾ, ഗോത്രങ്ങൾ, ജൈവസ്വകൾ, സ്പീഷിസ്കൾ, ഭൂമിശാസ്ത്രരംഗം മേഖലകൾ, ശൈഖരണ സാക്ഷിക്കൽകൾ, ലിന്ഗം ചെയ്ത ഏഴു ജീവജാലങ്ങളും പ്രസ്തരമായ സാഹിത്യ പാഠാദ്ധ്യങ്ങൾ എന്നിവയെക്കുറിച്ചുള്ള അടിസ്ഥാനപിരാൻ സഹിതം, ഇന്ത്യൻ ഉപഭൂപിശ്ചാർഡ് വന്നും സംകേതത്തിൽ നിന്നും മാറ്റിയിരിക്കുന്ന മാനസിക മേഖലയിലെ വരണ്ട വന്മരങ്ങളിലെ കാരണിക്കുക (Carabidae) കൂടും സംരക്ഷണക്കുറിച്ചുള്ള ഒരു റിപ്പോർട്ട് നൽകിയിരിക്കുന്നു. 11 ഉപകൂടുംബങ്ങളിലും 31 ജൈവസ്വകളിലുമായി 54 ഇനം രേഖാപ്രളിതിയിട്ടുള്ളു. യഥക്രമം 15, 14, 7, ഇനങ്ങളുള്ള ഹാർപലിനൈ (Harpalinae), ലൈബിനൈ (Lebiinae), സ്കാറ്റിനൈ (Scaritinae) എന്നിവ ഇനങ്ങളുടെ സഹായമായ ഉപകൂടുംബങ്ങളാണ്. സ്പീഷിസ് മിഡിൽ ഇന്ത്യയിൽ നിന്നുള്ള 2 ഒരു രേഖാപ്രളിതിയും കേരളത്തിൽ നിന്നുള്ള 4 ഒരു രേഖാപ്രളിതിയും പത്രികയിലും ശില്പക്കാരിയിലും ജീവജാലവിധി ഹോട്ട് സ്പോട്ടിൽ മാത്രം കാണപ്പെടുന്ന 6 സ്പീഷിസ്കളും ഉൾപ്പെടുന്നു.

**Editor:** Anonymity requested.

**Date of publication:** 26 August 2022 (online & print)

**Citation:** Sruthi, M.C. & T.K. Sabu (2022). Checklist of Carabidae (Coleoptera) in the Chinnar Wildlife Sanctuary, a dry forest in the rain shadow region of the southern Western Ghats, India. *Journal of Threatened Taxa* 14(8): 21619–21641. <https://doi.org/10.11609/jott.7613.14.8.21619-21641>

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**Funding:** Council for Scientific and Industrial Research.

**Competing interests:** The authors declare no competing interests.

**Author details:** M.C. SRUTHI works as CSIR-SRF under the guidance of Dr. Sabu K. Thomas. Her area of specialisation is the taxonomy of Carabidae. SABU K. THOMAS, is currently a professor interested in the ecology & taxonomy of dung beetles & Carabidae and home invading nuisance pest, *Luprops tristis*. He is currently engaged with updating the taxonomy of Indian Carabidae. He has discovered 18 new Carabidae species and 11 dung beetle species.

**Author contributions:** SKT and MCS reviewed the earlier works and discussed the distribution patterns. MCS conducted the field studies and prepared the images and the specimens.

**Acknowledgements:** Financial support received from the Council for Scientific and Industrial Research by the first author (CSIR, Govt. of India; Fileno: 08/453(0007)/2017-EMR-I) and the infrastructure facilities from DST SERB funded major research project to second author are gratefully acknowledged. We thank and acknowledge the Kerala Forest and Wildlife Department for sample collection permissions; Beulah Garner, curator, BMNH London, Thierry Deuve, Azadeh Taghavian Azari, Curator, MNHN Paris, Aleksey A. Gusakov, MS Zoologist, curator of Coleoptera Zoological Museum of the Moscow Lomonosov State University, for locating and sending photographs; Akhil S.V., Jithmon V.A., Divya M., Ashly Kurian, Shigina K., Aswathi S.B., and Nijisha K. (St. Joseph's College, Devagiri, Kozhikode) for their logistic support.



## INTRODUCTION

The family Carabidae (ground beetles) is composed of over 34,000 species distributed among 1,927 genera worldwide. Carabids occupy most land habitats on nearly all continents (Lorenz 2005). These beetles are abundant in the field and attract attention with their peculiar shape and coloration. Adults and larvae of most ground beetle species are generalized predators of insects and other invertebrates; however, many species are herbivores, omnivores or scavengers (Allen 1979). Carabids are generally seen under stones, wood, moss, and bark (Andrewes 1929; Thiele 1977), are sensitive to their environment, and are commonly used as biological indicators (Rainio & Niemelä 2003; Koivula 2011). They are useful in controlling the population build-up of soil-dwelling insects like ants and termites (Kumar & Rajagopal 1990) as these beetles feed on the immature stage of soil and litter-dwelling insects.

The Western Ghats (WG), a chain of mountains of southwestern India, is one of the last remaining stretches of the biodiverse tropical wet evergreen rainforests in peninsular India and is a global biodiversity hotspot (Myers et al. 2000). The eastern slope of the WG relies heavily on the north-east monsoon (October–December) for precipitation, as opposed to the western scarps that receive almost 80% of their rainfall between May and August due to the south-west monsoon (Anu et al. 2009). This variance in monsoon dependence is hypothesized to have led to phenological differences amongst some congeneric populations from the eastern and western slopes (Janani et al. 2017; Chaitanya et al. 2018). Consequently, the faunal composition greatly varies between various segments of the WG as revealed by the vertebrate group studies (Vijayakumar et al. 2014; Deepak et al. 2016; Garg et al. 2017). Vertebrate groups have received a great deal of attention in ecological studies conducted in the WG but the same is not the case for most arthropod groups. Limited data exists on most coleopteran families in general from the WG including ground beetles (Carabidae). Most ground-beetles in the southern WG are found to live under upper layers of the soil below stones, lower layers of litter and woody debris, and dry dung of mega herbivores, and most are crepuscular and nocturnal. Available data on the taxonomy of ground beetles is based on the species reported in the classical work of Andrewes (1930), which is placed under two subfamilies: Harpalinae and Carabinae, following the earlier classification of the family and in the recent checklists of subfamilies, Lebiinae, Pterostichinae, Panagaeinae, and Dryptinae

(Shiju & Sabu 2019; Divya & Sabu 2020; Jithmon & Sabu 2021) do not cover the entire family. There is no comprehensive data to understand the Carabidae groups present in a natural ecosystem in the WG. In this work, we list all the Carabidae species that have been recorded from a well-protected wildlife sanctuary in the dry eastern slope of the southern WG to provide baseline data about the composition of carabids in a natural habitat. This checklist should greatly facilitate taxonomic and ecological studies by complying with the current scientific knowledge. It will provide data on the subfamilies, tribes, genera, species, geographic range, collection techniques, and the relevant literature for all the listed species. Synonyms for each species are followed by Lorenz (2005, 2021). Furthermore, the checklist could be used in practical conservation programs for monitoring habitat changes in dry forests.

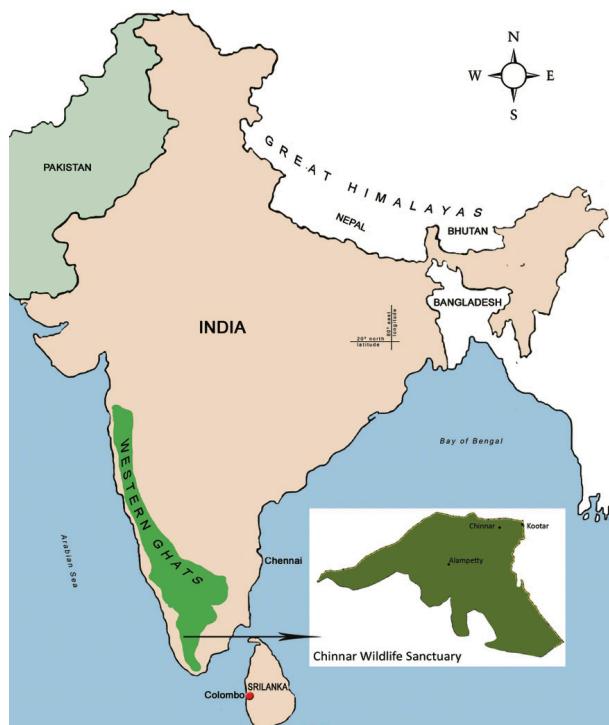
## MATERIAL AND METHODS

### Study area

Chinnar Wildlife Sanctuary is located in the rain shadow region of the WG (Figure 1). The Sanctuary falls under the Anamudi Elephant Reserve and is situated 18 km north of Marayur of Devikulam Taluk in Idukki district of Kerala, located between 10.25–10.35 N & 77.1–77.26 E, covering a total area of 90.44 km<sup>2</sup>. The dominant vegetation is dry deciduous forests followed by scrub jungle and patches of riparian forests linearly spread out along the hill folds (Thomas et al. 2018). Annual rainfall ranges 300–500 mm, the bulk of the rainfall is received from north-east monsoon during October to December and the rainy season lasts for about one month leading to a prolonged dry season and a short rainy season (Management plan of Chinnar Wildlife Sanctuary 2012–13 to 2021–22; Sabu & Nithya 2016).

### Methods

The collections of beetles were done using light traps, pitfall traps, and hand picking from the thorny scrub jungle (Chinnar), dry deciduous forest (Alampetty), and riparian forest (Kootar) during the dry season (January–September) and the rainy and post rainy wet season (October–December) in 2019–2020. We followed the classification pattern provided in Lorenz (2005) for subfamilies, tribes, genera, and species. Species-level identification was done with the aid of taxonomic keys in Andrewes (1929, 1935), Habu (1973), Balkenohl (2001), Kataev (2012, 2018), Shiju et al. (2012), Kataev & Wrase (2016), Roux et al. (2016), Sabu (2018), Shiju



**Figure 1.** Map of Indian subcontinent showing study area, Chinnar Wildlife Sanctuary.

(2018), Akhil (2019), Akhil & Sabu (2019), Akhil et al. (2019), Jithmon (2020), and by comparing with the holotypes and verified specimens available in the insect depository of Zoological Survey of India, Western Ghats Regional Centre (ZSI-WGRC) Kozhikode station. Images were taken using Leica M 205C stereo zoom microscope fitted with Leica MC 170 HD digital camera. Collected specimens are deposited at ZSI-WGRC. The checklist is grouped by order, family, subfamily, tribe, genera, and species, each of which is arranged alphabetically.

#### Abbreviations used

id. "Idem" (the same; as just mentioned) | @—First report from India | #—First report from southern India | \*—Endemic to the Western Ghats | Ssp.—Subspecies.

#### World Zoogeographical Regions

AUR—Australian Region | IAR—Indo-Australian Region | ORR—Oriental Region | PAR—Palaearctic Region.

#### Geographical symbols

AF—Afghanistan; AST—Australia; BGD—Bangladesh; BT—Bhutan; CBD—Cambodia; CHN—China; EAI—East Indies; FUJ—Fujian; GUA—Guangdong; GUI—Guizhou; GUX—Guangxi; HAI—Hainan; HKG—Hong Kong; IND—India; JAP—Japan; KOR—Korea; LBN—Liberia; LAO—Laos; MAC—Macao; MLS—Malaysia; MM—Myanmar; NC—North Korea; NEC—New Caledonia; NP—Nepal; PA—Pakistan; PP—Philippines; SC—South Korea; SCH—Sichuan; SEA—South East Asia; SHG—Shanghai; SM—Samoa; SRL—Sri Lanka; TAI—Thailand; TD—Tajikistan; TM—Turkmenistan; TWN—Taiwan; UZ—Uzbekistan; VTN—Vietnam; YUN—Yunnan.

Kong; HUB—Hubei; HUN—Hunan; IDS—Indonesia; IN—Iran; JA—Japan; JIX—Jiangxi; LAO—Laos; MAC—Macao; MLS—Malaysia; MM—Myanmar; NC—North Korea; NEC—New Caledonia; NP—Nepal; PA—Pakistan; PP—Philippines; SC—South Korea; SCH—Sichuan; SEA—South East Asia; SHG—Shanghai; SM—Samoa; SRL—Sri Lanka; TAI—Thailand; TD—Tajikistan; TM—Turkmenistan; TWN—Taiwan; UZ—Uzbekistan; VTN—Vietnam; YUN—Yunnan.

#### RESULTS

A total of 54 species of ground beetles were examined. The checklist, distribution of the recorded species are given below.

##### Order Coleoptera

##### Family Carabidae Latreille 1802

##### Subfamily Anthiinae Bonelli 1813

##### Tribe Helluonini Hope 1838

##### i. Genus *Macrocheilus* Hope 1838

*Macrocheilus* Hope 1838: 166.

= *Acanthogenius* Reiche 1843

= *Macrochilus* Agassiz 1847

= *Macrocheilidius* Jeannel 1949

##### 1. *Macrocheilus bensonii* Hope 1838

*Macrocheilus bensonii* Hope 1838: 166; Andrewes 1930: 208; Lorenz 2005: 512; Shiju et al. 2012: 100; Löbl & Löbl 2017: 577.

= *Carabus trimaculatus* Olivier 1790 (non Villers, 1789)

= *Helluo quadrimaculatus* Guérin-Méneville 1840

= *Helluo tripustulatus* Guérin-Méneville 1843 (non Dejean, 1825)

= *Macrochilus quadripustulatus* Schmidt-Göbel 1846

= *Macrochilus infuscatus* Bates 1892a

= *Macrochilus benarensis* Jedlička 1963

= *Macrochilus bimaculatus* Jedlička 1965

= *Macrochilus quadrimaculatus* (Guérin-Méneville 1840)

= *Macrochilus trimaculatus* (G.A. Olivier 1790)

Specimens examined (n = 3): SJC-ZOO-CWSSMC001–003, Alampetty, 1 ex, Light trap, 25.ii.2020; 1 ex, hand picking, 26.ii.2020; Kootar, 1 ex, pitfall trap, 26.x.2019.

**Distribution:** ORR - India (Assam (Andrewes 1930: 208), Kerala: Kozhikode, Chinnar, Thamarassery (Shiju et al. 2012: 100)); SRL (Andrewes 1930: 208); MM (Andrewes 1930: 208); LAO (Andrewes 1930: 208); VTN (Andrewes 1930: 208); PAR - FUJ; GUA; GUI; GUX; HAI;

JIX; YUN (Löbl & Löbl 2017: 577); HKG (Andrewes 1930: 208); IAR - PP (Andrewes 1930: 208); MLS (Andrewes 1930: 208).

#### \*2. *Macrocheilus chinnarensis* Akhil et al. 2019

*Macrocheilus chinnarensis* Akhil et al. 2019: 28–33.

**Distribution:** ORR- India (Kerala: Chinnar (Akhil et al. 2019: 28–33)).

#### ii. Genus *Omphra* Dejean 1825

*Omphra* Dejean 1825: 168, 283; Reiche 1843: 330; Lacordaire 1854: 94; Chaudoir 1872a: 140; Sloane 1914: 570; Andrewes 1930: 236; Csiki 1932: 1577; Jedlicka 1963: 511; Lorenz 2005: 511; Zhao et al. 2008: 372; Shiju & Sabu 2012: 2 ; Akhil & Sabu 2021: 11.

#### 3. *Omphra pilosa* (Klug 1834)

*Omphra pilosa* (Klug) Reiche 1843: 330; Erichson 1847: 141; Redtenbacher 1867: 5; Chaudoir 1872a: 141; Putzeys 1875a: 45; Andrewes 1921a: 163; id. 1923b: 460; id. 1927: 101; id. 1930: 237; Csiki 1932: 1578; Jedlicka 1963: 512; Lorenz 2005: 511; Zhao et al. 2008: 371; Shiju & Sabu 2012: 8; Löbl & Löbl 2017: 578.

*Helluo pilosus* Klug 1834: 71

= *Galerita attelaboides* Fabricius 1801

= *Helluo pilosus* Klug 1834

Specimens examined (n = 23): SJC-ZOO-CWSSMC004–026, Chinnar, 2 exs, pitfall, 25.ii.2020; Alampetty, 4 exs, pitfall trap, 26.x.2019; 3 exs, hand picking, 26.x.2019; 7 exs, pitfall trap, 25.ii.2020; 4 exs, hand picking, 25.ii.2020; Kootar, 3 exs, pitfall trap, 26.x.2019.

**Distribution:** ORR - India (Kerala: Arakulam, Chemperi, Chinnar, Alampetty, Kuttiyadi, Kozhikode, Malappuram, Thodupuzha, Mahe (Shiju & Sabu 2012: 8)); SRL (Andrewes 1930: 237); PAR - India (Himachal Pradesh; Uttarakhand (Löbl & Löbl 2017: 578)); PA (Löbl & Löbl 2017: 578).

#### Subfamily Brachininae Bonelli 1810

##### Tribe Brachinini Bonelli 1810

###### iii. Genus *Styphlomerus* Chaudoir 1875

*Styphlomerus* Chaudoir 1875: 87, 88; Erwin 1970: 39.

###### 4. *Styphlomerus striatus* Akhil & Sabu 2019

*Styphlomerus striatus* Akhil & Sabu 2019: 468.

Specimens examined (n = 2): SJC-ZOO-CWSSMC027–028, Alampetty, 2 exs, light trap, 26.x.2019.

**Distribution:** ORR - India (Tamil Nadu: Rajapalayam, Ettimadai; Kerala: Tholpetty (Akhil & Sabu 2019: 468))

#### Subfamily Dryptinae Bonelli 1810

##### Tribe Dryptini Bonelli 1810

###### iv. Genus *Drypta* Latreille 1796

*Drypta* Latreille 1796: 75; Fabricius 1801: 230; Latreille 1810: 117; Dejean 1825: 182; Schmidt- Göbel 1846: 22; Lacordaire 1854: 79; Andrewes 1924b: 51; id. 1930: 157; Lorenz 2005: 503; Jithmon & Sabu 2021: 18560.

#### 5. *Drypta lineola* MacLeay 1825

*Drypta lineola* MacLeay 1825: 27; Dejean 1825: 184; Redtenbacher 4; Chaudoir 1877: 262; Bates 1883: 279; id. 1891: 336; id. 1892a: 383; Heyne-Tasch 13.t.2.f.25; Bouchard 1903: 173; Andrewes 1919a: 167; id. 1924c: 469; id. 1923e (1924): 460; id. 1924b: 52; id. 1930: 158; Lorenz 2005: 503; Jithmon & Sabu 2021: 18562.

= *Desera lineola* (W.S. MacLeay 1825)

Specimens examined (n = 1): SJC-ZOO-CWSSMC029, Alampetty, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - Throughout southeastern Asia (Andrewes 1930: 158) India (Tamil Nadu: Rajapalayam, Kadayam (Jithmon & Sabu 2021: 18560); Kerala: Padinjarathara (Jithmon & Sabu 2021: 18560)); MM (Andrewes 1930: 158); PAR - TWN; YUN (Andrewes 1930: 158); IAR - IDS (Andrewes 1930: 158); PP (Andrewes 1930: 158); MLS (Andrewes 1930: 158).

#### Subfamily Harpalinae Bonelli 1810

##### Tribe Anisodactylini Lacordaire 1854

###### v. Genus *Pseudognathaphanus* Schauberger 1932

*Pseudognathaphanus* Schauberger 1932: 57; Habu 1973: 62; Noonan 1973: 344; id. 1976: 12; Löbl & Smetana 2003: 363; Lorenz 2005: 351; Park et al. 2006: 96; Kataev & Wrase 2016: 224; Löbl & Löbl 2017: 508.

= *Hiekeia* Ito 1997

= *Protognathus* Basilewsky 1950

#### 6. *Pseudognathaphanus rusticus* (Andrewes 1920)

*Pseudognathaphanus rusticus* (Andrewes) Löbl & Smetana 2003: 363; Lorenz 2005: 351; Kataev & Wrase 2016: 232; Löbl & Löbl 2017: 508.

*Gnathaphanus rusticus* Andrewes 1920a: 107; id. 1924b: 30; id. 1930: 172; Kushwaha & Hegde 2015: 403.

= *Gnathaphanus rusticus* Andrewes 1920

Specimens examined (n = 1): SJC-ZOO-CWSSMC030, Kootar, 1 ex, light trap, 26.ii.2020.

**Distribution:** ORR - India (New Delhi: Pusa; Uttar Pradesh: Lucknow; Bihar: Chapra, Muzaffarpur, Purnea, Patna, Samastipur; Madhya Pradesh; Odisha: Surada; Gujarat: Surat (Andrewes 1930: 172); Maharashtra: Mumbai, Pune (Kataev & Wrase 2016: 232), Chikaldar,

Nagpur (Andrewes 1930: 172); Goa (Kataev & Wrase 2016: 232); Karnataka: Belgaum, Dharwar, North Karnataka (Andrewes 1930: 172); SRL (Andrewes 1930: 172); **PAR** - India (Uttarakhand: Dehradun, Haridwar and Roorkee (Andrewes 1930: 172)), NP; PA (Löbl & Löbl 2017: 508).

#### Tribe Stenolophini Kirby 1837

##### vi. Genus *Stenolophus* Dejean 1821

*Stenolophus* Dejean 1821: 15; id. 1829: 405; Lacordaire 1854: 303; Sloane 1898: 456; Tschitschérine 1900a: 364; id. 1901: 246; Andrewes 1924b: 40; id. 1930: 316; Habu 1973: 341; Noonan 1976: 17; Saha 1995: 67; Saha & Halder 2000: 15; Löbl & Smetana 2003: 404; Lorenz 2005: 353; Park et al. 2006: 96; Löbl & Löbl 2017: 573.

##### # 7. *Stenolophus bajaurae* Andrewes 1924

*Stenolophus bajaurae* Andrewes 1924b: 95; id. 1926a: 69; id. 1930: 316; Kataev 2002: 724; Löbl & Smetana 2003: 405; Lorenz 2005: 354; Wrase 2005: 852; Kataev 2015: 93; id. 2015: 539; Kushwaha & Hegde 2015: 401; Jaeger & Ahmed 2017: 613; Kataev 2002: 724; Löbl & Löbl 2017: 574.

= *Egadroma bajaurae* (Andrewes 1924)

Specimens examined (n = 1): SJC-ZOO-CWSSMC031, Kootar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Delhi (Kushwaha & Hegde 2015: 401); Uttar Pradesh: Fyzabad (Andrewes 1930: 316); Jharkhand: Sarju valley (Andrewes 1930: 316)); PAR - India (Jammu-Kashmir (Andrewes 1930: 316), Himachal Pradesh: Kangra, Bajaura, Spiti, Manikaran (Andrewes 1930: 316); Uttarakhand: Kumaon (Andrewes 1930: 316)); AF; NP; PA; TD; TM; UZ (Löbl & Löbl 2017: 574).

##### @8. *Stenolophus lucidus* Dejean 1829

*Stenolophus lucidus* Dejean 1829: 419; Andrewes 1930: 317; Löbl & Smetana 2003: 405; Lorenz 2005: 355; Löbl & Löbl 2017: 574.

= *Egadroma lucida* (Dejean 1829)

Specimens examined (n = 1): SJC-ZOO-CWSSMC032, Kootar, 1 ex, light trap, 26.ii.2020.

**Distribution:** ORR - EAI (Andrewes 1930: 317); PAR - BT; FUJ; GUA; GUX; HAI; TWN; YUN; JA; NP (Löbl & Löbl 2017: 574).

##### 9. *Stenolophus quinquepustulatus* (Wiedemann 1823)

*Stenolophus quinquepustulatus* (Wiedemann) Dejean 1829: 414; Bates 1873: 270; Putzeys 1875a: 49; Bates 1889: 272; id. 1891: 333; Bouchard 1903: 172;

Lesne 1904: 76; Sloane 1920a: 321; Andrewes 1921a: 171; id. 1924c: 469; id. 1930: 317; Habu 1973: 382; Saha 1995: 68; Löbl & Smetana 2003: 405; Lorenz 2005: 355; Park et al. 2006: 96; Jaeger & Ahmed 2017: 614; Löbl & Löbl 2017: 574.

= *Badister quinquepustulatus* Wiedemann 1823

= *Stenolophus rectifrons* Bouchard 1903 (non Bates 1892)

= *Stenolophus connexus* Schauberger 1928

= *Stenolophus apicalis* Jedlička 1952

= *Stenolophus tripustulatus* Jedlička 1952

= *Stenolophus conjunctus* Jedlička 1956

= *Stenolophus unipustulatus* Jedlička 1952

= *Acupalpus connexus* (Schauberger 1928)

= *Egadroma quinquepustulata* (Wiedemann 1823)

Specimens examined (n = 2): SJC-ZOO-CWSSMC033–34, Kootar, 2 exs, Light trap, 26.ii.2020.

**Distribution:** ORR - India (Uttar Pradesh; West Bengal: Singur, Hooghly (Saha 1995: 68)); MM (Habu 1973: 382); SRL (Habu 1973: 382); TAI (Habu 1973: 382); VTN (Park et al. 2006: 96); PAR - FUJ; GUI; GUX; HAI; HKG; HUB; HUN; JIX; MAC; TWN; YUN; NP; SC; SCH; SHG (Löbl & Löbl 2017: 574)); JA (Habu 1973: 382); PA (Habu 1973: 382); IAR - SM (Habu 1973: 382); IDS (Habu 1973: 382); MLS (Habu 1973: 382); PP (Habu 1973: 382); AUR - AST (Habu 1973: 382).

##### 10. *Stenolophus smaragdulus* (Fabricius 1798)

*Stenolophus smaragdulus* (Fabricius) Bates 1886: 80; id. 1891: 333; id. 1892a: 349; Bouchard 1903: 172; Sloane 1920a: 321; Andrewes 1921a: 160; id. 1924b: 40; id. 1930: 318; Habu 1973: 377; Saha 1995: 69; Saha & Halder 2000: 16; Löbl & Smetana 2003: 405; Lorenz 2005: 355; Park et al. 2006: 96; Jaeger & Ahmed 2017: 614; Löbl & Löbl 2017: 575.

*Carabus smaragdulus* Fabricius 1798: 60; id. 1801: 209; Dejean 1829: 418; Hope 1838: 93; Schaum 1847: 49; Motschulsky 1855: 43.

= *Carabus smaragdulus* Fabricius 1798

= *Egadroma smaragdula* Motschulsky 1864

= *Harpalus trechoides* Hope 1845

= *Harpalus stolidus* Walker 1858

= *Egadroma apicalis* Motschulsky 1864

= *Stenolophus transmutans* Bates 1886

= *Stenolophus chalceus* Lesne 1904 (non Bates 1873)

= *Egadroma smaragdula* (Fabricius 1798)

= *Stenolophus apicalis* (Motschulsky 1864)

= *Stenolophus stolidus* (Walker 1858)

= *Stenolophus trechoides* (Hope 1845)

Specimens examined (n = 1): SJC-ZOO-CWSSMC035, Kootar, 1 ex, light trap, 25.ii.2020.

**Distribution:** Throughout the whole of Southeast Asia extending from JA in the North to Queensland in South (Andrewes 1930: 318); **ORR - India** (West Bengal: Kolkata, Kharagpur, Purulia, Medinipur (Saha 1995: 69); Meghalaya: Khasi, Jayantia Hill (Saha & Halder 2000: 16)); MM (Habu 1973: 377); SRL (Habu 1973: 377); TAI (Habu 1973: 377); VTN (Park et al. 2006: 96); **PAR - India** (Himachal Pradesh (Löbl & Löbl 2017: 575); West Bengal: Darjeeling District (Saha 1995: 69)); BT; FUJ; GUA; HAI; HKG; JIX; MAC; NP; PA; TWN; YUN (Löbl & Löbl 2017: 575); JA (Habu 1973: 377); **IAR - IDS** (Habu 1973: 377); MLS (Habu 1973: 377); PP (Habu 1973: 377); **AUR - AST** (Habu 1973: 377).

#### Tribe Harpalini Bonelli 1810

##### vii. Genus *Allosiopelus* Ito 1995

*Allosiopelus* Ito 1995: 153; Lorenz 2005: 376.

##### 11. *Allosiopelus punctatipennis* Ito 1995

*Allosiopelus punctatipennis* Ito 1995: 154; Lorenz 2005: 376.

Specimens examined (n = 2): SJC-ZOO-CWSSMC036–037, Alampetty, 2 exs, light trap, 26.x.2019.

**Distribution:** **ORR - India** (Tamil Nadu: Tharangambadi; Pondicherry (Ito 1995: 154)).

##### viii. Genus *Amblystomus* Erichson 1837

*Amblystomus* Erichson 1837: 59; Lacordaire 1854: 301; Reitter 1883: 139; Tschitschérine 1900a: 348; Sloane 1920b: 131; Andrewes 1924b: 33; id. 1930: 17; Habu 1973: 15; Noonan 1976: 54; Saha 1995: 56; Löbl & Smetana 2003: 360; Lorenz 2005: 384; Park et al. 2006: 95; Löbl & Löbl 2017: 502.

= *Hispalis* Rambur 1838

= *Artizoum* Gistel 1857

= *Megaristerus* Nietner 1858

= *Notophilus* Blackburn 1888

= *Thenarotidius* Sloane 1898

= *Psilonothus* Sloane 1900

= *Entomorrhinus* Jeannel 1948

##### © 12. *Amblystomus aenescens* (Motschulsky 1858)

*Amblystomus aenescens* (Motschulsky) Andrewes 1928: 21; id. 1930: 17; id. 1933: 7; Lorenz 2005: 384.

= *Hispalis aenescens* Motschulsky 1858

Specimens examined (n = 4): SJC-ZOO-CWSSMC038–041, Alampetty, 3 exs, light trap, 26.ii.2020; 1 ex, pitfall trap, 26.ii.2020.

**Distribution:** **ORR - EAI** (Andrewes 1930: 17).

##### 13. *Amblystomus fuscescens* (Motschulsky 1858)

*Amblystomus fuscescens* (Motschulsky) Bates 1892a:

334; Lesne 1904: 73; Andrewes 1919a: 198; id. 1928: 21; id. 1930: 18; Kapur 1945: 326; Lorenz 2005: 384.

= *Hispalis fuscescens* Motschulsky 1858

Specimens examined (n = 20): SJC-ZOO-CWSSMC042–061, Alampetty, 10 exs, light trap, 26.x.2019; 3 exs, pitfall trap, 26.x.2019; 2 exs, hand picking, 26.x.2019; 3 exs, light trap, 25.ii.2020; 1 ex, pitfall trap, 25.ii.2020; 1 ex, hand picking, 25.ii.2020.

**Distribution:** **ORR - India** (Assam; Manipur: Imphal Valley; Karnataka: Mysore (Kapur 1945: 326)); EAI (Andrewes 1930: 18); SRL (Andrewes 1930: 18); MM (Andrewes 1930: 18); TAI (Andrewes 1930: 18).

##### # 14. *Amblystomus indicus* (Nietner 1858)

*Amblystomus indicus* (Nietner) Bates 1886: 76; id. 1889: 271; id. 1891: 331; id. 1892a: 336; id. 1892b: 231; Sloane 1920a: 321; Andrewes 1927: 103; id. 1930: 19; Lorenz 2005: 384; Kushwaha & Hegde 2015: 402; Löbl & Löbl 2017: 502.

= *Megaristerus indicus* Nietner 1858

= *Entomorrhinus indicus* (Nietner 1858)

Specimens examined (n = 19): SJC-ZOO-CWSSMC062–80, Alampetty, 7 exs, light trap, 26.x.2019; 2 exs, pitfall trap, 26.x.2019; 3 exs, hand picking, 26.x.2019; 6 exs, light trap, 25.ii.2020; 1 ex, hand picking, 25.ii.2020.

**Distribution:** **ORR - India** (Uttar Pradesh: Jalaun, Orai, Jhansi; Madhya Pradesh: Pathrora (Kushwaha & Hegde 2015: 402); Jharkhand: Chota Nagpur, Tetara (Andrewes 1930: 19)); MM (Kushwaha & Hegde 2015: 402); VTN (Kushwaha & Hegde 2015: 402); SRL (Andrewes 1930: 19); **AUR - AST** (Andrewes 1930: 19).

##### ix. Genus *Dioryche* MacLeay 1825

*Dioryche* MacLeay 1825: 21; Lacordaire 1854: 300; Bates 1873: 271; Alluaud 1917: 321; Andrewes 1919a: 156; id. 1924b: 32; id. 1930: 146; Noonan 1976: 47; id. 1985: 34; Saha 1995: 62; Löbl & Smetana 2003: 369; Lorenz 2005: 376; Kataev 2012: 112; Kushwaha & Hegde 2015: 402; Löbl & Löbl 2017: 518.

= *Hypodioryche* Schauberger 1935

##### 15. *Dioryche cuprina* (Dejean 1829)

*Dioryche cuprina* (Dejean) Kataev 2012: 114; Löbl & Löbl 2017: 518.

= *Selenophorus cuprinus* Dejean 1829

= *Harpalus colombensis* Nietner 1857a

= *Cardiaderus scitus* Walker 1858

= *Dioryche colombensis* (Nietner 1857)

= *Dioryche scita* (Walker 1858)

= *Selenophorus colombensis* (Nietner 1857)

Specimens examined (n = 2): SJC-ZOO-

CWSSMC081–082, Alampetty, 2 exs, light trap, 26.x.2019.  
**Distribution:** ORR - India (Goa ; Karnataka : Kanara ; Tamil Nadu: Chennai, Kariakal, Coimbatore; Pondicherry; Kerala: Thiruvananthapuram, Mahe, Kozhikode, Kallar (Kataev 2012: 114)); SRL (Kataev 2012: 114); TAI (Kataev 2012: 114); PAR - NP (Kataev 2012: 114); PA (Löbl & Löbl 2017: 518).

#### **16. *Dioryche dravidana* Kataev 2012**

*Dioryche dravidana* Kataev 2012: 123.  
 Specimens examined (n = 1): SJC-ZOO-CWSSMC083, Alampetty, 1 ex, pitfall trap, 26.x.2019.

**Distribution:** ORR - India (Karnataka: Mysore, Shimoga; Tamil Nadu: Shambaganur, Madura (Kataev 2012: 123)).

#### **17. *Dioryche torta* MacLeay 1825**

*Dioryche torta* MacLeay 1825: 21; Hope 1838: T. 2; Bates 1873: 271; Andrewes 1919a: 154; id. 1926a: 68; id. 1930: 148; Noonan 1985: 35; Saha 1995: 63; Lorenz 2005: 376; Löbl & Smetana 2003: 369; Lorenz 2005: 376; Löbl & Löbl 2017: 518.

Specimens examined (n = 2): SJC-ZOO-CWSSMC084–085, Alampetty, 1 ex, pitfall trap, 26.x.2019; 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - All the Indian States (Saha 1995: 63) India (West Bengal: Murshidabad (Saha 1995: 63)); SRL (Andrewes 1930: 148); MM (Andrewes 1930: 148); PAR - GUA; HAI; NP; PA; YUN (Löbl & Löbl 2017: 518); IAR - IDS (Andrewes 1930: 148).

#### **x. Genus *Ophoniscus* Bates 1892**

*Ophoniscus* Bates 1892a: 337; Andrewes 1923b: 446; id. 1930: 242; id. 1939: 136; Noonan 1976: 46; id. 1985: 31; Saha 1995: 63; Löbl & Smetana 2003: 388; Kataev 2005: 269; Lorenz 2005: 376; Kataev & Wrase 2012: 215; Löbl & Löbl 2017: 546; Kataev 2018: 319.

#### **\*18. *Ophoniscus puneensis* Kataev 2018**

*Ophoniscus puneensis* Kataev 2018: 321.  
 Specimens examined (n = 1): SJC-ZOO-CWSSMC086, Alampetty, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Maharashtra: Mulshi environment (Kataev 2018: 321)).

#### **xi. Genus *Parophonus* Ganglbauer 1891**

*Parophonus* Ganglbauer 1891a: 340; Jeannel 1942: 625; Noonan 1976: 45; id. 1985: 19; Löbl & Smetana 2003: 392; Lorenz 2005: 373; Kataev 2010: 278; Löbl & Löbl 2017: 553.

#### **19. *Parophonus acutangulus* (Bates 1891)**

*Parophonus acutangulus* (Bates) Andrewes 1930:

184; Kataev 2010: 296; Löbl & Löbl 2017: 553.  
 = *Hypolithus acutangulus* Bates 1891  
 = *Hyperpalus gracilis* Andrewes 1947  
 = *Parophonus gracilis* (Andrewes 1947)  
 = *Trichotichnus javanus* (Gory 1833)  
 Specimens examined (n = 1): SJC-ZOO-CWSSMC087, Alampetty, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - India (Delhi; Uttar Pradesh: Allahabad, Sitapur; Jharkhand: Chota Nagpur- Tetara; Madhya Pradesh: Mhow; Gujarat: Surat; Maharashtra: Mumbai; Tamil Nadu: Coimbatore, Tharangambadi (Andrewes 1930: 184)); MM (Kataev 2010: 296); SRL (Andrewes 1930: 184); PAR - India (Jammu Kashmir (Kataev 2010: 296); Uttarakhand: Dehra Dun (Andrewes 1930: 184); West Bengal: Barodabri (Kataev 2010: 296)); NP (Kataev 2010: 296); PA (Kataev 2010: 296); IAR - IDS (Andrewes 1930: 184).

#### **20. *Parophonus indicus* (Andrewes 1931)**

*Parophonus indicus* (Andrewes) Noonan 1985: 22; Lorenz 2005: 374; Kataev 2010: 283 ; Löbl & Löbl 2017: 553.  
 = *Hyparpalus indicus* Andrewes 1931a  
 = *Hypolithus cyaneotinctus* Bates 1891 [non Bates 1889]  
 = *Trichotichnus indicus* (Andrewes 1931)  
 Specimens examined (n = 1): SJC-ZOO-CWSSMC088, Alampetty, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - India (Uttar Pradesh; Bihar: Monghyr; Jharkhand: Chota Nagpur-Tetara, Barwa, Konbir, Ranchi; Madhya Pradesh: Balaghat, South Mandla (Andrewes 1931a: 516), Motinala, Seoni, Khawasa (Kataev 2010: 283); Karnataka: Mysore, Bangalore, Nandidrug, Chikkaballapura (Andrewes 1931a: 516)); SRL (Kataev 2010: 283); PAR - India (Jammu Kashmir (Kataev 2010: 283); Uttarakhand: Dehra Dun (Andrewes 1931a: 516); Sikkim (Andrewes 1931a: 516)); PA (Kataev 2010: 283).

#### **Subfamily Lebiinae Bonelli 1810**

##### **Tribe Cyclosomini Laporte De Castelnau 1834**

##### **xii. Genus *Cyclicus* Jeannel 1949**

*Cyclicus* Jeannel 1949: 865, 870; Basilewsky 1953: 117; id. 1956: 464; Lorenz 2005: 452.  
 = *Metacyclicus* Jeannel 1949

#### **21. *Cyclicus elegans* (Andrewes 1931)**

*Cyclicus elegans* (Andrewes) Lorenz 2005: 452; Shiju & Sabu 2019: 11.  
 = *Tetragonoderus elegans* Andrewes 1931a  
 Specimens examined (n = 13): SJC-ZOO-CWSSMC089–101, Chinnar, 2 exs, light trap, 26.x.2019;

Kootar, 3 exs, light trap, 26.x.2019; 4 exs, pitfall trap, 26.x.2019; 2 exs, hand picking, 26.x.2019; 2 exs, pitfall trap, 25.ii.2020.

**Distribution:** ORR - India (Kerala: Charalmedu, Nedumkayam (Shiju & Sabu 2019: 11)); PAR - India (Uttarakhand: Bindal River, Chakata Range, Dehra Dun, Deoba Nadi River, Hathibarkala, Kali Valley, Nandhaur River, West Almora (Andrewes 1931a: 524)).

## 22. *Cyclicus fimbriatus* (Bates 1886)

*Cyclicus fimbriatus* (Bates) Lorenz 2005: 452; Shiju & Sabu 2019: 11.

*Tetragonoderus fimbriatus* Bates 1886: 202; Andrewes 1930: 344; Löbl & Löbl 2017: 498.

= *Tetragonoderus punctatus* Schmidt-Göbel 1846 (non Wiedemann 1823)

= *Cyclicus fimbriatus* (Bates 1886)

Specimens examined (n = 1): SJC-ZOO-CWSSMC102, Alampetty, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Karnataka: North Karnataka, Belgaum, Managanali, Mysore- Teppukadu (Andrewes 1930: 344); Tamil Nadu: Nilgiri Hills-Hill Grove (Andrewes 1930: 344), Srivilliputhur (Shiju & Sabu 2019: 11), Tiruchirappally (Andrewes 1930: 344); Kerala: Bhawani Valley (Andrewes 1930: 344), Kozhikode, Nedumkayam (Shiju & Sabu 2019: 11)); SRL (Andrewes 1930: 344); MM (Andrewes 1930: 344); PAR - CHN (Löbl & Löbl 2017: 498).

### xiii. Genus *Tetragonoderus* Dejean 1829

*Tetragonoderus* Dejean 1829: 485; Schmidt-Göbel 1846: 92; Lacordaire 1854: 132; Chaudoir 1876a: 33; Horn 1882: 127; Andrewes 1924b: 60; id. 1930: 343; Blackwelder 1944: 52; Jeannel 1949: 865; Basilewsky 1956: 463; Jedlička 1963: 291; Saha et al. 1992: 49; Lorenz 2005: 453; Löbl & Löbl 2017: 498.

## 23. *Tetragonoderus notaphioides* Motschulsky 1861

*Tetragonoderus notaphioides* Motschulsky 1861: 99; Chaudoir 1876a: 54; Bates 1886: 201; Andrewes 1928: 24; id. 1930: 345; Lorenz 2005: 453; Shiju & Sabu 2019: 12.

Specimens examined (n = 2): SJC-ZOO-CWSSMC103–104, Kootar, 2 exs, pitfall trap, 26.x.2019.

**Distribution:** ORR - India (Odisha: Berhampur, Puri, Rambha- Ganjam, Barkuda Island- Chilka Lake; Maharashtra: Bhandara, Karnataka: North Karnataka; Tamil Nadu: Chennai, Tiruchirappally, Thrangambadi, Palni Hills (Andrewes 1930: 345); Kerala: Kozhikode, Ambalavayal (Shiju & Sabu 2019: 12)); SRL (Andrewes 1930: 345).

## Tribe Lebiini Bonelli 1810

### xiv. Genus *Anchista* Nietner 1857

*Anchista* Nietner 1857c: 523; id. 1857b: 374; Chaudoir 1877: 236; Andrewes 1926b: 346; id. 1930: 22; Csiki 1932: 1455; Jedlička 1963: 449; Habu 1967: 137; Darlington 1968: 139; id. 1970: 45; Habu 1982: 102; Kirschenhofer 1994: 1006; Lorenz 2005: 491; Löbl & Löbl 2017: 623.

= *Paraphaea* Bates 1873

## 24. *Anchista fenestrata* (Schmidt-Göbel 1846)

*Anchista fenestrata* (Schmidt-Göbel) Chaudoir 1872a: 168; Bates 1892a: 424; Andrewes 1923a: 20; id. 1930: 23; Csiki 1932: 1456; Jedlička 1963: 449; Lorenz 2005: 491; Shi et al. 2013: 27; Löbl & Löbl 2017: 623; Shiju & Sabu 2019: 40.

= *Plochionus fenestrata* Schmidt-Göbel 1846

Specimens examined (n = 15): SJC-ZOO-CWSSMC105–119, Chinnar, 1 ex, light trap, 26.x.2019; Alampetty, 6 exs, light trap, 26.x.2019; 4 exs, light trap, 25.ii.2020; Kootar, 3 exs, 26.x.2019; 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Rajasthan; Bihar; Jharkhand: Singhbhum (Andrewes 1930: 23); Karnataka: Gundelpet (Shiju & Sabu 2019: 40); Tamil Nadu: Alwarkurichi, Srivilliputhur, Thambaram (Shiju & Sabu 2019: 40); Pondicherry (Andrewes 1930: 23); Kerala: Charalmedu, Chinnar-Alampetty; Koorachundu, Nedumkayam, Thamarassery (Shiju & Sabu 2019: 40)); SRL (Andrewes 1930: 23); MM (Andrewes 1930: 23); PAR - India (Uttarakhand: Dehra Dun; West Bengal); NP (Löbl & Löbl 2017: 623).

### xv. Genus *Anomotarus* Chaudoir 1875

*Anomotarus* Chaudoir 1875: 48; Sloane 1917: 435; id. 1920b: 170; Andrewes 1930: 27; Jedlička 1963: 450; Lorenz 2005: 497; Löbl & Löbl 2017: 580.

## 25. *Anomotarus stigmula* (Chaudoir 1852)

*Anomotarus stigmula* (Chaudoir) Andrewes 1930: 28; Jedlička 1963: 451; Lorenz 2005: 497; Löbl & Löbl 2017: 580; Shiju & Sabu 2019: 42.

= *Cymindis stigmula* Chaudoir 1852

Specimens examined (n = 1): SJC-ZOO-CWSSMC120, Alampetty, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - India (Assam: Gauhati (Andrewes 1930: 28); Maharashtra: Mumbai- Khandesh, Nagpur; Karnataka: Belgaum (Andrewes 1930: 28), Gundelpet (Shiju & Sabu 2019: 42), Mysore- Nandidurg; Tamil Nadu: Chennai (Andrewes 1930: 28), Srivilliputhur (Shiju & Sabu 2019: 42); Kerala: Charalmedu, Eravikulam National Park, Koorachundu, Nedumkayam, Thamarassery,

Vazhachal, Vettiozhinjathottam (Shiju & Sabu 2019: 42); MM (Andrewes 1930: 28); SRL (Andrewes 1930: 28); **PAR** - India (Himachal Pradesh (Löbl & Löbl 2017: 580); Uttarakhand: Dehra Dun (Andrewes 1930: 28)); JA (Andrewes 1930: 28); NP; PA (Löbl & Löbl 2017: 580); TWN (Jedlička 1963: 451); **IAR** - IDS (Andrewes 1930: 28); NEC (Andrewes 1930: 28).

#### xvi. Genus *Aristus* Chaudoir 1846

*Aristus* Chaudoir 1846: 62; Lacordaire 1854: 123; Horn 1882: 133; Andrewes 1930: 33; Ganglbauer 1892: 397 & 401; Jedlička 1933a: 87; Blackwelder 1944: 59; Jedlička 1963: 427; Gueorguiev & Gueorguiev 1995: 32 & 229; Kryzhanovskij et al. 1995: 165; Lorenz 2005: 472; Park et al. 2006: 100; Löbl & Löbl 2017: 595.

= *Crepnos* Baudi Di Selve 1864  
= *Crepnos* Jakobson 1908

#### 26. *Aristus aeneipennis* (Schmidt-Göbel 1846)

*Aristus aeneipennis* (Schmidt-Göbel) Chaudoir 1850: 67; Motschulsky 1855: 50; Fairmaire 1888: 335; Andrewes 1923a: 15; id. 1930: 33; Jedlička 1963: 430; Lorenz 2005: 472; Park et al. 2006: 100; Shiju & Sabu 2019: 26.

= *Lionychus aeneipennis* Schmidt-Göbel 1846

Specimens examined (n = 1): SJC-ZOO-CWSSMC121, Alampetty, 1 ex, hand picking, 26.x.2019.

**Distribution:** **ORR** - India (Maharashtra: Lonavla; Karnataka: Mysore-Teppukadu (Andrewes 1930: 33)); MM (Andrewes 1930: 33); VTN (Andrewes 1930: 33).

#### 27. *Aristus subtransparens* Motschulsky 1861

*Aristus subtransparens* Motschulsky 1861: 104; Bates 1886: 206; id. 1892b: 233; Andrewes 1928: 21; id. 1930: 34; Lorenz 2005: 472; Löbl & Löbl 2017: 596; Shiju & Sabu 2019: 27.

Specimens examined (n = 2): SJC-ZOO-CWSSMC122–123, Kootar, 2 exs, hand picking, 26.x.2019.

**Distribution:** **ORR** - India (Kerala: Chinnar, Koottar, Nedumkayam, Thamarassery (Shiju & Sabu 2019: 27)); SRL (Andrewes 1930: 34); NP; PA (Löbl & Löbl 2017: 596).

#### xvii. Genus *Catascopus* Kirby 1825

*Catascopus* Kirby 1825: 94; Latreille et Dejean 1824: 115; Macleay 1825: 14; Dejean 1825: 328; Schmidt-Göbel 1846: 80; Lacordaire 1854: 145; Chaudoir 1861: 116; id. 1872b: 244; Andrewes 1924b: 62; id. 1926b: 348; id. 1930: 74; id. 1931b: 62; id. 1937: 187; Jedlička 1935: 9; Jeannel 1942: 1017; Blackwelder 1944: 57; Basilewsky 1956: 485; Jedlička 1963: 379; Lorenz 2005: 454; Löbl & Löbl 2017: 620.

#### 28. *Catascopus cingalensis* Bates 1886

*Catascopus cingalensis* Bates 1886: 203; Andrewes 1924b: 117; id. 1930: 75; Lorenz 2005: 454; Shiju & Sabu 2019: 15.

= *Catascopus reductus* Chaudoir 1861

= *Catascopus severini* Bates 1891

Specimens examined (n = 1): SJC-ZOO-CWSSMC124, Chinnar, 1 ex, hand picking, 26.x.2019.

**Distribution:** **ORR** - India (Jharkhand: Chota Nagpur-Tetara; Madhya Pradesh: Mhow; Odisha: Surada; Karnataka: Chikkaballapura; Tamil Nadu: Nilgiri Hills (Andrewes 1930: 75)); SRL (Andrewes 1930: 75).

#### 29. *Catascopus cyanellus* Chaudoir 1848

*Catascopus cyanellus* Chaudoir 1848: 113; id. 1861: 118; Andrewes 1930: 75; Lorenz 2005: 454; Löbl & Löbl 2017: 620; Shiju & Sabu 2019: 15.

= *Catascopus reductus* Walker 1858

Specimens examined (n = 7): SJC-ZOO-CWSSMC125–131, Chinnar, 2 exs, pitfall trap, 26.x.2019; 5 exs, hand picking, 26.x.2019.

**Distribution:** **ORR** - India (Maharashtra: Dapoli; Karnataka: North Karnataka; Tamil Nadu: Coimbatore (Andrewes 1930: 75)); **PAR** - India (Uttarakhand: Dehra Dun (Andrewes 1930: 75)); NP (Andrewes 1930: 75).

#### xviii. Genus *Lebia* Latreille 1802

*Lebia* Latreille 1802: 85; Dejean 1825: 253; Schmidt-Göbel 1846: 43; Lacordaire 1854: 127; Chaudoir 1871a: 111–255; id. 1871b: 1–87; Horn, 1882: 130; Fowler 1887: 136; Ganglbauer 1892: 397; Silvestri 1904: 68–84; Andrewes 1930: 191; Alluaud 1936: 8; Jedlička 1933b: 144; Jeannel 1942: 1028; id. 1949: 882, 902; Jedlička 1963: 314; Blackwelder 1944: 52; Mateu 1984: 398; Gueorguiev & Gueorguiev 1995: 31, 221; Kryzhanovskij et al. 1995: 161; Hůrka 1996: 468, 470; Lorenz 2005: 481; Park et al. 2006: 102; Löbl & Löbl 2017: 611.

#### 30. *Lebia baconi* (Chaudoir 1871)

*Lebia baconi* (Chaudoir) Andrewes 1930: 191; Lorenz 2005: 487; Löbl & Löbl 2017: 616; Shiju & Sabu 2019: 37.

= *Nematopeza baconi* Chaudoir 1871a

Specimens examined (n = 1): SJC-ZOO-CWSSMC132, Alampetty, 1 ex, light trap, 25.ii.2020.

**Distribution:** **ORR** - India (Bihar: Chapra; Madhya Pradesh: Hoshangabad (Andrewes 1930: 191); Tamil Nadu: Srivilliputhur (Shiju & Sabu 2019: 37)).

#### 31. *Lebia calycophora* Schmidt-Göbel 1846

*Lebia (Poecilothais) calycophora* Schmidt-Göbel 1846: 44; Bates 1892a: 427; Andrewes 1923a: 21; id. 1930: 191; Jedlička 1963: 322–325; Lorenz 2005: 488;

Park et al. 2006: 102; Löbl & Löbl 2017: 616; Shiju & Sabu 2019: 37.

= *Lebia comitata* Bates 1873

= *Lebia farai* Jedlička 1951

Specimens examined (n = 3): SJC-ZOO-CWSSMC133–135, Alampetty, 2 exs, light trap, 26.x.2019; Kootar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Nagaland: Naga Hills; Assam: Khasi Hills, Patkai Hills (Andrewes 1930: 191); Kerala: Aralam (Shiju & Sabu 2019: 37)); MM (Andrewes 1930: 191); TAI (Andrewes 1930: 191); VTN (Jedlička 1963: 322–325); PAR - CHN (Jedlička 1963: 322–325); FUJ; HUN; PA; TWN (Löbl & Löbl 2017: 616); IAR - IDS (Jedlička 1963: 322–325); MLS (Jedlička 1963: 322–325).

### 32. *Lebia indica* Liebke 1938

*Lebia indica* Liebke 1938: 109; Lorenz 2005: 487; Löbl & Löbl 2017: 616; Shiju & Sabu 2019: 37.

= *Nematopeza decora* Chaudoir 1871c

= *Lebia decora* (Chaudoir 1871)

= *Nematopeza indica* (Liebke 1938)

Specimens examined (n = 1): SJC-ZOO-CWSSMC136, Alampetty, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Tamil Nadu: Alwarkurichi, Sankarankovil (Shiju & Sabu 2019: 37))

**Tribe Odacanthini Laporte De Castelnau 1834**

**xix. Genus *Pentagonica* Schmidt-Göbel 1846**

*Pentagonica* Schmidt-Göbel 1846: 47; Lacordaire 1854: 133; Schaum 1863: 74; Bates 1873: 321; Chaudoir 1877: 212; Sloane 1898: 494 & 513; Dupuis 1913a: 2; Andrewes 1926b: 353; id. 1930: 259; Jeannel 1942: 1017; Blackwelder 1944: 63; Jeannel 1949: 768; Basilewsky 1956: 472; Jedlička 1963: 505; Darlington 1968: 192; id. 1970: 46; Lorenz 2005: 445; Park et al. 2006: 103; Löbl & Löbl 2017: 640.

= *Rhombodera* Reiche 1842

= *Didetus* LeConte 1853

= *Elliotia* Nietner 1856

= *Trichothorax* Montrouzier 1860

= *Xenothorax* Wollaston 1867

= *Wakefieldia* Broun 1880

### 33. *Pentagonica ruficollis* Schmidt-Göbel 1846

*Pentagonica ruficollis* Schmidt-Göbel 1846: 48; Bates 1892a: 426; Dupuis 1913a: t. 5, f. 9–11; Andrewes 1923a: 23; id. 1926b: 353; id. 1930: 261; Jedlička 1963: 509; Lorenz 2005: 446; Park et al. 2006: 104; Löbl & Löbl 2017: 641; Shiju & Sabu 2019: 8.

= *Pentagonica dichroa* Sloane 1903

Specimens examined (n = 2): SJC-ZOO-CWSSMC137–138, Alampetty, 1 ex, light trap, 26.x.2019;

Chinnar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Assam: Patkai Hills; Tamil Nadu: Aratapara, Nilgiri Hills (Andrewes 1930: 261)); SRL (Andrewes 1930: 261), MM (Andrewes 1930: 261); VTN (Andrewes 1930: 261); PAR - GUA; HKG; YUN; NP; TWN (Löbl & Löbl 2017: 641); IAR - IDS (Andrewes 1930: 261); AUR - AST (Andrewes 1930: 261).

### 34. *Pentagonica venusta* Andrewes 1933

*Pentagonica venusta* Andrewes 1933: 17; Lorenz 2005: 446; Shiju & Sabu 2019: 8.

Specimens examined (n = 1): SJC-ZOO-CWSSMC139, Alampetty, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - India (Karnataka: Belgaum, Coorg, Mysore- Nandidurg, South Mangalore; Tamil Nadu: Nilgiri Hills-Kallar (Andrewes 1933: 17)); SRL (Andrewes 1933: 17).

**Subfamily Licininae Bonelli 1810**

**Tribe Chlaenini Brulle 1834**

**xx. Genus *Chlaenius* Bonelli 1810**

*Chlaenius* MacLeay 1825: 13; Dejean 1826: 297, 368; Schmidt-Göbel 1846: Cover page; Chaudoir 1850: 407; LaFerté-Sénectère 1851: 212, 233, 238, 263, 293; Lacordaire 1854: 213, 217, 219, 220, 221, 223, 224, 235; Chaudoir 1856: 192; Motschulsky 1860: 515; id. 1864b: 334, 347; Chaudoir 1876a: 10, 11, 12, 16; Bates 1892a: 309; Sloane 1910: 437; Andrewes 1919c: 91; id. 1923a: 58; id. 1924b: 24; id. 1930: 82; Lorenz 2005: 328.

### 35. *Chlaenius hamifer* Chaudoir 1856

*Chlaenius hamifer* Chaudoir 1856: 209, 210; id. 1876: 62; Bates 1889b: 265; id. 1892b: 311; id. 1892c: 230; Bouchard 1903: 171; Lesne 1904: 69; Sloane 1910: 439; id. 1920a: 322; Andrewes 1919a: 140; id. 1924b: 24; id. 1930: 94; Lorenz 2005: 330; Löbl & Löbl 2017: 494.

= *Chlaenius bihamatus* Chaudoir 1856

= *Chlaenius colombensis* Jedlička 1964

= *Chlaenius queenslandicus* Sloane 1910

= *Dinodes bihamatus* (Chaudoir 1856)

= *Dinodes hamifer* (Chaudoir 1856)

= *Pachydinodes hamifer* (Chaudoir 1856)

Specimens examined (n = 2): SJC-ZOO-CWSSMC140–141, Chinnar, 2 exs, hand picking, 26.x.2019.

**Distribution:** ORR - India (Kerala: Tholpetty (Akhil 2019: 115)); SRL (Andrewes 1930: 94), MM (Andrewes 1930: 94); TAI (Andrewes 1930: 94); PAR - BT; IN; JA; NC; HKG; NP; PA; SC; SCH (Löbl & Löbl 2017: 494); TWN (Andrewes 1930: 94); IAR - IDS (Andrewes 1930: 94).

**36. *Chlaenius nilgiricus* Andrewes 1919**

*Chlaenius nilgiricus* Andrewes 1919c: 9; id. 1930: 99; Lorenz 2005: 335.

Specimens examined (n = 3): SJC-ZOO-CWSSMC142–144, Alampetty, 2 exs, hand picking, 26.x.2019; Chinnar, 1 ex, hand picking, 26.x.2020.

**Distribution:** ORR - India (Tamil Nadu: Coimbatore, Nilgiri Hills (Andrewes 1930: 99)).

**Subfamily Orthogoniinae Schaum 1857****Tribe Orthogoniini Schaum 1857****xxi. Genus *Orthogonius* Macleay 1825**

*Orthogonius* Macleay 1825: 26; Dejean 1825: 169, 269; Schmidt-Göbel 1846: 55, 61; Lacordire 1854: 269; Walker 1858: 203; Chaudoir 1850: 434; id. 1871b: 98; Andrewes 1924b: 58; id. 1930: 245; Csiki 1932: 1586; Jedlička 1963: 269; Tian & Deuve 2000: 2; Lorenz 2005: 391.

= *Aspectra* Schmidt-Göbel 1846

= *Haplopisthius* Chaudoir 1850

= *Maraga* Walker 1858

**37. *Orthogonius baconi* Chaudoir 1871**

*Orthogonius baconi* Chaudoir 1871d: 109; Bates 1892a: 401; Andrewes 1930: 246; Csiki 1932: 1587; Lorenz 2005: 391; Akhil 2019: 121.

Specimens examined (n = 4): SJC-ZOO-CWSSMC145–148, Alampetty, 2 exs, hand picking, 26.x.2019; Chinnar, 2 exs, light trap, 26.x.2020.

**Distribution:** ORR - India (Tamil Nadu: Nilgiri Hill; Kerala: Muthanga (Akhil 2019: 121)) MM (Andrewes 1930: 246); PAR - India (Uttarakhand: Almora, Bengal (Andrewes 1930: 246)).

**38. *Orthogonius lucidus* Bates 1891**

*Orthogonius lucidus* Bates 1891: 324–340; Andrewes 1924b: 59; id. 1930: 248; Lorenz 2005: 392; Abhitha et al. 2009: 372.

Specimens examined (n = 8): SJC-ZOO-CWSSMC149–156, Kootar, 1ex, light trap, 26.x.2020; Alampetty, 4 exs, hand picking, 26.x.2019; Chinnar, 2exs, light trap, 26.x.2020; 1 ex, hand picking, 26.x.2020.

**Distribution:** ORR - India (Jharkhand: Chota Nagpur; Konbir, Tetara, Ranchi; Odisha: Surada; Maharashtra: Mumbai, Igatpuri (Andrewes 1930: 248); Karnataka: Belgaum, northern Karnataka (Andrewes 1930: 248), Bengal: Raniganj (Andrewes 1930: 248); Kerala: Kannur, Kozhikode, Thamarassery, Wayanad: Muthanga, Idukki, Thodupuzha (Abhitha et al. 2009: 372)).

**Subfamily Panagaeinae Bonelli 1810****Tribe Panagaeini Bonelli 1810****xxii. Genus *Craspedophorus* Hope 1838**

*Craspedophorus* Hope 1838: 165; Lacordaire 1854: 210; Chaudoir 1878: 90; Andrewes 1919a: 126; id. 1924b: 22; id. 1930: 133; Kirschenhofer 2000: 328; Lorenz 2005: 320; Hackel & Kirschenhofer 2014: 276; Fedorenko 2016: 2; Löbl & Löbl 2017: 638.

= *Camptoderus* Hope 1838

= *Eudema* Laporte De Castelnau 1840

= *Isotarsus* LaFerté-Sénectère 1851

= *Epicosmus* Chaudoir 1846

= *Brachyonychus* Chaudoir 1879

= *Brachycosmus* Jeannel 1949

= *Acanthocosmus* Jeannel 1949

**39. *Craspedophorus angulatus* (Fabricius 1781)**

*Craspedophorus angulatus* (Fabricius) Andrewes 1919a: 125; id. 1921a: 154; id. 1924b: 115; id. 1924d: 462; id. 1930: 133; Jedlička 1965: 3; Kirschenhofer 2000: 323; Baehr 2003: 446; Lorenz 2005: 320; Pang & Tian 2012: 265; Hackel & Farkac 2012: 78; Hackel & Kirschenhofer 2014: 276 & 357; Fedorenko 2016: 4; Manthen & Hegde 2018: 206; Jithmon & Sabu 2021: 18566.

*Carabus angulatus* Fabricius 1781: 302; id. 1787: 197; id. 1792: 148

= *Carabus angulatus* Fabricius 1781

= *Pimelia fasciatus* Fabricius 1781

= *Cyphrus reflexus* Fabricius 1801

= *Panagaeus tomentosus* Vigors 1825

= *Eudema bifasciatum* Chaudoir 1879

= *Panagaeus michardi* Fairmaire 1880

= *Craspedophorus bifasciatus* (Chaudoir 1879)

= *Craspedophorus fasciatus* (Fabricius 1781)

= *Craspedophorus michardi* (Fairmaire 1880)

= *Craspedophorus reflexus* (Fabricius 1801)

= *Craspedophorus tomentosus* (Vigors 1825)

= *Epicosmus bifasciatus* (Chaudoir 1879)

= *Eudema michardi* (Fairmaire 1880)

Specimens examined (n = 2): SJC-ZOO-CWSSMC157–158, Chinnar, 2 exs, hand picking, 25.ii.2020.

**Distribution:** ORR - India (Andhra Pradesh; Karnataka: Shivamoga, Mysore (Hackel & Kirschenhofer 2014: 357); Tamil Nadu: Coimbatore (Hackel & Kirschenhofer 2014: 276 & 357); Pondicherry (Hackel & Farkac 2012: 78); Kerala: Bonacaud (Jithmon & Sabu 2021: 18566)); SRL (Andrewes 1930: 133); BGD (Hackel & Farkac 2012: 78); MM (Hackel & Farkac 2012: 78).

**40. *Craspedophorus bifasciatus* (Laporte De Castelnau 1835)**

*Craspedophorus bifasciatus* (Laporte De Castelnau Andrewes 1919a: 126; id. 1921c: 341; Andrewes 1930: 134; Kirschenhofer 2000: 323; Lorenz 2005: 320; Hackel & Farkac 2012: 78; Hackel & Kirschenhofer 2014: 276 & 346; Fedorenko 2016: 4; Jithmon & Sabu 2021: 18567).  
 = *Panagaeus bifasciatus* Laporte De Castelnau 1835  
 = *Epicosmus castelnaui* Chaudoir 1879  
 = *Craspedophorus castelnaui* (Chaudoir 1879)  
 = *Isotarsus bifasciatus* (Laporte 1835)

**Distribution:** ORR - India (Madhya Pradesh; Odisha: Barkuda Island-Lake Chilka (Andrewes 1930: 134); Andhra Pradesh: Udayagiri, Horsely Konda (Andrewes 1930: 134); Tamil Nadu: Kadayanallur, Coimbatore, Bharathiyar (Jithmon & Sabu 2021: 18567), Chennai, Mahabalipuram (Hackel & Kirschenhofer 2014: 346), Nilgiri Hills, Thiruchirapally (Andrewes 1930: 134); Pondicherry (Andrewes 1930: 134); Kerala: Chinnar (Jithmon & Sabu 2021: 18567)); SRL (Andrewes 1930: 134); BGD (Hackel & Farkac 2012: 78); MM (Hackel & Farkac 2012: 78).

**Subfamily Pterostichinae Bonelli 1810**

**Tribe Abacetini Chaudoir 1872**

**xxiii. Genus *Abacetus* Dejean 1828**

*Abacetus* Dejean 1828: 195; Lacordaire 1854: 315; Chaudoir 1859: 126; id. 1869: 355; Tschitschérine 1898: 519, 531 & 538; id. 1902: 506; Andrewes 1924b: 44; id. 1930: 1; id. 1939: 129; Jeannel 1948: 420; Löbl & Smetana 2003: 346; Lorenz 2005: 255; Löbl & Löbl 2017: 480.

**41. *Abacetus haplosternus* Chaudoir 1878**

*Abacetus haplosternus* Chaudoir 1878: 25; Andrewes 1930: 4; id. 1942b: 25; Lorenz 2005: 258; Divya & Sabu 2020: 9.

Specimens examined (n = 4): SJC-ZOO-CWSSMC159–162, Kootar, 3 exs, light trap, 25.x.2019; 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Madhya Pradesh: Hoshangabad; Maharashtra: Nagpur (Andrewes 1930: 4)); TAI (Andrewes 1930: 4); PAR - India (Himachal Pradesh: Kullu; Uttarakhand: Almora, Ranikhet, Haldwani (Andrewes 1930: 4)); IAR - IDS (Andrewes 1930: 4).

**xxiv. Genus *Cosmodiscus* Sloane 1907**

*Cosmodiscus* Sloane 1907: 371; Andrewes 1920b: 445; id. 1930: 131; Löbl & Smetana 2003: 443; Lorenz 2005: 260; Kushwaha & Hegde 2015: 396, 401; Löbl & Löbl 2017: 481.

**42. *Cosmodiscus picturatus* Andrewes 1920**

*Cosmodiscus picturatus* Andrewes 1920b: 447; id. 1921c: 345; id. 1930: 131; Lorenz 2005: 260; Kushwaha & Hegde 2015: 396, 401; Divya & Sabu 2020: 11.

Specimens examined (n = 2): SJC-ZOO-CWSSMC163–164, Alampetty, 2 exs, light trap, 26.x.2019.

**Distribution:** ORR - India (Uttar Pradesh: Fyzabad, Odisha: Rambha: Ganjam, Barkuda and Gopkuda Island, lake Chilka; Maharashtra: Nagpur; Andhra Pradesh: Jammelamadugu (Andrewes 1930: 131); Kerala: Kozhikode (Divya & Sabu 2020: 11)).

**Tribe Cratocerini Lacordaire 1854**

**xxv. Genus *Caelostomus* MacLeay 1825**

*Caelostomus* MacLeay 1825: 23; Andrewes 1924b: 44; id. 1930: 55; Jeannel 1948: 383; Löbl I & Smetana 2003: 471; Lorenz 2005: 249; Faisal & Singh 2014: 342; Löbl & Löbl 2017: 678.

**\* 43. *Caelostomus sculptipennis* (Motschulsky 1859)**

*Caelostomus sculptipennis* (Motschulsky) Chaudoir 1872c: 13; Tschitschérine 1900b: 263 (note); Andrewes 1928: 22; id. 1930: 57; Straneo 1938: 56; Lorenz 2005: 250; Divya & Sabu 2020: 12.

= *Stomonaxus sculptipennis* Motschulsky 1859

= *Stomonaxus sculpticollis* Motschulsky 1859

= *Caelostomus sculpticollis* (Motschulsky 1859)

Specimens examined (n = 1): SJC-ZOO-CWSSMC165, Chinnar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Tamil Nadu: Nilgiri Hills (Straneo 1938: 56)); SRL (Andrewes 1930: 57).

**Tribe Pterostichini Bonelli 1810**

**xxvi. Genus *Trigonotoma* Dejean 1828**

*Trigonotoma* Dejean 1828: 182; Brulle 1834: 333; Chaudoir 1852: 71; Lacordaire 1854: 311; Chaudoir 1868: 158; Tschitschérine 1900b: 180; Kuntzen 1911: 182; id. 1914: 60; Andrewes 1930: 352; id. 1939: 138; Saha & Halder 2000: 20; Löbl & Smetana 2003: 520; Lorenz 2005: 300; Dubault et al. 2008: 240; Kushwaha & Hegde 2015: 396, 401; Löbl & Löbl 2017: 755.

**\*44. *Trigonotoma oberthueri* Tschitschérine 1894**

*Trigonotoma oberthueri* Tschitschérine 1894b: 444; Kuntzen 1914: 63; Andrewes 1930: 355; Löbl & Smetana 2003: 520; Lorenz 2005: 300; Löbl & Löbl 2017: 755; Divya & Sabu 2020: 22.

Specimens examined (n = 1): SJC-ZOO-CWSSMC166, Chinnar, 1 ex, hand picking, 26.x.2019.

**Distribution:** PAR - India (West Bengal: Pedong, Gopaldhara, Mungphu, Kurseong, Lebong (Andrewes 1930: 355)).

**Subfamily Scaritinae Bonelli 1810****Tribe Clivinini Rafinasque 1815****xxvii. Genus *Clivina* Latreille 1802**

*Clivina* Latreille 1802: 96; Bonelli 1813: 480; Dejean 1825: 411; Schmidt-Göbel 1846 (cover); Motschulsky 1861: 101; Putzeys 1863: 29 & 68; id. 1867: 94; id. 1868: 10; id. 1873: 15; Fleisch 1899: 33; Tschitschérine 1904: 258; Andrewes 1919b: 470; id. 1924b: 11; id. 1926c: 372; id. 1929: 344, 351; id. 1930: 110; Balkenohl 2001: 13; Lorenz 2005: 141.

**45. *Clivina brevior* Putzeys 1866**

*Clivina brevior* Putzeys 1866: 126; Bates 1892a: 277; Andrewes 1926c: 375; id. 1929: 355, 378; id. 1930: 112; Balkenohl 2001: 14; Lorenz 2005: 142; Abhitha 2010: 105.

Specimens examined (n = 1): SJC-ZOO-CWSSMC167, Chinnar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (New Delhi: Pusa (Andrewes 1930: 112); Kerala: Kozhikode: Kuttikattoor, Medical College, Thamarassery (Abhitha 2010: 105)); MM (Andrewes 1930: 112); IAR - MLS (Andrewes 1930: 112).

**46. *Clivina lobata* Bonelli 1813**

*Clivina lobata* Bonelli 1813: 481; Dejean 1825: 414; Putzeys 1861: 50; id. 1867: 121, 122, 125; id. 1868: 1, 8; Bates 1892a: 276; Andrewes 1919a: 209; id. 1921c: 340; id. 1922: 392; id. 1924b: 11, 462; id. 1926c: 875; id. 1929: 355, 375; id. 1930: 114; Lorenz 2005: 143; Abhitha 2010: 107; Löbl & Löbl 2017: 255.

Specimens examined (n = 1): SJC-ZOO-CWSSMC168, Kootar, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Kerala: Kozhikode: Thamarassery, Wayanad: Thirunelli (Abhitha 2010: 107)); MM (Andrewes 1930: 114); TAI (Andrewes 1930: 114); PAR - JA (Löbl & Löbl 2017: 255).

**xxviii. Genus *Pseudoclivina* Kult 1947**

*Pseudoclivina* Kult 1947: 30; id. 1951: 18; Balkenohl 2001: 18; Lorenz 2005: 145; Löbl & Löbl 2017: 258.

**\*47. *Pseudoclivina costata* (Andrewes 1929)**

*Pseudoclivina costata* (Andrewes) 1929: 354, 364; id. 1930: 113; Kult 1951: 18; Balkenohl 2001: 18; Lorenz 2005: 145.

= *Clivina costata* Andrewes 1929: 354

Specimens examined (n = 1): SJC-ZOO-CWSSMC169, Alampetty, 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Tamil Nadu: Nilgiri Hills (Andrewes 1930: 113)).

**48. *Pseudoclivina memnonia* (Dejean 1831)**

*Pseudoclivina memnonia* (Dejean) Kult 1947: 30; id. 1951: 18; Balkenohl 2001: 19; Lorenz 2005: 145; Abhitha 2010: 108; Löbl & Löbl 2017: 259.

*Clivina memnonia* Dejean 1831: 503; Putzeys 1846: 588; Bouchard 1903: 169; Andrewes 1919a: 187, 206; id. 1924b: 115; id. 1926c: 373; id. 1927: 105; id. 1929: 354, 362; id. 1930: 115; Saha & Biswas 1985: 120.

= *Clivina memnonia* Dejean 1831

= *Clivina indica* Putzeys 1846

= *Clivina rugosifrons* Nietner 1856

= *Clivina recta* Walker 1858

= *Pseudoclivina indica* (Putzeys 1846)

= *Pseudoclivina recta* (Walker 1858)

= *Pseudoclivina rugosifrons* (Nietner 1856)

Specimens examined (n = 2): SJC-ZOO-CWSSMC170–171, Alampetty, 1 ex, light trap, 26.x.2019; Chinnar, 1 ex, light trap, 26.x.2019.

**Distribution:** ORR - India (Kerala: Idukki: Chinnar; Kozhikode: Thamarassery, Engapuzha; Kasargod: Periya; Wayanad: Sulthan Bathery, Ambalavayal, Panamaram, Thirunelli, Muthanga, Tholpetty (Abhitha 2010: 108)); SRL (Andrewes 1930:115); MM (Andrewes 1930:115); PAR - GUA, HAI, YUN (Löbl & Löbl 2017: 259); IAR - IDS (Andrewes 1930:115).

**Tribe Dyschiriini W. Kolbe 1880****xxix. Genus *Dyschirius* Bonelli 1810**

*Dyschirius* Bonelli 1810: Panzer 1813: 67; Stephens 1827: 37, 40; Putzeys 1846: 524; Lacordaire 1854: 202; Putzeys 1867: 32; Fleischer 1899: 8; Andrewes 1919: 99; Müller 1922: 33; Andrewes 1926c: 377; id. 1929: 390; id. 1930: 159; Jeannel 1941: 250, 260, 275; id. 1946: 213, 215, 218; Moore & Brown 1979: 123; Clopton 1991: 53, 59; Saha et al. 1992: 9; Balkenohl 1994: 27; Fedorenko 1996: 5, 9, 11; Lorenz 2005: 151; Bulirsch 2009: 559; id. 2011: 1; Bousquet 2012: 431; Allegro & Bulirsch 2012: 235; Hogan 2012: 106, 111, 116, 231; Kushwaha & Hegde 2015: 399, 419; Fedorenko 2016: 439; Ghannem et al. 2016: 69; Bulirsch & Stachowiak 2017: 137; Löbl & Löbl 2017: 263; Bulirsch 2018: 229.

**49. *Dyschirius paucipunctus* Andrewes 1929**

*Dyschiriodes paucipunctus* (Andrewes) Lorenz 2005: 154.

*Dyschirius mahratta* Var. *paucipunctus* Andrewes 1929: 392, 397; id. 1930:160.

= *Dyschiriodes paucipunctus* (Andrewes 1929)

Specimens examined (n = 3): SJC-ZOO-CWSSMC172–174, Kootar, 3 exs, light trap, 26.x.2019.

**Distribution:** ORR - India (Maharashtra: Pune; Karnataka: Belgaum (Andrewes 1930: 160)); SRL

(Andrewes 1930: 160).

**Tribe Scaritini Bonelli 1810**

**xxx. Genus *Oxylobus* Chaudoir 1855**

*Oxylobus* Chaudoir 1855: 5; id. 1879: 129; Andrewes 1924b: 8; id. 1929: 292; id. 1930: 252; Lorenz 2005: 141.

**50. *Oxylobus asperulus* Chaudoir 1857**

*Oxylobus asperulus* Chaudoir 1857: 58; id. 1879: 133; Andrewes 1922: 215; id. 1924b: 129; id. 1929: 296, 311. id. 1930: 252; Lorenz 2005: 141.

Specimens examined (n = 1): SJC-ZOO-CWSSMC175, Alampetty, 1 ex, hand picking, 26.x.2019.

**Distribution:** ORR - India (Andhra Pradesh: Chittur district, Horsey Konda; Karnataka: Mysore; Tamil Nadu: Pillur, Kodaikanal, Yercaud, Madura, Nilgiri Hills, Shembaganur; Kerala: Dhoni forest, southern Malabar (Andrewes 1930: 252)); SRL (Andrewes 1930: 252).

# ssp. *Oxylobus asperulus amyntas* Andrewes 1924

*Oxylobus amyntas* Andrewes 1924b: 70; id. 1929: 296, 313. id. 1930: 252; Lorenz 2005: 141.

Specimens examined (n = 2): SJC-ZOO-CWSSMC176–177, Alampetty, 2 exs, hand picking, 26.x.2019.

**Distribution:** ORR - India (Madhya Pradesh: Majgaon, Motinala, Mukhi (Andrewes 1930: 252)).

**51. *Oxylobus porcatus* (Fabricius 1798)**

*Oxylobus porcatus* (Fabricius) Heyne-Taschenberg 1894: 3: 32; id. 1895: 20; Andrewes 1921a: 157; id. 1924b: 8; id. 1929: 295, 305; Andrewes 1930: 254; Lorenz 2005: 141.

*Scarites porcatus* Fabricius 1798: 43; Hope 1838: 95; Motschulsky 1855: 40.

= *Scarites porcatus* Fabricius 1798

= *Oxylobus costatus* Chaudoir 1879

= *Oxylobus minor* Tsitschérine 1894a

= *Oxylobus oblitteratus* Andrewes 1929

Specimens examined (n = 3): SJC-ZOO-CWSSMC178–180, Alampetty, 3 exs, hand picking, 26.x.2019.

**Distribution:** ORR - India (Punjab: Baddia; West Bengal: Sahibganj, Rajmahal, Giridih; Jharkhand: Chakardharapore, Konbir, Chota Nagpur- Tetara, Tinphahar; Madhya Pradesh: Jubbulpore, Majgaon, Motinala; Chhattisgarh: Chitrakot; Odisha: Barkuda Island, Barkul, Chilka lake; Andra Pradesh: Visakhapatnam, Chittoor, Horsey Konda; Karnataka: Belgaum; Tamil Nadu: Coimbatore, Nilgiri Hills, Shevaroy Hills, Madura, Palni Hills, Kallar, Pillur, Ootacamund, Shembagannur; Kerala: Malabar Coast (Andrewes 1930: 254)); SRL (Andrewes 1930: 254).

**Subfamily Trechinae Bonelli 1810**

**Tribe Bembidiini Stephens 1827**

**xxx. Genus *Elaphropus* Motschulsky 1839**

*Elaphropus* Motschulsky 1839: 73; Erwin 1975: 1; Kopecky 2002: 63; Lorenz 2005: 207; Löbl & Löbl 2017: 342.

\* **52. *Elaphropus nigellus* (Andrewes 1935)**

*Elaphropus nigellus* (Andrewes) Lorenz 2005: 210.

= *Tachys nigellus* Andrewes 1935

= *Tachyura nigella* (Andrewes 1935)

Specimens examined (n = 21): SJC-ZOO-CWSSMC181–201, Chinnar, 2 exs, light trap, 26.x.2019; Alampetty, 7 exs, light trap, 26.x.2019; 2 exs, pitfall trap, 26.x.2019; 2 exs, hand picking, 26.x.2019; 1 ex, light trap, 25.ii.2020; 2 exs, pitfall trap, 25.ii.2020; 2 exs, hand picking, 25.ii.2020; Kootar, 2 exs, light trap, 26.x.2019; 1 ex, hand picking, 26.x.2019.

**Distribution:** ORR - India (Tamil Nadu: Chennai, Nilgiri Hills; Kerala: Nilambur (Andrewes 1935: 277)).

\* **53. *Elaphropus nilgiricus* (Andrewes 1925)**

*Elaphropus nilgiricus* (Andrewes) Lorenz 2005: 210.

*Tachys nilgiricus* Andrewes 1925: 446; id. 1930: 334; id. 1935: 265.

= *Tachys nilgiricus* Andrewes 1925

= *Tachys unisculptus* Andrewes 1925

= *Elaphropus unisculptus* (Andrewes 1925)

= *Tachyura nilgirica* (Andrewes 1925)

Specimens examined (n = 2): SJC-ZOO-CWSSMC202–203, Alampetty, 1 ex, light trap, 26.x.2019; 1 ex, light trap, 25.ii.2020.

**Distribution:** ORR - India (Karnataka: Mysore (Andrewes 1930: 334); Tamil Nadu: Nilgiri Hills (Andrewes 1935: 446)); SRL (Andrewes 1930: 334).

\* **54. *Elaphropus politus* (Motschulsky 1851)**

*Elaphropus politus* (Motschulsky) Lorenz 2005: 210; Kushwaha & Hegde 2015: 395.

*Tachys politus* Motschulsky 1851: 509; Putzeys 1875b: 743; Bouchard 1903: 170; Andrewes 1919a: 199; id. 1921a: 146; id. 1925: 448; id. 1930: 338; id. 1935: 269.

= *Tachys politus* Motschulsky 1851

= *Tachyura polita* (Motschulsky 1851)

Specimens examined (n = 20): SJC-ZOO-CWSSMC204–223, Chinnar, 2 exs, light trap, 26.x.2019; Alampetty, 5 exs, light trap, 26.x.2019; 2 exs, pitfall trap, 26.x.2019; 3 exs, hand picking, 26.x.2019; 2 exs, light trap, 25.ii.2020; 1 ex, pitfall trap, 25.ii.2020; Kootar, 4 exs, light trap, 25.x.2019; 1 ex, pitfall trap, 25.ii.2020.

**Distribution:** ORR - India (Uttar Pradesh: Auraiya, Fatehpur, Muradganj, Mathura, Kishori Kunj, Jhansi, Shahjahanpur (Kushwaha & Hegde 2015: 395)); SEA (Andrewes 1935: 448).

## DISCUSSION

This is the first report about ground beetles from a natural habitat in the eastern slopes of Western Ghats and it represents the carabid composition in a dry deciduous forest in the southern WG. Fifty-four species belonging to 11 subfamilies (Harpalinae: 15 species, Lebiinae: 14, Scaritinae: 7, Pterostichinae: 4, Anthiinae: 3, Trechinae: 3, Licininae: 2, Orthogoniinae: 2, Panagaeinae: 2, Brachininae: 1, Dryptinae: 1), and 31 genera were recorded. Harpalinae, Lebiinae, and Scaritinae are the species-rich subfamilies with 15, 14, and seven species respectively, in the study region which is a representative of the dry forest habitat in the rain shadow slopes of the southern WG. Two species—*Stenolophus lucidus* (Harpalinae) and *Amblystomus aenescens* (Harpalinae)—are first records from India (Image 1A,B). Four species, *Stenolophus bajaurae* (Harpalinae), *Amblystomus indicus* (Harpalinae), *Trigonotoma oberthueri* (Pterostichinae), and *Elaphropus politus* (Trechinae) (Image 2I,A,J,E) are first

reports from southern India and *Oxylobus asperulus amyntas* (Scaritinae) is the first record of the subspecies from southern India (Image 2G). *Amblystomus indicus* was reported earlier from Sri Lanka and eastern & western India (Bates 1886, 1892; Andrewes 1930) and the record in southern India is significant indicating its continuous distribution in Sri Lanka and southern India. *Trigonotoma oberthueri*, a species with earlier reports only from the PAR in the central and eastern Himalayan region (Andrewes 1930; Löbl & Löbl 2017) is recorded from the Oriental region. Six species (*Macrocheilus chinnarensis* (Antriinae), *Ophoniscus puneensis* (Harpalinae), *Caelostomus sculptipennis* (Pterostichinae), *Pseudoclivina costata* (Scaritinae), *Elaphropus nigellus* (Trechinae), *E. nilgiricus* (Trechinae) (Image 2F,B,H,C,D) are endemic to the WG and Sri Lanka biodiversity hot spot. *Macrocheilus chinnarensis* is a recently discovered new local endemic species (Akhil et al. 2019). *Ophoniscus puneensis* is recorded for the first time from south WG after its discovery in the northern WG (Kataev 2018). *Pseudoclivina costata* and *Elaphropus nigellus* are endemic to the southern WG (Andrewes 1925, 1929, 1930, 1935) and it is the first record of the species from the eastern slopes of the WG. *Caelostomus sculptipennis* and *Elaphropus nilgiricus* are known only from southern WG and Sri Lanka (Andrewes 1925, 1928, 1930, 1935; Straneo 1938; Divya & Sabu 2020).

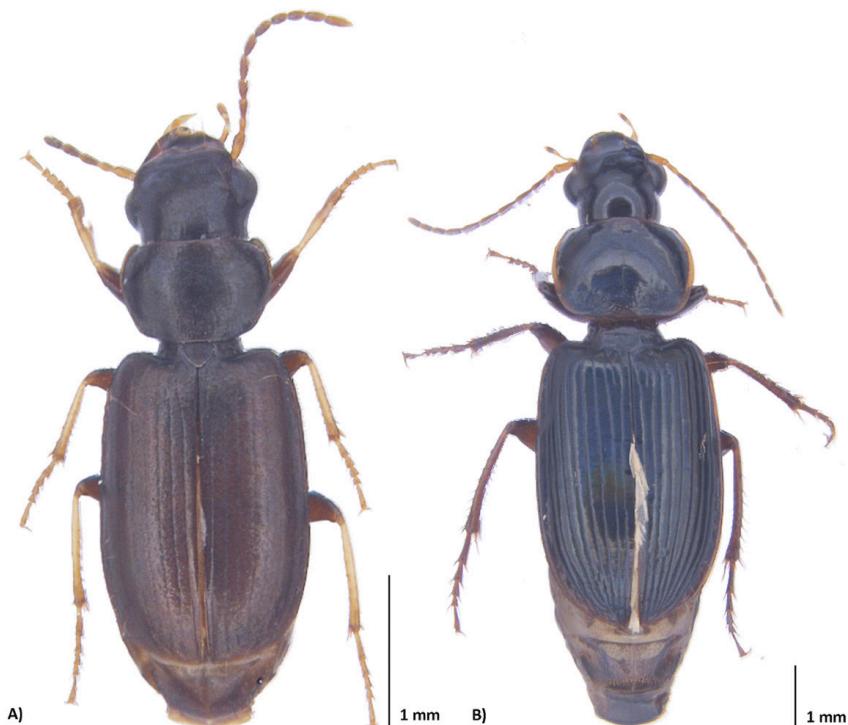


Image 1. Habitus of: A—*Amblystomus aenescens* | B—*Stenolophus lucidus*.

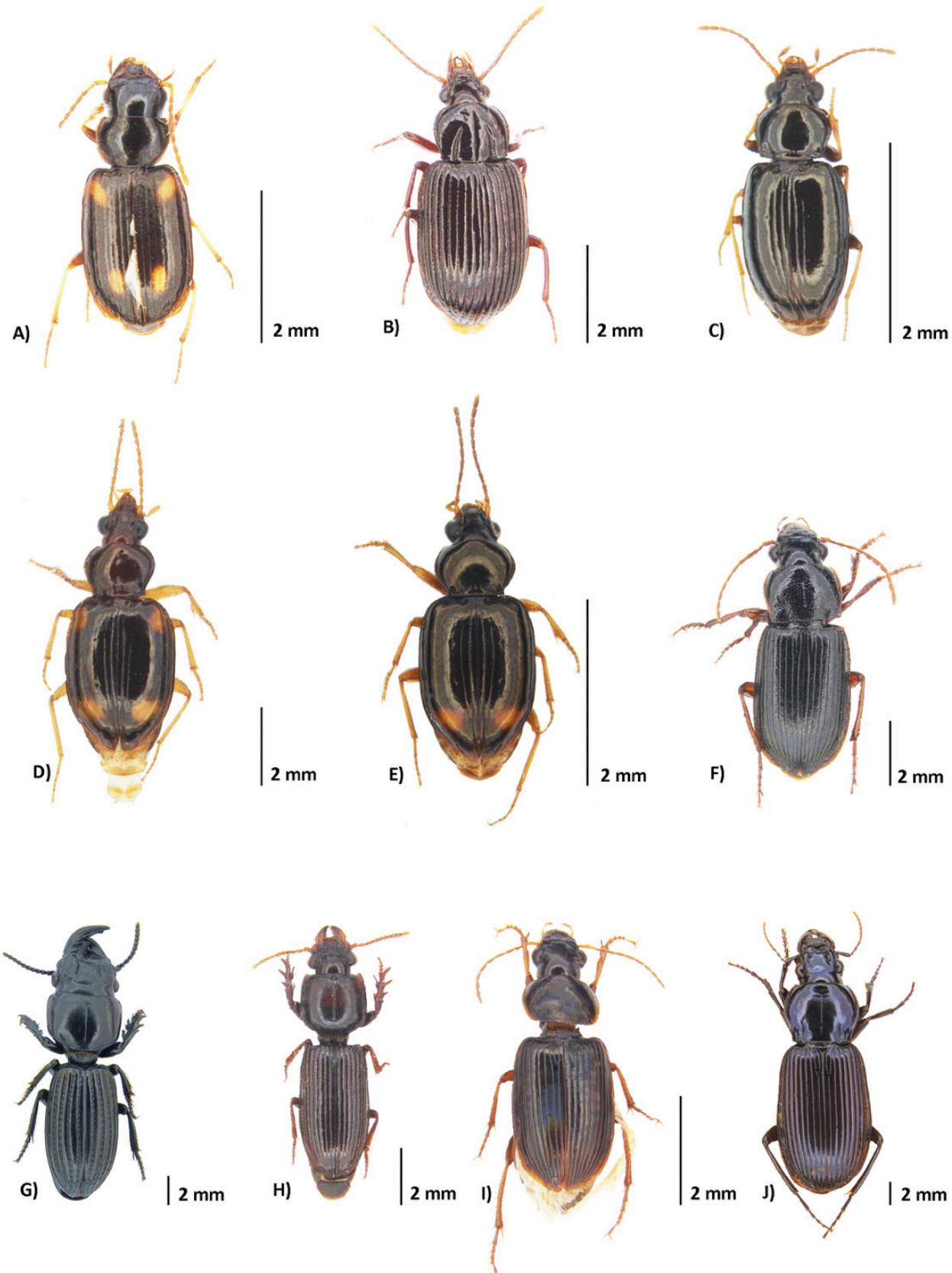


Image 2. Habitus of: A—*Amblystomus indicus* | B—*Caelostomus sculptipennis* | C—*Elaphropus nigellus* | D—*Elaphropus nilgiricus* | E—*Elaphropus politus* | F—*Ophoniscus puneensis* | G—*Oxylobus asperulus amyntas* | H—*Pseudoclivina costata* | I—*Stenolophus bajaurae* | J—*Trigonotoma oberthueri*.

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**Journal of Threatened Taxa** is indexed/abstracted in Bibliography of Systematic Mycology, Biological Abstracts, BIOSIS Previews, CAB Abstracts, EBSCO, Google Scholar, Index Copernicus, Index Fungorum, JournalSeek, National Academy of Agricultural Sciences, NewJour, OCLC WorldCat, SCOPUS, Stanford University Libraries, Virtual Library of Biology, Zoological Records.

NAAS rating (India) 5.64



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ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

August 2022 | Vol. 14 | No. 8 | Pages: 21487–21750

Date of Publication: 26 August 2022 (Online & Print)

DOI: 10.11609/jott.2022.14.8.21487-21750

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