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An annotated distributional checklist of Vespidae (Hymenoptera: Vespoidea) of India

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Abstract

This study presents a checklist of the vespid wasps (Hymenoptera: Vespidae) of India. A total of 288 species belonging to 60 genera and 5 subfamilies of Vespidae are known to occur within the political boundaries of India. A complete list of species, comprising valid scientific names, synonyms, geographical distribution within and outside India, along with references, is provided. One new synonymy is proposed.

Key words: Vespid wasps, catalog, distribution

Introduction

The family Vespidae, with 5000+ species worldwide, is one of the biggest families within the superfamily Vespoidea. It is a cosmopolitan family and consists of six extant subfamilies: Euparagiinae, Eumeninae, Masarinae, Polistinae, Stenogastrinae and Vespinae. The members of the family Vespidae are mostly predatory in nature and are commonly known as potter wasps (Eumeninae), pollen wasps (Masarinae), paper wasps (Polistinae), hover wasps (Stenogastrinae), and yellow jackets and hornets (Vespinae). They are important pest control agents in agro ecosystems and are one of nature's best architects owing to their skill in making a variety of nests.

Indian Vespidae is represented by five subfamilies: Eumeninae, Masarinae, Polistinae, Stenogastrinae and Vespinae; of which Polistinae, Stenogastrinae, and Vespinae are comprised of social vespids and Eumeninae and Masarinae are comprised of solitary vespids. Eumeninae and Masarinae lead solitary lives and make a variety of nests ranging from simple burrows that use pre-existing cavities to beautiful mud or clay nests. Social vespids lead a social life in colonies. Each colony consists of at least one queen (fertile female), drones (males) and workers (sterile females).

The taxonomic studies on Indian vespids began with publication of Bingham's Fauna of British India volume in 1897. Since then numerous research articles have been published on taxonomy and biogeographic distribution of Indian vespids. Notable contributors to study of the Indian vespid fauna are: van der Vecht (1963, 1966), Archer (1989, 1999), Yamane (1987), Das & Gupta (1984, 1989), Gusenleitner (1996-2013), Carpenter (1996 to present), Jonathan (1996-2003), Kundu (1996-2010), Girish Kumar (2010 to present), and Pannure (2016 to present). However, there is no modern list which gives an account of all the vespid species occurring in India.

The present study is undertaken to list all the species of Vespidae found in India along with their valid taxonomic names, synonyms, geographic distribution within and outside India along with referenced literature. New distribution records are also provided.

Method and materials

The present study is based on the research articles & monographs published between 1758 to 2019 and on the specimens available at the National Insect Museum of ICAR- National Bureau of Agricultural Insect Resources

(NBAIR), Bengaluru; Ashoka Trust for Research in Ecology and the Environment (ATREE), Bengaluru; Department of Entomology, University of Agricultural Sciences, Gandhi Krishi Vigyan Kendra, Bengaluru; Western Ghats Regional Centre, Zoological Survey of India, Kozhikode and Annamalai University, Chidambaram. The following published works were examined for preparing the checklist: Archer 1989, 1999; Bingham 1897; Carpenter & Kojima 1996, 1997; Carpenter 1996, 2001; Das & Gupta 1984, 1989; Gawas *et al.* 2019; Gawas & Gupta 2017; Giordani Soika 1935a, 1935b, 1970, 1972, 1973, 1982a (1981), 1982b, 1992, 1994, 1995; Girish Kumar & Carpenter 2013, 2015a, 2015b, 2018; Girish Kumar & Lambert 2010; Girish Kumar & Mazumdar 2015; Girish Kumar & Nguyen 2010; Girish Kumar & Sharma 2012, 2013, 2014a, 2014b, 2015a, 2015b; Girish Kumar & Srinivasan, 2010, 2015; Girish Kumar 2010, 2011, 2012, 2013a, 2013b, 2013c, 2018; Girish Kumar & Sureshan 2016, 2018, 2019a, 2019b; Girish Kumar *et al.* 2012, 2013a, 2013b, 2013c, 2013d, 2014a, 2014b, 2014c, 2015a, 2015b, 2015c, 2016a, 2016b, 2016c, 2016d, 2016e, 2017a, 2017b, 2017c, 2017d, 2017e, 2018a, 2018b, 2019a, 2019b, 2019c; Gusenleitner 1996; Pannure *et al.* 2016, 2017, 2018; Srinivasan & Girish Kumar 2009, 2013; van der Vecht & Carpenter 1990; van der Vecht 1963, 1966. The checklist contains the following information: subfamilies organised in alphabetical order, tribes and genera therein also follows an alphabetical arrangement, genus with original citation and type species, species: valid names, synonyms, geographical distribution of species within and outside the administrative boundaries of India along with references. Arrangement of subfamilies, tribes and genera follows the classification of Carpenter (1982, 1987).



FIGURE 1. Map of India with states and union territories.

Abbreviations used for other Museums/Repositories: AMNH—American Museum of Natural History, New York, USA; BMNH—British Museum (Natural History), London, England; DEI—Deutsches Entomologisches Institut, Müncheberg, Germany; DZUC—Department of Zoology, University of Calicut, Kerala, India; ETHZ—Entomologisches Institut, Technische Hochschule, Zurich, Switzerland; IMUASB—Insect Museum, University of Agricultural Sciences, Bengaluru, India; IRSNB—Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium; ISEZ—Instytut Systemaryki i Ewolucji Zweirat, Kraków, Poland; IUNH—Natural History Collection at Ibaraki University, Mito, Japan; KIZ—Kunming Institute of Zoology, Yunnan, China; LSL—Linnean Society of London, London, UK; MAP—Musée d'Anthropologie préhistorique, Monte Carlo, Monaco; MCZ—Museum of Comparative Zoology, Cambridge, USA; MHNG—Muséum d'Histoire Naturelle, Genève, Switzerland; MMBC—Moravian Museum, Brno, Czech Republic; MNB—Museum für Naturkunde, Berlin, Germany; MNHN—Muséum national d'Histoire Naturelle, Paris, France; MRSN—Museo Regionale di Scienze Naturali di Torino, Italy; MSNG—Museo Civico di Storia Naturale di Genova Giacomo Doria, Genova, Italy; MSNV—Museo Civico di Storia Naturale di Venezia, Venice, Italy; MVEN—Museo Civico di Storia Naturale, Venice, Italy; NBCL—Naturalis Biodiversity Center, Leiden, Netherlands; NHMB—Naturhistorisches Museum, Basel, Switzerland; NHMW—Naturhistorisches Museum Wien, Vienna, Austria; NMV—National Museum of Victoria, Melbourne, Australia; NRM—Naturhistoriska Riksmuseet, Stockholm, Sweden; NZC—National Zoological Collection, Kolkata, India; OLM—Oberösterreichischen Landesmuseum, Linz, Austria; OUM—Oxford University Museum, Oxford, UK; RMNH—Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie), Leiden, Netherlands; SMNS—Staatliches Museum für Naturkunde Stuttgart, Germany; UMHU—University Museum, Hokkaido University, Sapporo, Japan; USNM—National Museum of Natural History, Washington, DC, USA; UZMC—Universitetets Zoologiske Museum, København, Denmark; ZINRAS—Zoological Institute, Russian Academy of Sciences, St Petersburg, Russia; ZMA—Zoologisch Museum, Amsterdam, Netherlands; ZMB—Zoologisches Museum der Humboldt Universität, Berlin, Germany; ZMUK—Zoological Museum, University of Kiel, Germany; ZMUU—Zoological Museum, Uppsala University, Uppsala, Sweden; ZSIK—Zoological Survey of India, Kozhikode, India; ZSSM—Zoologische Staatssammlung München, Munich, Germany.

Results

Subfamily Eumeninae

Tribe Eumenini

Genus *Delta* de Saussure, 1855

Delta de Saussure, 1855: 130, 132, 143. Type species: *Vespa maxillosa* De Geer, 1775 [*Vespa emarginata* Linnaeus, 1758].

1) *Delta asina* (de Saussure, 1852)

a) *Delta asina asina* (de Saussure, 1852)

Eumenes asina de Saussure, 1852: 59. Type data: Female, MNHN. Type Locality: Senegal.

Eumenes lepeleterii var. *asina*; Gribodo, 1895: 91.

Eumenes campaniformis var. *asinus*; Giordani Soika, 1934: 228.

Delta campaniformis var. *asinus*; Giordani Soika, 1961a: 243.

Delta asina; van der Vecht and Fischer, 1972: 135.

Eumenes campaniformis asinus; Giordani Soika, 1973a: 20.

Delta asina asina; Giordani Soika, 1989: 24, 57.

Distribution. India: Gujarat. *Elsewhere:* Angola; Eritrea; Nigeria; Senegal; Sudan; Uganda. (Dover & Rao 1922, Carpenter *et al.* 2010a, Gusenleitner & Madl 2012).

2) *Delta campaniforme* (Fabricius, 1775)

a) *Delta campaniforme campaniforme* (Fabricius, 1775)

- Vespa campaniformis* Fabricius, 1775: 371. Type data: Holotype female, BMNH. Type locality: “Nova Hollandia” (New Guinea).
- Sphex campaniformis*; Christ, 1791: 312.
- Eumenes campaniformis*; Fabricius, 1804: 287.
- Eumenes esuriens*; Smith, 1861: 86.
- Eumene sesuriens* var. *campaniformis*; Maindron, 1882: 270-272.
- Eumenes tricolor* Cameron, 1906a: 64. Type data: Female, ZMA. Type locality: Humboldt Bay, New Guinea.
- Eumenes campaniformis* var. *campaniformis*; Giordani Soika, 1934: 227.
- Eumenes campaniformis campaniformis*; Baltazar, 1966: 295.
- Delta campaniformis*; Giordani Soika, 1961a: 243.
- Delta campaniforme gracilior* Giordani Soika, 1986a: 88. Type data: Holotype female, IUNH. Type locality: “Luzon: Matnog, Sorsogon”.
- Delta campaniforme campaniforme*; Giordani Soika, 1987: 147.
- Material examined.** INDIA: **Uttarakhand:** Almora district, Chalthi, 19.xi.2005, 1 ♀, Coll. J.P. Sathi & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.12964.
- Distribution.** India: Arunachal Pradesh, Sikkim, Uttarakhand (new record), West Bengal. *Elsewhere:* Australia; China; Cambodia; Indonesia; Laos; Malaysia; Myanmar; Nepal; Pakistan; Papua New Guinea; Philippines; Singapore; Thailand; U.S.A. (adventive); Vietnam. (Srinivasan & Girish Kumar 2013, Nugroho *et al.* 2013, Nguyen 2015b, Pham & Li 2015, Khan *et al.* 2018).
- b) *Delta campaniforme chloroticum* Giordani Soika, 1979**
- Delta campaniforme chloroticum* Giordani Soika, 1979: 263. Type data: Female, BMNH. Type locality: “Pakistan: Deesa” [recte: India: Gujarat].
- Distribution.** India: Gujarat. *Elsewhere:* Iran. (Giordani Soika 1979, Gusenleitner 2013a).
- 3) *Delta conoideum* (Gmelin, 1790)**
- Vespa conica* Fabricius, 1787: 293. Type data: BMNH. Type locality: “China” [junior primary homonym of *Vespa conica* Fabricius, 1775].
- Vespa conoidea* Gmelin, 1790: 2753.
- Sphex conica*; Christ, 1791: 299.
- Eumenes conica*; Fabricius, 1804: 285.
- Eumenes maxillosus* var. *conicus*; Schulthess, 1914: 262.
- Eumenes conoideus*; van der Vecht, 1960: 5.
- Eumenes emarginatus conoideus*; Iwata, 1965: 105.
- Delta conoideum*; Gusenleitner, 1987: 269.
- Material examined.** INDIA: **Karnataka:** Yelahanka Bengaluru, 6.xii.2018, 1 ♀ & 3 ♂, Coll. Sandesh Gawas; Savandurga, 4.x.2018, 1 ♂, Coll. Sandesh Gawas; Kanakpura, 31.ii.2015, 2 ♀, Coll. Rajeshwari; GKVK Bengaluru, 9.xii.2005, 1 ♀, Coll. Naveen Kumar, 24.iv.2012, 1 ♀; 1, 4.ii.2014, 1 ♂, 4 ♀, coll. A. Pannure; Sirsi, 6.xi.2007, 1 ♀, Coll. Umeshkumar; Hebbal Bengaluru, 1.iii.2006, 1 ♀, Coll. Shivaprakash.
- Distribution.** India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Diu, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Puducherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, West Bengal. *Elsewhere:* Laos; China; Pakistan; Sri Lanka; Thailand; Vietnam. (Gusenleitner 2006, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Girish Kumar & Mazumdar 2015, Girish Kumar & Sharma 2015b, Nguyen 2015b, Nidup *et al.* 2016, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).
- 4) *Delta dimidiatipenne* (de Saussure, 1852)**
- Eumenes dimidiatipennis* de Saussure, 1852: 51. Type data: Syntype Female, Male, MNHN. Type locality: “Djidda” (Saudi Arabia), The East Indies (India).
- Eumenes transcaspicus* Morawitz, 1895: 414.
- Eumenes maxillosus* var. *dimidiatipennis*; Schulthess, 1910: 17.
- Eumenes maxillosus dimidiatipennis*; Giordani Soika, 1952a (1951): 77.

Delta dimidiatipenne; Blüthgen, 1960: 279.

Delta emarginatus dimidiatipennis; Blüthgen and Gusenleitner, 1970b: 6.

Distribution. India: Arunachal Pradesh, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh. *Elsewhere*: Afghanistan; Africa; Algeria; Arabia; Canary Islands; Chad; Djibouti; Egypt; Eritrea; Ethiopia; Iran; Madagascar; Mauritania; Nepal; Niger; Pakistan; Palestine; Spain; Somalia; South Africa; Sudan; Syria; Turkey; Uganda; Yemen. (Gupta 1997, Dvorak & Castro 2007, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017).

5) *Delta esuriens* (Fabricius, 1787)

a) *Delta esuriens esuriens* (Fabricius, 1787)

Vespa esuriens Fabricius, 1787: 293. Type data: Syntype, BMNH. Type locality: India.

Material examined. INDIA: **Andhra Pradesh**: Guntur, 13.xii.2006, 1 ♂, Coll. Naveen Kumar. **Karnataka**: Dandeli, 29.v.2008, 2 ♂, Coll. Yadavababu; Hebbal Bengaluru, 2.v.2011, 1 ♂, Coll. Mahendra; Bangalore, GKV, 916 m, 7.x, 10.xi.2012, 2 ♀, coll. A. Pannure. **Kerala**: Madayipara (Kannur), 38 m, 12°01' N 75°15' E, 13.viii.2015, 1 ♀, coll. S.D. Pradeepa. **Nagaland**: Medziphema Dimapur, 3.iii.2015, 1 ♀, Coll. Ankita Gupta. **Gujarat**: AAU Anand, 27.xi.2015, 2 ♂, Coll. Sandesh & Umeshkumar. **Maharashtra**: Narayangaon Pune, 24.xi.2016, 1 ♀, Coll. Umeshkumar.

Distribution. India: Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland (new record), Odisha, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Arabia; China; Bhutan; Indonesia; Iran; Iraq; Israel; Laos; Mauritius; Myanmar; New Caledonia; Oman; Pakistan; Philippines; Qatar; Saudi Arabia; Thailand; Sri Lanka; United Arab Emirates; Vietnam. (Gupta 1997, Gusenleitner 2006, Gusenleitner 2011, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Girish Kumar & Sharma 2015b, Nguyen 2015b, Pham & Li 2015, Pannure *et al.* 2016, Nidup *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Girish Kumar *et al.* 2019b).

6) *Delta paraconicum* Giordani Soika, 1972

Delta paraconicum Giordani Soika, 1972: 107. Type data: Holotype male, BMNH. Type locality: Dohnavur, Tirunelveli, Tamil Nadu, India.

Distribution. India: Tamil Nadu. *Elsewhere*: Thailand. (Giordani Soika 1972, Gusenleitner 2006, Pannure *et al.* 2016).

7) *Delta pyriforme* (Fabricius, 1775)

a) *Delta pyriforme pyriforme* (Fabricius, 1775)

Vespa pyriformis Fabricius, 1775: 371. Type data: sex not stated (type depository unknown). Type locality: China.

Vespa petiolata Fabricius, 1781: 467.

Sphex pyriformis; Christ, 1791: 312.

Sphex rubicunda Christ, 1791: 316, pl. 32 fig. 1.

Sphex thoracica Christ, 1791: 324, pl. 32 fig. 9.

Eumenes petiolata; Latreille, 1802: 361.

Eumenes pyriformis; Fabricius, 1804: 286.

Eumenes pomiformis var. *piriformis* [!]; Dalla Torre, 1894: 30.

Eumenes piriformis; Schulz, 1912: 88, 101.

Eumenes maxillosus var. *petiolatus*; Bequaert, 1918: 59 (key), 63, fig. 49 (map), 281.

Eumenes maxillosus var. *pyriformis*; Bequaert, 1926: 562, 564.

Eumenes pyriformis pyriformis; Iwata, 1965: 105, pl.9 fig. 11.

Delta pyriformis; Giordani Soika, 1975: 393.

Delta pyriforme pyriforme; Gusenleitner, 1988b: 184.

Material examined. INDIA: **Karnataka**: Bangalore, GKV, 916 m, 27.xii.1980, 1 ♀, coll. Belavadi; 24.iv.2012, 1 ♀; 14.iii.2013, 1 ♀; 1.ii.2014, 3 ♂, 3 ♀, coll. A. Pannure. **Kerala**: KAU Trissur, 12.iv.2006, 1 ♀, Coll. J. Poorani. **Maharashtra**: Bhimashankar, 27.xi.2016, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Puducherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Bhutan; Cambodia; China (including Taiwan and Hong Kong); Hawaii; Indonesia; Laos; Malaysia; Moluccas; Myanmar; Nepal; New Guinea; Pakistan; Sri Lanka; Thailand; Vietnam. (Gusenleitner 2006, Gusenleitner 2011, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Girish Kumar & Sharma 2015b, Nguyen 2015b, Pham & Li 2015, Pannure *et al.* 2016, Nidup *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

Genus *Eumenes* Latreille, 1802

Eumenes Latreille, 1802: 360. Type species: “*Eumenes coarctata*, Fab.” [= *Vespa coarctata* Linnaeus, 1758].

8) *Eumenes affinissima* de Saussure, 1852

Eumenes affinissima de Saussure, 1852: 37. Type data: Male, OUM. Type locality: “Indes orientales”.

?*Eumenes pomiformis* var. *affinissima*; Maindron, 1882: 268.

Eumenes coelestimoniana Kostylev, 1940: 140.

Distribution. India: Himachal Pradesh, Jammu & Kashmir, Uttarakhand. *Elsewhere:* Bangladesh; Indonesia; Kyrgyzstan; Malaysia; Mongolia; Pakistan. (Gusenleitner 2006, Girish Kumar *et al.* 2017b).

9) *Eumenes antennatus* Bingham, 1898

Eumenes antennatus Bingham, 1898: 121. Type data: Male, BMNH. Type locality: “Deesa”.

Distribution. India: Gujarat. (Girish Kumar *et al.* 2017b).

10) *Eumenes architectus* Smith, 1859

Eumenes architectus Smith, 1859: 20. Type data: Female Male, OUM. Type locality: “Celebes”.

Eumenes pomiformis var. *architectus*; Maindron, 1882: 269.

Eumenes punctatus; Schulthess, 1927: 81, fig. 1.

Material examined. INDIA: **Karnataka:** Bangalore, GKVK, 916 m, 14.vi.1982, 1♂, coll. Viraktmath; 930 m, 13°04' N 77°34' E, 2.v.2009, 1♀; 1.i, 26.ii, 19.iii, 6.iv, 10.vi.2012, 6♀, 1♂; 18.vii.2013, 1♂; 1.ii.2014, 1♀, 1♂, coll. A. Pannure. **Kerala:** Munnar Camelot Resort, 1464 m, 10°09' N 77°06' E, 15.v.2013, 1♂, coll. V.V.Belavadi. Kannur, Madayipara, 38 m, 12°01' N 75°15' E, 13.viii.2015, 2♀, coll. S.D. Pradeepa. Padanakkad, 14 m, 12°15' N 75°07' E, 14.viii.2015, 1♂, coll. C. Prashantha.

Distribution. India: Arunachal Pradesh, Assam, Karnataka, Kerala, Meghalaya, Sikkim, West Bengal. *Elsewhere:* China?; Indonesia; Malaysia; Myanmar; Philippines; Singapore. (Srinivasan & Girish Kumar 2013, Pannure *et al.* 2016, Girish Kumar *et al.* 2017b).

11) *Eumenes assamensis* Meade-Waldo, 1910

Eumenes assamensis Meade-Waldo, 1910a: 41. Type data: Females Males, BMNH. Type locality: Shillong, Meghalaya, India.

Material examined. INDIA: **Himachal Pradesh:** Palampur, 22-24.x.2017, 1 ♀, Coll. Ankita Gupta. **Uttarakhand:** Bhimtal, 12-15.xi.2016, 1 ♀, Coll. Ankita Gupta. **Uttarakhand:** Chamoli district, Phata, 23.ix.1979, 1 ♀, Coll. J.P. Sathi & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.12978; Dehradun district, Sahiya, 18.vii.2019, 1 ♀ & 1 ♂, Coll. P. Girish Kumar, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.12979 & 12980.

Distribution. India: Arunachal Pradesh, Himachal Pradesh (new record), Meghalaya, Mizoram, Sikkim, Uttarakhand (new record), West Bengal. *Elsewhere:* China: Tibet; Laos; Nepal. (Gusenleitner 2011, Girish Kumar *et al.* 2017b).

12) *Eumenes atrophicus* (Fabricius, 1798)

Vespa atrophica Fabricius, 1798: 264. Type data: Female, UZMC. Type locality: “In India Orientali”.

Polistes atrophica; Fabricius, 1804: 280.

Icaria (?) *atrophica*; de Saussure, 1853: 42.

Eumenes compressus de Saussure, 1855: 142.

Eumenes atrophica; Schulz, 1912: 101.

Eumenes citreolineatus Giordani Soika, 1941: 135 (key), 149, fig. 5.

Material examined. INDIA: **Nagaland**: Rangapahar Dimapur, iii.2015, 1 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Assam, Chhattisgarh, Kerala, Maharashtra, Meghalaya, Mizoram, Nagaland (new record), Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere*: China (including Hong Kong); Laos; Myanmar; Nepal; Thailand; Vietnam. (Gusenleitner 2006, Nguyen 2015c, Pannure *et al.* 2016, Girish Kumar *et al.* 2017b).

13) *Eumenes belli* Giordani Soika, 1973

Eumenes belli Giordani Soika, 1973b: 125. Type data: Holotype female, BMNH. Type locality: Mysore, Karnataka, India.

Distribution. India: Goa, Karnataka, Kerala. (Giordani Soika 1973b, Pannure *et al.* 2016, Girish Kumar *et al.* 2017b, Gawas *et al.* 2019).

14) *Eumenes buddha* Cameron, 1897

Eumenes buddha Cameron, 1897: 86. Type data: Female, OUM. Type locality: Barrackpore, West Bengal, India.

Distribution. India: West Bengal. *Elsewhere*: China. (Girish Kumar *et al.* 2017b).

15) *Eumenes comberi* Dover, 1925

Eumenes comberi Dover, 1925, 293. Type data: Female, BMNH. Type locality: Karachi, Pakistan.

Eumenes miranda Kostylev, 1940: 141.

Distribution. India: “Shapali, Bombay Presidency”. *Elsewhere*: Iran; Pakistan; Tajikistan. (Girish Kumar *et al.* 2017b).

16) *Eumenes kangrae* Dover, 1925

Eumenes pomiformis var. *kangrae* Dover, 1925: 293. Type data: Male, BMNH. Type locality: Kangra Valley, Himachal Pradesh, India.

Eumenes kangrae; Giordani Soika, 1941: 222.

Material examined. INDIA: **Odisha**: Puri, 30.i.2017, 1 ♀, Coll. Sandesh Gawas. **Uttarakhand**: Dehradun district, Jessawala, 21.iv.1984, 1 ♂, Coll. R. Kaur & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.12981; Dehradun district, Sahiya, 18.vii.2019, 2 ♂, Coll. P. Girish Kumar, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.12982 & 12983; Dehradun district, Asan Barrage Bird Sanctuary, 18.vii.2019, 1 ♂, Coll. P. Girish Kumar, ZSIK Regd. No. ZSI/WGRC/IR/INV.12984.

Distribution. India: Himachal Pradesh, Odisha (new record), Sikkim, Uttarakhand (new record). *Elsewhere*: China. (Girish Kumar *et al.* 2017b).

17) *Eumenes macrops* de Saussure, 1852

Eumenes macrops de Saussure, 1852: 41. Type data: Male, BMNH. Type locality: “La Caroline du nord”.

Eumenes fraternus var. *macrops*; de Saussure, 1875: 95.

Eumenes vishnu Cameron, 1898: 36.

Eumenes Salai Dusmet, 1930: 103.

Material examined. INDIA: **Karnataka**: Dandeli, 29.v.2008, 1 ♀, Coll. Yadavababu; Yelahanka Benagaluru, 4.iv.2016, 1 ♀, Coll. Ashwath & Sandesh; Nandi Hills, 6.ix.2017, 1 ♀, Coll. Ashwath.

Distribution. India: Assam, Karnataka, Kerala, Maharashtra, Nagaland, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh, West Bengal. *Elsewhere*: Indonesia; Malaysia. (Gusenleitner 2006, Girish Kumar *et al.* 2017b).

18) *Eumenes mainpuriensis* Smith, 1870

Eumenes mainpuriensis Smith, 1870: 189. Type data: Male, BMNH. Type locality: “Mainpuri, North-west Provinces of India”.

[kept as Doubtful species; see Girish Kumar *et al.* 2017b] — India: Uttar Pradesh.

19) *Eumenes persimilis* Giordani Soika, 1960

Eumenes persimilis Giordani Soika, 1960b: 159 (key), 160. Type data: Holotype male, BMNH. Type locality: Kashmir, India.

Material examined. INDIA: **Himachal Pradesh:** Bajaura Kullu, 24.x.2017, 2 ♂, Ankita Gupta & Omprakash.

Distribution. India: Himachal Pradesh, Jammu & Kashmir, Uttarakhand. *Elsewhere:* Pakistan. (Gusenleitner 2006, Girish Kumar *et al.* 2017b).

20) *Eumenes placens* Nurse, 1903

Eumenes placens Nurse, 1903: 530. Type data: Female, BMNH. Type locality: Murree, Kashmir, Pakistan.

Eumenes coarctatus var. *placens*; Dover, 1925 (1924): 291.

Material examined. INDIA: **Uttarakhand:** Uttarkashi district, Rawai forest, 16.vi.1981, 1 ♀ & 1 ♂, Coll. Arun Kumar & Party, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.12975 & 12976; Dehradun district, Sahiya, 18.vii.2019, 1 ♀, Coll. P. Girish Kumar, ZSIK Regd. No. ZSI/WGRC/IR/INV.12977.

Distribution. India: Himachal Pradesh, Jammu & Kashmir, Uttarakhand (new record). *Elsewhere:* Pakistan. (Girish Kumar *et al.* 2017b, Rafi *et al.* 2017).

21) *Eumenes pomiformis* (Fabricius, 1781)

Vespa pomiformis Fabricius, 1781: 467. Type data: Lectotype female, UZMC. Type locality: Italy.

Eumenis [!] *mediterranea* var. *heri* Kriechbaumer, 1879: 88.

Eumenes pomiformis; Berland, 1928: 7 (key), 8, figs. 3, 6, 9, 10-13.

Eumenes pomiformis pomiformis; Giordani Soika, 1953: 238.

Eumenes fastidiosissimus Giordani Soika, 1943: 29, fig. 1 (2, 4).

Eumenes pomiformis turcicus Giordani Soika, 1952b (1951): 367.

Distribution. India: Jammu & Kashmir. *Elsewhere:* Albania; Austria; Azerbaijan; Belarus; Bulgaria; China; Croatia; Czech Republic; France; Germany; Greece; Italy; Kazakhstan; Korea; Kyrgyzstan; Lebanon; Malta; Morocco; Pakistan; Russia; Serbia; Spain; Switzerland; Tajikistan; Tunisia; Turkey; Ukraine; United Arab Emirates; Uzbekistan. (Girish Kumar *et al.* 2017b).

22) *Eumenes punctatus* de Saussure, 1852

Eumenes punctata de Saussure, 1852: 37. Type data: Female Male, BMNH. Type locality: China.

Eumenes coarctatus punctatus; Dover, 1925: 292.

Eumenes architectus; Yasumatsu, 1936: 1, 10, pl. 1 fig. 1.

Eumenes pomiformis; Kim, 1980: 107, pl. 15.

Eumenes coronatus; Kurzenko, 1995: 321.

Eumenes formosensis nigrior Giordani Soika, 1973b: 126.

Eumenes nigrior; Giordani Soika, 1982b: 41.

Eumenes punctatus nigrior; Giordani Soika, 1986a: 158.

Eumenes asioboreus Kim and Yamane, 2001: 139, 143 (key), 152, figs. 61-62, 70.

Material examined. INDIA: **Himachal Pradesh:** Baragran Kullu, 26.v.2016, 1 ♀ & 1 ♂, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Himachal Pradesh (new record), Meghalaya, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* China; Japan; Pakistan; Russia; South Korea; Sri Lanka. (Srinivasan & Girish Kumar 2013, Girish Kumar *et al.* 2017b).

23) *Eumenes sikkimensis* Giordani Soika, 1986

Eumenes sikkimensis Giordani Soika, 1986c: 77, 80. Type data: Female, ZMB. Type locality: Sikkim, India.

Distribution. India: Sikkim, West Bengal. (Girish Kumar *et al.* 2017b).

24) *Eumenes variepunctatus* Giordani Soika, 1941

Eumenes variepunctatus Giordani Soika 1941: 153. Type data: Male, MAP. Type locality: "Asia centrale: Tanksee".

Eumenes kaschgaricus Blüthgen, 1943a: 303.

Eumenes variepunctatus Giordani Soika, 1960a [1958]: 88.

[kept as Doubtful species; see Girish Kumar *et al.* 2017b]

Distribution. India. *Elsewhere:* China.

Genus *Katamenes* Meade-Waldo, 1910

Katamenes Meade-Waldo, 1910a: 46. Type species: *Katamenes watsoni* Meade-Waldo, 1910.

25) *Katamenes dimidiatus* (Brullé, 1832)

a) *Katamenes dimidiatus montanus* (Nurse, 1904)

Eumenes montana Nurse, 1904: 26. Type data: female, BMNH. Type locality: [Pakistan] “Quetta”.

Eumenes dimidiatus var. *montanus*; Giordani Soika, 1949: 43, 47.

Eumenes quicinctus dimidiatus var. *montana*; Blüthgen, 1960: 278.

Katamenes dimidiatus montanus; Giordani Soika, 1970: 179.

Eumenes dimidiatus montanus; Giordani Soika, 1973a: 38.

Distribution. India. *Elsewhere*: Afghanistan; Bulgaria; Cyprus; Iran; Iraq; Israel; Jordan; Macedonia; Mongolia; Pakistan; Rhodes; Syria; Turkey; Uzbekistan. (Blüthgen 1960, Fateryga 2017, Giordani Soika 1970, Gusenleitner 1999 & 2019).

b) *Katamenes dimidiatus watsoni* Meade-Waldo, 1910

Katamenes watsoni Meade-Waldo, 1910a: 46. Type data: Male, BMNH. Type locality: “Peshawur [!]”.

Eumenes arbustorum var. *watsoni*; Giordani Soika, 1941: 231.

Katamenes dimidiatus watsoni; van der Vecht and Fischer, 1972: 145.

Distribution. India: Kashmir. *Elsewhere*: Kazakhstan; Mongolia; Pakistan. (Gusenleitner 1999 & 2019; Girish Kumar *et al.* 2019a).

26) *Katamenes flavigularis* (Blüthgen, 1951)

Eumenes arbustorum flavigularis Blüthgen, 1951b: 176. Type data: Holotype female, ZSSM. Type locality: “Ak-Chehir”.

Eumenes flavigularis; Giordani Soika, 1960a [1958]: 66, fig. 9 (5).

Katamenes arbustorum flavigularis; Blüthgen, 1967: 231.

Katamenes flavigularis; Blüthgen & Gusenleitner, 1970a: 278.

Distribution. India: Kashmir. *Elsewhere*: Afghanistan; Albania; Armenia, Azerbaijan; Bulgaria; Crimea; Georgia; Greece; Iran; Israel; Lebanon; Macedonia; Russia; Syria; Tajikistan; Turkey. (Blüthgen & Königsman 1969; Blüthgen & Gusenleitner 1970a; Giordani Soika 1970; Ebrahimi & Carpenter 2008; Fateryga 2018; Fateryga & Ivanov 2009; Gusenleitner 2019, Girish Kumar *et al.* 2019a).

27) *Katamenes indetonsus* (Morawitz, 1895)

Eumenes indetonsus Morawitz, 1895: 10. Type data: female, ZINRAS. Type locality: “Alai, und im Seravschan-Thale auf dem Tarusch-Dara-Passe”.

Eumenes waltoni Meade-Waldo, 1910a: 42.

Katamenes indetonsus; Giordani Soika, 1966: 99.

Distribution. India: Sikkim. *Elsewhere*: China; Kyrgyzstan; Tajikistan. (Morawitz 1895; Kurzenko 1977; Gusenleitner 2019).

28) *Katamenes tauricus* (de Saussure, 1855)

a) *Katamenes tauricus tauricus* (de Saussure, 1855)

Vespa sesquicincta Lichtenstein, 1796: 202, no. 163, 168. Type data: sex not stated (male, MNB). Type locality: “in India orientali”.

Eumenes tauricus de Saussure, 1855: 137.

Eumenes latipes Sickmann, 1894: 228.

Eumenes arbustorum var. *baicalensis* Kokujev, 1927: 72.

Eumenes latipes var. *baicalensis*; Giordani Soika, 1949: 43, 47.

Eumenes sesquicinctus; Giordani Soika, 1949: 43, 47.

Katamenes sesquicinctus sesquicinctus; Giordani Soika, 1966: 92.

Katamenes sesquicinctus baicalensis; Giordani Soika, 1966: 93.

Eumenes sesquicinctus var. *tauricus*; Blüthgen, 1951b: 177.

Katamenes tauricus tauricus; Dvořák and Castro, 2007: 232, fig. 3.

Katamenes tauricus; Fateryga *et al.*, 2017: 34.

Distribution. India: “India orientali” (doubtful). *Elsewhere*: Iran; central Siberia; Afghanistan; Kazakhstan; Kyrgyzstan; Mongolia; north-eastern China; ?Crimea; south-eastern European Russia. (Lichtenstein 1796, Kurzenko 1977, Fateryga 2017 & 2018, Antropov & Fateryga 2017).

Genus *Omicroides* Giordani Soika, 1934

Omicroides Giordani Soika, 1935a: 129. Type species: *Eumenes singularis* Smith, 1858.

29) *Omicroides singularis* (Smith, 1858)

Eumenes singularis Smith, 1858: 109. Type data: Female, OUM. Type locality: Sarawak, Borneo.

Eumenes pomiformis var. *singularis*: Maindron, 1882: 268.

Omicroides singularis: Giordani Soika, 1961a: 241.

Distribution. India: Meghalaya. *Elsewhere*: Indonesia; Malaysia; Myanmar; Singapore; Thailand; Vietnam. (Giordani Soika 1935a, Girish Kumar 2012, Nguyen *et al.* 2014).

Genus *Oreumenoides* Giordani Soika, 1961

Oreumenoides Giordani Soika 1961a: 245. Type species: *Eumenes edwardsi* de Saussure, 1852.

30) *Oreumenoides edwardsi* (de Saussure, 1852)

Eumenes edwardsi de Saussure, 1852: 60. Type data: Syntype female, MNHN. Type locality: “Les Indes-Orientales, Bombay”.

Eumenes ischnogastroides Wickwar, 1908: 118.

Oreumenoides edwardsii [!]; Giordani Soika, 1961a: 245.

Material examined. INDIA: **Karnataka**: Hebbal Bengaluru, 4.viii.2016, 1 ♀, Coll. Mallesh; Bangalore, GKVK, 916 m, 1.ii.2014, 1 ♀, coll. A. Pannure; Kolar, Horticulture college, 830 m, 13°07' N 78°10' E, 16.xii.2014, 1 ♂, coll. A. Pannure.

Distribution. India: Bihar, Chhattisgarh, Delhi, Goa, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Myanmar; Pakistan; Sri Lanka; Thailand. (Gusenleitner 2006, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Girish Kumar & Sharma 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Selis 2018, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

Genus *Phimenes* Giordani Soika, 1992

Phimenes Giordani Soika, 1992: 41, 66. Type species: *Vespa arcuata* Fabricius, 1775.

Phi de Saussure, 1855: 132, 145. Type species: *Vespa arcuata* Fabricius, 1775.

31) *Phimenes andamanicus* (Zimmermann, 1931)

Eumenes arcuata andamanica Zimmermann, 1931:207. Type data: Female, ZMB. Type locality: Andaman Islands, India.

Eumenes flavopictus andamanicus; van der Vecht, 1959b: 13.

Phimenes andamanicum; Kumar, 2013b: 119, 127, 132 (key), pls. III-IV.

Distribution. India: Andaman & Nicobar Islands. (Girish Kumar 2013b).

32) *Phimenes flavopictus* (Blanchard, 1845)

Eumenes flavopictus Blanchard, 1840: pl. 2, fig. 21. Type data: MNHN.

Eumemes arcuata continentalis Zimmermann, 1931: 205, 224, 226. Type data: Holotype female, ZMB. Type local-

ity: Sikkim, India.

Eumenes flavopictus flavopictus; van der Vecht, 1959b: 32.

Eumenes flavopictus continentalis; van der Vecht, 1959b:15.

Phi flavopictum continentale; Gusenleitner, 1987: 269.

Phimenes flavopictum continentale; Madl, 1995: 398.

Phimenes flavopictum flavopictum; Girish Kumar, 2013: 119.

Material examined. INDIA: **Karnataka:** Malayamartha Chikamagalur, 22.iii.2007, 1 ♀, Coll. Shivaprakash; Sirsi, 8.i.2008, 1 ♀, Coll. Umeshkumar; Hebbal Bengaluru, 24.v.2017, 1 ♀, Coll. Mallesh; viii.2018, 1 ♀, Coll. Sandesh Gawas. Kerala: Ernakulam, 4 m, 9°59' N 76°17' E, 14.viii.2011, 1 ♀, coll. T.V. Aswathy. Trivandrum, 1.vi.2014, 1 ♀, coll. Anjali. **Maharashtra:** Bhimashankar, 27.xi.2016, 1 ♀, Coll. Pares Churi; 22.ii.2017, 1 ♂, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Goa, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere:* China (including Hong Kong); Indonesia; Laos; Malaysia; Myanmar; Nepal; Singapore; Sri Lanka; Thailand; Vietnam. (Gusenleitner 2006 & 2011, Girish Kumar 2013b, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2015b, Nguyen *et al.* 2016, Pham & Li 2015, Pannure *et al.* 2016, Sheikh *et al.* 2017, Selis 2018, Gawas *et al.* 2019).

33) *Phimenes indosinensis* (van der Vecht, 1959)

Eumenes indosinensis van der Vecht, 1959b: 12 (key), 18. Type data: Holotype male, OUM. Type locality: “Thaungyin”.

Delta indosinense; van der Vecht, 1981: 451.

Material examined. INDIA: Goa, Salim Ali Bird Sanctuary, 23.iv.2019, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Goa, Meghalaya. *Elsewhere:* Myanmar; Laos; Vietnam. (Nguyen *et al.* 2016, Gawas *et al.* 2019).

34) *Phimenes nicobaricus* (Meade-Waldo, 1910)

Eumenes nicobarica Meade-Waldo, 1910a: 41. Type data: Female, BMNH. Type locality: Nicobar Islands, India.

Eumenes arcuata nicobarica Zimmermann, 1931: 205.

Eumenes flavopictus nicobaricus; van der Vecht 1959b: 15.

Phimenes nicobaricum; Girish Kumar, 2013: 119.

Distribution. India: Andaman & Nicobar Island. (Girish Kumar 2013b).

Tribe Odynerini

Genus *Alastor* Lepeletier de Saint Fargeau, 1841

Alastor Lepeletier de Saint Fargeau 1841: 668. Type species: *Alastor atropos* Lepeletier de Saint Fargeau, 1841.

Antalastor de Saussure, 1856: 328. Type species: *Alastoratropos* Lepeletier, 1841.

Eualastor Dalla Torre, 1904: 60. Type species: *Alastoratropos* Lepeletier, 1841.

Belalastor Atanassov, 1967: 167. Type species: *Alastor (Belalastor) bulgaricus* Atanassov, 1967 [= *Alastor (Alastor) seidenstueckeri* Blüthgen, 1956].

35) *Alastor (Alastor) abditus* van der Vecht, 1981

Alastor (Alastor) abditus van der Vecht, 1981: 458. Type data: Holotype male, RMNH. Type locality: Anuradhapura, Sri Lanka.

Material examined. INDIA: **Karnataka:** Chikaballapur, Nandi hills (Near), 1460 m, 13°22.24' N 77°41.02' E, 7.vi.2011, 1 ♂, coll. H.M. Yashwant.

Distribution. India: Karnataka, Kerala, Tamil Nadu. *Elsewhere:* Sri Lanka. (van der Vecht 1981, Gusenleitner 2006, Pannure *et al.* 2016).

36) *Alastor (Alastor) punjabensis* Dutt, 1922

Alastor punjabensis Dutt, 1922: 30. Type locality: “Akalgarh, Punjab, India” (coll. Dutt).

Distribution. India: Punjab. (Girish Kumar & Carpenter 2015a).

37) *Alastor (Alastor) sulcatus* van der Vecht, 1981

Alastor (Alastor) sulcatus van der Vecht, 1981: 460. Type data: Holotype male, NHMB. Type locality: Tissamaharama, Hambantota, Sri Lanka.

Material examined. INDIA: **Karnataka:** Mysore, Chinnamballi, 716 m, 12°05' N 76°49' E, 30.vii.2014, 1 ♀, coll. C. Prashantha.

Distribution. India: Karnataka, Puducherry. *Elsewhere:* Sri Lanka. (van der Vecht 1981, Pannure *et al.* 2016).

38) *Alastor (Alastor) venkataramani* Girish Kumar & Carpenter, 2015

Alastor (Alastor) venkataramani Girish Kumar & Carpenter, 2015a: 79-82. Type data: Holotype male, NZC. Type locality: Tarnam, Adilabad, Telangana, India.

Distribution. India: Telangana. (Girish Kumar & Carpenter 2015a, Pannure *et al.* 2016, Girish Kumar *et al.* 2019b).

Genus *Allodynerus* Blüthgen, 1937

Allodynerus Blüthgen, 1938a (1937): 280; Type species: “*Lionotus floricola* Sauss. 1852” [= *Odynerus floricola* de Saussure, 1853].

Delphinaloides Móczár, 1937: 15, 17, 30.

Delphinaloides Bohart, 1951: 888. Type species: *Odynerus delphinalis* Giraud, 1866.

39) *Allodynerus laticypeus* Giordani Soika, 1972

Allodynerus laticypeus Giordani Soika, 1972: 106. Type data: Holotype male, ZMB. Type locality: Tenasserim, Myanmar.

Distribution. India: Sikkim. *Elsewhere:* Myanmar. (Giordani Soika 1972).

Genus *Allorhynchium* van der Vecht, 1963

Allorhynchium van der Vecht, 1963: 57, 58. Type species: *Vespa argentata* Fabricius, 1804.

Archancistrocerus Giordani Soika, 1986a: 143. Type species: *Archancistrocerus diffinis* Giordani Soika, 1986.

40) *Allorhynchium anomalum* Giordani Soika, 1992

Allorhynchium anomalum Giordani Soika, 1992: 41, 51. Type data: Female, RMNH. Type locality: Trivandrum, Kerala, India.

Distribution. India: Kerala. (Giordani Soika 1992, Girish Kumar & Sharma 2015a, Girish Kumar *et al.* 2016a, Pannure *et al.* 2016).

41) *Allorhynchium argentatum* (Fabricius, 1804)

Vespa argentata Fabricius, 1804: 260. Type data: Male, UZMC. Type locality: Sumatra, Indonesia.

Rhynchium argentatum; de Saussure, 1852: 115.

Rhynchium clypeatum Cameron, 1900: 531.

Odynerus argentatus; Dover, 1925: 297.

Allorhynchium argentatum; van der Vecht, 1963: 60 (list), fig. 5a.

Allorhynchium clypeatum; van der Vecht, 1963: 60 (list).

Allorhynchium metallicum; Gusenleitner, 1988b: 182.

Allorhynchium argentatum argentatum; Gusenleitner, 2006: 693.

Material examined. INDIA: **Karnataka:** Sangam, 08.viii.2018, 1 ♀, Coll. Sandesh Gawas. Kerala: Ernakulam (Perumbavoor), 33 m, 25.x.2011, 1 ♀ & 1 ♂, coll. T.V. Aswathy. Idukki, 1200 m, 10.xi.2011, 1 ♂, coll. T.V. Aswathy.

Distribution. India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Himachal Pradesh,

Karnataka, Kerala, Meghalaya, Mizoram, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: China; Bhutan; Indonesia; Laos; Malaysia; Myanmar; Nepal; Pakistan; Philippines; Singapore; Thailand. (Gusenleitner 2006 & 2011, Girish Kumar & Sharma 2014b, 2015a & 2015b, Girish Kumar *et al.* 2016a, Pannure *et al.* 2016, Rafi *et al.* 2017, Nidup *et al.* 2018, Gawas *et al.* 2019).

42) *Allorhynchium lugubrinum* (Cameron, 1900)

Rhynchium lugubrinum Cameron, 1900: 532. Type data: Female, OUM. Type locality: Khasia Hills, Meghalaya. *Allorhynchium lugubrinum*; van der Vecht, 1963: 60.

Distribution. India: Meghalaya, Sikkim. *Elsewhere*: China. (Girish Kumar & Sharma 2015a, Girish Kumar *et al.* 2016a, Nguyen *et al.* 2018).

43) *Allorhynchium metallicum* (de Saussure, 1852)

Ryngchium metallicum de Saussure, 1852: 114. Type data: Lectotype female, MNHN. Type locality: West Bengal, India.

Rhynchium maldivense Cameron, 1901a: 57.

Odynerus metallicum; Dover & Rao, 1922: 239.

Allorhynchium metallicum; van der Vecht, 1963: 60.

Allorhynchium maldivense; Giordani Soika, 1986a: 140.

Material examined. INDIA: **Karnataka**: Dodaballapur, 04.ii.2015, 1 ♀, Coll. Ashwath; Yelahanka Bengaluru, 04.iv.2016, 2 ♀, Coll. Ashwath & Sandesh. Bangalore, GKVK, 930 m, 13°04' N 77°34' E, 26.ii.2012, 1 ♀; 4, 19, 28.v.2012, 4 ♀; 18.x.2012, 1 ♀; 1.ii.2014, 1 ♂, coll. A. Pannure. Kerala: Kannur, Madayipara, 38 m, 12°01' N 75°15' E, 13.viii.2015, 2 ♀, coll. C. Prashantha.

Distribution. India: Andhra Pradesh, Assam, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Lakshadweep Islands, Madhya Pradesh, Maharashtra, Manipur, Odisha, Puducherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: China (including Taiwan); Indonesia; Maldive Islands; Malaysia; Myanmar; Nepal; Pakistan; Sri Lanka. (Giordani Soika 1992, Girish Kumar & Sharma 2014a, 2014b 2015a & 2015b, Girish Kumar *et al.* 2016a, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Tan *et al.* 2018, Girish Kumar *et al.* 2019b).

44) *Allorhynchium tuberculatum* Girish Kumar & Carpenter, 2016

Allorhynchium tuberculatum Girish Kumar & Carpenter, 2016: 30-33. Type data: Holotype male. Type locality: Ernakulam, Kerala, India.

Distribution. India: Kerala. (Girish Kumar *et al.* 2016a, Pannure *et al.* 2016).

Genus *Ancistrocerus* Wesmael, 1836

Ancistrocerus Wesmael, 1836: 45. Type species: *Vespa parietum* Linnaeus, 1758.

Euancistrocerus Dalla Torre, 1904: 36. Type species: *Vespa parietum* Linnaeus, 1758.

45) *Ancistrocerus antilope* (Panzer, 1798)

a) *Ancistrocerus antilope antilope* (Panzer, 1798)

Ancistrocerus antilope antilope (Panzer) 1798: 9. Type data: female (Type destroyed). Type locality: Austria.

Odynerus pictus Curtis, 1826: 137b, no. 2.

Odynerus antilope; Lepeletier, 1841: 649.

Odynerus caprade Saussure, 1857: 273.

Ancistrocerus lecontei Cameron, 1908b: 218.

Ancistrocerus capra; Taylor, 1922: 56.

Ancistrocerus antilope; Blüthgen, 1938a (1937): 284.

Ancistrocerus pictus; Blair, 1943: 184.

Ancistrocerus antilope antilope; Bohart, 1951: 893.

Distribution. India: Jammu & Kashmir. *Elsewhere*: Holarctic Region. (Gusenleitner 1996).

46) *Ancistrocerus antoni* (Cameron, 1900)

Odynerus antoni Cameron 1900: 505. Type data: male, (OUM). Type locality: “Barrackpore”.

Ancistrocerus antoni; Giordani Soika, 1973b: 125.

Material examined. INDIA: **Himachal Pradesh:** IARI farm Kullu, 26.v.2016, 1 ♀, Coll.

Sandesh & Umeshkumar.

Distribution. India: Himachal Pradesh (new record), West Bengal. *Elsewhere:* Malaysia; Nepal. (Giordani Soika 1973, Gusenleitner 1996).

47) *Ancistrocerus hirsutus* (Meade-Waldo, 1910)

a) *Ancistrocerus hirsutus hirsutus* (Meade-Waldo, 1910)

Odynerus (*Hypodynerus*?) *hirsutus* Meade-Waldo, 1910b: 105. Type data: female (? in subgenus *Hypodynerus*) (BMNH). Type locality: “Khamba Jong, Sikkim, 15000-16000 ft.”.

Ancistrocerus hirsutus khambensis Giordani Soika, 1977: 176. Type data: male (BMNH). Type locality: “Sikkim, Khamba Jong, 15000-16000 ft.”. NEW SYNONYMY.

Ancistrocerus hypodynericolor Giordani Soika, 1966: 108, fig. 2 (1).

Ancistrocerus hirsutus; Gusenleitner, 1973a: 120.

Ancistrocerus hirsutus hirsutus; You *et al.*, 2013: 83.

Distribution. India: Sikkim. *Elsewhere:* China. (Meade-Waldo 1910b, You *et al.* 2013).

48) *Ancistrocerus nigricornis* (Curtis, 1826)

Odynerus nigricornis Curtis, 1826: 137. Type data: (coll. Curtis, NMV). Type locality: “Great Britain”.

Odynerus callosus Thomson, 1870: 87.

Odynerus excisus Thomson, 1870: 87.

Ancistrocerus excisus; Blüthgen, 1938b: 35.

Ancistrocerus nigricornis; Blüthgen, 1938a (1937): 284.

Ancistrocerus sexpunctatus; Bondroit, 1943: 110 (key), 113, fig. c.

Ancistrocerus nigricornis var. *polonica* Blüthgen, 1952: 3.

Distribution. India: Jammu & Kashmir. *Elsewhere:* Austria; Belarus; Bulgaria; China; Finland; France; Germany; Great Britain; Greece; Iran; Italy; Japan; Kazakhstan; Mongolia; Morocco; Poland; Russia; Spain; Sweden; Turkey. (Gusenleiner 1996 & 1998a, Żyla 2006, Bleidorn *et al.* 2016, Fateryga 2018).

49) *Ancistrocerus rufoluteus* Gusenleitner, 1996

Ancistrocerus rufoluteus Gusenleitner, 1996: 50. Type data: Holotype male, OLM. Type locality: “Central-Nepal: Janakpur SE Charikot, Tamba-Koshi-Khola, 25.39N 86.03E, 900-1200 m”.

“*Ancistrocerus apollo* CAM.” Gusenleitner, 1996: 50.

Material examined. INDIA: **Himachal Pradesh:** IARI farm Kullu, 26.v.2016, 1 ♀, Coll.

Sandesh & Umeshkumar; Palampur, 24.x.2017, 1 ♀, Coll. Ankita Gupta.

Distribution. India: Himachal Pradesh (New record), Uttarakhand. *Elsewhere:* Nepal. (Gusenleiner 1996).

50) *Ancistrocerus sikkimensis* (Bingham, 1897)

Odynerus sikkimensis (Bingham, 1897): 363. Type data: BMNH. Type locality: “Rangit Valley, Sikkim, 1000 ft”.

Ancistrocerus sikkimensis; Cameron, 1913: 116.

Distribution. India: Sikkim, Uttarakhand. *Elsewhere:* Bhutan; China; Nepal. (Bingham 1897, Giordani Soika 1973b, Nidup *et al.* 2018, Tan *et al.* 2018).

51) *Ancistrocerus waltoni* (Meade-Waldo, 1910)

Odynerus (*Ancistrocerus*) *waltoni* Meade-Waldo, 1910b: 104. Type data: female, male (in subgenus *Ancistrocerus*), BMNH. Type locality: “Gyang Tse, 13000 ft.; Khamba Jong, Sikkim, 1300-16000 ft.”.

Ancistrocerus waltoni Liu, 1936: 105.

Distribution. India: Sikkim. *Elsewhere:* China. (Meade-Waldo 1910b, Tan *et al.* 2018).

52) *Ancistrocerus xanthozonus* (Cameron, 1908)

Odynerus xanthozonus Cameron, 1908a: 307. Type data: male (in subgenus *Ancistrocerus*), BMNH. Type locality: “Bombay”.

Odynerus foociscutis Cameron, 1909: 137.

Ancistrocerus xanthozonus; Giordani Soika, 1941: 233.

Ancistrocerus foociscutis; Giordani Soika, 1996: 42.

“*Ancistrocerus prudens*”; Gusenleitner, 1996: 51.

Distribution. India: Himachal Pradesh, Jammu & Kashmir, Maharashtra. (Gusenleitner 1996).

Genus *Antepipona* de Saussure, 1855

Antepipona de Saussure 1855: 244. Type species: *Odynerus silaos* de Saussure, 1853.

Antepiponus de Saussure 1875: xxxv, 361.

Antepipone Dalla Torre 1894: 50, 96.

Mehelyella Móczár 1937: 16, 17, 34.

Odontodynerus Blüthgen 1938a (1937): 280. Type species: *Odynerus orbitalis* H.-Sch. 1841 [= *Odynerus orbitalis* Herrich-Schaeffer, 1839].

Dichodynerus Blüthgen 1938c: 444. Type species: “*L. vagus* Rad. (= *vagabundus* D. T. nom. nov.)” [= *Odynerus vagabundus* Dalla Torre, 1889].

Metastenanastrocerus Blüthgen 1938c: 460. Type species: *Odynerus vagabundus* Dalla Torre, 1889.

Mehelyella Bohart 1951: 888; Type species: *Odynerus parvulus* Lepeletier de Saint Fargeau, 1841.

53) *Antepipona aurantiaca* Giordani Soika, 1982

Antepipona aurantiaca Giordani Soika 1982a [1981]: 210 (key), 243. Type data: Holotype male, RMNH. Type locality: Raipur, India.

Distribution. India: Chhattisgarh, Kerala, Madhya Pradesh, Tamil Nadu, Uttarakhand. *Elsewhere*: Sri Lanka. (Giordani Soika 1982a [1981], Gusenleitner 2006, Pannure *et al.* 2016, Girish Kumar *et al.* 2016b).

54) *Antepipona biguttata* (Fabricius, 1787)

Vespa biguttata Fabricius 1787: 291. Type data: Male, UZMC. Type locality: China.

Odynerus biguttatus: Schulz 1912: 100.

Odontodynerus biguttatus: van der Vecht 1959a [1958]: 241, fig 3.

Antepipona biguttata: van der Vecht & Fischer 1972: 71.

Antepipona injucunda Giordani Soika 1973b: 104. Type data: ZMB. Type locality: China.

Antepipona biguttata biguttata: Giordani Soika 1982a [1981]: 205, 207 (key), 221.

Antepipona biguttata takaoensis Giordani Soika 1982a [1981]: 207 (key), 224. Type data: Holotype female, MSNV. Type locality: Japan.

Antepipona excelsa keralensis Lambert 2004: 562–564. Type data: Holotype female ZSIK. Type locality: Kerala, India.

Material examined. INDIA: **Uttarakhand**: Dehradun district, Kanwali, 25.vii.1987, 1 ♀, Coll. Mukesh, ZSIK Regd. No. ZSI/WGRC/IR/INV.13009.

Distribution. India: Arunachal Pradesh, Assam, Bihar, Karnataka, Kerala, Manipur, Meghalaya, Odisha, Sikkim, Tamil Nadu, Tripura, Uttarakhand (new record), Uttar Pradesh, West Bengal. *Elsewhere*: Bhutan; China (including Taiwan); Korea; Laos; Malaysia; Myanmar; Thailand; Vietnam. (Giordani Soika 1982a [1981], Gusenleitner 2006 & 2011, Nguyen *et al.* 2018, Pham & Li 2015, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016, Nidup *et al.* 2018).

55) *Antepipona bipustulata* (de Saussure, 1855)

Odynerus bipustulatus de Saussure 1855: 277. Type data: MNHN. Type locality: ?

Antepipona bipustulata: Giordani Soika 1982a [1981]: 205, 210 (key), 228.

Distribution. India: Arunachal Pradesh, Chhattisgarh, Delhi, Jharkhand, Meghalaya, Nagaland, Odisha, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal. *Elsewhere*: China; Indonesia; Laos; Malaysia; Myanmar; Singapore; Sri Lanka; Thailand. (Giordani Soika 1982a [1981], Gupta 1997, Gusenleitner 2011, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016).

56) *Antepipona brunnipes* (Fabricius, 1804)

a) *Antepipona brunnipes brunnipes* (Fabricius, 1804)

Vespa brunnipes Fabricius, 1804: 263. Type data: UZMC. Type locality: Sumatra, Indonesia.

Odynerus javanus de Saussure, 1867: 12, pl. I fig. 7.

Odynerus brunnipes; van der Vecht, 1937: 280.

Antepipona brunnipes; Giordani Soika, 1982a [1981]: 205, 209 (key), 245, figs. 46-50.

Antepipona brunnipes brunnipes; Lambert, 2004.

Distribution. India: Kerala. *Elsewhere*: Indonesia: Sumatra, Java, Bali. (Girish Kumar & Rajmohana, 2018).

57) *Antepipona ceylonica* (de Saussure, 1867)

Odynerus ceylonicus de Saussure 1867: 12. Type data: MHNG. Type locality: Sri Lanka (Ceylon).

Odynerus ornaticaudis Cameron 1909: 137. Type data: Female, BMNH. Type locality: Mumbai (Bombay), India.

Antepipona ceylonica; Giordani Soika, 1982a [1981]: 207 (key), 215.

Material examined. INDIA: **Karnataka**: Yelahanka Bengaluru, 04.iv.2016, 1 ♀, Coll. Ashwath & Sandesh; 22.iv.2017, 5 ♀, Coll. Ashwath & Sandesh; 26.iv.2017, 1 ♀ & 1 ♂, Coll. Ashwath; 3.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 12.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 15.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 10.ix.2017, 3 ♀, Coll. Sandesh Gawas; Kanakpura, 07.i.2014, 2 ♀, Coll. Sandesh Gawas; IWSt Bengaluru, 08.v.2013, 2 ♀, Coll. Naveenkumar; Kolar, 27.xii.2017, 1 ♀, Coll. Sandesh Gawas; Sirsi, 20.vi.2016, 1 ♂. Coll. Ashwath. **Nagaland**: Medziphema Dimapur, 03.iii.2015, 4 ♀ & 5 ♂, Coll. Ankita Gupta. **Odisha**: OUAT Bhubaneswar, 26.i.2017, 1 ♀, Coll. Sandesh Gawas; Puri, 30.i.2017, 1 ♂, Coll. Sandesh Gawas. **Rajasthan**: MPUAT Udaipur, 21.xi.2015, 2 ♀ & 1 ♂, Coll. Sandesh & Umeshkumar. **Tamil Nadu**: Pichavaram, 16.x.2016, 1 ♀, Coll. Sankararaman.

Distribution. India: Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Maharashtra, Nagaland (new record) Odisha, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Myanmar: Sri Lanka. (Giordani Soika 1982a [1981], Gusenleitner 2006, Girish Kumar & Sharma 2014a & 2015b, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

58) *Antepipona consors* Giordani Soika, 1982

Antepipona consors Giordani Soika 1982a [1981]: 210 (key), 214. Type data: Holotype female, RMNH. Type locality: Nilgiri Hills, India.

Distribution. India: Karnataka, Tamil Nadu. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b, Pannure *et al.* 2016).

59) *Antepipona exaltata* Giordani Soika, 1982

Antepipona exaltata Giordani Soika 1982a [1981]: 210 (key), 234. Type data: Holotype female, RMNH. Type locality: Nilgiri Hills, India.

Distribution. India: Kerala, Tamil Nadu. (Giordani Soika 1982a [1981], Pannure *et al.* 2016, Selis 2018).

60) *Antepipona excelsa* Giordani Soika, 1982

a) *Antepipona excelsa pallida* Giordani Soika, 1982

Antepipona excelsa pallida Giordani Soika 1982a [1981]: 250. Type data: Female, RMNH. Type locality: Kumaon, Uttarakhand, India.

Distribution. India: Delhi, Himachal Pradesh, Uttarakhand. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b).

61) *Antepipona frontalis* Giordani Soika, 1982

Antepipona frontalis Giordani Soika 1982a [1981]: 255. Type data: Holotype male, USNM. Type locality: Sri Lanka.

Material examined. INDIA: **Tamil Nadu**, Tirunelveli, ii.2013, 2 ♀, Coll. Naveen.

Distribution. India: Kerala, Tamil Nadu. *Elsewhere*: Sri Lanka. (Giordani Soika 1982a [1981], Gusenleitner 2006, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016).

62) *Antepipona guttata* (Smith, 1852)

a) *Antepipona guttata diffinis* (de Saussure, 1855)

Odynerus diffinis de Saussure 1855: 274. Type data: Female, BMNH. Type locality: “Les Indes Orientales”.

Antepipona guttata diffinis: Giordani Soika 1982a [1981]: 205, 210 (key), 212.

Distribution. India: Maharashtra, Sikkim, Uttarakhand, West Bengal. *Elsewhere*: China; Malaysia; Myanmar; Indonesia; Thailand. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b, Selis 2018) .

b) *Antepipona guttata guttata* (Smith, 1852)

Ancistrocerus guttatus; Smith, 1852a: 49. Type data: Female, BMNH. Type locality: Khandala, Maharashtra, India.

Odynerus guttatus; Smith, 1871b: 377.

Antepipona guttata guttata; Giordani Soika, 1982a [1981]: 210.

Antepipona guttata; Lambert, 2004: 558.

Distribution. India: Karnataka, Madhya Pradesh, Maharashtra, Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere*: Malaysia; Myanmar; Singapore. (Girish Kumar *et al.* 2016b, Pannure *et al.* 2016).

63) *Antepipona haryana* Gusenleitner, 1996

Antepipona haryana Gusenleitner 1996: 39, 44. Type data: Holotype female, UMHU. Type locality: Badkhal Lake, Haryana, India.

Distribution. India: Haryana. (Gusenleitner 1996; Girish Kumar *et al.* 2016b).

64) *Antepipona intricata* (Smith, 1857)

Odynerus intricatus Smith 1857: 59. Type data: Male, BMNH. Type locality: Mumbai (Bombay), India.

Antepipona intricata: Giordani Soika, 1982a [1981]: 206 (key), 252.

Distribution. India: Maharashtra. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b).

65) *Antepipona kashmirensis* Giordani Soika, 1977

Antepipona kashmirensis Giordani Soika 1977 [“1976”]: 168, figs 28,29, 31. Type data: Holotype male, BMNH. Type locality: Kasmir, India.

Distribution. India: Jammu & Kashmir. *Elsewhere*: Pakistan. (Girish Kumar *et al.* 2016b, Rafi *et al.* 2017).

66) *Antepipona minutissima* Giordani Soika, 1982

Antepipona minutissima Giordani Soika 1982a [1981]: 209 (key), 239. Type data: Holotype female, RMNH. Type locality: Mannar, Sri Lanka.

Material examined. INDIA: **Karnataka**: Kailashgiri Kolar, 04.i.2014, 1 ♀, Coll. Rajesh. **Tamil Nadu**: Tirunelveli, ii.2013, 5 ♀, Coll. Naveen.

Distribution. India: Karnataka (new record), Kerala, Tamil Nadu, Telangana. *Elsewhere*: Sri Lanka. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b, Pannure *et al.* 2016, Girish Kumar *et al.* 2019b).

67) *Antepipona ovalis* (de Saussure, 1853)

Vespa quadripunctata Fabricius 1787: 291. Type data: Male, UZMC. Type locality: “in India orientali Dom. Lundii”.

Odynerus ovalis de Saussure 1853: 215. Type data: Male MSNG Type locality: Puducherry (Pondicherry), India.

Odynerus hindostanus Cameron 1900: 504. Type data: OUM. Type locality: Barrackpore, West Bengal, India.

Odontodynerus ovalis: Blüthgen 1960: 279.

Lionotus ovalis: Baltazar 1966: 302.

Antepipona ovalis: van der Vecht 1970: 16.

Material examined. INDIA: **Gujarat**: AAU Anand, 27.xi.2015, 18 ♀ & 4 ♂, Coll. Sandesh Gawas & Umeshkumar. **Karnataka**: Yelahanka Bengaluru, 22.iv.2017, 3 ♀, Coll. Ashwath & Sandesh; 26.iv.2017, 2 ♀, Coll. Ashwath & Sandesh; 03.v.2017, 1 ♀, Coll. Ashwath & Sandesh, 15.v.2017, 1 ♀, Coll. Ashwath & Sandesh; Sirsi, 20.vi.2016, 2 F & 1 ♂, Coll. Ashwath; Kailashgiri Kolar, 04.i.2014, 4 ♀, Coll. Rajesh; Kanakpura, 07.i.2014, 2 ♀, Coll. Naveen; Kunigal, 05.xii.2016, 1 ♀, Coll. Ashwath; Chintamani, 09.iv.2013, 1 ♀, Coll. Rajesh;

21.ii.2015, 2 ♀, Coll. Rajesh. **Odisha:** OUAT Bhubaneswar, 26.i.2017, 2 ♀, Coll. Sandesh Gawas. **Tamil Nadu:** Tenkasi, ii.2015, 1 ♀, Coll. Naveenkumar; Tirunelveli, ii.2013, 1 ♀, Coll. Naveen.

Distribution. India: Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Puducherry, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Afghanistan; Bangladesh; China; Pakistan; Sri Lanka. (Giordani Soika 1982b, Gusenleitner 2006, Girish Kumar & Sharma 2015b, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019).

68) *Antepipona pruthii* Giordani Soika, 1882

Antepipona pruthii Giordani Soika 1982a [1981]: 205, 208 (key), 248. Type data: Male, RMNH. Type locality: Kashmir, India.

Distribution. India: Goa, Himachal Pradesh, Jammu & Kashmir, Uttarakhand, West Bengal. *Elsewhere:* Pakistan. (Giordani Soika 1982a [1981], Girish Kumar *et al.* 2016b, Rafi *et al.* 2017, Gawas *et al.* 2019).

69) *Antepipona rufescens* (Smith, 1857)

Odynerus rufescens Smith 1857: 61. Type data: Female, BMNH. Type locality: "Ceram".

Odynerus diffinis var. *rufescens*: Giordani Soika 1941: 263.

Antepipona rufescens: Giordani Soika 1982a [1981]: 205, 209 (key), 235.

Antepipona ferruginea Kim and Yamane, 2003: 287.

Material examined. INDIA: **Karnataka:** Nandi Hills Chikkaballapur, 30.vi.2016, 1 ♀, Coll. S K Rajeshwari.

Distribution. India: Karnataka (new record), Kerala, Meghalaya, Sikkim, Telangana, Tripura. *Elsewhere:* China (including Taiwan); Indonesia; Laos; Malaysia; Myanmar; Thailand. (Giordani Soika 1982a [1981], Gusenleitner 2011, Girish Kumar *et al.* 2016b, Girish Kumar *et al.* 2019b).

70) *Antepipona sasidharani* Lambert & Narendran, 2002

Antepipona sasidharani Lambert & Narendran 2002: 1. Type data: Holotype female, ZSIK. Type locality: Coimbatore, Tamil Nadu, India.

Material examined. INDIA: **Gujarat:** AAU Anand, 27.xi.2015, 1 ♀, Coll. Sandesh & Umeshkumar. **Karnataka:** Chintamani, 09.iv.2013, 1 ♀, Coll. Rajesh; Kanakpura, 07.i.2014, 1 ♀, Coll. Naveen. **Rajasthan:** MPUAT Udaipur, 21.xi.2015, 3 ♀ & 1 ♂, Coll. Sandesh & Umeshkumar; Vallabhnagar, 21.xi.2015, 1 ♀ & 3 ♂, Coll. Sandesh Gawas; ARS Banswara, 24.xi.2015, 1 ♀, Coll. Sandesh & Umeshkumar. **Tamil Nadu,** Pichavaram, 16.x.2016, 1 ♀, Coll. Sankararaman. **Uttar Pradesh,** Jaunpur, 22.vii.2017, 1 ♀, Coll. Omprakash Navik.

Distribution. India: Gujarat (new record), Karnataka (new record), Rajasthan (new record), Tamil Nadu, Uttar Pradesh (new record). (Girish Kumar *et al.* 2016b, Pannure *et al.* 2016).

71) *Antepipona sibilans* (Cameron, 1903)

Odynerus sibilans Cameron 1903b: 129. Type data: Male, OUM. Type locality: Barrackpore, West Bengal, India.

Odontodynerus deflendiformis Giordani Soika 1961c: 377. Type data: Male, BMNH. Type locality: "Belucistan: Deesa" [recte: India: Deesa].

Antepipona deflendiformis: Giordani Soika 1970: 120.

Antepipona sibilans Giordani Soika 1982a [1981]: 206, 207 (key), 225.

Material examined. INDIA: **Gujarat:** AAU Anand, 27.xi.2015, 3 ♀, Coll. Sandesh & Umeshkumar; 10.xii.2018, 1 ♀, Coll. Ankita Gupta. **Karnataka:** Yelahanka Bengaluru, 04.iv.2016, 1 ♀, Coll. Sandesh & Sandesh; 22.iv.2017, 2 ♀, Coll. Ashwath & Sandesh; 03.v.2017, 3 ♀ & 2 ♂, Coll. Ashwath & Sandesh; 10.ix.2017, 2 ♀, Coll. Sandesh Gawas; Kunigal, 22.iii.2012, 1 ♀, Coll. Naveen; Chintamani, 09.iv.2013, 2 ♀, Coll. Rajesh; Kailashgiri Kolar, 04.i.2014, 2 ♀, Coll. Rajesh; Sirsi, 20.vi.2016, 1 ♀, Coll. Ashwath; Dandeli, i.2015, 1 ♀, Coll. Naveen; Dodaballapur, 04.ii.2015, 1 ♀, Coll. Ashwath. **Maharashtra:** Chaskaman Dam Pune, 25.xi.2016, 1 ♀, Coll. Sandesh Gawas. **Odisha:** OUAT Bhubaneswar, 26.i.2017, 1 ♀ & 1 ♂, Coll. Sandesh Gawas; CIFA Bhubaneswar, 30.i.2017, 1 ♀, Coll. Sandesh Gawas; Puri, 30.i.2017, 3 ♀, Coll. Sandesh Gawas. **Rajasthan:** MPUAT Udaipur, 21.xi.2015, 6 ♀, Coll. Sandesh & Umeshkumar.

Distribution. India: Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Puducherry, Rajasthan, Tamil Nadu, Telangana, Tripura, Uttarakhand, Uttar Pradesh,

West Bengal. *Elsewhere*: Nepal; Pakistan. (Giordani Soika 1982a [1981], Gusenleitner 2006, Girish Kumar & Sharma 2014a & 2015, Girish Kumar *et al.* 2016b, Pannure *et al.* 2016, Rafi *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

72) *Antepipona tricolorata* Selis, 2018

Antepipona tricolorata Selis, 2018: 447-448. Type data: Holotype female, MSNV. Type locality: Sikkim, India.

Distribution. India: Sikkim. (Selis 2018).

73) *Antepipona tytides* (Cameron, 1904)

Odynerus tytides Cameron 1904b: 309. Type data: Female & Male, BMNH. Type locality: Darjeeling, West Bengal, India.

Antepipona tytides; Giordani Soika 1975: 390.

Distribution. India: Manipur, Meghalaya, Sikkim, West Bengal. *Elsewhere*: Bhutan; China; Laos; Myanmar; Nepal. (Giordani Soika 1982a [1981], Gusenleitner 2011, Girish Kumar *et al.* 2016b, Nidup *et al.* 2018).

Genus *Anterhynchium* de Saussure, 1863

Anterhynchium de Saussure 1863: 205. Type species: *Rygchium synagroides* de Saussure, 1852.

74) *Anterhynchium* (*Anterhynchium*) *abdominale* (Illiger, 1802)

a) *Anterhynchium* (*Anterhynchium*) *abdominale abdominale* (Illiger, 1802)

Vespa abdominalis Illiger 1802: 192. Type data: ?ZMB. Type locality: "Bengalen"

Vespa transversa Fabricius, 1804: 257. Type data: UZMC. Type locality: "Tranquebar"

Rhygchium dichotomum de Saussure, 1852: 116. Type data: MNHN. Type locality: "Indes Orientales"

Rygchium transversum; de Saussure, 1852: 117.

Rhynchium abdominale; de Saussure, 1855: 172.

Ehynchium abdominale var. *dichotomum*; de Saussure, 1855: 172.

Rhynchium transversum; Smith, 1857: 48.

Odynerus abdominalis; Bequaert, 1918: 292.

Anterhynchium abdominale; van der Vecht, 1963: 75.

Material examined. INDIA: **Karnataka**: Bangalore, GKVK, 930 m, 13°04' N 77°34' E, 12.xi.2014, 1♂, coll. Zammeroddin. Chikkamagaluru, Koppa, 22.iv.1982, 1♀, coll. N.V.A. Murthy; Mudigere, 975 m, 13°08' N 75°37' E, 17.v.2013, 1♀, coll. Chandan. Hassan, Agriculture college, 950 m, 12°58' N 76°16' E, 31.x.2013, 1♂, coll. Navya; 17.ix.2013, 1♀, coll. K.M. Pavithra. Kolar, Horticulture College, 830 m, N 13°07' N 78°10' E, 16.xii.2014, 1♀, coll. UG. Mangalore, Ullal beach, 30.ix.2011, 1♀, coll. T.V. Aswathy. **Kerala**: Padannakkad, 14 m, 12°15' N 75°07' E, 14.viii.2015, 1♂, coll. A. Pannure.

Distribution. India: Chhattisgarh, Delhi, Goa, Jharkhand, Karnataka, Kerala, Odisha, Madhya Pradesh, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal. *Elsewhere*: China; Myanmar; Pakistan; Sri Lanka; Vietnam. (Gusenleitner 2006, Girish Kumar 2013c, Girish Kumar & Sharma 2014a, 2014b & 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019).

b) *Anterhynchium* (*Anterhynchium*) *abdominale bengalense* (de Saussure, 1855)

Rhynchium bengalense Saussure, 1855: 176. Type data: MNHN. Type locality: "Le Bengale".

Rhynchium argentatum var. *bengalense*; Dalla Torre, 1894: 43.

Anterhynchium abdominale bengalense; van der Vecht, 1963: 76.

Distribution. India: Bihar, Chhattisgarh, Delhi, Kerala, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Nepal; Pakistan. (Gusenleitner 2006, Girish Kumar 2013c, Girish Kumar & Sharma 2014a & 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017).

75) *Anterhynchium* (*Anterhynchium*) *mellyi* (de Saussure, 1852)

Rygchium mellyi de Saussure, 1852: 116. Type data: Female, MNHN & MHNG. Type locality: "Les Indes, La Chine".

Rhynchium mellyi; de Saussure, 1855: 172.

Odynerus mellyi; Dover, 1929: 44.

Anterhynchium mellyi; van der Vecht, 1963: 76.

Material examined. INDIA: **Karnataka**: Bangalore, GKVK, 916 m, 16.vi.1979, 1♂, coll. Ghorpade; 930 m, 13°04' N 77°34' E, 3.iii.2012, 1♀; 1.ii.2014, 1♀, coll. A. Pannure; Hebbal, 900 m, 13°02' N 77°35' E, 31.x, 20.xi.2014, 1♂, 1♀, coll. Zammeroddi. Chikkamagaluru, Mudigere, ZARS, 931 m, 29°10' N 75°46' E, 10.x.2012, 1♀, coll. Y. Diwakar. karekere, 934 m, 13°06' N 76°10' E, 23.vi.2014, 1♀, coll. C. Prashantha.

Distribution. India: Assam, Chhattisgarh, Karnataka, Kerala, Meghalaya, Telangana, Uttar Pradesh, West Bengal. *Elsewhere*: China; Myanmar; Pakistan; Thailand; Vietnam. (Girish Kumar 2013c, Girish Kumar & Sharma 2015b, Nguyen 2015a, Pham & Li 2015, Pannure *et al.* 2016, Rafi *et al.* 2017, Selis 2018, Girish Kumar *et al.* 2019b).

76) *Anterhynchium (Dirhynchium) basimacula* (Cameron, 1897)

Rhynchium basimacula Cameron, 1897: 85, pl. 4 fig. 17.

Anterhynchium basimacula; Giordani Soika, 1996: 41.

Distribution. India: West Bengal.

77) *Anterhynchium (Dirhynchium) coracinum* (van der Vecht, 1963)

Anterhynchium coracinum Vecht 1963: 78 (key), 86. Type data: Female, BMNH. Type locality: Tenmalai, Travancore, Tamil Nadu, India.

Distribution. India: Kerala, Tamil Nadu. *Elsewhere*: Thailand. (Girish Kumar 2013c, Pannure *et al.* 2016).

78) *Anterhynchium (Dirhynchium) flavolineatum* (Smith, 1857)

Odynerus flavo-lineatus Smith, 1857: 60. Type data: Male, BMNH. Type locality: Java, Indonesia.

Ryngchium flavolineatum; Bingham, 1897: 353 (key), 360.

Anterhynchium flavolineatum flavolineatum; van der Vecht, 1963: 78 (key), 84.

Anterhynchium flavolineatum malaisei van der Vechht, 1963: 78 (key), 86.

Distribution. India: Arunachal Pradesh, Meghalaya, Sikkim, West Bengal. *Elsewhere*: China; Indonesia; Malaysia; Myanmar; Vietnam. (Girish Kumar 2013c, Nguyen 2015a).

79) *Anterhynchium (Dirhynchium) flavomarginatum* (Smith, 1852)

a) *Anterhynchium (Dirhynchium) flavomarginatum flavomarginatum* (Smith, 1852)

Rhynchium flavo-marginatum Smith, 1852b: 35. Type data: Male, BMNH. Type locality: China.

Odynerus nigrifrons Smith, 1857: 62.

Rhynchium curvimaculatum Cameron, 1903a: 328.

Rynchium collinum Cameron, 1903a: 329.

Odynerus flavomarginatum; Dover, 1926: 233.

Anterhynchium flavomarginatum flavomarginatum; van der Vecht, 1963: 78 (key), 80, figs. 5f, 6b.

Anterhynchium flavomarginatum curvimaculatum, van der Vecht, 1963: 78 (key), 81.

Anterhynchium flavomarginatum; Gusenleitner, 1987: 267.

Material examined. INDIA: **Karnataka**: Chikkamagaluru, Mudigere, 20.v.2015, 1♀, coll. R. Hamsa.

Distribution. India: Assam, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Meghalaya, Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere*: China; Indonesia; Japan; Korea; Laos; Mongolia; Myanmar; Nepal; Pakistan; Vietnam. (Gusenleitner 2006, Nguyen 2015a, Pannure *et al.* 2016, Rafi *et al.* 2017, Nidup *et al.* 2018).

Genus *Antodynerus* de Saussure, 1855

Antodynerus de Saussure, 1855: 287. Type species: “*Odynerus punctum* (Fabricius)” sensu de Saussure, 1853 [= *Vespa flavescens* Fabricius, 1775].

Kalliepipona Giordani Soika, 1952a [1951]: 81. Type species: “*Odynerus radialis* (de Saussure)” [= *Rhynchium radiale* de Saussure, 1855].

Pseudokalliepipona Giordani Soika, 1955: 366. Type species: *Odynerus bellatulus* de Saussure, 1853.
Parepipona Giordani Soika, 1957: 477. Type species: "*Odynerus radialis* (de Saussure)" [= *Rhynchiumradiale* de Saussure, 1855].
Anthodynerus [!] Giordani Soika, 1961b: 445.

80) *Antodynerus flavescens* (Fabricius, 1775)

a) *Antodynerus flavescens flavescens* (Fabricius, 1775)

Vespa flavescens Fabricius 1775: 370. Type data: Lectotype male, UZMC. Type locality: "In India Orientali".
Ancistrocerus ornatus Smith, 1852a: 49. Type data: Male, BMNH. Type locality: "Bombay" (India).
Odynerus "*punctum* Fabricius"; de Saussure, 1853: 209, female, pl. 19 fig. 2.
Odynerus punctum; de Saussure, 1855: 243.
Odynerus ornatus; Smith, 1871b: 377.
Odynerus orientalis Dalla Torre, 1889: 125.
Lionotus "*punctum* de Saussure"; Ashmead, 1904a: 8.
Leionotus "*punctum* de Saussure"; Ashmead, 1904b: 133, 152.
Odynerus flavescens; Schulz, 1912: 82.
Odynerus goanus Sonan, 1938: 261, female, fig. 2, 3. Type data: Female, ZMB. Type locality: Goa, India.
Odynerus punctum var. *orientalis*; Giordani Soika, 1941: 260.
Antodynerus flavescens; van der Vecht, 1959a [1958]: 238, fig. 2 (a, c, e, f, i-l).
Antodynerus flavescens flavescens; Girish Kumar and Carpenter, 2013: 269, figs. 1-8.

Distribution. India: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Odisha, Puducherry, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Bangladesh; Pakistan. (Girish Kumar & Carpenter 2013, Girish Kumar & Sharma 2014b & 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017).

81) *Antodynerus limbatus* (de Saussure, 1852)

Rhygchium limbatum de Saussure 1852: 117. female, "L'Amerique?" (coll. de Romand).
Rhynchium rugolatum Cameron, 1900: 533.
Odynerus limbatus; Bequaert, 1918: 290.
Odynerus haemorrhoidalis var. *rugolatum*; Dover, 1925 (1924): 298.
Antodynerus limbatus; Gusenleitner, 1987: 267.

Material examined. INDIA: **Karnataka**: Bangalore, GKVK, 930 m, 13°04' N 77°34' E, 1.ii.2014, 1♂, coll. A. Pannure. **Kerala**: Padannakkad, 29.ix.2011, 1♀, 1♂, coll. T.V. Aswathy.

Distribution. India: Arunachal Pradesh, Assam, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bhutan; China; Laos; Myanmar; Nepal; Pakistan; Thailand. (Gusenleitner 2006, Gusenleitner 2011, Girish Kumar & Carpenter 2013, Pannure *et al.* 2016, Rafi *et al.* 2017, Nidup *et al.* 2018, Nguyen *et al.* 2018).

82) *Antodynerus punctatipennis* (de Saussure, 1853)

Odynerus punctatipennis de Saussure 1853: 210. Type data: Female, MNHN. Type locality: "Les Indes Orientales?".

Antodynerus punctatipennis; van der Vecht, 1959a [1958]: 239-241, figs. 2 (b, d, g, h, m).

Material examined. INDIA: **Odisha**: OUAT Bhubaneswar, 26.i.2017, 1 ♂, Coll. Sandesh Gawas.

Kerala: Padannakkad, 13 m, 12°25' N 75°11' E, 22.v.2014, 2♂, coll. H.M. Yeshwanth.

Distribution. India: Delhi, Karnataka, Kerala, Maharashtra, Odisha (new record), Sikkim, Uttarakhand, Uttar Pradesh. (Gupta 1997, Gusenleitner 2006, Girish Kumar & Carpenter 2013, Pannure *et al.* 2016).

Genus *Apodynerus* Giordani Soika, 1993

Apodynerus Giordani Soika, 1993c: 155. Type species: *Odynerus troglodytes* de Saussure, 1855.
Philippodynerus Gusenleitner, 1996: 39, 40. Type species: *Philippodynerus omicroniformis* Gusenleitner, 1996.

83) *Apodynerus formosensis* (Schulthess, 1934)

a) *Apodynerus formosensis indicus* Giordani Soika, 1994

Apodynerus formosensis indicus Giordani Soika, 1994: 208 (key), 218. Type data: Female, BMNH. Type locality: Snagu, Taplejung, Nepal.

Distribution. India: Arunachal Pradesh. *Elsewhere*: Nepal. (Girish Kumar *et al.* 2013b & 2014c, Nguyen *et al.* 2018).

84) *Apodynerus icarioides* (Bingham, 1897)

Odynerus icarioides Bingham, 1897: 363 (key), 372. Type data: Female, BMNH. Type locality: Tenasserim, Myanmar.

Pachymenes icarioides; van der Vecht, 1937: 278.

Apodynerus icarioides; Giordani Soika, 1994: 208 (key), 219.

Distribution. India: Assam, Sikkim. *Elsewhere*: Indonesia; Malaysia; Myanmar. (Girish Kumar *et al.* 2013b).

85) *Apodynerus troglodytes* (Saussure, 1856)

***Apodynerus troglodytes troglodytes* (de Saussure, 1856)**

Odynerus troglodytes de Saussure, 1855: 249. Type data: Male, MRSN. Type locality: Senegal.

Odynerus fragilis Smith, 1857: 61. Type data: Male, BMNH. Type locality: Borneo.

Odynerus petulans Smith, 1861: 89. Type data: Female, OUM. Type locality: Makassar, Indonesia.

Odynerus maculipennis; Smith, 1862: 58.

Odynerus lybas Cameron, 1902: 114.

Odynerus drescheri Cameron, 1905: 77. Type data: Female, BMNH. Type locality: Tjandi near Semarang, Indonesia.

Odynerus brooksii Cameron, 1908c: 561. Type data: Male. Type locality: Kuching, Sarawak, Borneo.

Pachymenes fragilis; van der Vecht, 1937: 277.

Pachymenes fragilis var. *karimonensis* van der Vecht, 1937: 278.

Antepipona fragilis; Lee, 1982: 218, 220.

"*Pachymenes*" *troglodytes baliensis* Giordani Soika, 1987: 145.

Apodynerus troglodytes troglodytes; Gusenleitner, 1988b: 180.

Apodynerus troglodytes; Gusenleitner, 1991: 258.

"*Pachymenes*" *troglodytes*; Giordani Soika, 1991: 164.

Antepipona malabarica Lambert, 2004: 553, 560.

Antepipona narendrani Lambert, 2004: 553, 558.

Material examined. INDIA: **Karnataka**: Bangalore, GKV, 930 m, 13°04' N 77°34' E, 18.vii.2014, 1♂, coll. A. Pannure.

Distribution. India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Goa, Karnataka, Kerala, Tamil Nadu, West Bengal. *Elsewhere*: Bhutan; Borneo; China (including Hong Kong); Indonesia; Laos; Malaysia; Myanmar; Philippines; Singapore; Thailand; Vietnam. (Gusenleitner 2006, Girish Kumar *et al.* 2013b, Girish Kumar *et al.* 2014c, Nguyen *et al.* 2014, Nugroho *et al.* 2014, Pannure *et al.* 2016, Nidup *et al.* 2018, Gawas *et al.* 2019).

Genus *Chlorodynerus* Blüthgen, 1951

Chlorodynerus Blüthgen, 1951a: 67, 75. Type species *Odynerus chloroticus* Spinola, 1838.

86) *Chlorodynerus deesanus* (Cameron, 1907)

Odynerus deesanus Cameron, 1907b: 1007. Type data: Female, BMNH. Type locality: Deesa, Gujarat, India.

Euodynerus deesanus; Blüthgen, 1954: 233 (key), 261, fig. 29.

Chlorodynerus deesanus; Gusenleitner, 2006: 691.

Distribution. India: Gujarat, Rajasthan. (Blüthgen 1954, Gusenleitner 2006, Girish Kumar & Sharma 2014a).

87) *Chlorodynerus loeffleri* Giordani Soika, 1958

Chlorodynerus loeffleri Giordani Soika, 1958: 144. Type data: Male, BMNH. Type locality: Deesa, Gujarat, India.

Distribution. India: Gujarat. *Elsewhere:* Iran; Pakistan. (Giordani Soika 1970, Rafi *et al.* 2017).

88) *Chlorodynerus xanthus* (Cameron, 1907)

Odynerus xanthus Cameron, 1907b: 1008. Type data: Female, BMNH. Type locality: Deesa, Gujarat, India.

Pseudepipona xanthus; Giordani Soika, 1953: 254.

Euodynerus xanthus; Blüthgen, 1954: 233, 243 (key), 259, 265, figs. 1, 2, 28.

Chlorodynerus xanthus; Giordani Soika, 1958 (1957): 138, pl. 3 (fig. of male genitalia), 140, 145.

Distribution. India: Gujarat. *Elsewhere:* Pakistan. (Blüthgen 1954, Rafi *et al.* 2017).

Genus *Coeleumenes* van der Vecht, 1963

Coeleumenes van der Vecht, 1963: 45. Type species: *Montezumia impavida* Bingham, 1897

89) *Coeleumenes burmanicus* (Bingham, 1897)

Montezumia burmanica Bingham, 1897: 350. Type data: Female, male, BMNH. Type locality: “Tenasserim” (Myanmar).

Montezumia bisulcata Cameron, 1900: 535. Type data: Female, OUM. Type locality: Khasia Hills, Meghalaya.

Montezumia burmanica var. *malayana* Dover, 1931: 253. Type data: Female, ?BMNH. Type locality: “Jor Camp, Perak, Malaya” (Malaysia).

Pseudozumia burmanica; Giordani Soika, 1941: 165 (key), 168.

Coeleumenes burmanicus; van der Vecht, 1963: 46

Material examined. INDIA: **Uttarakhand:** Dehradun, 29.vi.2000, 1 ♀, Coll. Vinod Khanna & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.13069; Dehradun district, Kalsi, 24.v.1984, 1 ♂, Coll. R. Kaur & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.13070.

Distribution. India: Kerala, Meghalaya, Nagaland, Sikkim, Uttarakhand (new record). *Elsewhere:* Bhutan; China; Laos; Malaysia; Myanmar; Thailand; Vietnam. (Gusenleitner 2011, Pham & Li 2015, Girish Kumar *et al.* 2016c, Nguyen 2016, Nidup *et al.* 2018, Tan *et al.* 2018).

90) *Coeleumenes impavidus* (Bingham, 1897)

a) *Coeleumenes impavidus impavidus* (Bingham, 1897)

Montezumia impavida Bingham, 1897: 351. Type data: Holotype female, BMNH. Type locality: “Tensserim, Burma” (Myanmar).

Pseudozumia impavida; Giordani Soika 1941: 165 (key), 168.

Coeleumenes impavidus impavidus; van der Vecht, 1963: 48.

Material examined. INDIA: **Karnataka:** Yelahanka Bengaluru, 2-5.ii.2019, 1 ♀, Coll. Deena & Ankita Gupta; Bangalore, GKVK, 930 m, 13°04' N 77°34' E, 1.ii.2014, 2 ♂, coll. A. Pannure. **Uttarakhand:** Dehradun district, Kalsi, 24.v.1984, 2 ♀, Coll. R. Kaur & Party, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.13071 & 13072.

Distribution. India: Karnataka, Nagaland, Sikkim, Uttarakhand (new record), West Bengal. *Elsewhere:* Bhutan; Indonesia; Laos; Malaysia; Myanmar; Singapore; Sri Lanka; Thailand. (Nugroho 2015, Girish Kumar *et al.* 2016c, Pannure *et al.* 2016, Nidup *et al.* 2018).

91) *Coeleumenes rufipetiolatus* (Wickwar, 1908)

Montezumia rufopetiolata Wickwar, 1908: 118, 120. Type data: Male, BMNH. Type locality: “Mamadu, Ceylon” (Sri Lanka).

Pareumenes rufipetiolata; Dover, 1925 (1924): 297.

Pseudozumia rufipetiolata; Giordani Soika, 1941: 165 (key), 168.

Coeleumenes rufopetiolatus [!]; van der Vecht, 1963: 48.

Distribution. India: South India? *Elsewhere:* Sri Lanka. (van der Vecht 1963, Pannure *et al.* 2016).

Genus *Cyrtolabulus* van der Vecht, 1969

Cyrtolabulus van der Vecht 1963: 11, genus. Type species: *Cyrtolabulus suavis* van der Vecht, 1963, by original designation.
Cyrtolabulus van der Vecht, 1969b: 1. Type species: *Cyrtolabulus suavis* van der Vecht, 1963.

92) *Cyrtolabulus interstitialis* (Cameron, 1902)

Zethus interstitialis Cameron, 1902: 291. Type data: Female & Male, BMNH. Type locality: Matheran, Maharashtra, India.

Calligaster interstitialis; Dalla Tore, 1904: 17.

Labus interstitialis; Meade-Waldo & Morley, 1914: 404.

Cyrtolabulus interstitialis; van der Vecht, 1963: 14.

Distribution. India: Goa, Maharashtra. (Girish Kumar *et al.* 2015a, Gawas *et al.* 2019).

93) *Cyrtolabulus punctatus* (Meade-Waldo, 1910)

Labus punctatus Meade-Waldo, 1910a: 37. Type data: Male, BMNH. Type locality, Kangra valley, Himachal Pradesh, India.

Cyrtolabulus punctatus; Gusenleitner, 1988b: 188.

Distribution. India: Himachal Pradesh. (Girish Kumar *et al.* 2015a).

94) *Cyrtolabulus suavis* (van der Vecht, 1963)

Cyrtolabulus suavis van der Vecht, 1963: 11. Type data: Holotype female, NHMB. Type locality: Dambulla, Central Province, Sri Lanka.

Material examined. INDIA: **Karnataka:** Bangalore rural, Hoskote (Gotipura forest), 15.v.1982, 2♂, coll. B. Mallik. Ramanagara (Sangama), 19.vi.1980, 1♀, coll. A.R.V. Kumar. **Tamil Nadu:** Kanyakumari, 1.xi.2005, 1♀, Coll. Priyadarsanan Dharma Rajan.

Distribution. India: Karnataka, Kerala, Rajasthan, Tamil Nadu, Uttarakhand. *Elsewhere:* China; Sri Lanka. (Girish Kumar *et al.* 2015a, Pannure *et al.* 2016).

Genus *Ectopioglossa* Perkins, 1912

Ectopioglossa Perkins, 1912: 118. Type species: *Ectopioglossa australensis* Perkins, 1912.

95) *Ectopioglossa keiseri* van der Vecht, 1963

Ectopioglossa keiseri van der Vecht, 1963: 34. Type data: Holotype female, NHMB. Type locality: Kandy, Central Province, Sri Lanka.

Ectopioglossa keiseri nigra Giordani Soika, 1993c: 159.

Distribution. India: Meghalaya. *Elsewhere:* Laos; Sri Lanka; Vietnam. (Gusenleitner 2006 & 2011, Nguyen *et al.* 2014, Pham & Li 2015, Girish Kumar & Sureshan 2016).

96) *Ectopioglossa sublaevis* (Smith, 1857)

Eumenes sublaevis Smith, 1857: 23. Type data: Female, BMNH. Type locality: Borneo (Sarawak).

Pareumenes sublaevis; Bequaert, 1928: 171.

Ectopioglossa sublaevis; van der Vecht, 1963: 30.

Distribution. India: Assam; Sikkim. *Elsewhere:* Indonesia; China; Malaysia; Myanmar; Philippines; Vietnam. (Nguyen *et al.* 2014, Girish Kumar & Sureshan 2016).

Genus *Epsilon* de Saussure, 1855

Epsilon de Saussure, 1855: 229, 252. Type species: *Odynerus dyscherus* de Saussure, 1852.

97) *Epsilon burmanicum* (Bingham, 1897)

Odynerus burmanicus Bingham, 1897: 371. Type data: Female, BMNH. Type locality: “Rangoon; Toungoo; Pegu”.

Rhynchium taprobanae Cameron, 1901b: 31. Type data: Female, BMNH. Type locality: “Ceylon” (Sri Lanka).

Odynerus kanthaleyensis Giordani Soika, 1935b: 245, fig. 1 (2, 5, 6).

Odynerus taprobanae; Giordani Soika, 1941: 261.

Euodynerus taprobanae; Gusenleitner, 1988b: 181.

Epsilon burmanicum; Giordani Soika, 1994: 270 (key), 274.

Distribution. India: Gujarat, Karnataka, Maharashtra, Odisha, Puducherry, Tamil Nadu. *Elsewhere*: Myanmar; Sri Lanka; Thailand. (Gusenleitner 2006, Girish Kumar *et al.* 2014a, Pannure *et al.* 2016).

98) *Epsilon chikmagalurensis* (Lambert, 2008)

Antepipona chikmagalurensis Lambert, 2008: 121. Type data: Holotype female, NZC. Type locality: Chikmagalur, Karnataka, India.

Epsilon chikmagalurensis; Girish Kumar *et al.* 2014a: 5380, 5381, 5384 (list), 5385 (key), figs. 1-4.

Material examined. INDIA: **Karnataka**: Chikmagalur, Koppa, 19.v.2015, 1♀, coll. S. Hegde. Shivamogga, Agumbe, 9.x.2015, 1♀, coll. A. Pannure; Mudigere, vii.2012, 1♀, Coll. Naveen. **Goa**: Dharbandora, Bhagwan Mahaveer WLS, 25.vi.2019, 1♀, Coll. Sandesh Gawas.

Distribution. India: Goa (new record), Karnataka, Kerala. (Girish Kumar *et al.* 2014a, Pannure *et al.* 2016, Girish Kumar & Sureshan 2019a).

99) *Epsilon manasicum* Girish Kumar & Carpenter, 2014

Epsilon manasicum Girish Kumar & Carpenter, 2014a: 5382. Type data: Holotype female, NZC. Type locality: Doimari, Manas National Park, Assam, India.

Distribution. India: Assam, West Bengal. (Girish Kumar *et al.* 2014a).

100) *Epsilon tinctipenne* (Walker, 1860)

Odynerus tinctipennis Walker, 1860: 304. Type data: Male, BMNH. Type locality: “Ceylon” (Sri Lanka).

Ancistrocerus tinctipennis; Motschulsky, 1863: 23.

Odynerus erebodes Cameron, 1898: 42.

Epsilon tinctipenne; Giordani Soika, 1994: 272 (key), 282, fig. 62.

Distribution. India: Maharashtra, Kerala. *Elsewhere*: Sri Lanka. (Girish Kumar *et al.* 2014a).

Genus *Euodynerus* Dalla Torre, 1904

Euodynerus Dalla Torre, 1904: 38. Type species: *Vespa dantici* Rossi, 1790.

101) *Euodynerus (Euodynerus) longisetulosus* Giordani Soika, 1970

Euodynerus longisetulosus Giordani Soika, 1970: 153. Type data: Male, BMNH. Type locality: Deesa, Gujarat, India.

Distribution. India: Gujarat. (Giordani Soika 1970).

102) *Euodynerus (Euodynerus) segregatus* (Nurse, 1903)

Odynerus segregatus Nurse, 1903: 534. Type data: Female, BMNH. Type locality: Deesa, Gujarat, India.

Euodynerus segregatus; Gusenleitner, 1973a: 119.

Distribution. India: Gujarat. (Nurse 1903).

103) *Euodynerus (Pareuodynerus) koenigsmanni* Giordani Soika, 1972

Euodynerus (Pareuodynerus) koenigsmanni Giordani Soika, 1972: 99. Type data: female, male (in subgenus *Pareuodynerus*), (Holotype female, ZMB). Type locality: Sikkim, India.

Distribution. India: Assam, Sikkim. *Elsewhere*: Malaysia; Thailand. (Giordani Soika 1972, Giordani Soika 1994).

104) *Euodynerus (Pareuodynerus) unifasciatus* Gusenleitner, 1998

Euodynerus (Pareuodynerus) unifasciatus Gusenleitner, 1998b: 505. Type data: Holotype female, DEI. Type locality: Darjeeling, West Bengal, India.

Distribution. India: Sikkim, West Bengal. (Gusenleitner 1998b).

Genus *Gribodia* Zavattari, 1912

Gribodia Zavattari, 1912: 161. Type species: *Monobia cavifrons* Gribodo, 1891 [= *Odynerus confluenta* Smith, 1857].

105) *Gribodia punctatissima* Giordani Soika, 1974

Gribodia punctatissima Giordani Soika, 1974: 112. Type data: female, BMNH. Type locality: “Assam: Margherita”.

Distribution. India: Assam, Sikkim. *Elsewhere*: Laos. (Gusenleitner 2013b).

Genus *Indodynerus* Gusenleitner, 2008

Indodynerus Gusenleitner, 2008: 1500-1501. Type species: *Indodynerus capitatus* Gusenleitner, 2008.

106) *Indodynerus capitatus* Gusenleitner, 2008

Indodynerus capitatus Gusenleitner, 2008: 1500, 1501. Type data: Holotype female, OLM. Type locality: Sulyamedikeri, Karnataka, India.

Material examined. INDIA: **Goa**: Sattari, Valpoi, Ambedem, 16.iv.2019, 1♀, Coll. Sandesh Gawas.

Distribution. India: Chhattisgarh, Goa (new record), Karnataka, Kerala, Madhya Pradesh. *Elsewhere*: Pakistan. (Girish Kumar *et al.* 2013a, Girish Kumar & Sharma 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017).

Genus *Knemodynerus* Blüthgen, 1940

Knemodynerus Blüthgen, 1940: 43. Type species: *Odynerus excellens* Perez, 1907.

107) *Knemodynerus complanatus* Giordani Soika, 1995

a) *Knemodynerus complanatus complanatus* Giordani Soika, 1994

Knemodynerus complanatus complanatus Giordani Soika 1994: 258 (key), 263. Type data: Holotype female, MSNV. Type locality: “Borneo: Sabah, Tuaran”; also from Kangean; Java; Singapore.

Material examined. INDIA: **Sikkim**: East Sikkim district, Gangtok, 1♀ & 1♂, 24.iv.1976, Coll. A.R. Bhaumik & Party, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.12286 & 12287.

Distribution. India: Sikkim. *Elsewhere*: Malaysia: Sabah; Singapore; Indonesia: Java (including Kangean). (Giordani Soika 1994; Girish Kumar *et al.* 2019c).

108) *Knemodynerus coriaceus* (Giordani Soika, 1970)

Euodynerus (Euodynerus) coriaceus Giordani Soika 1970: 160. Type data: Holotype male, BMNH. Type locality: Deesa, Gujarat, India.

Knemodynerus coriaceus; Giordani Soika, 1994: 259 (key), 268.

Material examined. INDIA: **Karnataka**: Bangalore, 12.vi.1981, 1♀, coll. Keregowda; 24.ix.2011, 1♀, coll. T.V. Aswathy. Chikkaballapur, Skandagiri hills, 900 m, 13°04' N 77°34' E, 11.i.2015, 1♂, coll. Zameer.

Distribution. India: Gujarat, Karnataka, Odisha, Tamil Nadu, Uttar Pradesh, West Bengal. (Gusenleitner 2006, Pannure *et al.* 2016, Girish Kumar *et al.* 2019c).

109) *Knemodynerus excellens* (Pérez, 1907)

Odynerus (Lionotus) excellens Perez, 1907: 493. Type data: Female, BMNH. Type locality: “Dibba (côte d’Oman), female; Bahrein, male”.

Rhynchium auratiacum Cameron, 1908a: 307.

Odynerus fulvus Kostylev, 1935 [934]: 127.

Euodynerus excellens; Blüthgen, 1939: 240.

Knemodynerus excellens; Giordani Soika, 1994: 259 (key), 269.

Distribution. India: Gujarat. *Elsewhere*: Iran; Oman; Pakistan; Qatar; Saudi Arabia; Turkmenistan; United Arab Emirates. (Gusenleitner 2013a, Rafi *et al.* 2017, Girish Kumar *et al.* 2019c).

110) *Knemodynerus gusenleitneri* Girish Kumar & Carpenter, 2019

Knemodynerus gusenleitneri Girish Kumar & Carpenter 2019: 950. Type data: Holotype female, ZSIK. Type locality: ZSI Campus, Kozhikode, Kerala, India.

Distribution. India: Kerala. (Girish Kumar *et al.* 2019c).

111) *Knemodynerus multimaculatus* Gusenleitner, 2006

Knemodynerus multimaculatus Gusenleitner 2006: 691. Type data: Holotype male, SMNS. Type locality: Udaipur, Rajasthan, India.

Distribution. India: Rajasthan. (Gusenleitner 2006, Girish Kumar & Sharma 2014a, Girish Kumar *et al.* 2019c).

112) *Knemodynerus pseudocoriaceus* (Giordani Soika, 1970)

Euodynerus (*Euodynerus*) *pseudocoriaceus* Giordani Soika 1970: 161. Type data: Holotype male, BMNH. Type locality: Deesa, Gujarat, India.

Knemodynerus pseudocoriaceus; Giordani Soika, 1994: 259 (key), 269.

Distribution. India: Gujarat, Pondicherry, Tamil Nadu. *Elsewhere*: Pakistan. (Pannure *et al.* 2016).

Genus *Labus* de Saussure, 1867

Labus de Saussure, 1867: 3. Type species: *Labus spiniger* de Saussure, 1867.

113) *Labus amoenus* van der Vecht, 1935

Labus armatus Cameron, 1900: 536. Type data: Male, OUM. Type locality: Khasia Hills, Meghalaya, India.

Labus amoenus van der Vecht, 1935: 159, 161, 162.

Distribution. India: Meghalaya. *Elsewhere*: China; Indonesia; Laos; Malaysia; Singapore; Vietnam. (Girish Kumar *et al.* 2013c, Li & Carpenter 2018).

114) *Labus angularis* van der Vecht, 1935

Labus angularis van der Vecht, 1935: 164. Type data: Holotype male, RMNH. Type locality: West Java, Indonesia.

Distribution. India: Meghalaya, Nagaland, Tripura. *Elsewhere*: China; Indonesia; Myanmar; Thailand. (Gusenleitner 2006, Girish Kumar *et al.* 2013c, Li & Carpenter 2018).

115) *Labus humbertianus* de Saussure, 1867

Labus humbertianus de Saussure, 1867: 4. Type data: Female, Male, MHNG. Type locality: “Ceylon” (Sri Lanka).

Distribution. India: Arunachal Pradesh, Assam, Himachal Pradesh, Kerala, Sikkim. *Elsewhere*: Myanmar; Sri Lanka. (Girish Kumar *et al.* 2013c, Pannure *et al.* 2016).

116) *Labus pusillus* van der Vecht, 1963

Labus pusillus van der Vecht, 1963: 6. Type data: Holotype female, NHMB. Type locality: Deiyennewela, Kandy, Sri Lanka.

Material examined. INDIA: **Karnataka**: Mudigere, vii.2012, 1 ♀, Coll. Naveen; Malayamartha Mudigere, 13.iii.2014, 1 ♀ & 1 ♂, Coll. Naveenkumar; Kunigal, 25.i.2018, 1 ♂, Coll. Sandesh Gawas. **Tamil Nadu**: Pichavaram, 16.x.2016, 1 ♀ & 1 ♂, Coll. Sankararaman; Anaikatti, 19.ix.2005, 1 ♀, Coll. Priyadarsanan Dharma Rajan. **Punjab**: Panchrukhi Patiala, 24.x.2017, 1 ♂, Coll. Ankita Gupta. **Arunachal Pradesh**: Pasighat, v.2014, 1 ♀, Coll. Umeshkumar.

Distribution. India: Andhra Pradesh, Arunachal Pradesh (new record), Assam, Goa, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, Puducherry, Punjab (new record), Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; China; Nepal; Sri Lanka; Vietnam. (Gusenleitner 2006, Girish Kumar *et al.* 2013c, Nidup *et al.* 2016, Pannure *et al.* 2016, Li & Carpenter 2018, Gawas *et al.* 2019).

Genus *Leptochilus* de Saussure, 1853

Leptochilus de Saussure, 1853: 233. Type species: *Pterocheilus mauritanus* [!] [= *Pterocheilus mauritanicus* Lepeletier, 1841].

117) *Leptochilus* (*Neoleptochilus*) *hassani* Girish Kumar & Carpenter, 2015

Leptochilus (*Neoleptochilus*) *hassani* Girish Kumar & Carpenter, 2015b: 7787. Type data: Holotype female, NZC. Type locality: Kuruli, Pune, Maharashtra, India.

Distribution. India: Maharashtra. (Girish Kumar & Carpenter 2015b).

118) *Leptochilus* (*Neoleptochilus*) *insitivus* Gusenleitner, 1976

Leptochilus (*Neoleptochilus*) *insitivus* Gusenleitner, 1976: 114, fig. 2. Type data: Holotype female, RMNH. Type locality: Karachi, Pakistan.

Distribution. India: Maharashtra. *Elsewhere:* Pakistan. (Gusenleitner 1994, Girish Kumar & Carpenter 2015b, Rafi *et al.* 2017).

Genus *Lissodynerus* Giordani Soika, 1993

Lissodynerus Giordani Soika, 1993b: 135. Type species: *Odynerus septemfasciatus* Smith, 1857.

119) *Lissodynerus rutlandicus* Girish Kumar, Srinivasan & Carpenter, 2015

Lissodynerus rutlandicus Girish Kumar, Srinivasan & Carpenter, 2015: 7664. Type data: Holotype male, NZC. Type locality: Rutland Island, Southern Andaman, Andaman & Nicobar Islands, India.

Distribution. India: Andaman Islands. (Girish Kumar *et al.* 2015b).

120) *Lissodynerus septemfasciatus* (Smith, 1858)

a) *Lissodynerus septemfasciatus feanus* (Giordani Soika, 1941)

Ancistrocerus septemfasciatus var. *feanus* Giordani Soika 1941: 239. Type data: Lectotype female, MSNG. Type locality: “Carin Cheba, Burma” (Myanmar).

Ancistrocerus septemfasciatus feanus; Giordani Soika 1973a: 29.

Lissodynerus septemfasciatus feanus; Giordani Soika 1973b: 119.

Distribution. India: Mizoram. *Elsewhere:* China; Malaysia; Myanmar; Vietnam. (Giordani Soika 1994, Selis 2018).

b) *Lissodynerus septemfasciatus septemfasciatus* (Smith, 1858)

Odynerus septem-fasciatus Smith, 1858: 111. Type data: Holotype male, OUM. Type locality: “Sarawak”

Ancistrocerus septemfasciatus; Giordani Soika, 1941: 240.

Lissodynerus septemfasciatus septemfasciatus; Giordani Soika, 1994: 304 (key), 313, fig. 73.

Distribution. India: Goa, Karnataka. *Elsewhere:* Indonesia; Malaysia; Thailand. (Gusenleitner 2006, Girish Kumar *et al.* 2015b, Pannure *et al.* 2016, Gawas *et al.* 2019).

121) *Lissodynerus unicus* Selis, 2018

Lissodynerus unicus Selis, 2018: 451. Type data: Holotype female, MSNV. Type locality: Sikkim, India.

Distribution. India: Sikkim. (Selis 2018).

Genus *Malayepipona* Giordani Soika, 1993

Malayepipona Giordani Soika, 1993c: 151. Type species: *Malayepipona pagdeni* Giordani Soika, 1993.

122) *Malayepipona assamensis* Giordani Soika 1995

a) *Malayepipona assamensis assamensis* Giordani Soika, 1995

Malayepipona assamensis Giordani Soika, 1995: 97. Type data: female, MVEN. Type locality: “Assam: Nakhu, 3800+4800 ft”.

Distribution. India: Assam. *Elsewhere*: Laos. (Giordani Soika 1995, Gusenleitner 2011).

b) *Malayepipona assamensis manipurensis* Giordani Soika, 1995

Malayepipona assamensis manipurensis Giordani Soika, 1995: 98. Type data: female, RMNH. Type locality: “Assam: Manipur State, Chingsao, 3800-1500 ft”.

Distribution. India: Manipur. *Elsewhere*: Laos. (Giordani Soika 1995).

123) *Malayepipona visenda* Gusenleitner, 2012

Malayepipona visenda Gusenleitner, 2012: 1047. Type: Holotype female, OLM. Type locality: Cherrapunjee, Meghalaya, India.

Distribution. India: Meghalaya. (Gusenleitner 2012).

Genus *Orancistrocerus* van der Vecht, 1963

Orancistrocerus van der Vecht, 1963: 58 (key), 99. Type species: *Odynerus drewseni* de Saussure, 1857.

124) *Orancistrocerus aterrimus* (Bingham, 1897)

a) *Orancistrocerus aterrimus khasianus* (Cameron, 1900)

Rhynchium khasianum Cameron, 1900: 530. Type data: Male, BMNH. Type locality: Khasia Hills, Meghalaya, India.

Odynerus cameroni Schulthess, 1913b: 3, 8. Type data: Male, ETHZ. Type locality: Khasia Hills, Meghalaya, India.

Ancistrocerus erythropus var. *khasianus*; Giordani Soika, 1941: 237.

Ancistrocerus erythropus var. *cameroni*; Giordani Soika, 1941: 237.

Orancistrocerus aterrimus khasianus; van der Vecht, 1963: 102.

Distribution. India: Arunachal Pradesh, Meghalaya, Nagaland. (Gusenleitner 2006, Girish Kumar & Sharma 2012).

125) *Orancistrocerus moelleri* (Bingham, 1897)

Rhynchium moelleri Bingham 1897: 354. Type data: Male, BMNH. Type locality: Sikkim, India.

Odynerus erythropus var. *molleri*; Dover, 1925: 298.

Orancistrocerus moelleri; van der Vecht, 1963: 102, 107.

Distribution. India: Sikkim. *Elsewhere*: Myanmar. (Girish Kumar & Sharma 2012).

Genus *Orientalicesa* Koçak and Kemal, 2010

Orientalicesa Koçak and Kemal, 2010: 4. Type species: *Odynerus unifasciatus* Schulthess, 1934 [= *Orientalicesa rangpocus* (Girish Kumar, Carpenter and Lambert, 2017)].

Kennethia Giordani Soika, 1994: 4 (key), 289. Type species: *Odynerus unifasciatus* Schulthess, 1934.

126) *Orientalicesa rangpocus* (Girish Kumar, Carpenter and Lambert, 2017) comb. nov.

Odynerus unifasciatus Schulthess, 1934: 75.

Allorhynchium unifasciatum; Giordani Soika, 1986a: 141.

Kennethia unifasciata; Giordani Soika, 1994: 291 (key), 292, fig. 66.

Orientalicesa unifasciata; Koçak & Kemal, 2010: 4.

Stenodyneriellus rangpocus Girish Kumar, Carpenter & Lambert, 2017d: 179-181. Type data: Holotype female,

NZC. Type locality: Rangpo, Sikkim, India.

Orientalicesa confasciatus Tan & Carpenter, 2018: 109, 137.

Distribution. India: Sikkim. *Elsewhere*: China (including Taiwan); Laos; Vietnam. (Girish Kumar *et al.* 2017c, Nguyen *et al.* 2018).

Genus *Paraleptomenes* Giordani Soika, 1970

Paraleptomenes Giordani Soika, 1970: 79. Type species: *Paraleptomenes nurseanus* Giordani Soika, 1970.

127) *Paraleptomenes communis* Giordani Soika, 1994

Paraleptomenes communis Giordani Soika, 1994: 129. Type data: Holotype female, MVEN. Type locality: “Giava: Pasoeroean”.

Distribution. India: Kerala. *Elsewhere*: Indonesia; Malaysia; Singapore; Thailand. (Girish Kumar *et al.* 2014b, Pannure *et al.* 2016).

128) *Paraleptomenes darugiriensis* Girish Kumar, Carpenter & Sharma, 2014

Paraleptomenes darugiriensis Girish Kumar, Carpenter & Sharma, 2014b: 133. Type data: Holotype female, NZC. Type locality: East Garo Hills, Darugiri, Meghalaya.

Distribution. India: Arunachal Pradesh, Assam, Meghalaya, Sikkim, West Bengal. (Girish Kumar *et al.* 2014b).

129) *Paraleptomenes humbertianus* (de Saussure, 1867)

Odynerus humbertianus de Saussure, 1867: 13. Type data: MHNG. Type locality: “Insula Ceylone”

Paraleptomenes humbertianus; Krombein, 1991: 8.

Material examined. INDIA: **Karnataka**: Yelahanka Bengaluru, 20.i.2017, 2 ♀, Coll. Ashwath & Swathi; Sangam, 17.viii.2017, 1 ♀ & 1 ♂, Coll. Sandesh Gawas; 8.viii.2018, 2 ♀, Coll. Sandesh Gawas.

Distribution. India: Andhra Pradesh, Goa, Karnataka, Kerala, Odisha, Puducherry, Tamil Nadu. *Elsewhere*: Sri Lanka. (Gusenleitner 2006, Pannure *et al.* 2016, Gawas *et al.* 2019).

130) *Paraleptomenes miniatus* (de Saussure, 1855)

a) *Paraleptomenes miniatus mephitis* (Cameron, 1901)

Odynerus mephitis Cameron 1901b: 30. Type data: Male, BMNH. Type locality: “Ceylon” (Sri Lanka).

Odynerus miniatus var. *mephitis*; Giordani Soika, 1941: 266.

Odynerus rufus-bimaculatus Cameron, 1909: 136.

Paraleptomenes mephitis; Krombein, 1978: 721-734.

Paraleptomenes miniatus mephitis; Giordani Soika, 1994: 123 (key), 127.

Distribution. India: Kerala, Maharashtra, Odisha, Pondicherry, Punjab, Rajasthan, Tamil Nadu, West Bengal. *Elsewhere*: Sri Lanka. (Girish Kumar *et al.* 2014b, Pannure *et al.* 2016).

b) *Paraleptomenes miniatus miniatus* (de Saussure, 1855)

Odynerus miniatus de Saussure, 1855: 249. Type data: Female, BMNH. Type locality: “Les Indes Orientales”.

Pterochilus pulchellus Smith, 1870: 190, pl. 21 fig. 8b.

Odynerus wroughtoni Cameron, 1898: 44.

Paraleptomenes miniatus miniatus; Giordani Soika, 1994: 123 (key), 125.

Material examined. INDIA: **Karnataka**: Yelahanka Bengaluru, 4.iv.2017, 2 ♀, Coll. Ashwath & Sandesh. Bengaluru, 916 m, 20.i.1985, 1 ♀, coll. V.V. Belavadi; 930 m, 21.viii.2014, 1 ♀, coll. A. Pannure.

Distribution. India: Delhi, Gujarat, Karnataka, Maharashtra, Odisha, Sikkim, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: China (including Taiwan); Iran; Mauritius; Pakistan. (Girish Kumar *et al.* 2014b, Pannure *et al.* 2016, Rafi *et al.* 2017, Tan *et al.* 2018).

c) *Paraleptomenes miniatus nigrithorax* Giordani Soika, 1994

Paraleptomenes miniatus nigrithorax Giordani Soika, 1994: 128. Type data: Female, MVEN. Type locality: “Cal-

cutta, India” (Kolkata, West Bengal, India).

Distribution. India: West Bengal. (Girish Kumar *et al.* 2014b).

131) *Paraleptomenes nurseanus* Giordani Soika, 1970

a) *Paraleptomenes nurseanus montanus* Giordani Soika, 1994

Paraleptomenes nurseanus montanus Giordani Soika 1994: 124. Type data: Female, MCZ. Type locality: Gudalur, Nilgiri, Tamil Nadu, India.

Distribution. India: Tamil Nadu. (Girish Kumar *et al.* 2014b, Pannure *et al.* 2016).

b) *Paraleptomenes nurseanus nurseanus* Giordani Soika, 1970

Paraleptomenes nurseanus Giordani Soika 1970: 79. Type data: Holotype female, BMNH. Type locality: Deesa, Gujarat, India.

Material examined. INDIA: **Karnataka:** Bangalore, GKVK, 916 m, 1.iv.1983, 1♀, coll. V.V. Belavadi.

Distribution. India: Karnataka, Gujarat. (Girish Kumar *et al.* 2014b, Pannure *et al.* 2016).

132) *Paraleptomenes rufoniger* Giordani Soika, 1994

Paraleptomenes rufoniger Giordani Soika, 1994: 131. Type data: Female, RMNH. Type locality: Chumtang, Sikkim, India.

Material examined. INDIA: **Nagaland:** Malbong, iii.2015, 1 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Nagaland (new record), Sikkim. (Girish Kumar *et al.* 2014b).

Genus *Parancistrocerus* Bequaert, 1925

Parancistrocerus Bequaert, 1925: 64. Type species: *Odynerus fulvipes* de Saussure, 1855 [= *O. “flavipes* Fabricius” *sensu* de Saussure, 1852, non *Vespa flavipes* Fabricius, 1775].

133) *Parancistrocerus androcles* (Meade-Waldo, 1910)

a) *Parancistrocerus androcles androcles* (Meade-Waldo, 1910)

Odynerus androcles Meade-Waldo, 1910b: 103. Type data: Female, BMNH. Type locality: Shillong, Meghalaya, India.

Ancistrocerus horni Sonan, 1938: 262. Type data: Male, ZMB. Type locality: “Kandy, Ceylon” (Sri Lanka).

Ancistrocerus androcles; Giordani Soika, 1941: 236.

Parancistrocerus androcles androcles; Gusenleitner, 1988b: 178.

Distribution. India: Kerala, Meghalaya, Tripura. *Elsewhere:* Indonesia; Malaysia; Myanmar; Philippines; Singapore; Sri Lanka; Thailand; Vietnam. (Gusenleitner 2006, Pham & Li 2015, Girish Kumar *et al.* 2016e, Pannure *et al.* 2016).

134) *Parancistrocerus assamensis* (Meade-Waldo, 1910)

Odynerus assamensis Meade-Waldo, 1910b: 103. Type data: BMNH. Type locality: Shillong, Meghalaya, India.

Ancistrocerus assamensis; Giordani Soika, 1941: 235.

Parancistrocerus assamensis; Giordani Soika, 1994: 155 (key), 171.

Distribution. India: Meghalaya. *Elsewhere:* Laos; Myanmar; Nepal; Vietnam. (Gusenleitner 2011, Pham & Li 2015, Girish Kumar *et al.* 2016e).

135) *Parancistrocerus feai* Giordani Soika, 1994

Parancistrocerus feai Giordani Soika, 1994: 190. Type data: Female, MSNG. Type locality: “Burma: Carin Cheba” (Myanmar).

Distribution. India: Sikkim. *Elsewhere:* Malaysia; Myanmar. (Girish Kumar *et al.* 2016e).

136) *Parancistrocerus holzschuhi* Gusenleitner, 1987

Parancistrocerus holzschuhi Gusenleitner, 1987: 258. Type data: Holotype male, OLM. Type locality: Nepal.

Distribution. India: Arunachal Pradesh, Meghalaya. *Elsewhere:* Nepal. (Girish Kumar *et al.* 2016e).

137) *Parancistrocerus incorruptus* Giordani Soika, 1972

a) *Parancistrocerus incorruptus demens* Giordani Soika, 1972

Parancistrocerus incorruptus demens Giordani Soika, 1972: 102. Type data: Male, ZMB. Type locality: Sikkim, India.

Distribution. India: Sikkim. (Giordani Soika 1972, Girish Kumar *et al.* 2016e).

b) *Parancistrocerus incorruptus incorruptus* Giordani Soika, 1972

Parancistrocerus incorruptus Giordani Soika, 1972: 101. Type data: Female, MSNV. Type locality: Assam, India.

Parancistrocerus incorruptus incorruptus Giordani Soika, 1994: 155 (key).

Distribution. India: Assam. *Elsewhere:* Thailand. (Girish Kumar *et al.* 2016e, Li and Carpenter 2019).

c) *Parancistrocerus incorruptus kalimpongensis* Giordani Soika, 1994

Parancistrocerus incorruptus kalimpongensis Giordani Soika, 1994: 165. Type data: Male, RMNH. Type locality: Kalimpong, Darjeeling, West Bengal, India.

Distribution. India: West Bengal. (Girish Kumar *et al.* 2016e).

138) *Parancistrocerus irritatus* Giordani Soika, 1972

Parancistrocerus irritatus Giordani Soika, 1972: 103. Type data: Male, ZMB. Type locality: Sikkim, India.

Distribution. India: Sikkim. (Giordani Soika 1972, Girish Kumar *et al.* 2016e).

139) *Parancistrocerus jaferpaloti* Girish Kumar & Carpenter, 2016

Parancistrocerus jaferpaloti Girish Kumar & Carpenter, 2016e: 144. Type data: Holotype female, ZSIK. Type locality: Kozhikode, Kerala, India.

Distribution. India: Kerala. (Girish Kumar *et al.* 2016e).

140) *Parancistrocerus loharbandensis* Girish Kumar & Carpenter, 2016

Parancistrocerus loharbandensis Girish Kumar & Carpenter, 2016e: 147. Type data: Holotype female, ZSIK. Type locality: Cachar, Assam, India.

Distribution. India: Assam. (Girish Kumar *et al.* 2016e).

141) *Parancistrocerus rhipheus* (Cameron, 1904)

Odynerus rhipheus Cameron, 1904b: 308. Type data: Female, BMNH. Type locality: Darjeeling, West Bengal, India.

Ancistrocerus rhipheus; Giordani Soika, 1941: 235.

Parancistrocerus rhipheus; Giordani Soika, 1994: 136 (key), 156 (key), 172.

Distribution. India: West Bengal. *Elsewhere:* Laos. (Gusenleitner 2011, Girish Kumar *et al.* 2016e).

142) *Parancistrocerus turensis* Girish Kumar & Carpenter, 2016

Parancistrocerus turensis Girish Kumar & Carpenter, 2016e: 150. Type data: Holotype female, ZSIK. Type locality: Garo Hills, Tura, Meghalaya, India.

Distribution. India: Meghalaya. (Girish Kumar *et al.* 2016e).

143) *Parancistrocerus vicinus* Giordani Soika, 1994

Parancistrocerus vicinus Giordani Soika, 1994: 194. Type data: Holotype female, BMNH. Type locality: Matheran, Maharashtra, India.

Distribution. India: Goa, Kerala, Maharashtra. (Girish Kumar *et al.* 2016e, Gawas *et al.* 2019).

Genus *Pararrhynchium* de Saussure, 1855

Pararrhynchium de Saussure, 1855: 173. Type species: *Rhynchium ornatum* Smith, 1852.

Prorhynchium de Saussure, 1855: 174. Type species: *Rhynchium smithii* de Saussure, 1855.

144) *Pararrhynchium paradoxum* (Gussakovskij, 1932)

a) *Pararrhynchium paradoxum laetum* Giordani Soika, 1986

Pararrhynchium [!] *paradoxum laetum* Giordani Soika, 1986c: 77, 79. Type data: Female, ZMB. Type locality: Sikkim, India.

Distribution. India: Sikkim, West Bengal. (Gusenleitner 2006, Girish Kumar *et al.* 2017c).

145) *Pararrhynchium venkataramani* Girish Kumar & Carpenter, 2017

Pararrhynchium venkataramani Girish Kumar & Carpenter, 2017c: 86. Holotype female, ZSIK. Type locality: Jenging, Upper Siang, Arunachal Pradesh, India.

Distribution. India: Arunachal Pradesh, Meghalaya, Sikkim. Girish Kumar *et al.* 2017c, Selis 2018).

Genus *Pareumenes* de Saussure, 1855

Pareumenes de Saussure, 1855: 133. Type species: *Eumenes quadrispinosus* de Saussure, 1855.

146) *Pareumenes (Pareumenes) bengalensis* (Fabricius, 1804)

Polistes bengalensis Fabricius, 1804: 277. Type data: Male, UZMC. Type locality: “Bengalia”.

Pareumenes bengalensis; Schulz, 1912: 84.

Distribution. India: West Bengal. (van der Vecht 1963).

147) *Pareumenes (Pareumenes) brevirostratus* (de Saussure, 1855)

Eumenes brevirostratus de Saussure, 1855: 136. Type data: ?BMNH. Type locality: “Les Indes Orientales”.

Pareumenes brevirostrata; Dalla Torre, 1904: 19.

Pterochilus fulvipennis Cameron, 1898: 39, pl. 4 3a, 3b.

Eumenes fulvipennis; Cameron, 1907b: 1008.

Eumenes campaniformis var. *cameroni* Bequaert, 1928: 167.

Pareumenes fulvipennis; van der Vecht, 1937: 272.

Material examined. INDIA: **Karnataka:** Shimoga, 10.xii.2013, 1♀, coll. C.K. Deepa. Kerala: Thiruvananthapuram, 14.iii.2014, 1♀, coll. Anjali.

Distribution. India: Chhattisgarh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Sikkim, Tamil Nadu, Uttar Pradesh, West Bengal. (Girish Kumar & Sharma 2015b, Pannure *et al.* 2016).

148) *Pareumenes (Pareumenes) quadrispinosus* (Saussure, 1855)

a) *Pareumenes quadrispinosus acutus* Liu, 1941

Pareumenes acutus Liu, 1941: 262. Type locality: “South China”.

Pareumenes quadrispinosus acutus; van der Vecht, 1963: 22.

Distribution. India: Andamans, Arunachal Pradesh, Assam, Meghalaya, Sikkim, Tripura, West Bengal. *Elsewhere:* Bhutan; China (including Hong Kong); Vietnam. (van der Vecht 1963, Gusenleitner 2006, Nidup *et al.* 2016; Girish Kumar & Sureshan 2018).

b) *Pareumenes (Pareumenes) quadrispinosus quadrispinosus* (de Saussure, 1855)

Eumenes quadrispinosus de Saussure, 1855: 134, pl. VII fig. 2-2g. Type data: Syntypes females, males, BMNH. Type locality: The East Indies (India).

Pareumenes quadrispinosa; Dalla Torre, 1904: 19.

Pareumenes quadrispinosus quadrispinosus; Gusenleitner, 2011: 1363.

Distribution. India: Arunachal Pradesh, Assam, Karnataka, Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; China; Korea; Laos; Malaysia; Myanmar. (Gusenleitner 2011, Srinivasan & Girish Kumar 2013, Pannure *et al.* 2016, Nguyen *et al.* 2018).

Genus *Pseudepipona* de Saussure, 1856

Pseudepipona de Saussure, 1856: 309. Type species: *Odynerus herrichii* de Saussure, 1856.

Leptepipona Blüthgen, 1951b: 194. Type species “*Pseudepipona tripunctata* (Fabricius)” [= *Vespa tripunctata* Fabricius, 1787].

Metepipona Blüthgen, 1951b: 193. Type species *Odynerus peculiaris* Morawitz, 1895.

Trichepipona Blüthgen, 1951b: 193. Type species *Odynerus lativentris* de Saussure, 1855.

149) *Pseudepipona* (*Pseudepipona*) *vicina* Gusenleitner, 1973

Pseudepipona vicina Gusenleitner, 1973b: 328. Type data: Holotype female, MMBC. Type locality: Afghanistan.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere*: Afghanistan. (Girish Kumar *et al.* 2017e).

Genus *Pseudonortonia* Giordani Soika, 1936

Pseudonortonia Giordani Soika, 1936: 268. Type species: *Odynerus difformis* de Saussure, 1853.

Subancistroceroides Blüthgen, 1938c: 460. Type species *Odynerus aegyptiacus* de Saussure, 1863.

150) *Pseudonortonia bhamensis* Giordani Soika 1941

a) *Pseudonortonia bhamensis bhamensis* Giordani Soika, 1941

Pseudonortonia bhamensis Giordani Soika, 1941: 245, fig. 21 (2, 4). Type data: female, (lectotype, MSNG). Type locality: “Birmanian: Bhamò”.

Distribution. India: Sikkim, West Bengal. *Elsewhere*: Myanmar. (Gusenleitner 2006).

b) *Pseudonortonia bhamensis flavolimbata* Giordani Soika, 1986

Pseudonortonia bhamensis flavolimbata Giordani Soika, 1986c: 77. Type data: Female, MNHN. Type locality: “India: “Benkgalis””.

Distribution. India: West Bengal. (Giordani Soika, 1986c).

151) *Pseudonortonia gujaratica gujaratica* (Nurse, 1902)

Montezumia gujaratica Nurse, 1902: 90, pl. fig. 16. Type data: Female, BMNH. Type locality: Deesa, Gujarat, India.

Nortonia gujaratica Dover, 1925 (1924), J. Proc. Asiat. Soc. Beng. (N. S.) 20: 297.

Distribution. India: Gujarat. (Nurse 1902).

152) *Pseudonortonia henricus* (Cameron, 1908)

Odynerus henricus Cameron, 1908a: 306. Type data: male, BMNH. Type locality: “Bombay” (Maharashtra, India).

Pseudonortonia henrica; Giordani Soika, 1941: 244, 245, fig. 21 (1).

Distribution. India: Maharashtra. (Cameron 1908a).

153) *Pseudonortonia pretiosissima* Giordani Soika, 1943

Pseudonortonia pretiosissima Giordani Soika, 1943: 4, fig. 2 (1-3). Type data: female, MVEN. Type locality: “N. Assam: Dschaipur”.

Distribution. India: Assam, Rajasthan (Giordani Soika 1943; Blüthgen 1955).

Genus *Pseudozumia* de Saussure, 1875

Pseudozumia de Saussure, 1875: 128. Type species: *Montezumia indica* de Saussure, 1855.

154) *Pseudozumia* (*Pseudozumia*) *indica* (Saussure 1856)

a) *Pseudozumia* (*Pseudozumia*) *indica continentalis* Giordani Soika, 1958

Pseudozumia indica continentalis Giordani Soika, 1960a [1958]: 92. Type data: female, ZMB. Type locality: “Sik-

kim, Kalimpong, 6000 piedi” [Kalimpong in West Bengal].

Distribution. India: West Bengal. (Giordani Soika, 1960a [1958]).

b) *Pseudozumia (Pseudozumia) indica indica* (de Saussure, 1855)

Montezumia indica de Saussure, 1855: 167. Type data: Lectotype female, MRSN. Type locality: “Java” (Indonesia).

Pseudozumia indica; Giordani Soika, 1941: 164 (key), 166.

Pseudozumia indica indica; van der Vecht, 1963: 42, fig. 2e.

Distribution. India: Kerala, Sikkim. *Elsewhere*: China (including Taiwan); Indonesia; Malaysia; Sri Lanka; Vietnam. (Shareef *et al.* 2013, Nguyen *et al.* 2014, Pham & Li 2015, Pannure *et al.* 2016).

155) *Pseudozumia (Pseudozumia) indosinensis* Giordani Soika, 1958

Pseudozumia indosinensis Giordani Soika, 1960 [1958]: 93. Type data: female, male (holotype female, ZMB). Type locality: “Sikkim: Runji A Tal, 1000 m.” [Rungeet Valley].

Distribution. India: Sikkim. *Elsewhere*: China. (Giordani Soika 1960a [1958]).

Genus *Pseumenes* Giordani Soika, 1935

Pseumenes Giordani Soika, 1935a: 145. Type species: *Eumenes eximius* Smith, 1861.

156) *Pseumenes depressus* (Saussure, 1856)

Eumenes depressus de Saussure 1855: 135. Type data: Lectotype, BMNH. Type locality: “Indes Orientales”.

Pareumenes depressa; Dalla Torre, 1904: 19.

? *Pareumenes quadrispinosa* var. *depressa*; Dover, 1931: 252.

Pareumenes quadrispinosus; Piel, 1935: 105-139, figs. 1-20, pls. I–IV.

Pseumenes depressus depressus; van der Vecht, 1963: 21, 25.

Pseumenes depressus annulatus van der Vecht, 1963: 26.

Distribution. India: Kerala, Maharashtra, Meghalaya, Sikkim, Tamil Nadu, West Bengal. *Elsewhere*: China (including Taiwan); Malaysia; Myanmar; Thailand; Vietnam. (van der Vecht 1963, Gusenleitner 2006, Nugroho 2015, Nguyen *et al.* 2014, Pham & Li 2015; Girish Kumar 2018).

Genus *Rhynchium* Spinola, 1806

Rhynchium Spinola, 1806: 84. Type species: *Ryngchium europaeum* Spinola, 1806 [= *Vespa oculata* Fabricius, 1781].

Eurrhynchium Dalla Torre, 1904: 33. Type species: *Vespa oculata* Fabricius, 1781.

157) *Rhynchium brunneum* (Fabricius, 1793)

a) *Rhynchium brunneum brunneum* (Fabricius, 1793)

Vespa brunnea Fabricius, 1793: 264. Type data: Syntype, UZMC. Type locality: “Tranquebariae”.

Odynerus brunneus; Latreille, 1806: pl. 14, fig.3.

Rhynchium brunneum; Spinola, 1808: 189.

Rhynchium haemorrhoidale var. *brunneum*; de Saussure, 1862: 190.

Rhynchium quinquecinctum var. *brunneum*; Dalla Torre, 1894: 45.

Rhynchium khandalense Dusmet, 1930: 105.

Rhynchium brunneum brunneum; Gusenleitner, 2006: 692.

Material examined. INDIA: **Karnataka**: Devrayanadurga, 14.ii.2017, 4 ♀ & 3 ♂, Coll. Sandesh Gawas; Hesarhatta, 15.v.2013, 1 ♀, Coll. Viyolla; Coorg, Chettahalli, 06.x.2007, 1 ♀, Coll. Yadava Babu; Kundapur, 08.ii.2006, 1 ♀, Coll. Naveen Kumar.

Distribution. India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Odisha, Puducherry, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bangladesh; Bhutan; Cambo-

dia; China (including Taiwan); Indonesia; Laos; Malaysia; Marianas; Myanmar; Nepal; New Britain; Pakistan; Palau; Seychelles; Thailand; Vietnam. (Gusenleitner 2006, Gusenleitner 2011, Girish Kumar & Sharma 2013, Srinivasan & Girish Kumar 2013, Girish Kumar & Sharma 2014b, Girish Kumar & Sharma 2015b, Pham & Li 2015, Pannure *et al.* 2016, Rafi *et al.* 2017, Nidup *et al.* 2018, Gawas *et al.* 2019).

158) *Rhynchium carnaticum* (Fabricius, 1798)

Vespa carnatica Fabricius, 1798: 261. Type data: Syntype, UZMC. Type locality: “Tranquebariae”.

Rhynchium carnaticum; de Saussure, 1852: 112.

Rhynchium brunneum var. *carnaticum*; de Saussure, 1855: 172.

Rhynchium haemorrhoidale var. *carnaticum*; Maindron, 1882: 277.

Odynerus haemorrhoidalis carnaticus; Dover, 1925: 298.

Rhynchium carnaticum; Gusenleitner, 2006: 692.

Material examined. INDIA: **Karnataka:** Bangalore, GKV, 930 m, 7.x.2012, 1♀; 14.iii.2013, 1♂, 1.ii.2014, 2♀, coll. A. Pannure.

Distribution. India: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Meghalaya, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, West Bengal. *Elsewhere:* Indonesia; Pakistan; Sri Lanka. (Gusenleitner 2006, Girish Kumar & Sharma 2013, 2014a & 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Sheikh *et al.* 2017, Girish Kumar *et al.* 2019b).

159) *Rhynchium haemorrhoidale* (Fabricius, 1775)

a) *Rhynchium haemorrhoidale andamanicum* Girish Kumar & Sharma, 2013

Rhynchium haemorrhoidale andamanicum Girish Kumar & Sharma, 2013: 114. Type data: Holotype female, NZC.

Type locality: Delanipur, Port Blair, South Andaman, Andaman & Nicobar Islands, India.

Distribution. India: Andaman & Nicobar Islands. (Girish Kumar & Sharma 2013).

b) *Rhynchium haemorrhoidale haemorrhoidale* (Fabricius, 1775)

Vespa haemorrhoidalis Fabricius 1775: 366. Type data: Male, BMNH. Type locality: “ad Cap.b.Spei”.

Odynerus dimidiatus Guérin, 1834: 503.

Rhynchium haemorrhoidale; de Saussure, 1852: 109.

Odynerus haemorrhoidalis; Bequaert, 1918: 300.

Rhynchium haemorrhoidale; Bingham, 1897: 353 (key), 354.

Distribution. India: Andaman & Nicobar Islands, Karnataka, Tamil Nadu, West Bengal. *Elsewhere:* Cambodia; Indonesia; Malaysia; Myanmar; Singapore; Sri Lanka; Thailand; Vietnam. (Girish Kumar & Sharma 2013 & 2014b, Pham & Li 2015, Pham & Girish Kumar 2016).

160) *Rhynchium oculatum leviscutis* (Cameron, 1908)

Odynerus leviscutis Cameron, 1908a: 306. Type data: Male, BMNH. Type locality: “Bombay”.

Rhynchium levisticus; Meade-Waldo & Morley, 1914: 405.

Odynerus “oculatum var. lefebvrei Lep.”; Dover, 1925: 297.

Odynerus oculatus levisticus; Giordani Soika, 1941: 262.

Rhynchium oculatum levisticus; Giordani Soika, 1952c: 49.

Distribution. India: Delhi, Karnataka, Maharashtra, Rajasthan. *Elsewhere:* Afghanistan. (Gusenleitner 1973, Girish Kumar & Sharma 2013 & 2014a, Pannure *et al.* 2016).

Genus *Stenancistrocerus* de Saussure, 1863

Stenancistrocerus Saussure, 1863: 216. Type species: *Odynerus atropos* Lepeletier, 1841.

Atropancistrocerus Blüthgen, 1938c: 442, 444, 461. Type species: *Odynerus (Ancistrocerus) hispanicus* Dusmet, 1903.

161) *Stenancistrocerus (Paratropancistrocerus) punjabensis* (Nurse, 1902)

Odynerus punjabensis Nurse, 1902: 91. Type data: Male, BMNH. Type locality: Firozpur, Punjab, India.

Ancistrocerus punjabensis; Giordani Soika, 1941: 243.

Stenancistrocerus punjabensis; Gusenleitner, 1988a: 112.

Distribution. India: Punjab. (Nurse 1902).

Genus *Stenodyneriellus* Giordani Soika, 1962

Stenodyneriellus Giordani Soika, 1962 (1961): 65, 71. Type species: *Stenodyneriellus turneriellus* Giordani Soika, 1962.

162) *Stenodyneriellus andamanicus* Girish Kumar, Carpenter & Srinivasan, 2017

Stenodyneriellus andamanicus Girish Kumar, Carpenter & Srinivasan, 2017: 165. Holotype female, NZC. Type locality: Rangat, Middle Andaman, Andaman & Nicobar Islands, India.

Distribution. India: Andaman Islands. (Girish Kumar *et al.* 2017d).

163) *Stenodyneriellus guttulatus* (de Saussure, 1862)

Odynerus guttulatus de Saussure, 1862: 200. Type data: Female, RMNH. Type locality: “Sumatra” (Indonesia).

Odynerus multipictus; Gribodo, 1892(1891): 297.

Ancistrocerus megaspilus Cameron, 1907a: 85. Type data: Female, BMNH. Type locality: “Kuching”

Odynerus santabongensis Cameron, 1908c: 562. Type data: Male, BMNH. Type locality: “Santabong”

Odynerus megaspilus; Meade-Waldo, 1914: 405.

Odynerus fraternus; Schulthess, 1927: 81.

Odynerus guttulatus var. *heterospilus*; van der Vecht, 1937: 286.

Odynerus guttulatus var. *nigradorsus*; van der Vecht, 1937: 287.

Hylodynerus guttulatus; Gusenleitner, 1988b: 180.

Stenodyneriellus guttulatus; Giordani Soika, 1991: 164.

Distribution. India: Assam, Meghalaya, Sikkim. *Elsewhere*: China; Indonesia; Malaysia; Myanmar; Singapore; Thailand; Vietnam. (Gusenleitner 2006, Girish Kumar *et al.* 2017d, Tan *et al.* 2018, Nguyen *et al.* 2019a).

164) *Stenodyneriellus praeclusus* (Nurse, 1903)

Odynerus praeclusus Nurse, 1903: 532. Type data: Lectotype female, BMNH. Type locality: “Mount Abu” (Rajasthan, India).

Distribution. India: Goa, Rajasthan. (Girish Kumar & Sharma 2014a, Girish Kumar *et al.* 2017d, Gawas *et al.* 2019).

165) *Stenodyneriellus sequestratus* (Nurse, 1903)

Odynerus sequestratus Nurse, 1903: 534. Type data: Female, male, BMNH. Type locality: “Deesa”.

Stenodyneriellus sequestratus; Giordani Soika, 1994: 50 (key), 57.

Distribution. India: Gujarat, Maharashtra. (Girish Kumar *et al.* 2017d).

166) *Stenodyneriellus wickwari* (Meade-Waldo, 1911)

Odynerus wickwari Meade-Waldo, 1911b: 155. Type data: Female, Male, BMNH. Type locality: “Ceylon” (Sri Lanka).

“*Odynerus*” *quadrinotatus* Giordani Soika, 1986b: 77.

Stenodyneriellus wickwari; Giordani Soika, 1994: 55(key), 88.

Stenodyneriellus tricoloratus Gusenleitner, 1996: 39, 46. Type data: Holotype male, UMHU. Type locality: Poondi nr. Madras, Tamil Nadu, India.

Stenodyneriellus indicus Gusenleitner, 1997: 97.

Material examined. INDIA: **Karnataka**: Bangalore, GKV, 930 m, 13°04' N 77°34' E, 14.vi.2013, 1♀; 25.viii.2014, 1♂, coll. A. Pannure.

Distribution. India: Karnataka, Kerala, Puducherry, Tamil Nadu. *Elsewhere*: Sri Lanka. (Gusenleitner 2006, Pannure *et al.* 2016, Girish Kumar *et al.* 2017d).

Genus *Stenodynerus* de Saussure, 1863

Stenodynerus de Saussure, 1863: 228. Type species: *Odynerus chinensis* de Saussure, 1863.

Nannodynerus Blüthgen, 1938a (1937): 281. Type species: *Lionotus teutonicus* Blüthgen, 1937.

Parhyphodynerus Giordani Soika, 1973b: 110. Type species: *Odynerus pavidus* Kohl, 1905.

167) *Stenodynerus indicus* Gusenleitner, 2006

Stenodynerus indicus Gusenleitner, 2006: 688. Type data: Female, OLM. Type locality: Dandeli, Karnataka, India.

Distribution. India: Karnataka. (Gusenleitner 2006, Pannure *et al.* 2016).

168) *Stenodynerus nepalensis* Giordani Soika, 1985

Stenodynerus nepalensis Giordani Soika, 1985: 37, 40. Type data: female, BMNH. Type locality: “NEPAL: Tapleijung Distr., tra Sangu e Tamram, c. 6200 ft”.

Distribution. India: Meghalaya, Uttarakhand, West Bengal. *Elsewhere*: China; Nepal; Thailand. (Giordani Soika 1994, Gusenleitner 2006, Ma *et al.* 2016).

Genus *Subancistrocerus* de Saussure, 1855

Subancistrocerus de Saussure 1855: 206. Type species: *Odynerus sichelii* de Saussure, 1855.

Epacistrocerus de Saussure, 1856: 352. Type species: *Odynerus sichelii* de Saussure, 1855.

169) *Subancistrocerus camicus* (Cameron, 1904)

Odynerus camicus Cameron, 1904a: 259. Type data: Male, BMNH. Type locality: Darjeeling, West Bengal, India.

Ancistrocerus camicus; Giordani Soika, 1941: 241.

Subancistrocerus camicus; Gusenleitner, 2006: 689.

Subancistrocerus obscuripennis Gusenleitner, 2007: 263.

Distribution. India: Assam, Kerala, Manipur, Sikkim, West Bengal. *Elsewhere*: China; Laos; Malaysia; Myanmar; Nepal; Thailand. (Gusenleitner 2006, Gusenleitner 2011, Girish Kumar 2013a, Pannure *et al.* 2016).

170) *Subancistrocerus reflexus* Giordani Soika, 1993

Subancistrocerus reflexus Giordani Soika, 1993a: 20. Type data: Holotype male, RMNH. Type locality: Odisha.

Distribution. India: Odisha. *Elsewhere*: Thailand. (Giordani Soika 1993a & 1994).

171) *Subancistrocerus sichelii* (de Saussure, 1856)

Odynerus sichelii de Saussure, 1855: 206. Type data: Male, MNHN. Type locality: “Indes Orientales”.

Odynerus intendens Walker, 1860: 304. Type data: Male, BMNH. Type locality: Ceylon (Sri Lanka).

Ancistrocerus intendens; Motschoulsky, 1863: 23.

Ancistrocerus sichelii; Giordani Soika, 1941: 242.

Subancistrocerus sichelii; Iwata, 1965: 105.

Subancistrocerus tristis Giordani Soika, 1991: 50.

Material examined. INDIA: **Karnataka**: Bangalore, GKVK, 7.vii. 2012, 1♀, coll. A. Pannure; 4.viii.2011, 1♀, coll. H.M.Yeshwanth. **Kerala**: Kannur, Madayipara, 38 m, 12° 01'N 75° 15' E, 13.viii.2015, 1♀, coll. C. Prashantha.

Distribution. India: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Goa, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Odisha, Puducherry, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bangladesh; Cambodia; Chagos Archipelago; China (including Taiwan); Malaysia; Mauritius; Myanmar; Nepal; Seychelles; Singapore; Sri Lanka; Thailand; Vietnam. (Gusenleitner 2006, Girish Kumar 2013a, Girish Kumar & Sharma 2014b, Nguyen *et al.* 2014, Pham & Li 2015, Pannure *et al.* 2016, Gawas *et al.* 2019).

172) *Subancistrocerus venkataramani* Girish Kumar, 2013

Subancistrocerus venkataramani Girish Kumar, 2013: 65-67. Type data: Holotype female, NZC. Type locality: Parasnath Hills, Giridih district, Jharkhand.

Distribution. India: Jharkhand. (Girish Kumar 2013a).

Genus *Symmorphus* Wesmael, 1836

Symmorphus Wesmael, 1836: 45. Type species: *Odynerus elegans* Wesmael, 1833.

Protodynerus de Saussure, 1855: 186. Type species: *Odynerus elegans* Wesmael, 1833.

Koptodynerus Blüthgen, 1943b: 152. Type species: *Symmorphus declivis* Harttig, 1932.

173) *Symmorphus* (*Parasymmorphus*) *parvilineatus* (Cameron, 1904)

Eumenes parvilineata Cameron, 1904c: 12. Type data: Holotype female, BMNH. Type locality: Sikkim, India.

Nortonia parvilineata; Bequaert, 1928: 160.

Pseudonortonia parvilineata Giordani Soika, 1941: 244, fig. 21 (3).

Symmorphus parvilineatus; Cumming and van der Vecht, 1986: 24.

Distribution. India: Meghalaya, Sikkim. *Elsewhere*: Laos. (Girish Kumar *et al.* 2018b).

174) *Symmorphus* (*Symmorphus*) *alkimus alkimus* Cumming & van der Vecht, 1986

Symmorphus alkimus alkimus Cumming and van der Vecht, 1986: 28. Type data: Holotype female, USNM. Type locality: Udawattakele, Kandy, Sri Lanka.

Distribution. India: Kerala. *Elsewhere*: Sri Lanka. (Girish Kumar *et al.* 2018b).

175) *Symmorphus* (*Symmorphus*) *ambotretus* Cumming, 1989

Symmorphus ambotretus Cumming 1989: 28. Type data: Holotype female, USNM. Type locality: Mt. Omei, Szechuen, China.

Distribution. India: Jammu & Kashmir. *Elsewhere*: China; Korea; Nepal. (Girish Kumar *et al.* 2018b).

176) *Symmorphus* (*Symmorphus*) *crassicornis* (Panzer, 1798)

Vespa crassicornis Panzer, 1798: pl. 8. Type data: (female), (destroyed; neotype USNM). Type locality “Austria”.

Odynerus arcticus de Saussure, 1855: 187 (key), 189.

Odynerus herrichianus de Saussure, 1855: 187 (key), 191.

Odynerus nursei Bingham, 1898: 122, pl. A fig. 9.

Odynerus hospes Nurse, 1902: 90.

Odynerus hospitans Dalla Torre, 1904: 47.

Odynerus crassicornis; Berland, 1928: 19 (key), 22, fig. 16, 27, 29, 31, 34.

Odynerus crassicornis var. *baltica* Blüthgen, 1937: 39.

Odynerus arcticus var. *baltica*; Blüthgen, 1961: 184-185 (key).

Odynerus crassicornis arcticus, Blüthgen, 1961: 186 (key).

Symmorphus crassicornis; Giordani Soika, 1970: 133.

Symmorphus crassicornis crassicornis; Tormos *et al.* 1997: 26

Distribution. India: Himachal Pradesh. *Elsewhere*: Austria; Belarus; Belgium; Bosnia and Herzegovina; Bulgaria; China; Croatia; Czech Republic; Denmark; England; Finland; France; Germany; Greece; Hungary; Iran; Ireland; Italy; Kazakhstan; Kyrgyzstan; Lithuania; Luxembourg; Mongolia; Netherlands; Pakistan; Poland; Russia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Tajikistan; Turkey. (Cumming 1989, Rafi *et al.* 2017, Fateryga 2018, Girish Kumar *et al.* 2018b).

177) *Symmorphus* (*Symmorphus*) *gracilis* (Brullé, 1832)

Odynerus gracilis Brullé, 1832: 362, pl. 50 fig. 3. Type data: Lectotype male, MNHN. Type locality: “forêt de Koubeh”.

Odynerus elegans Wesmael, 1833: 43.

? *Odynerus elegans* Herrich-Schaeffer, 1838: 17.

Symmorphus elegans; Herrich-Schaeffer, 1841: 13.

Symmorphus elegans libanicus Giordani Soika, 1963, Boll. Soc. Entomol. Ital. 93: 122.

Symmorphus gracilis; Giordani Soika, 1970: 133.

Symmorphus gracilis libanicus; van der Vecht and Fischer, 1972: 121 (cat.).

Distribution. India: Jammu & Kashmir. *Elsewhere*: Albania; Armenia; Austria; Belarus; Belgium; Bulgaria; Czech Republic; Denmark; England; France; Germany; Greece; Hungary; Iran; Italy; Jordan; Kazakhstan; Lebanon; Lithuania; Luxembourg; Macedonia; Montenegro; Netherlands; Poland; Portugal; Romania; Scotland; Slovakia; Spain; Sweden; Switzerland; Syria; Turkey; Ukraine; Wales. (Cumming 1989, Girish Kumar *et al.* 2018b).

178) *Symmorphus (Symmorphus) incisus* Selis, 2018

Symmorphus (Symmorphus) incisus Selis 2018: 456. Type data: Holotype female, MSNV. Type locality: Chumtang, Sikkim, India.

Distribution. India: Sikkim. (Selis 2018).

179) *Symmorphus (Symmorphus) nipteroides* Cumming, 1989

Symmorphus nipteroides Cumming 1989: 76. Type data: Holotype female, OLM. Type locality: Jammu & Kashmir, India.

Distribution. India: Jammu & Kashmir. (Cumming 1989, Girish Kumar *et al.* 2018b).

180) *Symmorphus (Symmorphus) tukvarensis* (Meade-Waldo, 1910)

Odynerus tukvarensis Meade-Waldo, 1910b: 102. Type data: Holotype female, BMNH. Type locality: Tukvar, Sikkim, India.

Symmorphus tukvarensis Giordani Soika, 1966: 104.

Distribution. India: Himachal Pradesh, Sikkim. (Cumming 1989, Girish Kumar *et al.* 2018b).

181) *Symmorphus (Symmorphus) violaceipennis* Giordani Soika, 1966

Symmorphus violaceipennis Giordani Soika, 1966: 102. Type data: Holotype female, ZMB. Type locality: Lachen-Chungtang, Sikkim, India.

Distribution. India: Sikkim. *Elsewhere*: China; Nepal. (Cumming 1989, Girish Kumar *et al.* 2018b).

Genus *Tropidodynerus* Blüthgen, 1939

Tropidodynerus Blüthgen, 1939: 259, 260. Type species: “*Hoplomerus interruptus* (Brullé, 1832) = *H. mandibularis* Morawitz, 1885” [= *Polistes interrupta* Brullé, 1832].

182) *Tropidodynerus (Tropidepipona) fraternus* (Bingham, 1897)

Odynerus fraternus Bingham, 1897: 362 (key), 366. Type data: Male, BMNH. Type locality: Tenasserim, Myanmar.

Tropidodynerus fraternus: Giordani Soika, 1994: 7 (key), 10.

Distribution. India: Arunachal Pradesh, Uttarakhand. *Elsewhere*: Myanmar; Thailand. (Girish Kumar *et al.* 2013d, Girish Kumar & Sureshan 2019b).

183) *Tropidodynerus (Tropidepipona) hostis* (Nurse, 1903)

Odynerus hostis Nurse, 1903: 533. Type data: Female, Male, BMNH. Type locality: “Mt. Abu” (Rajasthan, India).

Pterochilus hostis: Giordani Soika, 1941, 267.

Tropidodynerus hostis: Giordani Soika, 1994: 7.

Distribution. India: Delhi, Jammu & Kashmir, Madhya Pradesh, Rajasthan. (Girish Kumar *et al.* 2013d, Girish Kumar & Sharma 2014a).

Genus *Xenorhynchium* van der Vecht, 1963

Xenorhynchium van der Vecht, 1963: 111. Type species: *Vespa nitidula* Fabricius, 1798.

184) *Xenorhynchium nitidulum* (Fabricius, 1798)

Vespa nitidula Fabricius, 1798: 262. Type data: Syntype, ZMUK. Type locality: India Orientalis.

Rygchium nitidulum; de Saussure, 1852: 105, pl. 14 fig. 6.

Odynerus nitidulum; Dover and Rao, 1922: 239.

Xenorhynchium nitidulum; van der Vecht, 1963: 112, figs. 7d, 8h, 8i.

Material examined: INDIA: **Karnataka:** Sangam, 8.viii.2018, 1 ♂, Coll. Sandesh Gawas; Sangam, 6.ix.2018, 1 ♀ & 1 ♂, Coll. Sandesh Gawas; Yelahanka Bengaluru, 6.xii.2018, 1 ♂, Coll. Sandesh Gawas. **Odisha:** Nayagarh KVK, 28.i.2017, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Pondicherry, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Bangladesh; Myanmar; Pakistan. (Gusenleitner 2006, Girish Kumar & Sharma 2014a, 2014b & 2015b, Pannure *et al.* 2016, Rafi *et al.* 2017, Gawas *et al.* 2019).

Tribe Zethini

Genus *Calligaster* de Saussure, 1852

Calligaster de Saussure, 1852: 22. Type species: *Calligaster cyanoptera* de Saussure, 1852.

185) *Calligaster himalayensis* (Cameron, 1904)

Zethus himalayensis Cameron, 1904c: 13. Type data: Female, BMNH. Type locality: Sikkim, India.

Calligaster himalayensis; Bequaert, 1928: 157.

Distribution. India: Sikkim. *Elsewhere:* China; Laos; Vietnam. (Gusenleitner 2011, Nguyen *et al.* 2014, Pannure *et al.* 2018).

Genus *Discoelius* Latreille, 1809

Discoelius Latreille 1809: 140. Type species: *Vespa zonalis* Panzer, 1801.

Tritodiscoelius Dalla Torre, 1904: 18. Type species: *Vespa zonalis* Panzer, 1801.

186) *Discoelius turneri* (Meade-Waldo, 1910)

Calligaster turneri Meade-Waldo 1910a: 35. Type data: Female, BMNH. Type locality: Shillong, Meghalaya, India.

Discoelius turneri; Dover 1925 [1924]: 291.

Discoelius nigerrimus Nguyen, 2016: 593.

Material examined: INDIA: **Uttarakhand,** Uttarkashi district, Jarmola, 15.viii.1991, 2 ♀, Coll. P. Roy & Party, ZSIK Regd. Nos. ZSI/WGRC/IR/INV.13074 & 13075.

Distribution. India: Meghalaya, Sikkim, Uttarakhand (new record). *Elsewhere:* China; Vietnam. (Pannure *et al.* 2018).

187) *Discoelius vasukii* Pannure & Carpenter, 2017

Discoelius vasukii Pannure & Carpenter, 2017: 583-586. Type data: Holotype female, IMUASB. Type locality: Valparai, Coimbatore, Tamil Nadu, India.

Distribution. India: Kerala, Tamil Nadu. (Pannure *et al.* 2018, Girish Kumar *et al.* 2018a).

Genus *Zethus* Fabricius, 1804

Zethus Fabricius 1804: 282. Type species: “*Zethus coeruleopennis* Fab.” [= *Vespa coeruleopennis* Fabricius, 1798].

Didymogastra Perty, 1833: 144. Type species: *Didymogastra fusca* Perty, 1833.

Heros de Saussure, 1856: 115. Type species: *Zethus gigas* Spinola, 1841 [= *Vespa coeruleopennis* Fabricius, 1798].

Wettsteinia Dalla Torre, 1904: 10, 13, pl. 2 fig. 5. Type species: “*Zethus sichelianus* de Saussure” [= *Labus sichelianus* de Saussure, 1875].

Euzethus Dalla Torre, 1904: 14. Type species: *Vespa coeruleopennis* Fabricius, 1798.

Laboides Zavattari, 1912: 65, division of genus *Zethus* Fabricius. Type species: *Labus sichelianus* de Saussure, 1875.

188) *Zethus albopilosus* Giordani Soika, 1995

Zethus albopilosus Giordani Soika, 1995: 91. Type data: Female, NBCL. Type locality: Agumbe Ghat, Shivamoga, Karnataka, India.

Distribution. India: Karnataka. (Giordani Soika 1995, Pannure *et al.* 2016, Pannure *et al.* 2018).

189) *Zethus ceylonicus* de Saussure, 1867

Zethus ceylonicus de Saussure 1867: 5. Type data: Female, MHNG. Type locality: “Ceylon” (Sri Lanka).

Calligaster ceylonensis [!]; Dalla Torre, 1904: 17.

Material examined. INDIA: Uttarakhand, Dehradun, 23.ix.2005, 1 ♀, Coll. S.K. Gupta & Party, ZSIK Regd. No. ZSI/WGRC/IR/INV.13073.

Distribution. India: Karnataka, Kerala, Uttarakhand (new record), West Bengal. *Elsewhere*: Sri Lanka. (Pannure *et al.* 2016, Pannure *et al.* 2018, Girish Kumar *et al.* 2018).

190) *Zethus dolosus* Bingham, 1897

Zethus cyanopterus; Bingham 1890: 244.

Zethus dolosus Bingham, 1897: 332 (key), 333. Type data: Female, BMNH. Type locality: Pegu Hills, Myanmar.

Calligaster dolosa; Dalla Torre, 1904: 17.

Distribution. India: Meghalaya, Sikkim, West Bengal. *Elsewhere*: Bhutan; China; Myanmar; Thailand; Vietnam. (Nguyen *et al.* 2014, Pannure *et al.* 2018).

191) *Zethus indicus* Giordani Soika, 1958

Zethus indicus Giordani Soika, 1960a [1958]: 75, 76. Type data: Female, MNB. Type locality: Sikkim, India.

Distribution. India: Sikkim. *Elsewhere*: Vietnam. (Pannure *et al.* 2018).

192) *Zethus malabaricus* Giordani Soika, 1995

Zethus malabaricus Giordani Soika, 1995: 92. Type data: Male, NBCL. Type locality: Thenmala, Travancore, Kerala, India.

Distribution. India: Kerala. (Giordani Soika 1995, Pannure *et al.* 2016, Pannure *et al.* 2018).

193) *Zethus trimaculatus* Cameron, 1904

Zethus trimaculatus Cameron, 1904: 14. Type data: Female, BMNH. Type locality: Sikkim, India.

Distribution. India: West Bengal. *Elsewhere*: Laos; Vietnam. (Nguyen & Carpenter 2017, Pannure *et al.* 2018).

Subfamily Masarinae

Genus *Quartinia* Ed. André, 1884

Quartinia André', 1884: 811, 822. Type species: *Quartinia dilecta* André'.

Juartinia[!] Cameron, 1904: 89.

Quartiniella Schulthess, 1929: 504, 510. Type species: *Quartiniella waterstoni* Schulthess, 1929.

Quartinoides Richards, 1962: 127, 170. Type species: *Quartinia capensis* Kohl, 1898.

194) *Quartinia indica* Cameron, 1904

Juartinia[!] *indica* Cameron, 1904: 89. Type data: Male, BMNH. Type locality: “Deesa, Western India”.

Quartinia maculifrons Dover, 1925: 290.

Distribution. India: Gujarat. (Carpenter 2001).

Subfamily Polistinae

Tribe Polistini Lepeletier, 1836

Genus *Polistes* Latreille, 1802

Polistes Latreille, 1802: 363. Type species: *Vespa gallica* Linnaeus, 1767.

195) *Polistes (Gyrostoma) gigas* Kirby, 1826

Cyclostoma gigas Kirby, 1826: 36. Type data: Male, ?OUM. Type locality: China.

Polistes orientalis Lepeletier, 1836: 519. Type locality: China.

Polistes gyrostoma de Saussure, 1854: 104. Type locality: India, China.

Polistes confusus Smith, 1857: 102.

Distribution. India: Sikkim. *Elsewhere*: China (including Hong Kong and Taiwan); Vietnam. (Das & Gupta 1989, Carpenter 1996, Jonathan & Kundu 2003, Barthélémy *et al.* 2014, Tan *et al.* 2014b, Pham & Li 2015, Nguyen & Carpenter 2019).

196) *Polistes (Gyrostoma) jokahamae* Radoszkowski, 1887

Polistes jokahamae Radoszkowski, 1887: 435. Type data: Female Lectotype, ISEZ. Type locality: “Jokahama”, Honshu, Japan.

Polistes japonicus Cameron, 1900: 417. Type data: Female lectotype, OUM.

Polistes jadwigae de Dalla Torre, 1904: 70.

Polistes perkinsii Kohl, 1908: 313.

Distribution. India: *Elsewhere*: China; Japan; Korea; Malaysia; Mongolia; Society Islands: Bora, Tahiti; Tuamotu Archipelago; introduced into Hawaii; Vietnam. (Barthélémy *et al.* 2014, Tan *et al.* 2014b).

197) *Polistes (Gyrostoma) olivaceus* (De Geer, 1773)

Vespa olivacea DeGeer, 1773: 582. Type locality: America.

Vespa hebraea Fabricius, 1787: 292. Type data: Female, UZMC. Type locality: India.

Vespa undata Olivier, 1792: 684. Type locality “Indes orientales”.

Vespa macaensis Fabricius, 1793: 259. Type data: Female, UZMC. Type locality: Macao, China.

Material examined. INDIA: **Karnataka:** Kanakpura, 12.viii.2015, 1 ♀, Coll. Umeshkumar; Doddaballapur, 14.vii.2016, 1 ♀, Coll. Mallesh. **Odisha:** CIFA Bhubaneshwar, 30.i.2017, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Odisha, Rajasthan, Sikkim, Telangana, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Afghanistan; Amirantes; Australia (introduced); Bangladesh; Bhutan; Cambodia; Chagos Archipelago; Chile, Easter Is. (introduced); China (including Hong Kong and Taiwan); Egypt; Fiji; French Polynesia; Hawaii; Indonesia; Iran; Japan; Laos; Madagascar; Malaysia; Marianas; Mauritius; Myanmar; Nepal; New Caledonia; New Zealand (introduced); Oman; Pakistan; Philippines; Réunion; Samoa; Seychelles; Singapore; Society Is.; Sri Lanka; Tanzania; Thailand; Tonga; U.S.A. (introduced); Vietnam. (Yamane & Yamane 1979, Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Girish Kumar 2010, Kundu *et al.* 2010, Nugroho *et al.* 2012, Barthélémy *et al.* 2014, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Tan *et al.* 2014b, Girish Kumar & Sharma 2015b, Pham & Li 2015, Dorji *et al.* 2016, Rafi *et al.* 2017, Girish Kumar & Sureshan 2019b, Girish Kumar *et al.* 2019b, Nguyen & Carpenter 2019).

198) *Polistes (Gyrostoma) rothneyi* Cameron, 1900

a) *Polistes (Gyrostoma) rothneyi carletoni* van der Vecht, 1968

Polistes (Megapolistes) rothneyi carletoni van der Vecht, 1968: 99, 100. Type data: Female, USNM. Type locality: Kullu, Himachal Pradesh, India.

Material examined. INDIA: Arunachal Pradesh, Pasighat, xi.2014, 1 ♀, Coll. Naveenkumar.

Distribution. India: Arunachal Pradesh (new record), Assam, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh. *Elsewhere*: Nepal; Pakistan. (Das & Gupta 1989, Carpenter 1996, Gusenleitner 2006, Kundu *et al.* 2010, Rafi *et al.* 2017).

b) *Polistes (Gyrostoma) rothneyi krombeini* van der Vecht, 1968

Polistes (Megapolistes) rothneyi krombeini van der Vecht, 1968: 100. Type data: Female, MCZ. Type locality: Coimbatore, Tamil Nadu, India.

Distribution. India: Chhattisgarh, Karnataka, Kerala, Meghalaya, Tamil Nadu, Uttarakhand. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a, Gusenleitner 2006, Kundu *et al.* 2010, Girish Kumar & Sharma 2015b).

c) *Polistes (Gyrostoma) rothneyi rothneyi* Cameron, 1900

Polistes rothneyi Cameron, 1900: 410. Type data: Male, OUM. Type locality: Barrackpore, West Bengal, India.

Polistes rufolineatus Cameron, 1900: 411. Type data: Female, male, OUM. Type locality: India.

Polistes yayeyamae Matsumura, 1911: 106. Type data: Female, male, UMHU. Type locality: Okinawa.

Polistes rothneyi sikkimensis van der Vecht, 1968: 102.

Polistes rothneyi tibetanus van der Vecht, 1968: 102.

Polistes rothneyi koreanus van der Vecht, 1968: 104.

Polistes rothneyi grahami van der Vecht, 1968: 104.

Polistes rothneyi iwatai van der Vecht, 1968: 104.

Polistes rothneyi hainanensis van der Vecht, 1968: 106.

Polistes rothneyi gressitti van der Vecht, 1968: 106.

Distribution. India: Delhi, Meghalaya, Uttarakhand, Sikkim, West Bengal. *Elsewhere*: Nepal. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000a, Gusenleitner 2006, Kundu *et al.* 2010).

d) *Polistes (Gyrostoma) rothneyi vechti* Das and Gupta, 1989

Polistes rothneyi vechti Das and Gupta, 1984: 410. Type data: Holotype female. Type locality: Manipur, India.

Polistes (Megapolistes) rothneyi vechti Das & Gupta, 1989: 58, 59.

Distribution. India: Manipur. *Elsewhere*: Myanmar. (Das & Gupta 1989, Carpenter 1996).

199) *Polistes (Gyrostoma) tenebricosus* Lepeletier, 1836

Polistes tenebricosus Lepeletier 1836: 529. Type locality: Java, Indonesia.

Polistes sulcatus Smith, 1852a: 38. Type data: Female, male BMNH. Type locality: Ningpo, China.

Polistes hoplitus de Saussure, 1853: 55. Type data: Female, MHNG. Type locality: Indes Orientales.

Polistes hoplites de Saussure, 1854: 255.

Polistes rugifrons Cameron, 1900: 412. Type data: Female, OUM. Type locality: Khasia Hills, Meghalaya, India.

Polistes varicornis Cameron, 1905: 67. Type data: Male, ZMA. Type locality: Java, Indonesia.

Polistes javanicus Cameron, 1905: 68. Type data: Lectotype female, ZMA. Type locality: Tjandi near Semarang, Java, Indonesia.

Polistes tenebricosus var. *leopoldi* Bequaert, 1934: 9. Type data: Female, IRSNB. Type locality: Negros, Philippines.

Polistes tenebricosus var. *sibuyanensis* Bequaert, 1940: 266. Type data: Female, MCZ. Type locality: Sibuyan, Philippines.

Distribution. India: Arunachal Pradesh, Assam, Jammu & Kashmir, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bhutan; China (including Taiwan); Indonesia; Nepal; Philippines; Vietnam. (Yamane & Yamane 1979, Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan &

Kundu 2003, Kundu *et al.* 2006, Girish Kumar 2010, Kundu *et al.* 2010, Nugroho *et al.* 2012, Tan *et al.* 2014b, Pham & Li 2015, Dorji *et al.* 2016, Nguyen & Carpenter 2019).

200) *Polistes (Gyrostoma) wattii* Cameron, 1900

Polistes wattii Cameron, 1900: 416. Type data: Female, BMNH. Type locality: Bengal, India.

Material examined. INDIA: **Rajasthan:** MPUAT Udaipur, 21.xi.2015, 1 ♀, Coll. Sandesh & Umeshkumar; Bikaner, 4.x.2018, 1 ♀ & 1 ♂, Coll. Paresh Churi. **Himachal Pradesh:** Bajaura Kullu, 24.x.2017, 2 ♀, Coll. Ankita & Omprakash.

Distribution. India: Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Meghalaya, Odisha, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Afghanistan; China; India; Iran; Iraq; Mauritius; Oman; Pakistan; Saudi Arabia; Tajikistan; Turkmenistan; U.A.E. (Das & Gupta 1989, Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000a, Girish Kumar 2010, Kundu *et al.* 2010, Girish Kumar & Sharma 2014a, Tan *et al.* 2014b, Girish Kumar & Sharma 2015b, Rafi *et al.* 2017, Sheikh *et al.* 2017).

201) *Polistes (Polistella) adustus* Bingham, 1897

Polistes adustus Bingham, 1897: 397. Type data: Holotype female, BMNH. Type locality: Sikkim, India.

Material examined. INDIA: **Himachal Pradesh:** CPRI Shimla, 19.v.2016, 2 ♀, Coll. Sandesh & Umeshkumar.

Distribution. India: Delhi, Himachal Pradesh, Jammu & Kashmir, Meghalaya, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; China; Nepal. (Yamane & Yamane 1979, Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 1996 & 2000a, Gupta 1997, Jonathan & Kundu 2003, Guenleitner 2006, Kundu *et al.* 2010, Nguyen *et al.* 2011, Dorji *et al.* 2016).

202) *Polistes (Polistella) angusticlypeus* Gusenleitner, 2006

Polistes (Polistella) angusticlypeus Gusenleitner, 2006: 680. Type data: Holotype male, OLM. Type locality: Shillong, Meghalaya, India.

Distribution. India: Meghalaya. (Gusenleitner 2006).

203) *Polistes (Polistella) assamensis* Bingham, 1897

Polistes assamensis Bingham, 1897: 397. Type data: Female, BMNH. Type locality: Margherita, Assam, India.

Distribution. India: Assam, Sikkim. (Das & Gupta 1989, Carpenter 1996, Jonathan & Kundu 2003).

204) *Polistes (Polistella) dawnae* Dover & Rao, 1922

Polistes dawnae Dover & Rao, 1922: 248. Type data: Female, NZC. Type locality: Dawna Hills, Myanmar.

Material examined. INDIA: **Nagaland:** Medziphema, 03.iii.2015, 4 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Nagaland (new record). *Elsewhere:* Laos; Myanmar; Vietnam. (Das & Gupta 1989, Nguyen *et al.* 2011, Pham & Li 2015, Gawas & Gupta 2017).

205) *Polistes (Polistella) delhiensis* Das & Gupta, 1989

Polistes (Stenopolistes) delhiensis Das & Gupta, 1984: 410, nomen nudum.

Polistes (Stenopolistes) delhiensis Das & Gupta, 1989: 63. Type data: Holotype female, NZC. Type locality: Delhi, India.

Distribution. India: Delhi. *Elsewhere:* Vietnam. (Das & Gupta 1989, Carpenter 1996, Gupta 1997, Nguyen & Carpenter 2016).

206) *Polistes (Polistella) ephippium* Cameron, 1900

Polistes ephippium Cameron, 1900: 415. Type data: Female, BMNH. Type locality: Khasi Hills, Meghalaya, India.

Distribution. India: Meghalaya. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a, Gusenleitner 2006).

207) *Polistes (Polistella) khasianus* Cameron, 1900

Polistes khasianus Cameron, 1900: 413. Type data: Holotype female, OUM. Type locality: Khasia Hills, Megha-

laya, India.

Distribution. India: Haryana, Meghalaya, Sikkim, West Bengal. *Elsewhere:* Vietnam. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a, Gusenleitner 2006, Pham & Li 2015, Nguyen & Carpenter 2016).

208) *Polistes (Polistella) latinis* Das & Gupta, 1989

Polistes (Polistella) latinis Das & Gupta, 1989: 79. Type data: Holotype female, NZC. Type locality: South Andamans, Andaman & Nicobar Islands, India.

Distribution. India: Andaman & Nicobar Islands. (Das & Gupta 1989, Carpenter 1996).

209) *Polistes (Polistella) lepcha* Cameron, 1900

Polistes khasianus Cameron, 1900: 415. Type data: Female, BMNH & OUM. Type locality: Khasi Hills, Meghalaya, India.

Polistes lepcha Cameron, 1900: 506.

Distribution. India: Haryana, Manipur, Meghalaya. *Elsewhere:* Laos; Vietnam. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a, Gusenleitner 2011, Nguyen *et al.* 2011, Pham & Li 2015).

210) *Polistes (Polistella) nigratarsis* Cameron, 1900

Polistes nigratarsis Cameron, 1900: 413. Type data: Male, OUM. Type locality: Barrackpore, West Bengal, India.

Material examined. INDIA: **Karnataka:** Agumbe, 29.v.2014, 1 ♀ & 1 ♂, Coll. Umesh.

Distribution. India: Arunachal Pradesh, Goa, Karnataka, Kerala, Meghalaya, TamilNadu, West Bengal. *Elsewhere:* Bhutan; Vietnam. (Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Gusenleitner 2006, Pham & Li 2015, Nguyen & Carpenter 2016, Dorji *et al.* 2017a, Gawas *et al.* 2019, Girish Kumar & Sureshan 2019b).

211) *Polistes (Polistella) opacus* Gusenleitner, 2006

Polistes (Polistella) opacus Gusenleitner, 2006: 681. Type data: Holotype female, OLM. Type locality: Pakyong, Sikkim, India.

Distribution. India: Sikkim, West Bengal. *Elsewhere:* Laos. (Gusenleitner 2006, Gusenleitner 2011, Nguyen *et al.* 2011).

212) *Polistes (Polistella) quadricingulatus* Gusenleitner, 2006

Polistes (Polistella) quadricingulatus Gusenleitner, 2006: 683. Type data: Holotype female, OLM. Type locality: Bhimtal, Uttarakhand, India.

Distribution. India: Jammu & Kashmir, Uttarakhand. *Elsewhere:* Laos; Nepal; Pakistan. (Gusenleitner 2006, Kundu *et al.* 2010, Gusenleitner 2011, Nguyen *et al.* 2011, Rafi *et al.* 2017).

213) *Polistes (Polistella) rubellus* Gusenleitner, 2006

Polistes (Polistella) rubellus Gusenleitner, 2006: 684. Type data: Holotype female, SMNS. Type locality: Yuksom, Sikkim, India.

Distribution. India: Sikkim. *Elsewhere:* Nepal. (Gusenleitner 2006, Dvořák & Castro 2007, Nguyen *et al.* 2011).

214) *Polistes (Polistella) sagittarius* de Saussure, 1854

Polistes sagittarius Saussure, 1853: 56. Type data: Female, MHNG. Type locality: “Indes Orientales, la Chine”.

Polistes sagittarius var (or subsp.) *indonesicus* Bequaert, 1940: 267. Type data: Female, male, MCZ. Type locality: Bandjar, Java, Indonesia.

Polistes strigosus baliensis Gusenleitner, 2000: 939. Type data: Female, male, OLM. Type locality: Bali, Indonesia.

Material examined. INDIA: **Nagaland:** Malbong, iii.2015, 1 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Assam, Delhi, Himachal Pradesh, Kerala, Manipur, Nagaland, Sikkim, Tripura, Uttarakhand, West Bengal. *Elsewhere:* Bangladesh; China (including Hong Kong); Indonesia; Malaysia; Myanmar; Nepal; Singapore; Thailand; Vietnam. (Carpenter 1996, Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2010, Nugroho *et al.* 2012, Mahmood *et al.* 2012, Barthélémy *et al.* 2014, Pham & Li 2015, Girish Kumar & Sureshan 2019b, Nguyen & Carpenter 2019).

215) *Polistes (Polistella) santoshae* Das & Gupta, 1989

Polistes santoshae Das & Gupta, 1989: 72. Type data: Holotype female, NZC. Type locality: Shillong, Meghalaya, India.

Distribution. India: Meghalaya, Sikkim. *Elsewhere*: Bhutan; Nepal; Vietnam. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Nguyen *et al.* 2011, Pham & Li 2015, Dorji *et al.* 2016).

216) *Polistes (Polistella) similis* Das & Gupta, 1989

Polistes similis Das and Gupta, 1984: 413.

Polistes similis Das and Gupta, 1989: 72. Type data: Holotype female, NZC. Type locality: Shillong, Meghalaya, India.

Distribution. India: Meghalaya. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 2000a).

217) *Polistes (Polistella) stigma* (Fabricius, 1793)

a) *Polistes (Polistella) stigma galathea* Petersen, 1987

Polistes stigma galathea Petersen, 1987: 239. Type data: Female, UZMC. Type locality: Little Nicobar, Andaman & Nicobar Islands, India.

Distribution. India: Nicobar Islands. (Das & Gupta 1989, Carpenter 1996).

b) *Polistes (Polistella) stigma novarae* de Saussure, 1867

Polistes novarae Saussure, 1867: 19. Type data: Females & males, NHMW & MHNG. Type locality: Tillanchang, Andaman & Nicobar Islands, India.

Distribution. India: Nicobar Islands. (Das & Gupta 1989, Carpenter 1996).

c) *Polistes (Polistella) stigma sauiensis* Petersen, 1987

Polistes stigma sauiensis Petersen, 1987: 240. Type data: Female, NHMW. Type locality: Sauí, Car Nicobar, Andaman & Nicobar Islands, India.

Distribution. India: Nicobar Islands. (Das & Gupta 1989, Carpenter 1996).

d) *Polistes (Polistella) stigma tamulus* (Fabricius, 1798)

Vespa tamula Fabricius, 1798: 263. Type data: Female, UZMC. Type locality: “In India Orientali”

Polistes (Polistella) stigma tamula; Das & Gupta, 1984: 414.

Material examined. INDIA: **Himachal Pradesh**: Palampur, 22.x.2017, 1 ♀ & 1 ♂, Coll. Ankita Gupta. **Karnataka**: Basavenahalli Bengaluru, 27.i.2011, 1 ♀, Coll. LakshmiChikmagalur, 17.ii.2006, 8 ♀, Coll. T.H.M. Shivaprakash; 22.iii.2007, 1 ♀, Coll. Naveen Kumar; Hebbal Bengaluru, 24.iv.2006, 1 ♀, Coll. Naveen Kumar; Chikkaballapur, 11.vi.2014, 2 ♀, Coll. S.K. Rajeshwari; GKVK Bengaluru, 01.iii.2013, 1 ♀, Coll. Naveenkumar; Sangam, 18.vii.2018, 9 ♀, Coll. Sandesh Gawas; 8.viii.2018, 4 ♀, Coll. Sandesh Gawas; 6.ix.2018, 1 ♀, Coll. Sandesh Gawas; Yelahanka Bengaluru, 3.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 10.ix.2017, 1 ♀, Coll. Sandesh Gawas; Veterinary College Bengaluru, 17.vi.2017, 1 ♀, Coll. Deepshalini. **Maharashtra**: Chaskaman Dam Pune, 25.xi.2016, 4 ♀, Coll. Umeshkumar; Agriculture College Pune, 19.ii.2017, 1 ♀, Coll. Sandesh Gawas. **Tamil Nadu**: Virudhunagar, 12.ii.2015, 1 ♀, Coll. Ankita Gupta. **Uttarakhand**: Bhimtal, 12.xi.2016, 1 ♂, Coll. Ankita Gupta.

Distribution. India: Bihar, Chhattisgarh, Delhi, Goa, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Puducherry, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Pakistan; Sri Lanka; Vietnam. (Das & Gupta 1989, Carpenter 1996, Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000a, Gusenleitner 2006, Kundu *et al.* 2010, Girish Kumar & Sharma 2014a, 2014b & 2015, Sheikh *et al.* 2017, Nguyen *et al.* 2017, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

218) *Polistes (Polistella) strigosus* Bequaert 1940

a) *Polistes (Polistella) strigosus atratus* Das & Gupta, 1989

Polistes (Polistella) strigosus atratus Das and Gupta, 1989: 81. Type data: Holotype female, NZC. Type locality: Belonia, Tripura, India.

Material examined. INDIA: **Meghalaya:** Umiam Shillong, 21.vi.2019, 1 ♀, Coll. M. Mohan.

Distribution. India: Assam, Bihar, Delhi, Manipur, Meghalaya (new record), Sikkim, Tripura, Uttarakhand, West Bengal. (Das & Gupta 1989, Carpenter 1996, Gupta 1997, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Kundu *et al.* 2010).

b) *Polistes (Polistella) strigosus strigosus* Bequaert, 1940

Polistes strigosus Bequaert, 1940: 269–272. Type data: Holotype female, MCZ. Type locality: Wong-Sa-Shui, China.

Polistes (Polistella) strigosus strigosus; Das & Gupta, 1989: 81.

Distribution. India: Chhattisgarh, Madhya Pradesh, West Bengal. *Elsewhere:* China (including Hong Kong and Taiwan); Laos; Vietnam. (Das & Gupta 1989, Carpenter 1996, Gusenleitner 2011, Lambert *et al.* 2012, Barthélémy *et al.* 2014, Girish Kumar & Sharma 2015b, Nguyen 2016, Sheikh *et al.* 2017, Sheikh *et al.* 2017).

219) *Polistes (Polistes) associus* Kohl, 1898

Polistes associa Kohl, 1898: 89. Type data: NHMW. Type locality: Poros, Greece.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere:* Austria; Azerbaijan; China; Croatia; France; Greece; Hungary; Iran; Italy; Israel; Malta; Pakistan; Russia; Slovakia; southern Europe; Switzerland; Tajikistan; Turkey. (Das & Gupta 1989, Carpenter 1996, Gupta 2008, Rafi *et al.* 2017).

220) *Polistes (Polistes) dominula* (Christ, 1791)

Vespa dominula Christ, 1791: 229. Type data: Female, male, lost. Type locality: “Kronenberg an der Höh”, Germany.

Polistes italic Herrich-Schäffer, 1840:196.

Polistes pectoralis “Meg.” Herrich-Schäffer, 1841:39.

Polistes gallica var. *lefebvrei* Guérin, 1844: 447.

Polistes maculatus Rudow, 1889: 171.

Polistes merceti Dusmet, 1903: 146, 149.

Polistes gallicus var. *rufescens* Buysson, 1912: 79.

Distribution. India: Jammu & Kashmir. *Elsewhere:* Afghanistan; central and southern Europe; China; Cyprus; Germany; Iran; Israel; Jordan; Kazakhstan; Kyrgyzstan; Mongolia; Northern Africa; Pakistan; Russia; Syria; Tajikistan; Turkey; Turkmenistan; introduced into North America, South America, Australia; New Zealand. (Carpenter 1996, Bleidorn *et al.* 2016, Rafi *et al.* 2017, Fateryga 2018).

221) *Polistes (Polistes) indicus* Stolfi, 1934

Polistes indicus Stolfi, 1934: 47. Type data: NZC. Type locality: Pakistan: Punjab: Salt Range: Khewra.

Distribution. India: Uttar Pradesh. *Elsewhere:* Afghanistan; Iran; Iraq; Oman; Pakistan; United Arab Emirates. (Das & Gupta 1989, Carpenter 1996, Girish Kumar & Lambert 2010, Rafi *et al.* 2017).

222) *Polistes (Polistes) nimpha* (Christ, 1791)

Vespa nimpha Christ, 1791: 232. Type data: Female, lost. Type locality: “Kronenberg an der Höh”, Germany.

Vespa diadema Latreille, 1802: 292.

Polistes opinabilis Kohl, 1898: 90.

Polistes nympha (!); Weyrauch, 1939: 145.

Polistes nimpha var. *Moltonii* Guiglia, 1944: 166.

Polistes nimpha irakensis Gusenleitner, 1976: 119.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere:* Azerbaijan; central and southern Europe; China; Germany; Iran; Iraq; Israel; Jordan; Kazakhstan; Kyrgyzstan; Mongolia; Northern Africa; Pakistan; Portugal (Madeiras); Russia; Turkey. (Das & Gupta 1989, Carpenter 1996, Gupta 2008, Bleidorn *et al.* 2016, Rafi *et al.* 2017, Fateryga 2018).

Tribe Ropalidiini Bequaert, 1918

Genus *Belonogaster* de Saussure, 1853

Raphigaster Saussure, 1853: 12. Type species: *Vespa juncea* Fabricius 1781.

223) *Belonogaster indica* (de Saussure, 1853)

Raphigaster indicus Saussure, 1853: 17. Type data: Female, MNHN. Type locality: “Les Indes Orientales”.

Belonogaster indica; Das & Gupta, 1984: 432.

Distribution. India: Maharashtra, Tamil Nadu. (Das & Gupta 1989).

224) *Belonogaster juncea juncea* (Fabricius, 1781)

Vespa juncea Fabricius, 1781: 468. Type data: Female, BMNH. Type locality: Africa Aequinoctiali.

?*Vespa guineensis* Fabricius, 1793: 277.

Vespa cineara Fabricius, 1793: 279.

Belonogaster junceus; Smith, 1857: 93.

Distribution. India: Rajasthan. *Elsewhere*: Africa; Saudi Arabia. (Das & Gupta 1989).

Genus *Parapolybia* de Saussure, 1853

Parapolybia de Saussure 1854: 207. Type species: *Polybia indica* de Saussure, 1854.

225) *Parapolybia fulvinerva* (Cameron, 1900)

Icaria fulvinerva Cameron, 1900: 504. Type data: Lectotype female, OUM. Type locality: Khasia Hills, Meghalaya, India.

Parapolybia indica var. (or subsp.) *fulvinerva*; van der Vecht 1966: 26 (key), 30.

Parapolybia indica fulvinerva; Das & Gupta, 1989: 179.

Parapolybia fulvinerva; Saito-Morooka *et al.* 2015: 222.

Distribution. India: Meghalaya. (van der Vecht 1966, Das & Gupta 1989, Jonathan *et al.* 2000a, Saito-Morooka *et al.* 2015).

226) *Parapolybia indica* (de Saussure, 1854)

Polybia indica de Saussure 1854: 207. Type data: Holotype female, MNHN. Type locality: “La Chine”.

Stelopolybia indica; du Buysson, 1913: 298.

Parapolybia indica; Schulthess, 1913a: 153 & 154.

Parapolybia indica indica; van der Vecht, 1966: 26, 27.

Distribution. India: Arunachal Pradesh, Assam, Meghalaya. *Elsewhere*: China (including Hong Kong and Taiwan); Indonesia; Japan; Korea; Laos; Myanmar; Nepal; Thailand; Vietnam. (van der Vecht 1966, Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Gusenleitner 2011, Barthélémy *et al.* 2014, Pham 2014, Pham & Li 2015, Saito-Morooka *et al.* 2015, Girish Kumar & Sureshan 2019b).

227) *Parapolybia nodosa* van der Vecht, 1966

Parapolybia nodosa van der Vecht, 1966: 39, 40. Type data: Holotype female, RMNH. Type locality: “Pilam, Formosa” (Taiwan).

Distribution. India: Assam, Delhi, Haryana, Meghalaya. *Elsewhere*: Bhutan; China (including Hong Kong and Taiwan); Laos; Myanmar; Nepal; Thailand; Vietnam. (van der Vecht 1966, Yamane & Yamane 1979, Das & Gupta 1989, Gupta 1997, Jonathan *et al.* 2000a, Gusenleitner 2011, Barthélémy *et al.* 2014, Pham 2014, Hatta *et al.* 2015, Nguyen & Kojima 2013, Pham & Li 2015, Dorji *et al.* 2017a).

228) *Parapolybia tinctipennis* (Cameron, 1900)

Icaria tinctipennis Cameron, 1900: 503. Type data: Female, OUM. Type locality: Khasia Hills, Meghalaya, India.

Parapolybia indica tinctipennis; van der Vecht, 1966: 29.

Parapolybia tinctipennis; Saito-Morooka *et al.* 2015: 223.

Distribution. India: Assam, Arunachal Pradesh, Meghalaya. *Elsewhere*: China; Laos; Vietnam. (van der Vecht 1966, Das & Gupta 1989, Jonathan *et al.* 2000a, Kundu *et al.* 2006, Saito-Morooka *et al.* 2015).

229) *Parapolybia varia* (Fabricius, 1787)

Vespa varia Fabricius, 1787: 293. Type data: UZMC. Type locality: China.

Polistes varia; Fabricius, 1804: 279.

Polybia orientalis de Saussure, 1854: 208.

Polybia artifex Smith, 1861: 90.

Icaria quadrimaculata Cameron, 1900: 496.

Icaria carinata Cameron, 1900: 499.

Icaria wroughtoni Cameron, 1900: 500.

Icaria fuscipennis Cameron, 1900: 501.

Icaria cameroni Dalla Torre, 1904: 73.

Icaria singaporensis Cameron, 1904: 120.

Icaria carinifera Schulz, 1906: 328.

Icaria annulipes Cameron, 1913: 115.

Stelopolybia disticha du Buysson, 1913: 298.

Material examined. INDIA: **Mizoram**: ICAR Complex Kolasib, 16-25.iii.2016, 1 ♀, Coll. Umeshkumar & Sandesh.

Distribution. India: Arunachal Pradesh, Assam, Delhi, Himachal Pradesh, Manipur, Meghalaya, Mizoram (new record), Punjab, Sikkim, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Bhutan; China (including Hong Kong and Taiwan); Indonesia; Japan; Korea; Malaysia; Myanmar; Nepal; Philippines; Thailand; Vietnam. (van der Vecht 1966, Das & Gupta 1989, Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Kundu *et al.* 2010, Gusenleitner 2011, Nugroho *et al.* 2012, Nguyen & Kojima 2013, Barthélémy *et al.* 2014, Pham 2014, Pham & Li 2015, Dorji *et al.* 2017a, Girish Kumar & Sureshan 2019b).

Genus *Ropalidia* Guérin-Ménéville, 1831

Ropalidia Guérin-Ménéville, 1831: 9. Type species: *Ropalidia maculiventris* Guérin-Ménéville, 1831.

Anthreneida White, 1841: 321. Type species: *Anthreneida coronata* White, 1841 (= *Vespa sumatrae* Weber, 1801).

Icaria de Saussure, 1853: 22. Type species: "*Icaria maculiventris* (Guer.)" (= *Ropalidia maculiventris* Guérin-Ménéville, 1831).

Paraicaria Gribodo, 1892 (1891): 248. Type species: *Paraicaria bicolor* Gribodo, 1892 (= *Ropalidia bicolorata* van der Vecht, 1962).

Icariastrum Dalla Torre, 1904: 72. Type species: *Icaria opulenta* Smith, 1857.

Icarielia Dalla Torre, 1904: 72. Type species: *Icaria flavopicta* Smith, 1857.

Icariola Dalla Torre, 1904: 72. Type species: *Icaria gregaria* de Saussure, 1853.

Polistratus Cameron, 1906a: 59. Type species: *Polistratus cariniscutis* Cameron, 1906 (= *Icaria brunnea* Smith, 1858).

230) *Ropalidia andamanensis* Das and Gupta, 1989

Ropalidia (*Anthreneida*) *andamanensis* Das and Gupta, 1989: 139. Type data: Holotype female, NZC. Type locality: Port Blair, Andaman & Nicobar Islands, India.

Distribution. India: Andamans. (Das & Gupta 1989, Girish Kumar *et al.* 2017a).

231) *Ropalidia bicolorata* van der Vecht, 1962

Paraicaria bicolor Gribodo, 1892: 249. Type data: Female, MSNG. Type locality: Chan Yoma (Myanmar).

Ropalidia bicolorata bicolorata van der Vecht, 1962: 38, 39.

Ropalidia bicolorata parvula van der Vecht, 1962: 38. Type data: Female, BMNH. Type locality: Bettotan near Sandakan (N. Borneo).

Ropalidia bicolorata shiva Das and Gupta, 1984: 428. Type data: Female, NZC. Type locality: Dharamnagar, Tripura, India.

Distribution. India: Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura. *Elsewhere*: China; Laos; Malaysia;

Myanmar; Thailand; Vietnam. (Jonathan *et al.* 2000b, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Gusenleitner 2011, Nugroho *et al.* 2012, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Girish Kumar *et al.* 2017a).

232) *Ropalidia birmanica* van der Vecht, 1962

Ropalidia taiwana birmanica van der Vecht 1962: 23. Type data: Holotype male, NRM. Type locality: “North East Burma, Sadon” (Myanmar).

Ropalidia birmanica; Kojima *et al.* 2007: 382.

Distribution. India: Mizoram. *Elsewhere*: China; Myanmar; Vietnam. (Kojima *et al.* 2007, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Girish Kumar *et al.* 2016d, Girish Kumar *et al.* 2017a).

233) *Ropalidia brevita* Das & Gupta, 1989

Ropalidia (Antreneida) brevita Das and Gupta, 1989: 110, 121, 163. Type data: Holotype male, NZC. Type locality: Delhi, India.

Material examined. INDIA: **Arunachal Pradesh:** Pasighat, xi.2017, 1 ♀, Coll. Gandhi Gracy. **Gujarat:** AAU Anand, 27.xi.2015, 2 ♂, Coll. Sandesh & Umeshkumar; 10.xii.2018, 1 ♀ & 1 ♂, Coll. Ankita Gupta. **Himachal Pradesh:** IARI Katrain, 22.v.2016, 1 ♀, Coll. Sandesh Gawas; Palampur, 24.x.2017, 1 ♀ & 2 ♂, Coll. Ankita Gupta. **Karnataka:** Nandihills, 17.i.2006, 1 ♀, Coll. Naveenkumar; Sirsi, 20.vi.2016, 1 ♀, Coll. Ashwath; Dharwad, 30.xi.2005, 1 ♀, Coll. Shivaprakash; Hebbal Bengaluru, 29.xi.2010, 1 ♀, Coll. Umeshkumar; Shivamoga, 4.viii.2018, 1 ♂, Coll. Ankita Gupta. **Maharashtra:** Bhimashankar Pune, 27.xi.2016, 10 ♀ & 6 ♂, Coll. Sandesh Gawas; 22.ii.2017, 6 ♀, Coll. Sandesh Gawas. **Odisha:** OUAT Bhubaneswar, 26.i.2017, 5 ♀ & 1 ♂, Coll. Sandesh Gawas; Puri, 30.i.2017, 1 ♀, Coll. Sandesh Gawas. **Rajasthan:** MPUAT Udaipur, 21.xi.2015, 4 ♀, Coll. Sandesh & Umeshkumar. **Uttarakhand:** Bhimtal, 12.xi.2016, 1 ♂, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh (new record), Assam, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: Pakistan. (Jonathan *et al.* 1996, Gupta 1997, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Kojima *et al.* 2007, Kundu *et al.* 2010, Girish Kumar & Sharma 2014a, 2014b & 2015, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

234) *Ropalidia colorata* van der Vecht, 1941

Ropalidia colorata colorata van der Vecht, 1941: 111, 151. Type data: Female, BMNH. Type locality: Peshawar, Pakistan.

Ropalidia colorata var. *sordida* van der Vecht, 1941: 154. Type data: Female, MCZ. Type locality: Kullu, Himachal Pradesh, India.

Ropalidia colorata sordida; Das and Gupta, 1984: 417.

Distribution. India: Himachal Pradesh, Uttarakhand. *Elsewhere*: Pakistan. (Das & Gupta 1989, Kojima *et al.* 2007, Kundu *et al.* 2010, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017).

235) *Ropalidia cyathiformis* (Fabricius, 1804)

Eumenes cyathiformis Fabricius, 1804: 289. Type data: Holotype female, UZMC. Type locality: “Java” (Indonesia).

Icaria ceylonica Cameron, 1898: 48. Type data: Female, OUM. Type locality: “Periyakullam, Ceylon” (Sri Lanka).

Icaria cagayanensis Ashmead, 1905: 3. Type data: Female, USNM. Type locality: “Manila” (Philippines).

Icaria bilineata Cameron, 1905: 72. Type data: Lectotype female, BMNH. Type locality: “Tjandi near Semarang” (Indonesia).

Ropalidia cyathiformis; van der Vecht, 1941: 104, 112, 158.

Ropalidia rodialipa Lambert and Narendran, 2005a: 1922–23. Type data: Holotype male, DZUC. Type locality: Elathur, Kozhikode, Kerala, India.

Ropalidia anupama Lambert and Narendran, 2005b: 270–273. Type data: Holotype female, ZSIK. Type locality: Calicut University Campus.

Material examined. INDIA: **Gujarat:** AAU Anand, 10.xii.2018, 1 ♀, Coll. Ankita Gupta. **Karnataka:** IWS

Bengaluru, 2.viii.2006, 2 ♀, Coll. Naveenkumar; Hebbal Bengaluru, 18.viii.2011, 1 ♀, Coll. Y S Basanth; 2.viii.2013, 2 ♀, Coll. Lakshmi; 10.vi. 2014, 6 ♀, Coll. S K Rajeshwari; 26.vii.2014, 2 ♀, Coll. S K Rajeshwari; 5.ii.2015, 3 ♀, Coll. S K Rajeshwari; 7.x.2016, 1 ♀, Coll. Sandesh Gawas; 3.xii.2018, 4 ♀, Coll. Sandesh Gawas; 26.vii.2017, 4 ♀, Coll. Sandesh Gawas; Yelahanka Bengaluru; 27.ix.2013, 8 ♀ & 1 ♂, Coll. S K Rajeshwari; 4.vi.2014, 1 ♀, Coll. Lakshmi; 28.vi.2017, 4 ♀, Coll. Sandesh Gawas; 5.vii.2017, 3 ♀, Coll. Sandesh Gawas; 4.vi.2016, 3 ♀, Coll. Ashwath & Sandesh; 26.iv.2017, 6 ♀, Coll. Ashwath; 20.i.2017, 1 ♀, Coll. Sandesh Gawas; 12.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 3.v.2017, 1 ♀, Coll. Ashwath & Sandesh; Sirsi, 20.vi.2016, 1 ♀, Coll. Ashwath; Sangam, 31.vii.2018, 1 ♀, Coll. Sandesh Gawas; Banerghatta, 30.vii.2019, 5 ♀, Coll. Ashwath. **Maharashtra:** Shivajinagar Pune, 21.ii.2017, 3 ♀, Coll. Sandesh Gawas. **Rajasthan:** MPUAT Udaipur, 21.xi.2015, 1 ♀, Coll. Sandesh & Umeshkumar.

Distribution. India: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat (new record), Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan (new record), Uttarakhand, West Bengal. *Elsewhere:* China; Indonesia; Malaysia; Myanmar; Nepal; Pakistan; Philippines; Sri Lanka; Thailand; Vietnam. (Yamane & Yamane 1979, Das & Gupta 1989, Kundu *et al.* 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Nugroho *et al.* 2012, Girish Kumar & Sharma 2014b & 2015, Pham 2014, Tan *et al.* 2014a, Rafi *et al.* 2017, Girish Kumar *et al.* 2017a, Gawas *et al.* 2019).

236) *Ropalidia fasciata* (Fabricius, 1804)

Eumenes fasciata Fabricius, 1804: 290. Type data: Syntype males, UZMC. Type locality: “Java” (Indonesia).

Polistes bioculata Fabricius 1804: 278. Type data: Female, UZMC. Type locality: “nova Cambria”.

Icaria picta de Saussure, 1854: 238. Type data: Female, MNHN. Type locality: “Le Bengale” (India).

Icaria intermedia Cameron, 1905: 70. Type data: Lectotype female, ZMA. Type locality: “Tjandi near Semarang”.

Ropalidia fasciata; van der Vecht, 1959a [1958]: 245.

Material examined. INDIA: **Maharashtra:** KVK Narayangaon Pune, 24.xi.2016, 8 ♀ & 5 ♂, Coll. Sandesh Gawas; Bhimashankar Pune, 27.xi.2017, 1 ♀ & 3 ♂, Coll. Sandesh Gawas. **Odisha:** OUAT Bhubaneswar, 26.i.2017, 1 ♀, Coll. Sandesh Gawas; Puri, 30.i.2017, 2 ♀, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Delhi, Maharashtra, Meghalaya, Odisha (new record), Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh. *Elsewhere:* Bhutan; China (including Hong Kong and Taiwan); Japan; Indonesia; Laos; Malaysia; Myanmar; Nepal; Pakistan; Philippines; Sri Lanka; Thailand; Timor; Vietnam. (Yamane & Yamane 1979, Das & Gupta 1989, Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Gusenleitner 2011, Nugroho *et al.* 2012, Barthélémy *et al.* 2014, Pham 2014, Tan *et al.* 2014a, Hatta *et al.* 2015, Pham & Li 2015, Dorji *et al.* 2016, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017).

237) *Ropalidia hongkongensis* (de Saussure, 1854)

Icaria hongkongensis de Saussure, 1854: 239. Type data: Female, BMNH. Type locality: “La Chine, Hong-Kong”.

Ropalidia hongkongensis juncta van der Vecht, 1941: 141. Type data: Holotype female, RMNH. Type locality: “Tjiboerial near Buitenzorg, W.-Java”.

Distribution. India: Assam, Manipur, Meghalaya, Nagaland. *Elsewhere:* China (including Hong Kong); Indonesia; Laos; Myanmar; Vietnam. (Das & Gupta 1989, Jonathan *et al.* 2000a, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Gusenleitner 2011, Nugroho *et al.* 2012, Barthélémy *et al.* 2014, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Girish Kumar *et al.* 2017).

238) *Ropalidia jacobsoni* (du Buysson, 1908)

Icaria jacobsoni du Buysson, 1908: 123. Type data: Lectotype female, RMNH. Type locality: “aux environs de Batavia [=Jakarta]”.

Ropalidia jacobsoni jacobsoni; Das and Gupta, 1984: 418.

Ropalidia jacobsoni flavoscutellata Das and Gupta, 1989: 146, 147, 160, 171. Type data: Holotype female, NZC. Type locality: Rongooni, Assam, India.

Ropalidia bangalorica Lambert and Narendran, 2005a: 1920. Type data: Holotype female, DZUC. Type locality: Bengaluru, Karnataka, India.

Material examined. INDIA: **Karnataka:** Yelahanka Bengaluru, 28.vi.2017, 3 ♀, Coll. Sandesh Gawas; 4.iv.2016, 3 ♀, Coll. Ashwath & Sandesh; 3.v.2017, 1 ♀, Coll. Ashwath & Sandesh; 20.i.2017, 1 ♀, Coll. Sandesh Gawas; 12.vii.2017, 1 ♀, Coll. Sandesh Gawas; 20.ii.2017, 3 ♀, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Bhutan; Indonesia; Myanmar. (Das & Gupta 1989, Gupta 1997, Kojima *et al.* 2007, Kundu *et al.* 2010, Nugroho *et al.* 2012, Girish Kumar & Sharma 2014a, Girish Kumar & Sharma 2014b, Pham 2014, Girish Kumar & Sharma 2015b, Dorji *et al.* 2016, Girish Kumar *et al.* 2017a, Sheikh *et al.* 2017).

239) *Ropalidia kasaragodensis* Lambert & Narendran, 2005

Ropalidia indica Lambert & Narendran, 2005a: 1921. Type data: Holotype female, DZUC. Type locality: Kasargod, Kerala, India.

Ropalidia kasaragodensis Lambert and Narendran, 2007 [replacement name].

Distribution. India: Kerala. (Lambert *et al.* 2005a, Kojima *et al.* 2007, Girish Kumar *et al.* 2017a).

240) *Ropalidia marginata* (Lepeletier, 1836)

Vespa ferruginea Fabricius, 1793: 280. Type locality: “India orientali”.

Polistes ferruginea; Fabricius, 1804: 277.

Polistes sumatrae Fabricius, 1804: 273.

Epipona marginata Lepeletier, 1836: 541. Type data: ?MRSN. Type locality: “Inde”

Icaria ferruginea; de Saussure, 1853: 38.

Icaria marginata; de Saussure, 1854: 237.

Icaria jucunda Cameron, 1898: 46.

Icaria pruinosa Cameron, 1906b: 228.

Ropalidia marginata; Dover and Rao, 1922: 244.

Ropalidia marginata sundaica van der Vecht, 1941: 122.

Ropalidia marginata jucunda; van der Vecht, 1941: 104.

Ropalidia marginata marginata; van der Vecht, 1941: 109, 117.

Ropalidia marginata indica van der Vecht, 1941: 121.

Ropalidia canaria Cheesman, 1952: 3, 19.

Ropalidia travancorica Lambert & Narendran, 2005b: 273-275.

Material examined. INDIA: **Karnataka:** Havadasanahalli Bengaluru, 3.i.2006, 5 ♀, Coll. Naveenkumar; GKVK Bengaluru, 17.xii.2005, 1 ♀, Coll. Shivaprakash; Rajanakunte Bengaluru, 3.ii.2006, 6 ♀, Coll. Ravikumar; Sanjaynagar Bengaluru, iv.2015, 10 ♀ & 3 ♂, Coll. S K Rajeshwari; Ramnagara, 4.x.2016, 1 ♀, Coll. Sandesh Gawas; 25.v.2018, 4 ♀, Coll. Sandesh Gawas; Hebbal Bengaluru, 20.iv.2011, 1 ♀, Coll. R Mahendra; 17.x.2016, 3 ♀, Coll. Sandesh Gawas; 6.xii.2018, 1 ♀, Coll. Sandesh Gawas; 27.xi.2014, 2 ♂, Coll. S K Rajeshwari; Mandya, 17.i.2016, 1 ♀, Coll. Ashwath; Nandigrama, ix.2013, 1 ♀, Coll. Lakshmi; Sangam, 6.ix.2018, 1 ♀, Coll. Sandesh Gawas; Yelahanka Bengaluru, 8.i.2017, 5 ♀, Coll. Sandesh Gawas; 10.ix.2017, 7 ♀, Coll. Sandesh Gawas; 22.iv.2017, 4 ♀, Coll. Ashwath & Sandesh; 26.iv.2017, 4 ♀, Coll. Ashwath; 7.ii.2017, 2 ♀, Coll. 2 ♀, Coll. Sandesh Gawas; 4.iv.2017, 2 ♀, Coll. Sandesh Gawas; 3.v.2017, 2 ♀, Coll. Ashwath & Sandesh; 16.i.2017, 1 ♀, Coll. Sandesh Gawas; 12.v.2017, 2 ♀, Coll. Ashwath & Sandesh; 20.i.2017, 1 ♂, Coll. Sandesh Gawas; 15.v.2017, 1 ♂, Coll. Ashwath & Sandesh; 8.ii.2017, 7 ♀, Coll. Malleesh; Ghati Subramanya, 28.ix.2016, 1 ♀ & 1 ♂, Coll. Ashwath & Sandesh; IVRI Bengaluru, 6.viii.2018, 11 ♀, Coll. Sandesh Gawas; 17.vi.2017, 1 ♀, Coll. Deepshalini. **Maharashtra:** Narayangaon Pune, 24.xi.2016, 1 ♀, Coll. S K Rajeshwari. **Rajasthan:** Banswara, 24.xi.2015, 1 ♀, Coll. Sandesh & Umeshkumar. **Tamil Nadu:** Coimbatore, 1.ix.2010, 1 ♀, Coll. Y S Basanth; Virudhunagar, 12.ii.2015, 2 ♀, Coll. Ankita Gupta.

Distribution. India: Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Australia; China (including Hong Kong); Indonesia; Japan; Malaysia; Mariana Islands; Myanmar; Papua New Guinea; Palau; Pakistan; Philippines; Sri Lanka; Vietnam. (Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Nugroho *et al.* 2012, Barthélémey *et al.* 2014, Girish Kumar & Sharma 2014a & 2015, Pham & Li 2015, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017, Sheikh *et al.* 2017, Gawas *et al.* 2019, Girish Kumar *et al.* 2019b).

241) *Ropalidia mathematica* (Smith, 1860)

Polybia mathematica Smith (1860): 90. Type data: Female, OUM. Type locality: “Makassar” (Sulawesi).

Icaria nigroplagiata Cameron, 1900: 498. Type data: OUM. Type locality: Khasia Hills, Meghalaya, India.

Parapolybia mathematica; Schulthess, 1913a: 164.

Ropalidia mathematica mathematica; van der Vecht 1941: 110 & 130.

Ropalidia mathematica binotata van der Vecht, 1941: 131. Type data: Holotype, RMNH. Type locality: “W. Java, Tapos on Mt. Gedeh” (Indonesia).

Ropalidia mathematica nigroplagiata; van der Vecht, 1941: 104 & 132.

Ropalidia mathematica sumbaensis van der Vecht, 1962: 20.

Distribution. India: Kerala, Maharashtra, Meghalaya, Tripura, Uttarakhand. *Elsewhere*: China; Indonesia; Laos; Thailand; Timor; Vietnam. (Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Gusenleitner 2011, Nugroho *et al.* 2012, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Girish Kumar *et al.* 2017a).

242) *Ropalidia montana* Carl, 1934

Icaria montana Carl, 1930: 22, nomen nudum.

Ropalidia montana Carl, 1934: 675. Type data: MHNG. Type locality: Kannur, Kerala, India.

Material examined. INDIA: **Karnataka**: Chikmagalur, 17.ii.2006, 3 ♀, Coll. THM Shivaprakash; Madikeri Kodagu, 8.iii.2006, 17 ♀, Coll. THM Shivaprakash; Mudigere, vii.2012, 3 ♀, Coll. Naveen; 7.ii.2014, 15 ♀, Coll. Rajesh; 13.iii.2014, 3 ♀, Coll. Naveenkumar.

Distribution. India: Karnataka, Kerala, Tamil Nadu. (Das & Gupta 1989, Kojima *et al.* 2007, Girish Kumar *et al.* 2017).

243) *Ropalidia narendrani* Shareef, Kishore & Kumar, 2015

Ropalidia narendrani Shareef, Kishore & Kumar, 2015: 6837. Type data: Holotype female, NZC. Type locality: Periyar Tiger Reserve, Idukki, Kerala, India.

Distribution. India: Kerala. (Shareef *et al.* 2015, Girish Kumar *et al.* 2017a).

244) *Ropalidia nigrita* Das & Gupta, 1989

Ropalidia (Anthreneida) nigrita Das and Gupta, 1989: 130. Type data: Holotype male, NZC. Type locality: Moirang, Manipur, India.

Distribution. India: Manipur. *Elsewhere*: Nepal; Vietnam. (Das & Gupta 1989, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Pham 2014, Pham & Li 2015, Girish Kumar *et al.* 2017a).

245) *Ropalidia ornaticeps* (Cameron, 1900)

Icaria ornaticeps Cameron, 1900: 496. Type data: Female, OUM, BMNH. Type locality: Khasia Hills, Meghalaya, India.

Ropalidia flavopicta ornaticeps; van der Vecht, 1962: 49.

Ropalidia ornaticeps; Yoshikawa *et al.* 1969: 167.

Material examined. INDIA: **Arunachal Pradesh**: CAU Pasighat, 11.xi.2014, 1 ♀, Coll. Umesh. **Assam**: Nambor Forest, 27.ii.2015, 2 ♀, Coll. Ankita Gupta; Garampani, 1.iii.2015, 2 ♀, Coll. Naveenkumar. **Mizoram**: ICAR Kolasib, 16.iii.2016, 12 ♀, Coll. Sandesh & Umeshkumar; Champhai, 19.iii.2016, 1 ♀, Coll. Umeshkumar; Bairabi, 2 ♀, Coll. Umeshkumar; KVK Lengpui, 23.iii.2016, 5 ♀, Coll. Sandesh & Umeshkumar.

Distribution. India: Arunachal Pradesh, Assam, Meghalaya, Mizoram, Sikkim, Tripura. *Elsewhere*: Bhutan; Cambodia; China; Laos; Malaysia; Myanmar; Thailand; Vietnam. (Jonathan *et al.* 2000a, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Gusenleitner 2011, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Dorji *et al.* 2017a, Girish Kumar *et al.* 2017a, Girish Kumar & Sureshan 2019b).

246) *Ropalidia rufocollaris* (Cameron, 1900)

Icaria rufocollaris Cameron, 1900: 497. Type data: Holotype female, BMNH. Type locality: Khasia Hills, Meghalaya, India.

Ropalidia rufocollaris atrata van der Vecht, 1941: 139.

Ropalidia (Anthreneida) rufocollaris rufocollaris; Das & Gupta, 1989: 125.

Ropalidia sridharani Lambert and Narendran, in Lambert *et al.* 2005b: 268–270.

Distribution. India: Arunachal Pradesh, Assam, Chhattisgarh, Kerala, Madhya Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bhutan; China: Tibet; Laos; Myanmar; Thailand; Vietnam. (Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Gusenleitner 2011, Tan *et al.* 2014a, Girish Kumar & Sharma 2015b, Pham & Li 2015, Dorji *et al.* 2016, Girish Kumar *et al.* 2017a).

247) *Ropalidia rufoplagiata* (Cameron, 1905)

Icaria rufoplagiata Cameron, 1905: 71. Type data: Lectotype female, ZMA. Type locality: “Tjandi near Semarang”.

Ropalidia gravelyi Dover and Rao (1922): 244. Type data: Female, NZC. Type locality: Kavalai, Kochi, Kerala, India.

Ropalidia rufoplagiata; van der Vecht, 1941: 111, 165.

Ropalidia rufoplagiata var. *gravelyi*; van der Vecht (1941): 168.

Ropalidia rufoplagiata nursei van der Vecht, 1941: 167. Type data: Female, BMNH. Type locality: Bombay (Maharashtra)

Ropalidia rufoplagiata rufoplagiata; van der Vecht, 1962: 32.

Ropalidia nursei; Richards, 1978: 57.

Material examined. INDIA: **Karnataka**: Kanakpura, 9.i.2014, 1 ♀, Coll. S K Rajeshwari; Hebbal Bengaluru, 8.vi.2014, 1 ♀, Coll. Mallesh; 3.xii.2018, 5 ♀, Coll. Sandesh Gawas; Veterinary College Bengaluru, 7.viii.2017, 6 ♀, Coll. Sandesh Gawas; NBAIR Bengaluru, 28.ix.2018, 1 ♀ & 7 ♂, Coll. Sandesh Gawas; Tumkur, 9.vii.2019, 1 ♀, Coll. S K Rajeshwari.

Distribution. India: Andaman & Nicobar Islands, Karnataka, Kerala, Maharashtra, Meghalaya, Uttarakhand. *Elsewhere*: Bhutan; Indonesia; Malaysia; Myanmar; Thailand; Timor; Vietnam. (Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Nugroho *et al.* 2012, Pham & Li 2015, Dorji *et al.* 2017a, Girish Kumar *et al.* 2017a).

248) *Ropalidia sahyadrica* Kishore, Shareef & Kumar, 2014

Ropalidia sahyadrica Kishore, Shareef & Kumar, 2014: 235–236. Type data: male, NZC. Type locality: Muthappanpuzha, Calicut.

Distribution. India: Kerala. (Girish Kumar *et al.* 2017a).

249) *Ropalidia santoshae* Das & Gupta, 1989

Ropalidia (Antreneida) santoshae Das & Gupta, 1989: 123. Type data: Holotype male, NZC. Type locality: Shilong, Meghalaya, India.

Distribution. India: Arunachal Pradesh, Meghalaya, Sikkim, West Bengal. *Elsewhere*: Bhutan; China. (Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Kundu *et al.* 2006, Kojima *et al.* 2007, Tan *et al.* 2014a, Dorji *et al.* 2016, Girish Kumar *et al.* 2017a).

250) *Ropalidia scitula* (Bingham, 1897)

Icaria scitula Bingham, 1897: 387, 392. Type data: Female, BMNH. Type locality: Rangit Valley, Sikkim, India.

Ropalidia (Icarielia) scitula; van der Vecht, 1941: 142.

Material examined. INDIA: **Mizoram**: ICAR Kolasib, 16.iii.2016, 2 ♀, Coll. Sandesh & Umeshkumar; Selesih, 23.iii.2016, 2 ♀, Coll. Umeshkumar.

Distribution. India: Arunachal Pradesh, Manipur, Meghalaya, Mizoram (new record), Sikkim, West Bengal. *Elsewhere*: China; Laos; Myanmar; Thailand. (Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Kojima *et al.* 2007, Gusenleitner 2011, Pham 2014, Tan *et al.* 2014a, Girish Kumar *et al.* 2017a).

251) *Ropalidia sericea* (Cameron, 1905)

Icaria sericea Cameron, 1905: 73. Type data: Holotype female, BMNH. Type locality: Sikkim, India.

Ropalidia sericea; Richards, 1978: 57.

Distribution. India: Sikkim. (Kojima *et al.* 2007, Girish Kumar *et al.* 2017a).

252) *Ropalidia spatulata* van der Vecht, 1962

Ropalidia marginata indica van der Vecht, 1941: 121.

Ropalidia spatulata van der Vecht, 1962: 9. Type data: Male, RMNH. Type locality: Walayar forest, Kerala, India.

Distribution. India: Kerala, Rajasthan, Tamil Nadu, Telangana. *Elsewhere*: Myanmar; Pakistan. (Yamane & Yamane 1979, Das & Gupta 1989, Gusenleitner 2006, Kojima *et al.* 2007, Girish Kumar & Sharma 2014a, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017, Girish Kumar *et al.* 2019b).

253) *Ropalidia stigma* (Smith, 1858)

Polybia stigma Smith, 1858: 114. Type data: Male, OUM. Type locality: Sarawak, Malaysia.

Parapolybia stigma; Schulthess, 1913a: 164.

Icaria stigma; du Buysson, 1913: 296.

Ropalidia artifex; Bequaert, 1918: 247.

Ropalidia stigma stigma; van der Vecht, 1941: 110, 126.

Ropalidia stigma rufa van der Vecht, 1941: 130.

Ropalidia stigma nigrolineata van der Vecht, 1962: 18.

Material examined. INDIA: **Karnataka**: Hangarki Dharwad, 1.xii.2005, 1 ♀, Coll. Somannavar. **Maharashtra**: Bhimashankar Pune, 27.xi.2016, 6 ♀, Coll. Sandesh Gawas; 22.ii.2017, 14 ♀, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Chhattisgarh, Goa, Himachal Pradesh, Jharkhand, Karnataka (new record), Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Sikkim, Tripura, Uttarakhand, West Bengal. *Elsewhere*: Bhutan; China (including Hong Kong); Indonesia; Laos; Malaysia; Myanmar; Nepal; Philippines; Singapore; Sri Lanka; Thailand; Vietnam. (Yamane 1979, Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Jonathan *et al.* 2000b, Jonathan & Kundu 2003, Gusenleitner 2006, Nguyen *et al.* 2006a, Kojima *et al.* 2007, Kundu *et al.* 2010, Gusenleitner 2011, Nugroho *et al.* 2012, Barthélémy *et al.* 2014, Tan *et al.* 2014a, Girish Kumar & Sharma 2015b, Pham & Li 2015, Dorji *et al.* 2017a, Girish Kumar *et al.* 2017a, Gawas *et al.* 2019).

254) *Ropalidia sumatrae* (Weber, 1801)

Vespa sumatrae Weber, 1801: 103. Type data: ? ZMB. Type locality: “Sumatra” (Indonesia).

Vespa mutillata Illiger, 1802: 189. Type data: ZMB. Type locality: “Sumatra” (Indonesia).

Polistes pubescens Fabricius, 1804: 279. Type data: UZMC. Type locality: “Sumatra” (Indonesia).

Eumenes formicaria Fabricius, 1804: 288. Type data: Female, male, UZMC. Type locality: “America meridionali”.

Anthreneida coronata White, 1841: 321. Type data: BMNH.

Icaria speciosa de Saussure, 1855: 374. Type data: Male, UZMC. Type locality: “Sumatra” (Indonesia).

Icaria lugubris Smith, 1858: 115.

Icharia [!] *marangensis* Gribodo, 1892: 243. Type data: Female, MSNG. Type locality: “Marang (Sumatra) and Perek (Malacca)”.

Icaria rufinoda Cameron, 1904d: 121. Type data: Female, BMNH. Type locality: Singapore.

Ropalidia sumatrae van der Vecht, 1941: 104.

Ropalidia sumatrae sumatrae van der Vecht, 1962: 35.

Ropalidia krishna Dover and Rao, 1922: 246.

Ropalidia lugubris; Dover, 1925: 302.

Ropalidia sumatrae lugubris; van der Vecht, 1941: 104, 185.

Distribution. India: West Bengal. *Elsewhere*: China; Indonesia; Malaysia; Myanmar; Singapore; Thailand; Vietnam. (Jonathan *et al.* 1996, Jonathan *et al.* 2000a, Kojima *et al.* 2007, Nugroho *et al.* 2012, Pham 2014, Tan *et al.* 2014a, Pham & Li 2015, Girish Kumar *et al.* 2017a, Bui *et al.* 2019).

255) *Ropalidia tamila* Gusenleitner, 2004

Ropalidia tamila Gusenleitner, 2004: 1089. Type data: Holotype female, OLM. Type locality: Tamil Nadu, India.

Distribution. India: Goa, Kerala, Tamil Nadu. (Gusenleitner 2004, Gusenleitner 2006, Kojima *et al.* 2007, Girish Kumar *et al.* 2017a, Gawas *et al.* 2019).

256) *Ropalidia variegata* (Smith, 1852)

Epipona variegata Smith, 1852a: 48. Type data: Female, RMNH. Type locality: Pune, Maharashtra, India.

Icaria variegata; de Saussure, 1854: 237.

Icaria pendula Smith, 1857: 98.

Ropalidia variegata; Bequaert, 1918: 247.

Ropalidia variegata variegata; van der Vecht, 1941: 112, 154.

Ropalidia pendula; Richards 1978: 58.

Ropalidia (Anthreneida) variegata variegata; Das & Gupta, 1989: 144.

Distribution. India: Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere*: China; Indonesia; Malaysia; Myanmar; Nepal; Pakistan. (Yamane & Yamane 1979, Das & Gupta 1989, Jonathan *et al.* 1996, Gupta 1997, Gusenleitner 2006, Kojima *et al.* 2007, Kundu *et al.* 2010, Nugroho *et al.* 2012, Girish Kumar & Sharma 2014a, Pham 2014, Tan *et al.* 2014a, Girish Kumar & Sharma 2015b, Girish Kumar *et al.* 2017a, Rafi *et al.* 2017, Girish Kumar *et al.* 2019b, Bui *et al.* 2019).

Subfamily Stenogastrinae

Genus *Cochlischnogaster* Dong & Otsuka, 1997

Cochlischnogaster Dong and Otsuka, 1997: 205, 206 (key), 210. Type species: *Cochlischnogaster dadugangensis* Dong and Otsuka, 1997.

Chalogaster Carpenter & Starr, 2000: 1, 3. Type species: *Chalogaster spatulata* Carpenter & Starr, 2000.

257) *Cochlischnogaster dadugangensis* Dong & Otsuka, 1997

Cochlischnogaster dadugangensis Dong and Otsuka, 1994: 451.

Cochlischnogaster dadugangensis Dong & Otsuka, 1997: 207. Type data: Holotype female, KIZ. Type locality: Dadugang, Yunnan, China.

Distribution. India: Arunachal Pradesh. *Elsewhere*: China; Vietnam. (Girish Kumar *et al.* 2012, Nguyen & Kojima 2013, Pham & Li, 2015).

Genus *Eustenogaster* van der Vecht, 1969

Eustenogaster van der Vecht, 1969a: 165. Type species: *Ischnogaster micans* de Saussure, 1852.

Paravespa Bell, 1936: 1, 803, 806. Type species: *Paravespa eva* Bell, 1936.

258) *Eustenogaster eximia* (Bingham, 1890)

a) *Eustenogaster eximia eximioides* (Dover & Rao, 1922)

Stenogaster eximioides Dover and Rao, 1922: 242. Type data: Lectotype male, NZC. Type locality: Nilgiri Hills, Tamil Nadu, India.

Paravespa eva Bell, 1936: 803.

Eustenogaster eximioides; Iwata, 1976: 275.

Eustenogaster eximia eximioides; Das and Gupta, 1984: 402.

“*Ischnogaster eximia eximioides*”; van der Vecht & Carpenter 1990: 44.

Material examined: INDIA: Goa: Dharbandora, Mollem, 25.viii.2018, 3 ♀ & 1 ♂, Coll. Sandesh M. Gawas.

Distribution. India: Goa, Karnataka, Kerala, Tamil Nadu. (Das & Gupta 1984 & 1989, Carpenter & Kojima 1996, Gusenleitner 2006, Gawas *et al.* 2019).

259) *Eustenogaster fraterna* (Bingham, 1897)

Ischnogaster fraterna Bingham, 1897: 377 (key), 378. Type data: Female, male, BMNH. Type locality: "Tenasserim" (Myanmar).

Stenogaster fraternal; Dover & Rao, 1922: 240.

Eustenogaster fraterna; Iwata, 1976: 275.

Distribution. India: Assam, Sikkim. *Elsewhere*: Malaysia; Myanmar; Thailand. (Das & Gupta 1984, Carpenter & Kojima 1996, Saito & Kojima 2007).

260) *Eustenogaster hauxwellii* (Bingham, 1894)

Ischnogaster rufo-maculata Bingham, 1894: 385. Type data: Female, BMNH. Type locality: "Tenasserim" (Myanmar).

Ischnogaster hauxwellii Bingham, 1894: 386. Type data: Female, male, BMNH. Type locality: "Tenasserim" (Myanmar).

?*Stenogaster bicarinata* Dover & Rao, 1922: 242. Type data: Male, NZC. Type locality: Kuching, Sarawak, Borneo.

Stenogaster rufomaculata; Dover & Rao, 1922: 241.

Stenogaster micans var. *hauxwellii* (!); Schulthess, 1927: 85.

Stenogaster rufomaculatus; Schulthess, 1927: 86.

Stenogaster nigromaculata (!); Dover, 1931: 256.

Eustenogaster hauxwellii; Iwata, 1976: 274.

Distribution. India: Sikkim. *Elsewhere*: Cambodia; Indonesia; Malaysia; Myanmar; Philippines; Singapore; Thailand, Vietnam. (Das & Gupta 1984, Das & Gupta 1989, Carpenter & Kojima 1996, Jonathan & Kundu 2003, Saito & Kojima 2007, Pham & Li 2015).

261) *Eustenogaster scitula* (Bingham, 1897)

Ischnogaster scitula Bingham, 1897: 377 (key), 379. Type data: Female, BMNH. Type locality: "Rangit Valley, Sikkim; Margherita, Assam".

Stenogaster scitula; Dover & Rao, 1922: 240.

Stenogaster scitula var. *assamensis* Dover & Rao, 1922: 240.

Stenogaster seitula (!); Lee, 1982: 130.

Eustenogaster scitula; Das and Gupta, 1984: 402.

Distribution. India: Arunachal Pradesh, Assam, Meghalaya, Sikkim. *Elsewhere*: Bhutan; China; Laos; Malaysia; Myanmar; Thailand, Vietnam. (Das & Gupta 1984, Das & Gupta 1989, Carpenter & Kojima 1996, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Gusenleitner 2006, Saito & Kojima 2007, Srinivasan & Girish Kumar 2009, Gusenleitner 2011, Nguyen & Kojima 2013, Srinivasan & Girish Kumar 2013, Pham & Li 2015, Nidup *et al.* 2017).

Genus *Parischnogaster* Schulthess, 1914

Parischnogaster Schulthess, 1914: 255. Type species: *Ischnogaster mellyi* de Saussure, 1852.

Holischnogaster van der Vecht, 1977: 60, 70. Type species: *Holischnogaster gracilipes* van der Vecht, 1977.

262) *Parischnogaster mellyi* (de Saussure, 1852)

Ischnogaster mellyi de Saussure, 1852: 25. Type data: Male, MHNG. Type locality: "Java" (Indonesia).

Ischnogaster nigrifrons Smith, 1857: 113. Type data: Male, OUM. Type locality: Sarawak, Borneo.

Stenogaster nigrifrons; Dover & Rao, 1922: 241.

Parischnogaster mellyi; Schulthess, 1927: 82.

Stenogaster mellyi; Pagden, 1962: 95.

Distribution. India: Andaman & Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Meghalaya, Mizoram, Sikkim. *Elsewhere*: Bhutan; China; Indonesia; Malaysia; Myanmar; Philippines; Singapore; Thailand; Vietnam. (Das & Gupta 1984, Das & Gupta 1989, Carpenter & Kojima 1996, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Srinivasan & Girish Kumar 2009, Srinivasan & Girish Kumar 2013, Nguyen & Kojima 2013, Girish Kumar & Srinivasan 2015, Pham & Li 2015, Nidup *et al.* 2017).

Subfamily Vespinae

Genus *Dolichovespula* Rohwer, 1916

Vespula (*Dolichovespula*) Rohwer 1916:642. Type species: *Vespa maculata* Linnaeus 1763.

Pseudovespula Bischoff, 1930: 346. Type species: “*Pseudovespula adulterina* Buysson” (= *Vespa norwegica* var. *adulterina* du Buysson, 1905 (1904)).

Boreovespula Bluthgen, 1943b: 149. Type species: “*Dolichovespula norwegica* (Fabricius)” (= *Vespa norwegica* Fabricius, 1781).

Metavespula Bluthgen, 1943b: 149. Type species: “*Dolichovespula silvestris* (Scopoli)” (= *Vespa sylvestris* Scopoli, 1763).

263) *Dolichovespula intermedia* (Birula, 1930)

Vespula sylvestris intermedia Birula, 1930: 330, 331. Type data: Lectotype female, ZINRAS. Type locality: East Bukhara, Uzbekistan.

Dolichovespula asiatica Archer, 1981a: 187, 189.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere*: Afghanistan; China; Kazakhstan; Kyrgyzstan; Mongolia; Pakistan; Russia; Tajikistan; Turkmenistan; Uzbekistan. (Archer 1989, Das & Gupta 1984 & 1989, Archer 1999, Carpenter & Kojima 1997, Dvořák & Castro 2007, Gupta 2008, Rafi *et al.* 2017).

264) *Dolichovespula lama* (du Buysson, 1903)

Vespa lama du Buysson, 1903: 175. Type data: Holotype female, MNHN. Type locality: Sikkim, India.

Dolichovespula nyalamensis Lee, 1986a: 195, 197.

Distribution. India: Sikkim, Uttarakhand. *Elsewhere*: Bhutan; China; Nepal. (Archer 1989, Das & Gupta 1984 & 1989, Archer 1999, Carpenter & Kojima 1997, Jonathan & Kundu 2003, Kundu *et al.* 2010, Dorji *et al.* 2017a).

265) *Dolichovespula sylvestris* (Scopoli, 1763)

Vespa sylvestris Scopoli, 1763: 309. Type data: (destroyed?). Type locality: “Carnioliae” [Slovenia].

Vespa parietum Harris, 1776: 128.

Vespa holsatica Fabricius, 1793: 257.

Vespa frontalis Latreille, 1802: 290.

Vespa campanaria Fowler, 1833: 536, 538.

Vespa anglica “Leach” Smith, 1843: 168.

Vespa pilosella Costa, 1858: 20, 28.

Vespa sylvestris (!) var. *sumptuosa* du Buysson, 1905 (1904): 493.

Dolichovespula xinjiangensis Lee, 1986a: 195, 199.

Distribution. India: Jammu & Kashmir. *Elsewhere*: Afghanistan; Albania; Armenia; Austria; Belarus; Belgium; Bulgaria; China; Czech Republic; Denmark; Finland; France; Georgia; Germany; Greece; Hungary; Iran; Ireland; Italy; Japan; Kazakhstan; Kyrgyzstan; Luxembourg; Macedonia; Mongolia; Morocco; Netherlands; North Korea; Norway; Pakistan; Poland; Portugal; Romania; Russia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Syria; Tajikistan; Turkey; Ukraine; United Kingdom; Uzbekistan. (Archer 1989, Archer 1999, Carpenter & Kojima 1997, Archer 1999, Rafi *et al.* 2017, Fateryga 2018).

Genus *Provespa* Ashmead, 1903

Provespa Ashmead 1903: 182. Type species: *Vespa dorylloides* de Saussure, 1854 [= *Vespa anomala* de Saussure, 1854).

266) *Provespa barthelemyi* (du Buysson, 1905)

Vespa barthelemyi du Buysson, 1905 (1904): 492, 618. Type data: Lectotype female, MNHN. Type locality: Phnom Penh, Cambodia.

Provespa barthelemyi; van der Vecht, 1936: 165.

Material examined. INDIA: **Arunachal Pradesh:** CAU Campus Pasighat, 12.xi.2014, 2 ♀, Coll. Naveen Kumar. **Assam:** Guwahati, v.1962, 1 ♂, CIBC Collection; Khanapara Guwahati, 19-22.vi.2016, 1 ♀, Coll. Palani Krishna.

Distribution. India: Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Tripura, Mizoram, Sikkim, West Bengal. *Elsewhere:* Bangladesh; Bhutan; Cambodia; China; Laos; Malaysia; Myanmar; Thailand; Vietnam. (van der Vecht 1959a, Archer 1989, Das & Gupta 1984, Das & Gupta 1989, Carpenter & Kojima 1997, Jonathan & Kundu 2003, Gusenleitner 2006, Girish Kumar & Nguyen 2010, Madl 2012, Mahmood *et al.* 2012, Nguyen & Kojima 2013, Pham & Li 2015, Dorji *et al.* 2017b, Girish Kumar & Sureshan 2019b).

Genus *Vespa* Linnaeus, 1758

Vespa Linnaeus, 1758: 343,572. Type species: “*Vespa crabro*, Fab.” (= *Vespa crabro* Linnaeus, 1758).

Macrovespa Dalla Torre, 1904: 64. Type species: *Vespa crabro* Linnaeus, 1758.

Nyctovespa van der Vecht, 1959c: 210. Type species: *Vespa binghami* du Buysson, 1905 (1904).

267) *Vespa affinis* (Linnaeus, 1764)

Apis affinis Linnaeus, 1764: 417. Type data: Female, ZMUU. Type locality: “in Calidis regionibus” (Oriental Region).

Vespa indosinensis Perez, 1910:8. Type data: Lectotype female, MNHN. Type locality: Annam.

Vespa affinis affinis; Bequaert, 1936: 347.

Vespa affinis continentalis Bequaert, 1936: 350. Type data: Holotype female, USNM. Type locality: Mangalore, Karnataka, India.

Material examined. INDIA: **Arunachal Pradesh:** Pasighat, 12.xi.2014, 1 ♀, Coll. Poorani. **Kerala:** Trivandrum, 23.v.2019, 2 ♀, Coll. M. Mohan. **Karnataka:** Bengaluru: NBAIR Hebbal, 16.x.2016, 3 ♂, Coll. Sandesh Gawas; Yelahanka, 20.i.2017, 1 ♀, Coll. Sandesh Gawas; IIHR, 6.v.2012, 1 ♀, Coll. P.M. Viyolla; Hebbal Bengaluru; 11.xii.2014, 1 ♀, Coll. Umesh; Nandigram, 6.v.2014, 1 ♀, Coll. Umeshkumar; Savandurga, 4.x.2018, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Meghalaya, Nagaland, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Bangladesh; Bhutan; China; Cambodia; Indonesia; Laos; Malaysia; Myanmar; Nepal; Singapore; Sri Lanka; Thailand; Vietnam. (van der Vecht 1959c, Chan 1972, Das & Gupta 1984 & 1989, Jonathan *et al.* 1996, Gusenleitner 2006, Nguyen *et al.* 2006b, Girish Kumar & Sharma 2014b, Girish Kumar *et al.* 2015c, Dorji *et al.* 2017b).

268) *Vespa analis* Fabricius, 1775

Vespa analis Fabricius, 1775: 363. Type data: BMNH. Type locality: Probably Java.

Vespa crabros phinx Christ, 1791: 217.

Vespa tyrannica Smith, 1857: 119.

Vespa japonica Smith, 1868: 279.

Vespa parallela André, 1884: lxi.

Vespa insularis Dalla Torre, 1894: 147.

Vespa tridentata Cameron, 1903c: 278.

Vespa nigrans du Buysson, 1903: 175.

Vespa parallela var. *Biroi* du Buysson, 1905 (1904): 487 & 513.

Vespa analis var. *tenebrosa* du Buysson, 1905 (1904): 516.

Vespa analis var. (or subsp.) *barboursi* Bequaert, 1939: 38 & 40.

Vespa analis var. (or subsp.) *kuangsiana* Bequaert, 1939: 38 & 42.

Vespa analis eisa Yamane, 1987: 628 & 631.

Vespa analis nagatomii Yamane, 1987: 628 & 632.

Vespa maguanensis Dong, 2001: 82.

Vespa hekousensis Dong and Wang, 2003: 407.

Distribution. India: Arunachal Pradesh, Assam, Jammu & Kashmir, Meghalaya, Sikkim, Tamil Nadu, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; China (including Taiwan); Indonesia; Japan; Laos; Malaysia; Myanmar; Nepal; Pakistan; Russia; Singapore; South Korea; Thailand; Vietnam. (van der Vecht 1959c, Archer 1989, Das &

Gupta 1984 & 1989, Jonathan *et al.* 1996 & 2000a, Carpenter & Kojima 1997, Jonathan & Kundu 2003, Gusenleitner 2006, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Barthélémy *et al.* 2014, Choi & Kwon 2015, Pham & Li 2015, Dorji *et al.* 2017b, Rafi *et al.* 2017).

269) *Vespa basalis* Smith, 1852

Vespa basalis Smith, 1852a: 46. Type data: Female, BMNH. Type locality: Nepal.

Vespa oblitterata Smith, 1852a: 47.

Material examined. INDIA: **Arunachal Pradesh:** CAU Campus Pasighat, 11.xi.2014, 1 ♀, Coll. Naveen. **Uttarakhand:** Bhimtal, 12.xi.2016, 1 ♀, Coll. Ankita Gupta. **Punjab:** Patiala, 24.x.2017, 3 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Assam, Himachal Pradesh, Meghalaya, Mizoram, Odisha, Punjab (new record), Sikkim, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Bhutan; China (including Taiwan); Indonesia; Laos; Myanmar; Nepal; Pakistan; Thailand; Vietnam. (van der Vecht 1959c, Archer 1989, Das & Gupta 1984, Das & Gupta 1989, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Kundu *et al.* 2006, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Srinivasan & Girish Kumar 2013, Pham & Li 2015, Dorji *et al.* 2017b, Rafi *et al.* 2017, Girish Kumar & Sureshan 2019b).

270) *Vespa bicolor* Fabricius, 1787

Vespa bicolor Fabricius, 1787: 288. Type data: UZMC. Type locality: “in China D. Pflug”.

Vespa lutea Coquebert, 1804: 94.

Vespa auraria var. *citriventris* du Buysson, 1905 (1904): 552.

Distribution. India: Arunachal Pradesh, Assam, Manipur, Meghalaya, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; Cambodia; China (including Taiwan); Japan; Laos; Myanmar; Nepal; Thailand; Vietnam. (Archer 1989, Das & Gupta 1984, Das & Gupta 1989, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Barthélémy *et al.* 2014, Dorji *et al.* 2017b, Girish Kumar & Sureshan 2019b).

271) *Vespa binghami* du Buysson, 1905

Vespa Binghami du Buysson, 1905 (1904): 488 (key), 523. Type data: Lectotype female, MNHN. Type locality: Taungoo Hills, Myanmar.

Vespa suprunenkoi Birula, 1925: 89, 92.

Distribution. India: Arunachal Pradesh, Meghalaya, Sikkim, West Bengal. *Elsewhere:* Bhutan; China; Korea; Laos; Myanmar; Russia; Thailand; Vietnam. (van der Vecht 1959c, Archer 1989, Das & Gupta 1984 & 1989, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Girish Kumar & Srinivasan 2010).

272) *Vespa ducalis* Smith, 1852

Vespa ducalis Smith, 1852b: 39. Type data: Female, BMNH. Type locality: Tieng-tung near Ning-po-foo, China.

Vespa ducalis var. *pulchra* du Buysson, 1905 (1904): 519.

Vespa matsumurai Sonan, 1935: 370.

Vespa esakii Sonan, 1935: 371.

Vespa tropica loochooensis Bequeart, 1936: 336 & 343.

Vespa tropica pseudosoror van der Vecht, 1959c: 224.

Distribution. India: Meghalaya, Sikkim. *Elsewhere:* China (including Taiwan); Japan; Korea; Myanmar; Nepal; Russia; Thailand; Vietnam. (Archer 1989, Carpenter & Kojima 1997, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Choi & Kwon 2015, Girish Kumar & Srinivasan 2010, Barthélémy *et al.* 2014).

273) *Vespa fumida* van der Vecht, 1905

Vespa variabilis du Buysson, 1905 (1904): 490 (key), 522, 627. Type data: Lectotype female, MNHN. Type locality: Mou-pin, China.

Vespa variabilis fumida van der Vecht, 1959c: 228. Type data: MNHN. Type locality: Padong, Bhutan.

Distribution. India: Arunachal Pradesh, Assam, Sikkim, West Bengal. *Elsewhere:* Bhutan; China; Myanmar; Nepal. (Carpenter & Kojima 1997, Girish Kumar & Srinivasan 2010, Dorji *et al.* 2017a).

274) *Vespa mandarinia* Smith, 1852

Vespa mandarinia Smith, 1852b: 38. Type data: Female, BMNH. Type locality: “Tein-tung, near Ning-po-foo, amongst the mountains”, China.

Vespa magnifica Smith, 1852a: 45.

Vespa japonica Radoszkowski, 1857: 410.

Vespa bellona Smith, 1871a: 248.

Vespa magnifica var. *latilineata* Cameron, 1903c: 278.

Vespa magnifica var. *nobilis* Sonan, 1929: 137 & 140.

Vespa magnifica sonani Matsumura, 1930: 1.

Distribution. India: Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; China (including Taiwan); Japan; Korea; Laos; Malaysia; Myanmar; Nepal; Pakistan; Russia; Sri Lanka; Thailand, Vietnam. (van der Vecht 1959c, Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Barthélémy *et al.* 2014, Choi & Kwon 2015, Pham & Li 2015, Dorji *et al.* 2017b, Rafi *et al.* 2017, Girish Kumar & Sureshan 2019b).

275) *Vespa mocsaryana* du Buysson, 1905

Vespa mocsaryana du Buysson, 1905 (1904): 490 (key), 537. Type data: Male, MSNG. Type locality: Thagata, Tenasserim, Myanmar.

Distribution. India: Assam, Meghalaya, Sikkim. *Elsewhere:* China (including Hong Kong); Indonesia; Laos; Malaysia; Myanmar; Singapore; Thailand; Vietnam. (van der Vecht 1959c, Das & Gupta 1984, Das & Gupta 1989, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Barthélémy *et al.* 2014, Pham & Li 2015).

276) *Vespa orientalis* Linnaeus, 1771

Vespa orientalis Linnaeus, 1771: 540. Type data: Holotype female, LSL. Type locality: “Oriente”.

Vespa turcica Drury, 1773: 74.

Vespa quadripunctata Forskal, 1775: 84.

Vespa crabro fusca Christ, 1791: 216.

Vespa aegyptiaca Vallot, 1802: 170.

Vespa nilotica Vallot, 1802: 170.

Vespa jurinei de Saussure, 1854: 133.

Vespa indica; Wroughton, 1889: 35.

Vespa orientalis arabica Giordani Soika, 1957: 482.

Distribution. India: Andhra Pradesh, Bihar, Delhi, Haryana, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh, West Bengal. *Elsewhere:* Afghanistan; Albania; Algeria; Bahrain; Bosnia & Herzegovina; Bulgaria; China; Croatia; Cyprus; Egypt; Ethiopia; Georgia; Greece; Iran; Iraq; Israel; Italy; Jordan; Kazakhstan; Kyrgyzstan; Lebanon; Libya; Macedonia; Malta; Montenegro; Nepal; Oman; Pakistan; Romania; Russia; Saudi Arabia; Somalia; Syria; Tajikistan; Turkey; Turkmenistan; U.A.E.; Uzbekistan; Yemen. (van der Vecht 1959c, Das & Gupta 1984 & 1989, Archer 1989, Jonathan *et al.* 1996 & 2000a, Carpenter & Kojima 1997, Gusenleitner 2006, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Girish Kumar & Sharma 2014a, Girish Kumar *et al.* 2015c, Rafi *et al.* 2017, Sheikh *et al.* 2017, Fateryga 2018).

277) *Vespa soror* du Buysson, 1905

Vespa ducalis var. *soror* du Buysson, 1905 (1904): 490 (key), 519. Type data: Lectotype female, MNHN. Type locality: Kiangsi, China.

Distribution. India: Arunachal Pradesh, Meghalaya, Nagaland, Uttar Pradesh. *Elsewhere:* China (including Hong Kong); Laos; Myanmar; Thailand; Vietnam. (Archer 1989, Carpenter & Kojima 1997, Nguyen *et al.* 2006b, Girish Kumar & Srinivasan 2010, Srinivasan & Girish Kumar 2013, Barthélémy *et al.* 2014, Girish Kumar *et al.* 2015c, Pham & Li 2015).

278) *Vespa tropica* (Linnaeus, 1758)

Sphex tropica Linnaeus, 1758: 1-517. *Vespa cincta* Fabricius, 1775: 362.

Vespa eulemoides Buysson, 1905 (1904): 491, 530. Type data: Female, MSNG. Type locality: Port Blair, Andaman Islands, India.

Vespa tropica tropica; Bequaert, 1936: 328, key, des., fig.

Vespa tropica haematodes Bequaert, 1936: 338. Type data: Holotype female, MCZ. Type locality: Kullu, Himachal Pradesh, India.

Vespa tropica leefmansii van der Vecht, 1957: 19. Type data: Holotype female, RMNH. Type locality: Solok, Padang, Sumatra, Indonesia.

Material examined. INDIA: **Andhra Pradesh:** Guntur, 13.xii.2006, 1 ♀, Coll. Naveen Kumar. **Uttarakhand:** Bhimtal, 13.xi.2016, 2 ♀, Coll. Ankita Gupta. **Karnataka:** Bengaluru, 11.xii.2014, 1 ♀, Coll. Umesh; Nandi Hills, 17.viii.2017, 2 ♀, Coll. Sandesh Gawas; Sangam, 13.vii.2018, 1 ♀, Coll. Ankita Gupta; IIHR, 06.xi.2012, 1 ♀, Coll. P. M. Viyolla.

Distribution. India: Andaman & Nicobar Islands, Andhra Pradesh (new record), Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Odisha, Puducherry, Sikkim, Tamil Nadu, Tripura, Uttarakhand, West Bengal. *Elsewhere:* Bhutan; Brunei; Cambodia; China; Indonesia; Laos; Malaysia; Myanmar; Nepal; Pakistan; Philippines; Singapore; Sri Lanka; Thailand; Vietnam. (van der Vecht 1959c, Das & Gupta 1984 & 1989, Jonathan *et al.* 1996, Jonathan & Kundu 2003, Gusenleitner 2006, Kundu *et al.* 2006, Nguyen *et al.* 2006b, Girish Kumar & Sharma 2014b & 2015b, Dorji *et al.* 2017b, Sheikh *et al.* 2017, Gawas *et al.* 2019).

279) *Vespa velutina* Lepeletier, 1836

Vespa velutina Lepeletier, 1836: 507. Type data: Female, MNHN. Type locality: Java, Indonesia.

Vespa auraria Smith, 1852a: 46.

Vespa crabro var. *immaculata* Morawitz, 1889: 161.

Vespa fruhstorferi Stadelmann, 1894: 89.

Vespa velutina var. *ardens* du Buysson, 1905 (1904): 550.

Vespa auraria var. *nigrithorax* du Buysson, 1905 (1904): 553.

Vespa velutina var. *Celebensis* Pérez, 1910: 12.

Vespa velutina var. *megei* Pérez, 1910: 13

Vespa mongolica var. *divergens* Pérez, 1910: 16.

Vespa flavitarsus Sonan, 1929: 137 & 142.

Vespa velutina sumbana van der Vecht, 1957: 34 & 40.

Vespa velutina variana van der Vecht, 1957: 35 & 37.

Vespa velutina karnyi van der Vecht, 1957: 35 & 38.

Vespa velutina timorensis van der Vecht, 1957: 35 & 40.

Vespa velutina floresiana van der Vecht, 1957: 35 & 40.

Vespa velutina pruthii van der Vecht, 1959c: 228.

Material examined. INDIA: **Himachal Pradesh:** Dalhousie, 25.ix.2014, 1 ♀, Coll. Ramesh. **Uttarakhand:** Bhimtal, 12.xi.2016, 1 ♀, Coll. Ankita Gupta.

Distribution. India: Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Meghalaya, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* Afghanistan; Bhutan; China (including Taiwan); Indonesia; Laos; Malaysia; Myanmar; Pakistan; South Korea [introduced]; Thailand; Vietnam. (van der Vecht 1959c, Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Jonathan *et al.* 1996, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Jonathan & Kundu 2003, Kundu *et al.* 2006, Nguyen *et al.* 2006b, Barthélémy *et al.* 2014, Choi & Kwon 2015, Girish Kumar *et al.* 2015c, Pham & Li 2015, Dorji *et al.* 2017a, Dorji *et al.* 2017b, Rafi *et al.* 2017).

280) *Vespa vivax* Smith, 1870

Vespa vivax Smith, 1870: 190. Type data: Female, BMNH. Type locality: Binsar, Uttarakhand, India.

Vespa velutina var. *mediozonalis* Perez, 1910: 14.

Vespa wilemani Meade-Waldo, 1911a: 104.

Distribution. India: Jammu & Kashmir, Himachal Pradesh, Sikkim, Uttarakhand. *Elsewhere:* Bhutan; China (including Taiwan); Myanmar; Nepal; Thailand. (van der Vecht 1959c, Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Jonathan & Kundu 2003, Gusenleitner 2006, Girish Kumar & Srinivasan 2010, Kundu *et al.* 2010, Dorji *et al.* 2017a, Rafi *et al.* 2017).

Genus *Vespula* Thomson, 1896

Vespula Thomson 1869: 79. Type species: *Vespa austriaca* Panzer 1799.

Pseudovespa Schmiedeknecht, 1881: 314. Type species: *Vespa austriaca* Panzer, 1799.

Paravespula Blüthgen, 1938a (1937): 271. Type species: *Vespa vulgaris* Linnaeus, 1758.

Allovespula Blüthgen, 1943b: 149. Type species: *Paravespula rufa* (Linné) [= *Vespa rufa* Linnaeus, 1758].

Rugovespula Archer, 1982: 261, 264. Type species: *Vespa koreensis* Radoszkowski, 1887.

281) *Vespula austriaca* (Panzer, 1799)

Vespa austriaca Panzer 1799. Type data: Male, destroyed. Type locality: “Viennae Austr.”

Vespa borealis Smith, 1843: 170.

Vespa arborea Smith, 1849: 1x.

Vespa biloba Schilling, 1850: 77.

Vespa arborea “Ross” Dalla Torre, 1894: 138.

Vespula (*Vespula*) *austriaca*; Guiglia, 1972: 102.

Distribution. India: Jammu & Kashmir. *Elsewhere:* Albania; Austria; Belarus; Belgium; Bosnia & Herzegovina; Bulgaria; Canada; China; Croatia; Czech Republic; Denmark; Estonia; Finland; France; Georgia; Germany; Greece; Hungary; Ireland; Italy; Japan; Kazakhstan; Korea; Kyrgyzstan; Latvia; Liechtenstein; Lithuania; Luxembourg; Macedonia; Moldova; Mongolia; Netherlands; Norway; Pakistan; Poland; Romania; Russia; Serbia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey; U. K.; Ukraine. (Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Rafi *et al.* 2017, Girish Kumar & Carpenter 2018).

282) *Vespula flaviceps* (Smith, 1870)

Vespa japonica de Saussure, 1858: 261. Type data: Female, MHNG. Type locality: “Japon”.

Vespa flaviceps Smith, 1870: 174, 191.

Vespa “*Lewisii*”, Sauss; Cameron, 1903c: 280.

Vespa saussurei Schulz, 1906: 231.

Vespa karenkona Sonan, 1929: 137 (key), 148.

Vespa 4-maculata Sonan, 1929: 137 (key), 148.

Vespa vulgaris var. *flavior* Stofa, 1934: 49

Vespula japonica pionganensis Giordani Soika, 1976: 287, 290.

Vespula gracilia Lee, 1986b: 201, 203, 206.

Material examined. INDIA: **Himachal Pradesh:** Kullu, IARI Baragran Farm, 26.v.2016, 44 ♀, COLL. Sandesh Gawas.

Distribution. India: Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* China (including Taiwan); Japan; Korea; Laos; Myanmar; Nepal; Pakistan; Russia; Thailand; Vietnam. (Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Jonathan & Kundu 2003, Kundu *et al.* 2010, Barthélémy *et al.* 2014, Choi & Kwon 2015, Dorji *et al.* 2017a, Rafi *et al.* 2017, Girish Kumar & Carpenter 2018, Nguyen *et al.* 2019b).

283) *Vespula germanica* (Fabricius, 1793)

?*Vespa maculata* Scopoli, 1763: 312. Type destroyed. Type locality: “Carnioliae” (Slovenia).

?*Vespa macularis* Olivier, 1792: 695.

Vespa germanica Fabricius, 1793: 256.

Vespula (*Paravespula*) *germanica*; Williams, 1983: 194.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere:* Afghanistan; Albania; Algeria; Armenia; Argentina [introduced]; Australia [introduced]; Austria; Azerbaijan; Belarus; Belgium; Bosnia & Herzegovina; Bulgaria; Canada; Chile [introduced]; China (including Taiwan); Croatia; Czech Republic; Denmark; Estonia;

Finland; France; Georgia; Germany; Greece; Hungary; Iceland [introduced]; Iran; Iraq; Ireland; Israel; Italy; Jordan; Kazakhstan; Korea; Kyrgyzstan; Lebanon; Liechtenstein; Lithuania; Luxembourg; Macedonia; Malta; Mayotte; Moldova; Mongolia; Morocco; Nepal; Netherlands; New Zealand [introduced]; New Zealand; Norway; Pakistan; Poland; Portugal; Romania; Russia; Scotland; Serbia; Slovakia; Slovenia; South Africa [introduced]; Spain; Sweden; Switzerland; Syria; Tajikistan; Tunisia; Turkey; Turkmenistan; U.K.; Ukraine; U.S.A. [introduced]; Uzbekistan. (Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Gupta 2008, Bleidorn *et al.* 2016, Rafi *et al.* 2017, Girish Kumar & Carpenter 2018, Fateryga 2018).

284) *Vespula koreensis* (Radoszkowski, 1887)

Vespa koreensis Radoszkowski, 1887: 432. Type data: Lectotype female, BMNH. Type locality: “Koree”.

Vespa germanica var. *stizoides* du Buysson, 1905 (1904): 494 (key), 615.

Pseudovespa birulai Gussakovskii, 1932: 52.

Vespula koreensis salebroso Archer, 1982: 261, 267.

Vespula hainanensis Lee, 1986b: 201, 202, 206.

Distribution. India: Meghalaya, Sikkim. *Elsewhere:* China; Korea; Laos; Myanmar Russia; Thailand; Vietnam. (Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Jonathan *et al.* 2000a, Choi & Kwon 2015, Pham & Li 2015, Girish Kumar & Carpenter 2018).

285) *Vespula nursei* Archer, 1981

Vespula nursei Archer, 1981b: 54, 57. Type data: Holotype female, BMNH. Type locality: Kashmir, India.

Distribution. India: Delhi, Himachal Pradesh, Jammu & Kashmir, Punjab, Sikkim, Uttarakhand. *Elsewhere:* Bhutan; China; Pakistan; Philippines. (Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Dorji *et al.* 2017a, Rafi *et al.* 2017, Girish Kumar & Carpenter 2018).

286) *Vespula orbata* (du Buysson, 1902)

Vespa orbata du Buysson, 1902: 140. Type data: Lectotype female, MNHN. Type locality: Darjeeling, West Bengal, India.

Vespa minuta Dover, 1925: 304. Type data: Holotype female, BMNH. Type locality: “Tenasserim”, Myanmar.

Vespula nujiangensis Dong and Wang, 2004: 146.

Distribution. India: Arunachal Pradesh, Nagaland, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* China; Laos; Myanmar; Nepal; Thailand; Vietnam. (Archer 1989, Das & Gupta 1989, Jonathan *et al.* 1996, Carpenter & Kojima 1997, Kundu *et al.* 2010, Nguyen & Kojima 2013, Pham & Li 2015, Girish Kumar & Carpenter 2018, Girish Kumar & Sureshan 2019b, Nguyen *et al.* 2019b).

287) *Vespula structor* (Smith, 1870)

Vespa structor Smith, 1870: 191. Type data: Female, BMNH. Type locality: Binsar, Uttarakhand, India.

Vespa orbata var. *aurulenta* du Buysson, 1905 (1904): 579.

Vespa structrix Schulz, 1906: 231.

Vespula gongshanensis Dong, 2005: 65.

Material examined. INDIA: **Himachal Pradesh:** Kullu, IARI Baragran Farm, 26.v.2016, 1 ♀, Coll. Sandesh Gawas.

Distribution. India: Arunachal Pradesh, Assam, Jammu & Kashmir, Himachal Pradesh, Sikkim, Uttarakhand, West Bengal. *Elsewhere:* China; Laos; Myanmar; Nepal; Thailand. (Das & Gupta 1984, Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Kundu *et al.* 2010, Dorji *et al.* 2017a, Girish Kumar & Carpenter 2018).

288) *Vespula vulgaris* (Linnaeus, 1758)

Vespa vulgaris Linnaeus, 1758: 572. Type data: Lectotype female, LSL. Type locality: “in Europa”.

Vespa sexcincta Panzer, 1799: 1.

Vespa vulgaris var. *pseudogermanica* Stolfa, 1932: 26.

Vespa mixta “Schenck” Edwards, 1980: 363.

Vespula rufosignata Eck, 1998: 299.

Vespula vulgaris vetus Eck, 1999: 309, 329.

Vespula yunlongensis Dong and Wang, 2003: 212.

Distribution. India: Himachal Pradesh, Jammu & Kashmir. *Elsewhere:* Albania; Argentina [introduced]; Australia [introduced]; Austria; Azerbaijan; Belarus; Belgium; Bosnia & Herzegovina; Bulgaria; Chile [introduced]; China; Croatia; Czech Republic; Denmark; Estonia; Finland; France; Georgia; Germany; Greece; Hungary; Iceland; Iran; Ireland [introduced]; Israel; Italy; Japan; Kazakhstan; Korea; Kyrgyzstan; Latvia; Liechtenstein; Lithuania; Luxemburg; Macedonia; Mexico; Moldova; Mongolia; Netherlands; New Zealand; Norway; Pakistan; Poland; Portugal; Romania; Russia; Serbia; Slovakia; Slovenia; South Africa; Spain; Sweden; Switzerland; Syria; Tahiti [introduced]; Turkey; U.K.; Ukraine. (Archer 1989, Das & Gupta 1989, Carpenter & Kojima 1997, Dvořák & Castro 2007, Bleidorn *et al.* 2016, Dorji *et al.* 2017a, Rafi *et al.* 2017, Girish Kumar & Carpenter 2018, Fateryga 2018).

Discussion

The study reports a total of 288 species of Vespidae belonging to 60 genera and 5 subfamilies known to occur in India. Eumeninae is the largest subfamily with 193 species in 48 genera, followed by Polistinae with 62 species in 4 genera, Vespinae with 26 species in 4 genera, Stenogastrinae with 6 species in 3 genera and Masarinae with 1 genus and 1 species. The above checklist provides valid species names, type data and localities, original references, existing and new geographical distributions along with referenced literature. This will serve as baseline data for the future studies on vespid fauna and will benefit researchers.

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