



## Corrections to Some Recently Published Papers on Heteroptera (Hemiptera)

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### Abstract

We provide corrections to 17 recent papers (published since 2013). The following new combination is proposed: *Dabessus indicus* Kushwaha and Jahan, 2023 = *Neojurtina indica* (Kushwaha and Jahan, 2023), **new combination**. The following corrections are provided: Miridae: *Tytthus chinensis* sensu Al-Anbaki *et al.* (2023) = *Maurodactylus nigrigenis* (Reuter, 1890) (from Iraq); Pentatomidae: *Antestiopsis thunbergii* sensu Zhao *et al.* (2021) = *Anaxilaus musgravei* Gross, 1976 (from Australia), *Andrallus spinidens* sensu Kaur (2024) = *Erthesina* sp., *Carpocoris pallidus* sensu Keshari and Mahto (2017) = *Anthemina* sp., *Dalpada neoclavata* sensu Kaur (2024) = *Dalpada bulbifera* Walker, 1867, *Halyabbas unicolor* sensu Singh *et al.* (2013) = *Palomena* sp., *Nezara antennata* sensu Kaur (2024) = *Nezara viridula* (Linnaeus, 1758), *Paranevisanus subgenericus* sensu Kaur (2024) = *Paranevisanus annandalei* (Distant, 1908), *Picromerus obtusus* sensu Kaur (2024) = *Eocanthecona furcellata* (Wolff, 1811), *Priassus spiniger* sensu Kaur *et al.* (2019) = *Priassus exemptus* (Walker, 1868), *Priassus exemptus* sensu Kaur *et al.* (2019) = *Udonga montana* (Distant, 1900), *Sciocoris lateralis* sensu Kaur *et al.* (2016) = *Menida formosa* (Westwood, 1837), and *Tolumnia maxima* sensu Kaur *et al.* (2017) = *T. latipes* (Dallas, 1851) from India. The records of *Reduvius personatus* (Linnaeus, 1758) (Reduviidae), *Nabis roseipennis* Reuter, 1872 (Nabidae), *Anthocoris nemoralis* (Fabricius, 1794) (Anthocoridae), *Peritropis saldaeformis* Uhler, 1891 and *Lygus lineolaris* (Palisot de Beauvois, 1818) (both Miridae), *Oncopeltus fasciatus* (Dallas, 1852) (Lygaeidae), *Alydus calcaratus* (Linnaeus, 1758) (Alydidae), *Leptoglossus phyllopus* (Linnaeus, 1767) (Coreidae), *Cydnus aterrimus* (Forster, 1771) (Cydnidae), *Chinavia hilaris* (Say, 1832) and *Halyomorpha halys* (Stål, 1855) (Pentatomidae), *Corimelaena pulicaria* (Germar, 1839) (Thyreocoridae), and *Calliphara excellens* (Burmeister, 1834) (Scutelleridae) from Nigeria, and records of *Nepa cinerea* Linnaeus, 1758 (Nepidae), *Velia caprai* Tamanini, 1947 (Veliidae), *Coreus marginatus* (Linnaeus, 1758) (Coreidae), *Chlorochroa ligata* (Say, 1832), *Graphosoma lineatum* (Linnaeus, 1758), *Halyomorpha halys* and *Palomena prasina* (Linnaeus, 1761) (Pentatomidae) from India are demonstrated to be apparent errors. In addition, we propose, *Anthemina sariabensis* (Ahmad and Zaidi, 1991), **new combination** (for *Codophila sariabensis* Ahmad and Zaidi, 1991), fix its original correct spelling, and provide three new country records: *Priassus exemptus* from Laos, *Priassus spiniger* from Malaysia, and *Tolumnia maxima* from Brunei.

**Key words:** Insecta, Miridae, Pentatomidae, corrections, misidentification, new combination, Australia, India, Iraq, Nigeria

### Introduction

‘Errare humanum est.’ ‘To err is human.’ That is one of the well-known Latin proverbs left us by ancient Romans. And challenging the imprecise or erroneous hypotheses is one of the major driving forces of the progress of scientific research. The research on Heteroptera is no exception. We can meet with books and papers of problematic quality as well as their criticism published by others since the beginning of systematic studies. For example, Carl Stål (1870) criticised, in his preface, the catalogues of the Heteroptera Collection of the British Museum by Francis

Walker (e.g., 1867a, b, 1868). The ‘Catalogue of the described Hemiptera Heteroptera and Homoptera of Ceylon’ by W. F. Kirby (1891) received sharp comments from Ernst E. Bergroth (Bergroth 1892, 1893) and William L. Distant (Distant 1893) (for replies see Kirby 1892, 1893). Later some problematic papers published by Distant started a polemic between Bergroth (1911a, b) and George W. Kirkaldy on one side and the author on the other side (Distant 1911a, b; for further details see Dolling 1991). In the 20<sup>th</sup> century we can find exchange of criticism concerning taxonomy of North American Larginae between Thomas F. Halstead (1972a, b) and Brunson P. Bliven (Bliven 1973) including amusingly written personal invectives of the latter author. There is no wonder that Bliven established his own privately published journal, *Occidental Entomologist*, to be free from critical opinions of other colleagues. Norman C. E. Miller is well known for an inflation of taxa in Reduviidae caused by his descriptions (see e.g. Malipatil 1985, 1991), many of them still waiting for revision and synonymization. Imtiaz Ahmad, despite being a pioneer of cladistic approach in Pentatomidae, described with his students a number of problematic genera and species of Pentatomomorpha due to underestimation of intraspecific variability, over-relying on fine differences that are either artefactual or variable, biased taxon sampling and the lack of study or incorrect interpretation of the pertinent types (see e.g. Salini 2019, Salini and Kment 2021, Kment *et al.* 2021a, Gapon 2023, Salini *et al.* 2023). In the past decade, Kurt Arnold followed the path of Bliven and established another self-published journal on Heteroptera, *Edessana*. The lack of rigorous review enabled him to propose *Jostenicoris* (Arnold 2011a), an intended new genus of Pentatomidae, without stating a single distinguishing character which makes it unavailable for the purposes of the zoological nomenclature (see Kment 2013).

In the last decades of the 20<sup>th</sup> century one might believe that improving publication standards including double peer review would possibly eradicate poor papers from the scientific record. However, the boom of electronic-only publications after the year 2000 has made it easier to circumvent journals requiring high-standards, especially after the emergence of numerous predatory journals willing to publish for money any text resembling a scientific article without the slightest quality control or without taking into consideration any of the reviewers comments. As a result, erroneous articles seem to be more common today than ever before. Specialist for a particular family of Heteroptera may easily spot such a mistake, but colleagues or students not familiar with that particular taxon may perpetuate the mistake(s) further, for example during the compilation of local lists and monographs, e.g. Baidya *et al.* (2023) and Praveen *et al.* (2024) listed again the presence of the pest *Halyomorpha halys* (Stål, 1855) in India based on erroneous original sources. If we take seriously the number of published misidentifications which commonly concern species from different continents, this would considerably increase the number of alien Heteroptera species recorded worldwide, including several important pest species, e.g., *Antestiopsis thunbergii* (Gmelin, 1790). Finally, in case of the true alien species, like *H. halys*, including the erroneous records into the ecological niche models could render their results useless. Despite these risks, erroneous papers without nomenclatural consequences are only rarely corrected as few people have time to deal with the poor or wrong information in these papers (see Rédei 2016, Salini *et al.* 2021). Our recent encounter with the monograph ‘An illustrated guide on the Pentatomid bugs of North India’ published by Ravneet Kaur and a number of mistakes repeated in it from previous papers of the author reminded us one of the many modifications of the opening proverb saying: ‘*Errare humanum est, perseverare autem diabolicum.*’ ‘To err is human, but to persist [in error] is diabolical.’ This idea, the number of poor papers we have recently met with, and finally the recent establishment of the ‘Journal of the International Heteropterist’ Society’ (JIHS) inspired us to compile an experimental paper compiling corrections for a set of 17 recently published papers and presenting it to JIHS as a service to the Society. We also hope this will similarly inspire others to correct nomenclatural problems and misidentifications as they are discovered.

## Material and Methods

We have never met with a similar paper in our scientific career in which the situation required a considerable improvisation concerning its structure. We decided to present this corrections ‘paper after paper’ instead of ‘taxon after taxon’ despite some amount of repetition. We understand the references to the corrected papers as negative ones and intentionally do not include them in the ‘Literature Cited’ to deprive them of recognition in the present scientometric system.

The material examined is deposited in the following collections:

NIM National Insect Museum, Indian Council of Agricultural Research—National Bureau of Agricultural Insect Resources, Bangalore, India (ICAR-NBAIR);

NMPC National Museum of the Czech Republic, Praha, Czech Republic;

UASB University of Agricultural Sciences, Bangalore, Karnataka, India.

The following Pentatomidae have been examined and photographed for this paper:

*Dabessus repellens* Kirby, 1892 (Fig. 7): India, Karnataka, Devarayandurga, 8.vii.1979, 1 male, C. A. Viraktamath lgt., P. Kment det. (UASB).

*Halyabbas unicolor* Distant, 1900 (Fig. 11): Myanmar, Pegu St., Toungoo, Oktwin—Letpangon, 29.v.2003, 1 male, M. Klícha lgt., P. Kment det. (NMPC).

*Menida formosa* (Westwood, 1837) (Fig. 2): India, Karnataka, Nandi Hills, Chikkaballapura, 21.xi.2023, 1 male, Abhishek V. lgt., P. Kment det. (NIM).

*Neojurtina* sp. 1 (Fig. 8): Laos NE, Houa Phan Prov., 20°11'50"N 104°01'04"E, Phou Pane Mt., 1870 m a.s.l., primary mountain forest, at light, 14.–24.vi.2012, 1 male, V. Kubáň lgt., P. Kment det. (NMPC).

*Neojurtina* sp. 2 (Fig. 9): Taiwan, Taichung Pr., 15 km W Lishan, 1410 m a.s.l., 24.258°N 121.211°E, 25.v.2012, 1 male, J. Halada lgt., P. Kment det. (NMPC).

*Neojurtina* sp. 3 (Fig. 10): Indonesia, Kalimantan Barat Pr., SW Kalimantan, 1000–1500 m a.s.l., Singkawang region, Mt. Bawang, Madi vill. env., x.2017, 1 male, local collectors leg., P. Kment det. (NMPC).

*Priassus exemptus* (Walker, 1868) (Fig. 4): Laos NE, Houa Phan Prov., 20°12'–13.5'N 103°59.9'–104°01'E, Ban Saluei → Phou Pane Mt., 1340–1870 m a.s.l., 15.iv.–15.v.2008, 1 male, Lao collectors lgt., D. Rédei det. 2008 (NMPC). New record.

*Priassus spiniger* (Haglund, 1868) (Fig. 5): Malaysia, Pahang, Cameron Highlands, Tanah Rata vill. env., Gunung Jasar [Mt.], 1470–1750 m a.s.l., 4°28.4'–7'N 101°21.6'–22.1'E, 18.iv.–10.v.2009, 1 male, J. Hájek lgt., D. Rédei det. 2012 (NMPC). New record.

*Sciocoris indicus* Dallas, 1851 (Fig. 1): India, Karnataka, Chikkaballapura, 23.vi.2013, 1 male, Vinayaka lgt., Salini det. (UASB).

*Tolumnia maxima* Distant, 1902 (Fig. 3): Brunei, Andulau FR, mixed dipterocarp forest, at highway transect forest edge, 4°39'20.71"N E 114°31'5.34"E, 11.xi.2014, MPV light trap, rain, 6–8 p.m., Belalong .00891, 1 female, C. Damken leg, donated by M. Roca-Cusachs, Salini det. (NIM). New record.

*Udonga montana* (Distant, 1900) (Fig. 6): India, Karnataka, Chikkaballapura, 25.ix.2014, 1 female, Nirmala lgt., Salini det. (UASB).

## Corrections

Al-Anbaki, H. A. M., T. S. A. Al-Hayali, A. N. Alhadidi, and L. M. A. Shiblawi. 2023. New record species of *Tytthus chinensis* (Stål, 1859) (Hemiptera: Heteroptera: Miridae) from Iraq. *In* 4th International Conference of Modern Technologies in Agricultural Sciences. IOP Conference Series: Earth and Environmental Science 1262 (032034): 1–3.

*Tytthus chinensis* sensu Al-Anbaki *et al.* (2023) (misidentification) = *Maurodactylus nigrigenis* (Reuter, 1890)

Al-Anbaki *et al.* (2023) reported the first record of the plant bug species *Tytthus chinensis* (Stål, 1859) (Miridae: Phylinae) from Iraq based on a series of specimens collected by light trap at Baqubah (Diyala governorate). The authors provided photographs of the habitus, head, and pronotum in dorsal view, the genital capsule in ventral view, and drawings of the genitalia. *Tytthus chinensis* is a widely distributed species in the Oriental and Australian Regions, from Japan, central China and India to Australia and various islands of Micronesia, Melanesia and Polynesia (Henry 2012); it has never been found in Palearctic Region (Kerzhner and Josifov 1999, Henry 2012). For identification of *T. chinensis*, see Henry (2012). However, the species illustrated by Al-Anbaki *et al.* (2023) was misidentified, and is actually *Maurodactylus nigrigenis* (Reuter, 1890). This is a Mediterranean species distributed in Spain, Greece (Crete), Canary Islands, North Africa (Morocco, Algeria, Tunisia, Libya, Egypt), Near East (Asian Turkey, Israel, Jordan, Syria, Saudi Arabia, Kuwait, Iraq), extending to Azerbaijan, Iran and Turkmenistan (Kerzhner and Josifov 1999, Aukema 2024). *Maurodactylus nigrigenis* was previously recorded from Iraq by Linnavuori (1993). For identification of *Maurodactylus nigrigenis* (including its synonyms *M. gomerensis* Wagner, 1954 and *M. orientalis* Wagner, 1961), see Wagner (1975) and Carapezza (1997).

**Borisade, O. A., Y. I. Uwaidem, and M. O. Aayoutunde-Ojo. 2017. Arthropods associated with *Amaranthus hybridus* in southwestern Nigeria and aggregation patterns of *Gasteroclisus rhomboidalis*, *Hypolixus nubilosus* (Coleoptera: Curculionidae) and brown marmorated stink bug, *Halyomorpha halys* (Hemiptera: Pentatomidae) in relation to host's morphology. Asian Journal of Advances in Agricultural Research 2(1): 1–11.**

According to Borisade *et al.* (2017), the brown marmorated stink bug *Halyomorpha halys* (Stål, 1855) (Pentatomidae: Pentatominae: Cappaeini) was responsible for the damage to flowering heads of the amaranth (*Amaranthus hybridus*) in Nigeria. The paper does not include a photograph or description of the mentioned species. *Halyomorpha halys* has never been recorded from the Afrotropical Region (c.f. Kment *et al.* 2021b); apparently this is a misidentification of one of a native species, most likely a species of the genera *Halyomorpha* Mayr, 1864 or *Boerias* Kirkaldy, 1909 (see Linnavuori 1982).

**Gaikwad, S. M. and S. H. Waghmare. 2018. Stink bugs (Hemiptera: Heteroptera: Pentatomidae) and plant association in Kolhapur District of Northern Western Ghats. Journal of Emerging Technologies and Innovative Research 5(12): 12–15.**

Gaikwad and Waghmare (2018) reported *Halyomorpha halys* from Kolhapur District, Maharashtra, India, as being associated with the following plants: *Lantana camara*, *Mangifera indica*, *Solanum lycopersicum*, *Syzygium cumini*, *Tectona grandis*, and *Zea mays*. It was the only species of the genus *Halyomorpha* in their survey, which suggests that this is a misidentification of *Halyomorpha picus* (Fabricius, 1794), a common species in these areas of India (cf. Salini *et al.* 2021; Kment *et al.* 2021a, b).

**Harinath, P., K. Suryanarayana, and S. P. Venkata Ramana. 2014. Insect diversity of Sri Lankamalleswara Reserve forest in the Eastern Ghats of Southern Andhra Pradesh. Journal of Entomology and Zoology Studies 2(6): 198–212.**

Harinath *et al.* (2014) published a paper reporting on the insect diversity of Sri Lankamalleswara Reserve in the Eastern Ghats of Southern Andhra Pradesh, including five species of Hemiptera: *Palomena prasina* (Linnaeus, 1761), *Nezara viridula* (Linnaeus, 1758) (both Pentatomidae), *Coreus marginatus* (Linnaeus, 1758) (Coreidae), *Nepa cinerea* Linnaeus, 1758 (Nepidae), and *Velia caprai* Tamanini, 1947 (Veliidae). According to the authors, the insects 'were identified using the standard keys and standard references.' However, of the five listed species only *N. viridula* is a member of Indian fauna (e.g., Salini and Viraktamath 2015). Concerning the four remaining taxa, none of which occur in India, three are widely distributed Palaearctic taxa, *Nepa cinerea* (Polhemus 1995, Thirumalai 2007), *Coreus marginatus marginatus* (Dolling 2006) and *Palomena prasina* (Rider 2006); the fourth, *Velia caprai*, has an even more restricted distribution in Europe north of the Mediterranean and Caucasus, and its previous records from Turkey, Iran and/or India are apparent misidentifications (Andersen 1995, Thirumalai 2002, Fent *et al.* 2011, Berchi *et al.* 2023). This work is clearly incompetent and its results should be ignored.

**Ishaya, M., A. Ombugadu, D. G. Daniel, N. Akemien, D. Madaki, V. A. Adejoh, M. P. Lapang, and H.O. Ahmed. 2018a. Comparative study on composition of insect in close and open nursery of Federal College of Forestry Jos, Plateau State, Nigeria. Journal of Research in Forestry, Wildlife and Environment 10(1): 11–19.**

Ishaya *et al.* (2018a) published a comparative study on the composition of insects in close and open nursery of Federal College of Forestry Jos, Nigeria. For the list of the species names see Table 1. They included nine species of Hemiptera/Heteroptera, of which two are apparently nonsensical, and one actually belongs to the Phasmatodea. Of the six species that actually belong in the Heteroptera, two are distributed in both the Palaearctic and Nearctic Region, *Reduvius personatus* (Linnaeus, 1758) (Reduviidae) (Putshkov and Putshkov 1996) and *Alydus calcaratus* (Linnaeus, 1758) (Alydidae) (Dolling 2006), three in the Nearctic Region, *Oncopeltus fasciatus* (Dallas, 1852) (Lygaeidae) (Ashlock and Slater 1988), *Chinavia hilaris* (Say, 1832) (Pentatomidae) (Froeschner 1988a, Rider and Swanson 2021), and *Corimelaena pulicaria* (Germar, 1839) (Thyreocoridae) (Froeschner 1988b), and one is distributed in Oriental Region and East Palaearctic, *Calliphara excellens* (Burmeister, 1834) (Scutelleridae) (Göllner-Scheiding 2006). The insects were reportedly identified by using the papers by Skaife *et al.* (1979), Castner (2000), and Shattuck (2000), none of which were relevant for this task. This work is one of the worst cases of the authors' incompetence, and the failure of the editorial system, and there is no other possibility than to ignore this publication.



**TABLE 1.** List of Hemiptera species provided by Ishaya *et al.* (2018a) from nursery of Federal College of Forestry Jos, Plateau State, Nigeria.

Family	Genus	Species	Comment
Nabidae	<i>Nadidae</i>	<i>N. nabis</i>	Non-existent taxon
Phyllidae	<i>Phyllium</i>	<i>P. giganteum</i>	<i>Pulchriphyllium giganteum</i> (Hausleithner, 1984) (Phasmatodea)
Apidae	<i>Apis</i>	<i>A. species</i>	Probably <i>Aphis</i> (Sternorrhyncha: Aphididae) and not <i>Apis</i> (Hymenoptera: Apidae)
Lygaeidae	<i>Oncopeltus</i>	<i>O. fasciatus</i>	<i>Oncopeltus fasciatus</i> (Dallas, 1852)
Pentatomidae	<i>Chinavia</i>	<i>C. halaris</i>	<i>Chinavia hilaris</i> (Say, 1832)
Alydidae	<i>Alydus</i>	<i>A. calcaratus</i>	<i>Alydus calcaratus</i> (Linnaeus, 1758)
Scutelleridae	<i>Calliphara</i>	<i>C. excellens</i>	<i>Calliphara excellens</i> (Burmeister, 1834)
Reduviidae	<i>Reduvius</i>	<i>R. personatus</i>	<i>Reduvius personatus</i> (Linnaeus, 1758)
Cydniidae	<i>Thyreocoris</i>	<i>T. pulicarius</i>	<i>Corimelaena pulicaria</i> (Germar, 1839) (Thyreocoridae)

**Ishaya, M., G. S. Mwansat, A. Ombugadu, H. L. Njila, M. J. Mafuyati, and M. P. Lapang. 2018b.** A comparison of pitfall traps and hand-picking techniques for studying macroarthropods abundance in vegetable plots and the influence of abiotic factors on their abundance in Jos, Nigeria. *Journal of Agricultural Science and Practice* 3(4): 79–89.

Ishaya *et al.* (2018b) published a comparative study on the macroarthropod abundance in vegetable plots in Jos, Nigeria. The authors used pitfall traps and hand-picking techniques for their sampling. As in their previous study, none of the four papers used for making their identifications (Borror and White 1970, Skaife *et al.* 1979, Castner 2000, Shattuck 2000), are suitable for identification of true bugs in tropical Africa. They included ten taxa of Heteroptera in their list of sampled taxa, nine of which do not occur in tropical Africa. Two are distributed in both the Palaearctic and Nearctic Region, *Anthocoris nemoralis* (Fabricius, 1794) (Anthocoridae) (Péricart 1996) and *Alydus calcaratus* (Linnaeus, 1758) (Alydidae) (Dolling 2006), two in the Palaearctic Region, *Cydnus aterrimus* (Forster, 1771) (Cydniidae) (also introduced to South Africa, USA and West Indies; Lis 2006) and *Pyrrhocoris* sp. (Pyrrhocoridae) (Kerzhner 2001), four in the Nearctic (or also Neotropical) Region, *Nabis roseipennis* Reuter, 1872 (Nabidae) (Henry and Lattin 1988), *Peritropis saldaeformis* Uhler, 1891 (Henry and Wheeler 1988) and *Lygus lineolaris* (Palisot de Beauvois, 1818) (Henry and Wheeler 1988, Schwartz and Footitt 1998) (both Miridae), and *Leptoglossus phyllopus* (Linnaeus, 1767) (Coreidae) (Froeschner 1988c). Finally, they listed the notorious alien species *Halyomorpha halys* (see comment under Borisade *et al.* 2017 above). Only the record of the worldwide distributed genus *Geocoris* sp. (Geocoridae) may be correct (e.g., Malipatil 1994). As in the case of Ishaya *et al.* (2018a), there is no other possibility than to ignore this publication.

**Jadhav, D. D. and V. D. Hegde. 2018.** On a collection of stink bugs (Hemiptera: Pentatomidae) in and around Pune, Maharashtra. *Journal of Entomology and Zoology Studies* 6(4): 1504–1507.

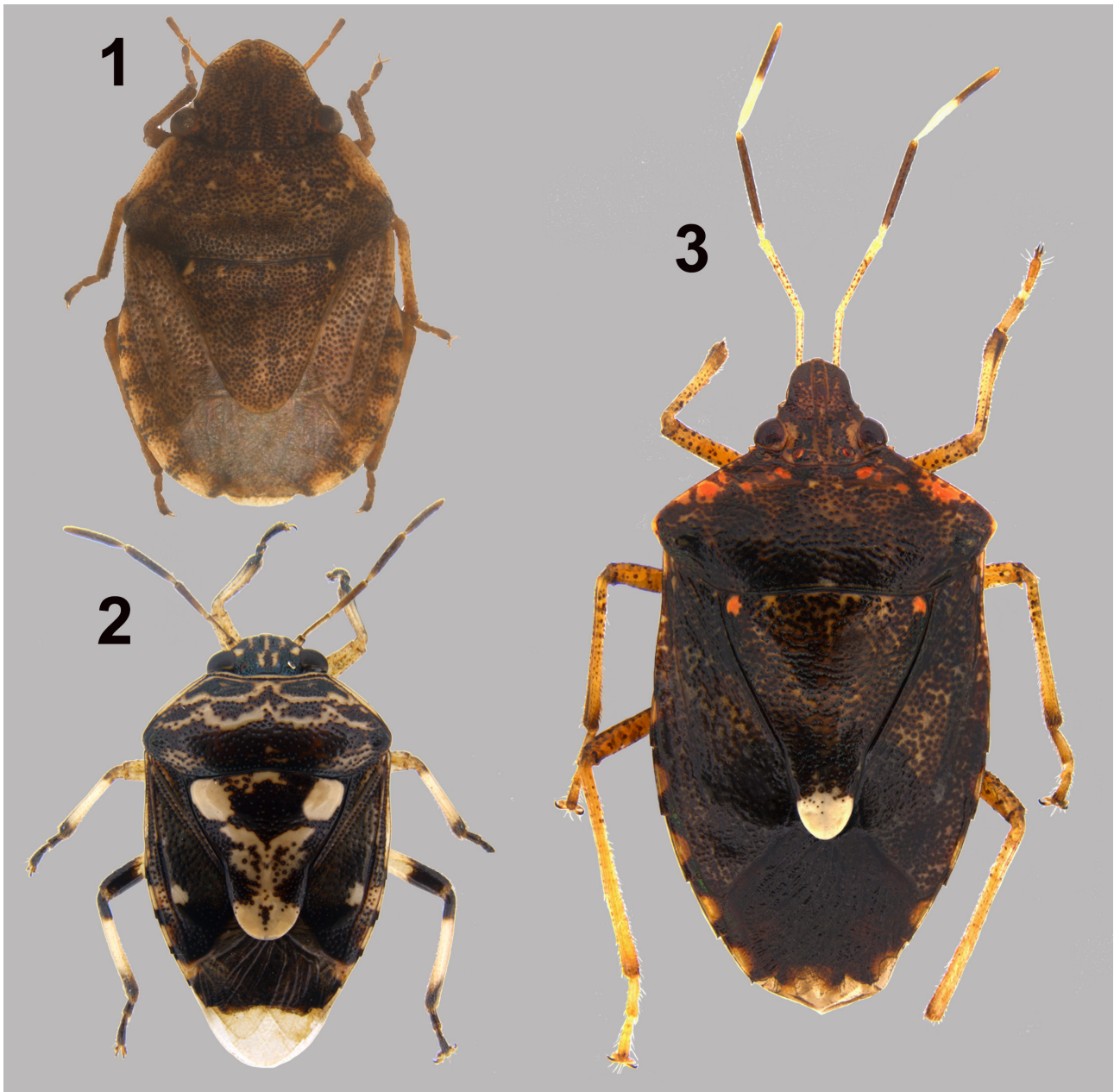
In their list of the Pentatomidae from the Pune District, Maharashtra, Jadhav and Hegde (2018) recorded '*Halyomorpha halys* (Fabricius)' with full synonymy of the taxon including '*Pentatoma halys*, Stahl'. This is a clear error for *Halyomorpha picus* (Fabricius, 1794) and is most likely a simple repetition of outdated taxonomic information, since *H. halys* was resurrected from the synonymy with *H. picus* already by Josifov and Kerzhner (1978) (see Kment *et al.* 2021b).

**Kaur, R., D. Singh, and H. Kaur. 2016.** Studies on Indian species of *Sciocoris* Fallen (Heteroptera: Pentatomidae). *International Journal of Entomology Research* 1(7): 54–56.

*Sciocoris lateralis* sensu Kaur *et al.* (2016), misidentification = *Menida formosa* (Westwood, 1837)

Kaur *et al.* (2016) redescribed the species *Sciocoris lateralis* Fieber, 1851 (Pentatomidae: Pentatominae: Sciocorini) based on a single female specimen from India: Himachal Pradesh. Besides the redescription, they provided a habitus photograph in dorsal view, along with photos of some morphological characters and the female

genitalia. *Sciocoris lateralis* is a species distributed in southern China (Rider *et al.* 2002; Rider 2006), India (Distant 1902, Salini and Viraktamath 2015), Myanmar (Fieber 1851, as ‘Hinterindien’, coll. Helfer), Pakistan (Ahmad *et al.* 1974, Ahmad 1981), and Sri Lanka (Distant 1908). However, the insect in their photograph is clearly a representative of the genus *Menida* Motschulsky, 1861 (Pentatominae: Menidini), *M. formosa* (Westwood, 1837) (Fig. 2). For a habitus view of a representative species of the genus *Sciocoris*, see Fig. 1. *Menida formosa* is a common and widespread species in China (Rider *et al.* 2002, Rider 2006), Taiwan (Esaki 1926), Sri Lanka (Distant 1918), India (e.g., Distant 1902, Salini and Viraktamath 2015), Myanmar (Distant 1901, 1902), Laos (Dean 1978), Thailand (Hasegawa 1962), Malaysia (Malay Peninsula, Sabah) (e.g., Breddin 1900, 1905; Hoffmann 1935a; Sienkiewicz 1964), and Indonesia (Java, Sumatra) (e.g., Breddin 1900, 1905; Sienkiewicz 1964).



**FIGURES 1–3.** Dorsal habitus: 1, *Sciocoris indicus* Dallas, 1851, India, male (body length 4.60 mm); 2, *Menida formosa* (Westwood, 1837). India, male (body length 7.24 mm); 3, *Tolumnia maxima* Distant, 1902, Brunei, female (body length 12.28 mm). Photographs: Salini.

**Kaur, R., D. Singh, and H. Kaur. 2017. Morphotaxonomy and external genitalia of three species of genus *Tolumnia* Stål (Heteroptera: Pentatomidae) from North India. *Journal of Entomology and Zoology Studies* 5(1): 1–6.**

*Tolumnia maxima* sensu Kaur *et al.* (2017) (misidentification) = *T. latipes* (Dallas, 1851)

Kaur *et al.* (2017) provided redescrptions and illustrations of three species of the genus *Tolumnia* Stål, 1868 (Pentatomidae: Pentatominae: Cappaeini) occurring in India. While the species *T. basalis* (Dallas, 1851) and *T. latipes* (Dallas, 1851) were correctly identified, the species *T. maxima* Distant, 1902 was misidentified. The specimen in the habitus photograph belongs to *T. latipes* (Dallas, 1851), whereas the other illustrations are those of *T. basalis* (Dallas, 1851). *Tolumnia maxima* (Fig. 3) is known from Brunei (new record), Indonesia (Kalimantan), Malaysia (Kuala Lumpur, Sarawak) (Hasan and Ahmad 1988), Myanmar (Distant 1902), and Vietnam (Đặng and Nguyễn 2009).

**Kaur, R., D. Singh, and H. Kaur. 2019. Taxonomy of two species of *Priassus* Stål (Heteroptera: Pentatomidae) along with their new distributional records in India. *Entomology and Applied Science Letters* 6(4): 30–38.**

*Priassus spiniger* sensu Kaur *et al.* (2019) (misidentification) = *Priassus exemptus* (Walker, 1868)

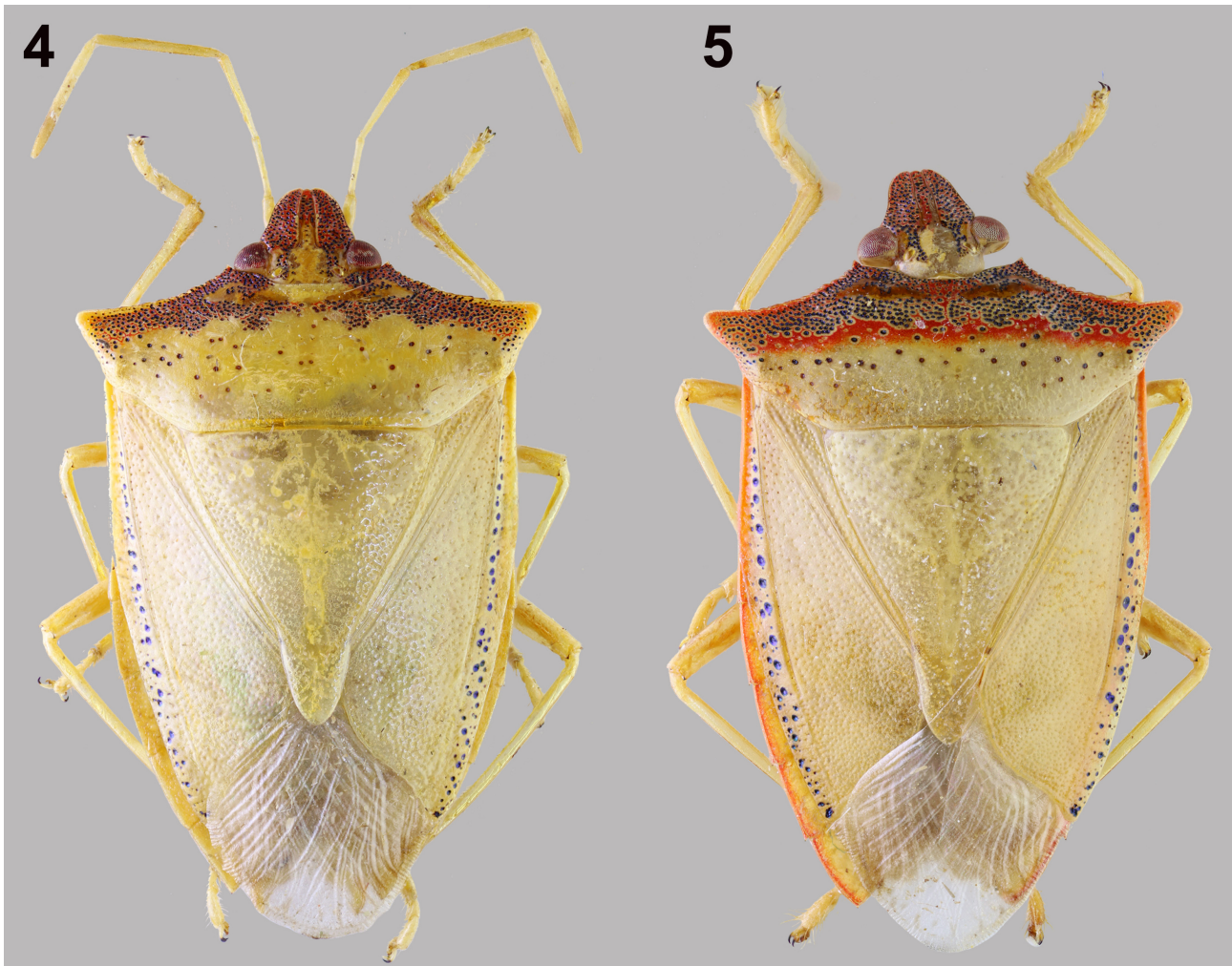
*Priassus exemptus* sensu Kaur *et al.* (2019) (misidentification) = *Udonga montana* (Distant, 1900)

Kaur *et al.* (2019) provided redescrptions, illustrations and a key for two species assigned to the genus *Priassus* Stål, 1868, *P. spiniger* (Haglund, 1868) (Fig. 5) based on males and females from India: Himachal Pradesh, and *P. exemptus* (Walker, 1868) (Fig. 4) based on females from India: Punjab. According to the illustrations, both species were misidentified: *Priassus spiniger* sensu Kaur *et al.* (2019) is actually *P. exemptus*, whereas *Priassus exemptus* sensu Kaur *et al.* (2019) is a representative of an unrelated genus, *Udonga montana* (Distant, 1900) (Pentatominae: Menidini, Fig. 6). The genus *Priassus* Stål, 1868 currently includes four species, *Priassus excoffieri* Martin, 1902, *P. exemptus*, *P. spiniger*, and *P. testaceus* Hsiao and Cheng, 1977, which are distributed in the Oriental Region, central and southern China and Central Asia (Hsiao *et al.* 1977, Rider *et al.* 2002, Rider 2006). However, there are additional undescribed species and frequent misidentifications within the genus which is in urgent need of revision (D. Rédei, personal opinion). The genus *Udonga* Distant, 1921 includes two species, *U. montana* from India (Distant 1902, Salini and Viraktamath 2015), Pakistan (Pawar 1974) and Myanmar (Distant 1900, 1901), and *U. spinidens* Distant, 1921, from China (Hsiao *et al.* 1977, Rider *et al.* 2002, Rider 2006), Laos (Distant 1921) and Vietnam (Hoàng and Đặng 2013).

**Kaur, R. and D. Singh. 2020. Phylogenetic utility of nucleotide sequences of mitochondrial COI gene in pentatomid bugs (Heteroptera: Pentatomidae). *Journal of Entomological Research* 44(3): 417–420.**

Kaur and Singh (2020) analysed partial mitochondrial COI gene fragments of approximately 600 bp from seven species of Pentatomidae collected from Himachal Pradesh, India: *Chlorochroa ligata* (Say, 1832), *Dalpada neoclavata* Rider, 1998, *Graphosoma lineatum* (Linnaeus, 1758), *Halyomorpha picus*, *Palomena prasina*, *Pentatoma* sp. and *Plautia viridicollis* (Westwood, 1837), none of them documented by habitus photographs. At least three of these species were misidentified: *Chlorochroa ligata* is a Nearctic species widely distributed in Canada, USA and Mexico (Froeschner 1988a, Rider and Swanson 2021). Neither *Ch. ligata* nor any of the three Palaearctic species of the genus *Chlorochroa* Stål, 1872 occur in India (Rider 2006). *Graphosoma lineatum* (Linnaeus, 1758) is a species restricted to North Africa, which has in the past been confused with *G. italicum* (O. F. Müller, 1766), widely distributed in Palaearctic Region from Europe to Central Asia (Rider 2006, Lupoli 2017). *Palomena prasina* is a widely distributed Palaearctic species (Rider 2006) without a reliable record from India. Also the identification of *Dalpada neoclavata* in this paper is most probably erroneous, as it was apparently misidentified in the subsequent paper by Kaur (2024) (see below). The pairwise K2P divergence between their samples of *G. lineatum* from Himachal Pradesh and *G. italicum* from France was 16% which, compared to results of Lupoli (2017), suggests a misidentification. The *Graphosoma* sequences from North India available in GeneBank corresponds most probably to a new, undescribed species (M. Roca-Cusachs, pers. opinion). The three phylogenetic trees provided by the authors are remarkable by the lack of significant statistical support for any of the basal branches. Finally, their sample of *C. ligata* from Himachal Pradesh is consistently grouping with European samples of *Graphosoma italicum*, instead of *Chlorochroa*, while the Indian sample of *G. lineatum* is grouping with *Halyomorpha picus*, which suggests misidentifications of both





**FIGURES 4–5.** Dorsal habitus of *Priassus* species: 4, *P. exemptus* (Walker, 1868), Laos, male (body length 15.54 mm); 5, *P. spiniger* (Haglund, 1868), Malaysia, male (body length 16.31 mm). Photographs: P. Kment.

taxa at the generic level. In all their trees, the analysed samples of *Palomena* cluster together (100%), but the Indian sample of *P. prasina* is sister to the clade consisting of *P. prasina* from Germany and *P. angulosa* (Motschulsky, 1861) from Korea, which suggests misidentification at the species level. This paper demonstrates that lacking the basic taxonomic expertise, the sophisticated molecular methods do not lead to acceptable identifications. The results of this paper should be ignored.

**Kaur, R. 2024. An illustrated guide on the pentatomid bugs of North India. SGSH Publication, Mumbai, 135 pp.**

This monograph is essentially a summary of previous papers published by the author with many repeats of the mistakes that we have already commented upon above. A list of the misidentified taxa is given in Table 2, and a list of nomenclatural corrections is provided in Table 3. Besides the number of misidentified taxa, the monograph is remarkable by the incompleteness and out-of-date list of cited papers, which does not include any papers by the Pakistani Pentatomidae specialist Imtiaz Ahmad and his team or any papers published on Indian Pentatomidae after the year 1997 including the own papers of the author. The statement that *Andrallus spinidens* (Fabricius, 1787) ‘has been recorded as a serious pest of rice in the Kangra Valley of Himachal Pradesh’ and ‘its other food plants include *Medicago sativum* and *Triticum vulgare*’ (p. 17) is obviously erroneous as this species is a well-known predator from the subfamily Asopinae (see Ghate *et al.* 2012, Shanker *et al.* 2017, Roca-Cusachs *et al.* 2019, Bharti *et al.* 2021, Bhojendra *et al.* 2021).



**TABLE 2.** List of corrections to species misidentifications in Kaur's (2024) monograph 'An illustrated guide on the pentatomid bugs of North India.'

Page. No and Figure No.	Name in Kaur's monograph	Correct taxon
P. 13, Fig. 3	<i>Picromerus obtusus</i> (Walker)	<i>Eocanthecona furcellata</i> (Wolff, 1811)
P. 16, Fig. 4	<i>Andrallus spinidens</i> (Fabricius)	<i>Erthesina</i> sp.
P. 48, Fig. 11	<i>Paranevisanus subgenericus</i> Distant	<i>Paranevisanus annandalei</i> (Distant, 1908)
P. 55, Fig. 13	<i>Dalpada neoclavata</i> Rider	<i>Dalpada bulbifera</i> Walker, 1867
P. 75, Fig. 18	<i>Nezara antennata</i> Scott	<i>Nezara viridula</i> (Linnaeus, 1758)
P. 88, Fig. 21	<i>Priassus spiniger</i> Haglund	<i>Priassus exemptus</i> (Walker, 1868)
P. 91, Fig. 22	<i>Priassus exemptus</i> (Walker)	<i>Udonga montana</i> (Distant, 1900)

**TABLE 3.** List of nomenclatural corrections to species names used in Kaur's (2024) monograph 'An illustrated guide on the pentatomid bugs of North India.'

Page No.	Name in Kaur's monograph	Correct name
13	<i>Picromerus obtusus</i> (Walker)	<i>Picromerus griseus</i> (Dallas, 1851)
33	<i>Halys dentatus</i> (Fabricius)	<i>Halys serrigera</i> Westwood, 1837 (sensu Salini 2019) or <i>H. magnus</i> Chopra, 1974 (sensu Gapon 2023)
40	<i>Aeliomorpha lineaticollis</i> (Westwood)	<i>Aeliomorpha lineatocollis</i> (Westwood, 1837)
48	<i>Paranevisanus subgenericus</i> Distant	<i>Paranevisanus melania</i> (Distant, 1908)
52	<i>Dalpada nigricollis</i> (Westwood)	<i>Sarju nigricollis</i> (Westwood, 1837)
94	<i>Tropicoris laeviventris</i> Stål	<i>Pentatoma laeviventris</i> (Stål, 1876)
109	<i>Piezodorus rubrofasciatus</i> (Fabricius)	<i>Piezodorus hybneri</i> (Gmelin, 1790)

**Keshari, S. and I. Mahto. 2017. Distribution and diversity of pentatomidae [sic!] (Hemiptera: Heteroptera) in Ranchi, Jharkhand. Biospectra 12(2): 93–98.**

*Carpocoris pallidus* sensu Keshari and Mahto (2017), misidentification = *Anthemina* sp.

Keshari and Mahto (2017) published a list of eleven 'Pentatomidae' species from Ranchi, Jharkhand, India (see Table 4). However, only seven of them are truly Pentatomidae, two belong to the Tessaratomidae (*Tessaratomya* spp.), one to the Dinidoridae (*Coridius ianus* (Fabricius, 1775)), and one is an unrelated family, the assassin bug, *Sycanus collaris* (Fabricius, 1781) (Reduviidae). For a list of the corrections to this list, see Table 4. *Carpocoris* [sic!] *pallidus* probably refers to *Pentatoma pallida* Dallas, 1851, described from North India, a supposed synonym of the otherwise West-Palaeartic *Carpocoris pudicus* (Poda, 1761) (Pentatominae: Carpororini). However, based on the provided photograph, the depicted species is member of the genus *Anthemina* Mulsant and Rey, 1866 (also Carpororini). *Anthemina* is a Holarctic genus with its center of biodiversity in Central Asia (Froeschner 1988a, Rider 2006). As far as it is known, this is the first record of the genus *Anthemina* from India, however, the precise identification of the species based on the photo provided by the authors is impossible.

There are three species of *Anthemina* recorded from neighbouring Pakistan: the widely distributed Palaeartic *A. lunulata* (Goeze, 1778) (Ahmed 1973, as *Codophila lunulatus*, Ahmad *et al.* 1974, as *Codophila lunulata*; Rider 2006) and *A. pusio pusio* (Kolenati, 1846) (Ahmad *et al.* 1974, Ahmad and Zaidi 1991, both as *Codophila pusio*; Rider 2006), and *Anthemina sariabensis* (Ahmad and Zaidi, 1991), **new combination**, endemic to Pakistan (Ahmad and Zaidi 1991). Ahmad and Zaidi (1991) did not distinguish the genera *Anthemina* and *Codophila* Mulsant and Rey, 1866 and described their new species as *Codophila sariabensis*. As they considered *C. sariabensis* 'closely related to *C. pusio*', the species need to be transferred to *Anthemina*. Ahmad and Zaidi (1991) used two original spellings for their new species described from the locality Sariab, *C. sariabensis* nine times (pages 357, 358, 360, 361, 362, 363, 365) and *C. sariabansis* only once in the subtitle of the new species description (page 363). The spelling *C. sariabensis* was also cited by Zaidi and Shaukat (1993: 59, 63, 64) without further comment. We fix here *Codophila sariabensis* as the correct original spelling by the action of the first revising authors (ICZN 1999: Article

**TABLE 4.** List of ‘Pentatomidae’ species listed from Ranchi, Jharkhand, India by Keshari and Makhto (2017).

Species names in original publication (verbatim)	Correct name based on provided photographs	Note
<i>Halys dentatus</i> Fabr.	<i>Halys</i> sp.	species identification based on larva is impossible
<i>Nezara viridula</i> Linn.	<i>Nezara viridula</i> (Linnaeus, 1758)	correct
<i>Degonetus serratus</i> Dist.	<i>Degonetus serratus</i> (Distant, 1887)	correct
<i>Aspongopus janus</i>	<i>Coridius ianus</i> (Fabricius, 1775)	correct
<i>Bagrada cruciferum</i>	<i>Bagrada hilaris</i> (Burmeister, 1835)	junior synonym
<i>Dalpada versicolor</i> Hem-Sch	<i>Dalpada latipes</i> (Westwood, 1837)	junior synonym
<i>Dalpada jugatoria</i> Coth	? <i>Cahara jugatoria</i> (Lethierry, 1891)	photo not provided
<i>Tessaratomya javanica</i> Thunb.	<i>Tessaratomya javanica</i> (Thunberg, 1783)	correct
<i>Corpocoris pallidus</i> Dall.	<i>Anthemina</i> sp.	misidentification
<i>Sycanus collaris</i> Fabr.	? <i>Sycanus collaris</i> (Fabricius, 1781)	photo not provided
Litchi bug	<i>Tessaratomya</i> sp.	

24.2). Finally, Ahmad and Zaidi (1991, as *Codophila varicornis*) included also *Anthemina varicornis* (Jakovlev, 1874) in their revision of Indo-Pakistani *Codophila* based on the study of ‘1 male, 1 female; 16.9.1962 lodged at BMNH’ but failed to provide any locality.

**Kushwaha, S. and S. Jahan. 2023. *Dabessus indicus* sp. nov. (Hemiptera: Heteroptera: Pentatomidae) from India. Species 24(e43s1537): 1–4.**

*Dabessus indicus* Kushwaha and Jahan, 2023 = *Neojurtina indica* (Kushwaha and Jahan, 2023), **new combination.**

Kushwaha and Jahan (2023) described *Dabessus indicus* based on a single unsexed specimen from India, Arunachal Pradesh, and the holotype is deposited in the National Zoological Collection of Zoological Survey of India, Kolkata. They compared the new species to *Dabessus repellens* Kirby, 1892 (Pentatominae: Menidini; Fig. 7) and provided a dorsal habitus photo of the holotype. However, the depicted specimen clearly represents a misidentification of the genus *Neojurtina* Distant, 1921 (currently placed in Pentatominae: Pentatomini) and must be transferred to it, establishing a new combination: *Neojurtina indica* (Kushwaha and Jahan, 2023), **new combination.** For identification of *Neojurtina* see Hoffmann (1935b), Black (1968), Hsiao *et al.* (1977) and Salini (2017). *Neojurtina* includes so far two valid species. *Neojurtina typica* Distant, 1921 was described from Tonkin (northern Vietnam) (Distant 1921) and further recorded from central and southern China, Taiwan (Hoffmann 1935b, c; Rider *et al.* 2002; Rider 2006), Malaysia (Sarawak) (Hoffmann 1935b, c) and India (Meghalaya) (Salini 2017). The second species, *N. palawanica* Black, 1968, has been described from Philippines: Palawan (Black 1968). According to Black (1968), *N. palawanica* differs from *N. typica* in smaller size, shape of head, structure of the male genital capsule and paramere, and abdominal spiracles light brown (black in *N. typica*). Black (1968) illustrated the genital capsule and paramere of both species, but did not provide any information on the origin of the examined specimen(s) of *N. typica*. Some variation in the structure of the female genitalia among specimens of *N. typica* from Tonkin, Hongkong and Sarawak was previously reported by W. E. China (in Hoffmann 1935b). The situation in *Neojurtina* is certainly more complicated. The examination of four available males deposited in NMPC, all of them having black abdominal spiracles, revealed two males (Laos, Malaysia: Kelantan) with the genital capsule and parameres resembling those of *N. typica* sensu Black (1968), whereas the remaining two male specimens have a male genital capsule with more prominent parameres and the apices bifid, resembling more the description of *N. palawanica* as depicted by Black, but still with considerable differences in their shape. So each of the two may represent different species as well. The male genitalia of *N. indica* have not been adequately described and the *N. typica* record from Meghalaya (Salini 2017) was based on a single female. We refrain from synonymization of *N. indica* but treat it as species *incertae sedis* until the genus *Neojurtina* can be properly revised.



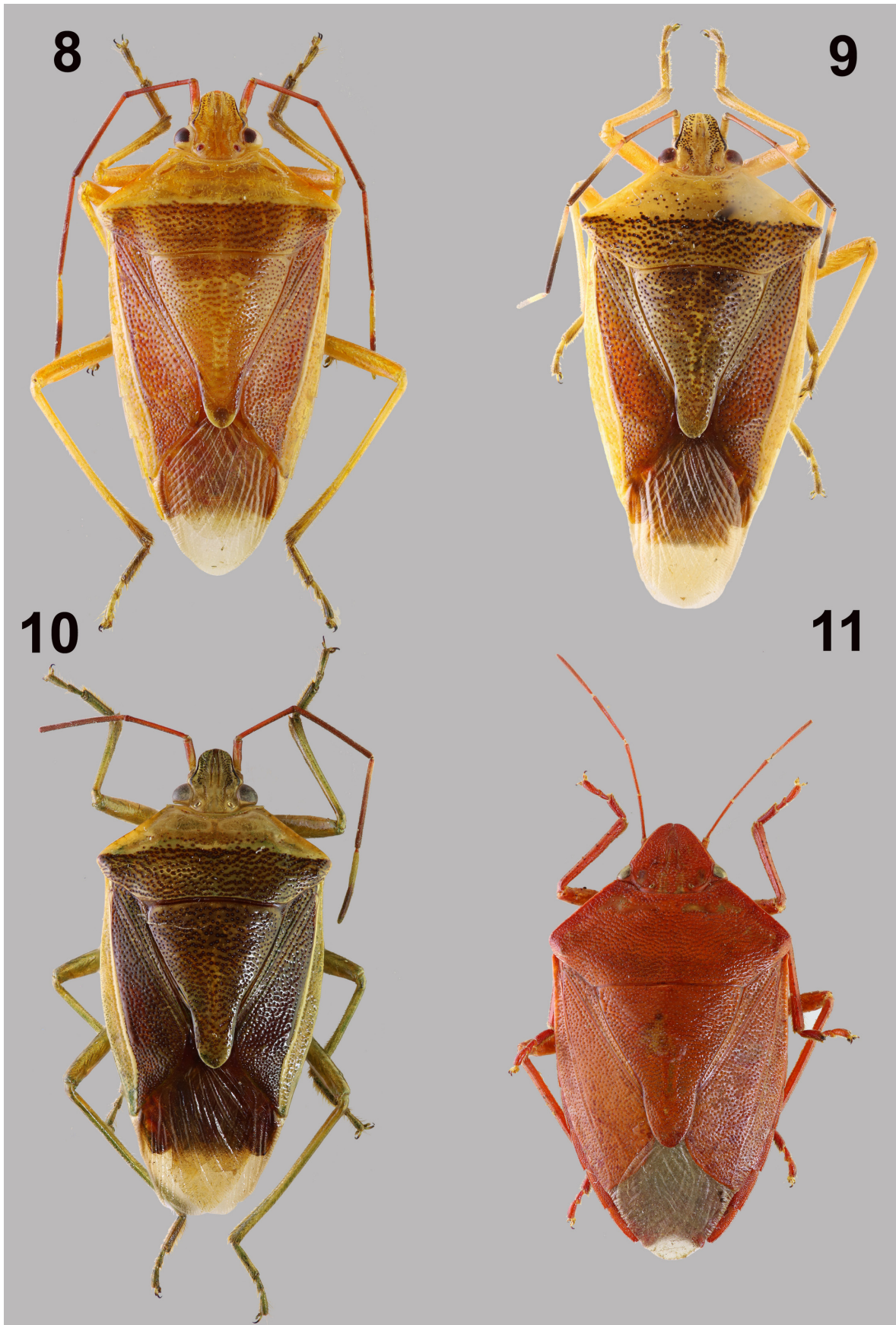
**FIGURES 6–7.** Dorsal habitus: 6, *Udonga montana* (Distant, 1900), India, female (body length 11.25 mm); 7, *Dabessus repellens* Kirby, 1892, India, male (body length 16.31 mm). Photographs: Salini.

**Singh, D., R. Kaur and H. Kaur. 2013. Taxonomic studies on the genus *Halyabbas* Distant and the type-species *Halyabbas unicolor* Distant (Heteroptera-Pentatomidae-Pentatominae-Amyntorini). International Journal of Fauna and Biological Studies 1(2): 16–19.**

*Halyabbas unicolor* sensu Singh *et al.* (2013) (misidentification) = *Palomena* sp.

Singh *et al.* (2013) provided a redescription of the genus *Halyabbas* Distant, 1900, and its only species, *H. unicolor* Distant, 1900 (Pentatomidae. Pentatominae: Amyntorini), based on one male and one female from Naini Tal (= Nainital) (India: Uttarakhand). They also provided photographs of the habitus, morphological details, and dissected male and female genitalia. *Halyabbas unicolor* is a characteristic species (Fig. 11), distributed in the Oriental Region, India (Salini and Viraktamath 2015), Indonesia (Lombok, Sumatra) (Distant 1900; Arnold 2003, 2011b, 2015), Malaysia (Sarawak) (Arnold 2011b), Myanmar (Distant 1901, as *Halyablas unicolor*, 1902), Thailand (Distant 1900) and Vietnam (Hoàng and Đặng 2013), extending to southern China and Taiwan (Rider *et al.* 2002, Rider 2006). For its identification, see Hsiao *et al.* (1977) and Salini and Viraktamath (2015). However, the species illustrated by Singh *et al.* (2013) was misidentified, a problem first recognized by Arnold (2015) in his privately published (samizdat) journal *Edessana*, but without identification of the depicted species. The misidentified taxon in fact belongs to the genus *Palomena* Mulsant and Rey, 1866 (Pentatomidae: Pentatominae: Nezarini), which was pointed out by Rider *et al.* (2018). However, the precise identification of the species is impossible based on the original illustrations in the paper. Currently, there are seven species of *Palomena* recorded from India: *Palomena*





**FIGURES 8–11.** Dorsal habitus: 8, *Neojurtina* sp. 1, Laos, male (body length 14.62 mm); 9, *Neojurtina* sp. 2, Taiwan, male (body length 15.08 mm); 10, *Neojurtina* sp. 3, Indonesia: Kalimantan, male (body length 16.15 mm); 11, *Halyabbas unicolor* Distant, 1900, Myanmar, male (body length 15.39 mm). Photographs: P. Kment.

*assamensis* Zheng and Ling, 1989, *P. indica* Zheng and Ling, 1989 (Zheng and Ling 1989), *P. prasina* (Harinath *et al.* 2014, Kaur and Singh 2020—see above), *P. reuteri* Distant, 1879, *P. spinosa* Distant, 1880, *P. unicolorella* Kirkaldy, 1909, and *P. viridissima* (Poda, 1761) (e.g., Distant 1902). However, these records are in urgent need of revision, and the records of the Palaearctic *P. prasina* are unreliable.

**Sridhar, K. R. and N. C. Karun. 2017. Observations on *Ophiocordyceps nutans* in the Western Ghats. *Journal of New Biological Reports* 6(2): 104–111.**

Sridhar and Karun (2017) published observations on the entomophagous fungus *Ophiocordyceps nutans* in Karnataka, India. Their identification of the host species, *Halyomorpha halys*, was however erroneous. Based on the provided photographs the host belongs to the tribe Halyini, probably in the genus *Tipulparra* Ghauri, 1980. The same mistake was published previously in their earlier paper (see Salini *et al.* 2021).

**Zhao, L., J.-F. Wei, W.-Q. Zhao, C. Chen, X.-Y. Gao, and Q. Zhao. 2021. The complete mitochondrial genome of *Antestiopsis thunbergii* (Gmelin, 1790) (Hemiptera: Pentatomidae) and its phylogenetic implication. *Mitochondrial DNA, Part B* 6(11): 3246–3247.**

*Antestiopsis thunbergii* sensu Zhao *et al.* (2021), misidentification = *Anaxilaus musgravei* Gross, 1976

Zhao *et al.* (2021) published a complete mitochondrial genome of *Antestiopsis thunbergii* (Gmelin, 1790) (Pentatomidae: Pentatominae: Antestiini) with GenBank number MW679031 based on adult specimens collected from Credo station, Western Australia. No photograph of voucher specimens was provided in the original paper, but a photograph provided by one of the authors (Q. Zhao) to David Rider identified the depicted species unambiguously as *Anaxilaus musgravei* Gross, 1976, a native Australian member of the tribe Antestiini. For identification of *A. musgravei* see Gross (1976: 428) and Cassis *et al.* (2016). Ding *et al.* (2023: Table 1) mentioned the mitogenome of *Anaxilaus musgravei* with identical GenBank number MW679031 as unpublished, thus confirming the misidentification.

*Antestiopsis thunbergii* is a serious pest of coffee (*Coffea* spp.) native to tropical Africa (e.g., Greathead 1966, 1968, under the name *A. orbitalis* (Westwood, 1837)). Zhao *et al.* (2021) wrote: ‘*Antestiopsis thunbergii* is native to Africa and has now spread to Australia, Myanmar, India, Indonesia, Philippines, Sri Lanka, Thailand, southern China and other places (Rider *et al.* 2002; Gerry *et al.* 2016).’ The reference to ‘Gerry *et al.* (2016)’ actually refers to Cassis *et al.* (2016). However, there is no such information in either Rider *et al.* (2002) or Cassis *et al.* (2016), and *A. thunbergii* does not occur outside of Africa (EPPO database 2009, Azrag *et al.* 2018).

## Post Scriptum

It is certain that the 17 papers included in this treatment are just the tip of the iceberg. If others encounter additional papers containing misidentifications or nomenclatural errors pertaining to Heteroptera systematics, please send these to the first author (PK). We will consider preparation of similar collective and corrective manuscripts in the future.

## Acknowledgments

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