

A revision of *Sagriva* (Hemiptera: Heteroptera: Dinidoridae)

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Abstract. The Indomalayan genus *Sagriva* Spinola, 1850 (Hemiptera: Heteroptera: Dinidoridae: Dinidorinae) is revised. The identity of its single previously valid species, *S. vittata* Spinola, 1850, is clarified based on the relevant type material, the species is diagnosed, illustrated, and recorded for the first time from Thailand and Laos. A new species, *Sagriva banna* sp. nov., is described from Yunnan Province of China and Yen Bai Province of Vietnam.

Key words. Heteroptera, Dinidoridae, *Sagriva*, new species, taxonomy, Indomalaya, Oriental Region

Introduction

Dinidoridae is a small family of the superfamily Pentatomoidea (Hemiptera: Heteroptera) comprising about 100 species in 17 genera (DURAI 1987, ROLSTON et al. 1996, LIS 2006, KMENT & KOCOREK 2014). The majority of the species occur in tropical and subtropical regions of Africa and Asia and marginal areas of the Australian Region, but one genus (*Dinidor* Latreille, 1829) is endemic to Central and South America.

The dinidorid genus *Sagriva* Spinola, 1850 has remained monotypic since its original description, only including the South and Southeast Asian species *S. vittata* Spinola, 1850. In the currently accepted higher classification of Dinidoridae, proposed by DURAI (1987) and modified by KOCOREK & LIS (2000) and LIS et al. (2012, 2015), *Sagriva* was placed into the subfamily Dinidorinae, tribe Dinidorini. Pterygopolymorphism (the occurrence of specimens with differently developed wings within a given species) is unusual in all families of Pentatomoidea; *Sagriva* is apparently the only genus of Dinidoridae in which distinctly brachypterous individuals occur, though the holotype of a member of *Cyclopelta* Amyot & Serville, 1843, *C. robusta* Lis & Lis, 2001, has somewhat shortened fore wings with reduced membrane, cf. LIS & LIS (2001).

The present study was initiated by the discovery of *S. vittata* and an additional, undescribed species of *Sagriva* in China and Vietnam. The genus and its type species are diagnosed and the new species is described in this paper. Except for the works of YANG (1940) and LESTON

(1954, 1955), no author has ever illustrated the male intromittent organ of any species of Dinidoridae in a morphologically relevant way, therefore detailed descriptions and illustrations of the genitalia are provided for both species.

Material and methods

External structures were examined using a stereoscopic microscope (Zeiss Discovery V8). Drawings were made with the aid of a camera lucida. Male genitalia were dissected after careful heating in hypertonic KOH solution and staining with Chlorazole Black E. Measurements were taken using a calibrated micrometer eyepiece. Digital photographs were taken with a Nikon D90 camera equipped with an AF-S Micro Nikkor 60mm f/2.8G ED macro lens. Morphological terminology follows TSAI et al. (2011) and TSAI & RÉDEI (2015).

Label data of type specimens are cited verbatim, lines on a single label are divided by a backslash (\), labels are separated by a comma, comments on label data are provided in square brackets. Printed text (pr) is not indicated except if the preceding text is handwritten (hw).

Abbreviations for depositories:

BMNH	Natural History Museum, London, United Kingdom;
HBUM	Hebei University Museum, Baoding, China;
HNHM	Hungarian Natural History Museum, Budapest, Hungary;
MRSN	Museo Regionale di Scienze Naturali, Turin, Italy;
NKUM	Institute of Entomology, Nankai University, Tianjin, China;
NMNS	National Museum of Natural Science, Taichung, Taiwan;
NMPC	National Museum, Prague, Czech Republic;
NSMT	National Museum of Nature and Science, Tsukuba, Japan;
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany;
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.

Taxonomy

Sagriva Spinola, 1850

Sagriva Spinola, 1850a: 33, 1850b: 75. Type species by original designation: *Sagriva vittata* Spinola, 1850.

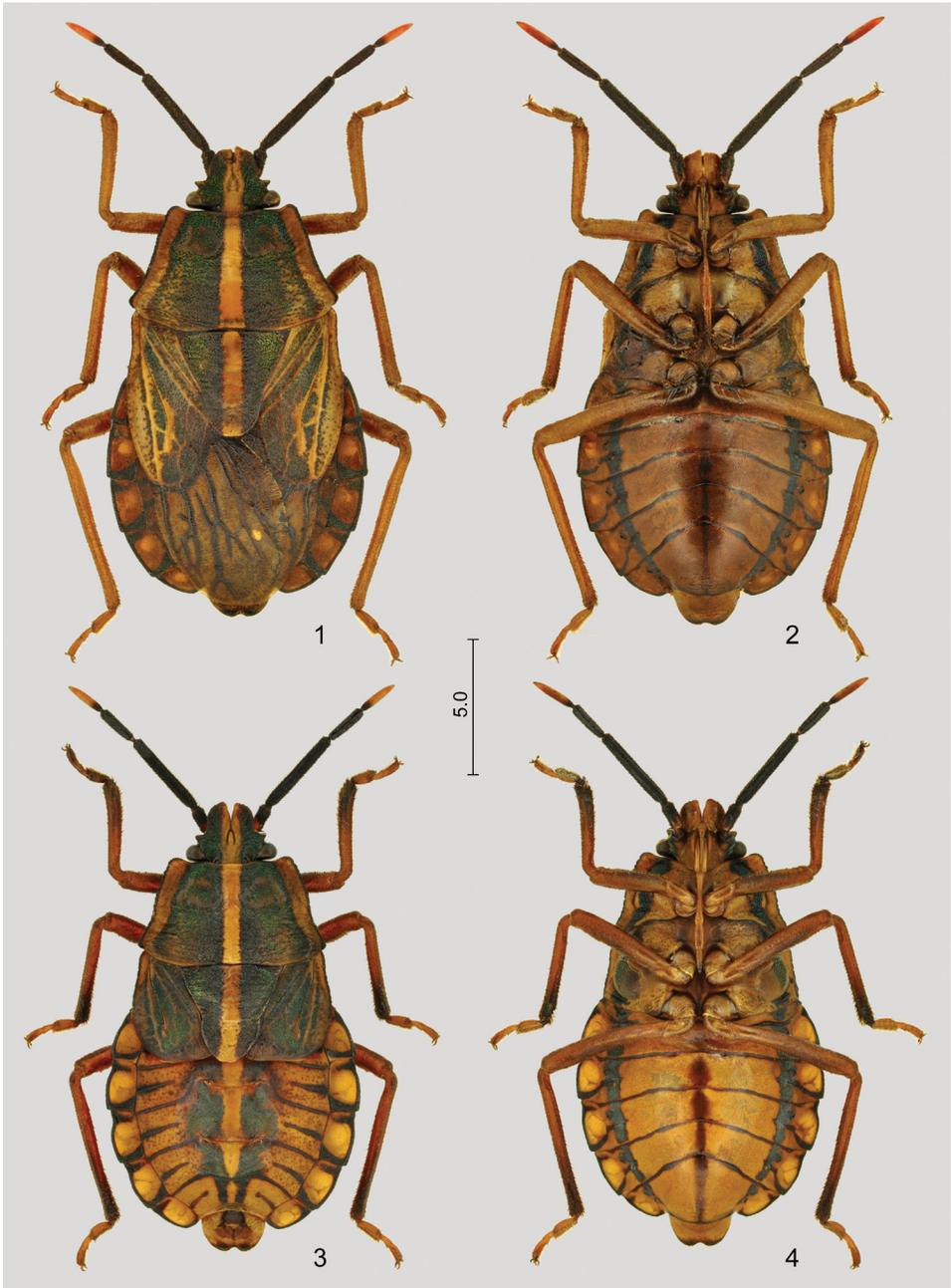
Atelides Dallas, 1852a: 360. Type species by original designation: *Atelides centrolineatus* Dallas, 1852 (= *Sagriva vittata* Spinola, 1850). Synonymized by DISTANT (1902: 288) (doubtfully) and BERGROTH (1904: 37).

Sugriva: CASALE (1981: 49). Incorrect subsequent spelling.

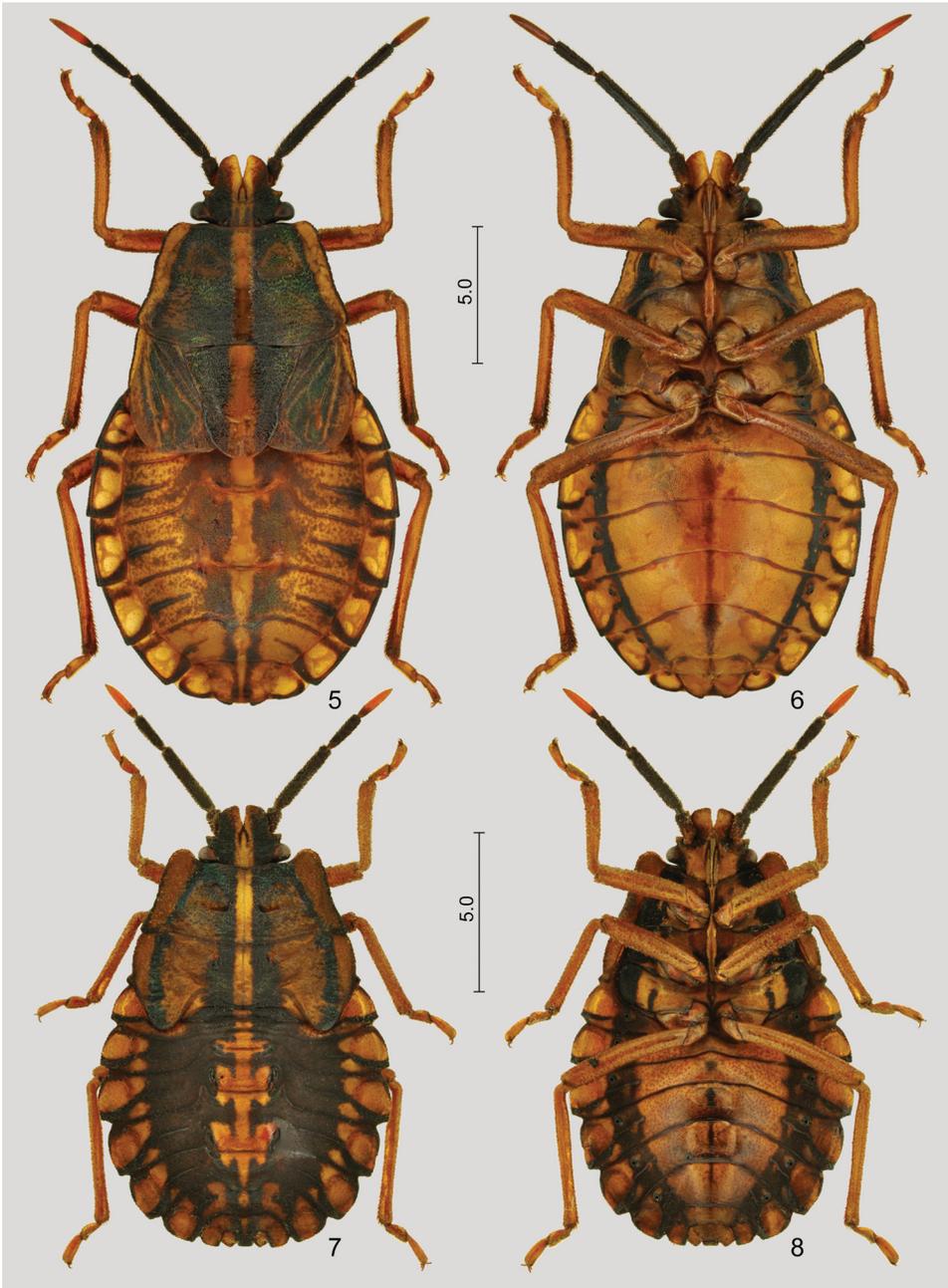
Sagriva: SPINOLA (1852a): 73 (in key), SPINOLA (1852b): 115 (re-publication of original description), STÅL (1876): 127 (listed), LETHIERRY & SEVERIN (1893): 240 (catalogue), BERGROTH (1904): 37 (synonymy), BERGROTH (1908): 188 (listed), KIRKALDY (1909): 260 (catalogue), KIRKALDY (1913): 84 (in key), SCHOUTEDEN (1913): 3, 10 (in key, redescription, distribution, catalogue), HOFFMANN (1948): 25 (catalogue), DURAI (1987): 170, 236 (in key, redescription, revision), LIS (1990): 142 (listed), ROLSTON et al. (1996): 61 (catalogue, bibliography), KOCOREK & DANIELCZOK-DEMKA (2002): 93 (spermatheca), SCHUH & SLATER (1995): 226 (microptery); GRAZIA et al. (2008): 12 (antenna), LIS et al. (2015): 618 (systematic placement).

Atelides: STÅL (1868): 522 (in key), WALKER (1868): 500 (listed), STÅL (1870): 89 (listed), STÅL (1876): 127 (listed), ATKINSON (1889): 94 (redescription, fauna of India), LETHIERRY & SEVERIN (1893): 240 (catalogue), DISTANT (1902): 279, 288 (in key, synonymy, redescription, fauna of British India), AHMAD & KHAN (1979): 4, 8 (in key, listed), DATTA et al. (1985): 5 (listed).

Diagnosis. *Sagriva* is recognized based on the combination of the following characters: mandibular plates far surpassing apex of clypeus, contiguous antenarad of it; lateral margin of



Figs 1–4. *Sagriva vittata* Spinola, 1850, macropterous (Figs 1–2) and brachypterous (Figs 3–4) male. Figs 1, 3: dorsal view; Figs 2, 4: ventral view. Scale bar in mm.



Figs 5–8. *Sagriva vittata* Spinola, 1850, brachypterous female (Figs 5–6) and fifth instar larva (Figs 7–8). 5, 7 – dorsal view; 6, 8 – ventral view. Scale bars in mm.



Figs 9–12. *Sagriva banna* sp. nov., holotype (male) (Figs 9–10) and a female paratype (Figs 11–12). 9, 11 – dorsal view; 10, 12 – ventral view. Scale bar in mm.

head with an angular, transversely directed projection anterior to eye; eye subpedunculate; antenna 4-segmented, pedicel and basiflagellum angular in cross-section, all faces deeply furrowed between the edges; pronotum subquadrate, anterior margin much broader than head; brachyptery frequent; lateral margins and posterolateral angles of pregenital abdominal segments without tubercles. Detailed redescriptions of the genus were given by SCHOUTEDEN (1913) and DURAI (1987).

Remarks. The title of the paper of DALLAS (1852a), “Description of a new hemipterous insect forming the type [emphasis added] of a new genus”, is considered as an explicit designation of *A. centrolineatus* as the type species of *Atelides* under Article 68.2 of the International Code of Zoological Nomenclature (ICZN 1999).

DURAI (1987) included in the diagnosis of *Sagriva* that the spiracles of abdominal segment II are concealed by the “metasternum” (correctly metapleuron). This character was found variable during the present study, individuals of both species with completely concealed, partly exposed, and fully exposed spiracles were seen (cf. Figs 17 and 21). This phenomenon is apparently due to the fact that the thoraco-abdominal junction allows certain movements between these two tagmata. This character therefore should be used with reservations.

Distribution and diversity. The genus is distributed from Indo-China and the neighbouring areas of the Eastern Himalayas to the western part of the Malay Archipelago. Two species are recognized.

Sagriva vittata Spinola, 1850

(Figs 1–8, 13–17, 22–27, 32–37, 41–42, 49, 51–52)

Sagriva vittata Spinola, 1850b: 77. HOLOTYPE: ♀, “Indie orientali” [= East Indies]; MRSN, examined.

Atelides centrolineatus Dallas, 1852a: 361. HOLOTYPE: ♀, [Bangladesh:] Sylhet; depository unknown, lost? Synonymized by ATKINSON (1889: 96), DISTANT (1902: 289) (doubtfully) and BERGROTH (1904: 37).

Atelides sumatranus Breddin, 1904: 18. LECTOTYPE (GAEDIKE 1971: 100, by use of “holotypus”): ♀, [Indonesia:] Sumatra, “Batak-Gebirge” [= Batak Highlands]; SDEI, examined. Synonymized by DURAI (1987: 236).

Sagriva depressicornis: CASALE (1981: 49). Unavailable name (nomen nudum) (ICZN 1999: Art. 13.1).

Sagriva vittata: SPINOLA (1852b): 117 (re-publication of original description), STÅL (1876): 127 (listed, distribution), LETHIERRY & SEVERIN (1893): 240 (catalogue, distribution), BERGROTH (1904): 37 (synonymy), KIRKALDY (1909): 260 (catalogue, distribution), SCHOUTEDEN (1913): 10 (habitus, catalogue, distribution), HOFFMANN (1948): 26 (catalogue, distribution), DURAI (1986): 6 (listed, distribution), DURAI (1987): 236 (redescription, synonymy, figures, records, distribution), LIS (1990): 142 (listed, distribution), LIS (1991): 84, 91 (in key, record, description and figure of larva), LIS (1992): 38 (records), ROLSTON et al. (1996): 62 (catalogue, bibliography), KOCOREK & DANIELCZOK-DEMSKA (2002): 93 (spermatheca, figure).

Sagriva [inadvertent error] *vittata*: KIRKALDY (1910): 62 (record, pterygopolymorphism).

Atelides centrolineatus: DALLAS (1852b): 436 (redescription), WALKER (1868): 500 (listed, distribution), ATKINSON (1889): 95 (reproduction of original description, record, distribution, synonymy), LETHIERRY & SEVERIN (1893): 240 (catalogue, distribution), DISTANT (1902): 289 (synonymy, redescription, habitus, distribution), BREDDIN (1904): 18 (comparison with *A. sumatranus*), AHMAD & KHAN (1979): 5, 8 (listed, habitus, distribution), DATTA et al. (1985): 5 (diagnosis, genitalia, figure), ZHANG et al. (1994): 60 (listed, distribution), TAN (2005): 303 (record).

Atelides centro-lineatus: STÅL (1870): 89 (listed, distribution).

Atelides sumatranus: GAEDIKE (1971): 100 (type material).

Sagriva sumatrana: BERGROTH (1908): 188 (catalogue).

Sagriva sumatranus: KIRKALDY (1909): 260 (catalogue, distribution), SCHOUTEDEN (1913): 10 (catalogue, distribution).

Type material examined. *Sagriva vittata* Spinola, 1950. HOLOTYPE: macropterous ♀ without own label; “Sagriva depressicornis \ m. – N.G.? \ D. Dupont, \ 1846. \ Ind. orient.” [yellow hw label pinned to the bottom of the drawer

next to the specimen with two short pins]; pinned, wings abducted, both antennae broken off but one of them glued to card pinned with the specimen, tarsus of left fore and tarsal segments II–III of right fore leg lacking, distal portion of membrane of right fore wing damaged (MRSN).

***Atelides sumatranus* Breddin, 1904.** LECTOTYPE: brachypterous ♀, “Sumatra \ Montes Battak \ ex coll. Fruhstorfer” [yellow, with pr black frame], “Typus.” [red, with pr black frame], “coll. \ Breddin”, “*Atelides \ sumatranus \ Bredd.*” [Breddin’s hw], “*Sagriva \ sumatranus* Bredd. [hw] \ Edm. Schmidt [pr] \ ♀ [hw] determ. 19 [pr] 31. [hw]”, “Typus [pr, “T” corrected to “t” by hand] \ Holo- [hw]” [red], “A. SUMATRANUS \ 1978 [hw with blue ballpoint pen] \ det [hw in black] PSS durai [hw with blue ballpoint pen]”, “DEI Hemimetabola \ #100171”; pinned, flagellum of left antenna lacking, apex of abdomen cut off, terminalia preserved in glass vial with glycerol, pinned with the specimen (SDEI).

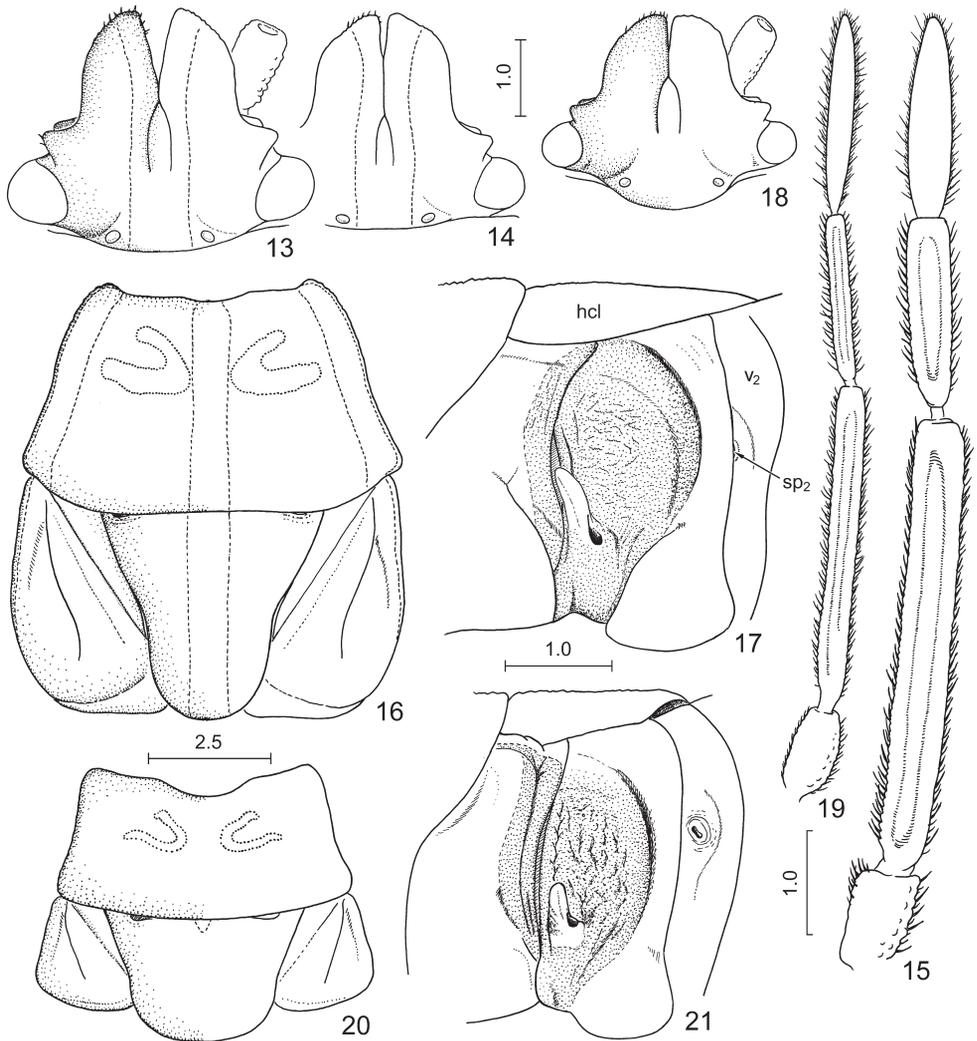
Additional specimens examined (b = brachypterous, m = macropterous). **INDIA:** SIKKIM: iii–iv., leg. H. Fruhstorfer, coll. G. Breddin (1 m ♀ SDEI), coll. E. T. Atkinson, B.M.92-6 (1 b ♀ BMNH). **WEST BENGAL:** Gopaldhara, Rungbong [= Rangbhang] Valley, leg. H. Stevens (1 b ♂ 1 b ♀ BMNH). **ASSAM:** coll. E. T. Atkinson, B.M.92-6 (1 m ♂ BMNH), Sibs[agar] [= Sivasagar], [leg.?] S.E.P., coll. W.L. Distant, B.M. 1911-383 (1 b ♀ BMNH). **MEGHALAYA:** Khasia Hills [= Khasi Hills], B.M.96-135 (2 b ♂♂ 1 b ♀ BMNH). — **THAILAND:** TAK PROV.: Tak, viii.1995, low land, leg. W. Ullrich, coll. C.J. Drake (1 m ♂ USNM) (Figs 1–2). **CHIANG MAI PROV.:** Doi Chiang Dao, nr. Chiang Dao, 13.xi.1989, leg. N. Ohbayashi (1 m ♂ NSMT). — **CHINA:** YUNNAN: Xishuangbanna: Mengla County, Menglun, Xishuangbanna Tropical Botanical Garden, 101°16'34.6"E 21°55'14.6"E, 560 m, 20.ix.2016, J.Y. Luo (1 m ♂ 2 b ♀♀ NKUM, preserved in 100% ethanol), same locality and collector but 3.x.2016 (1 b ♂ 2 b ♀♀ NKUM, preserved in 100% ethanol), Mengyuan, Nangongshan, 1000 m, 13.viii.2010, leg. Q. Zhao (1 b ♂ NKUM), same locality and date, leg. K. Dang (1 b ♀ NKUM), Manlun, Nanping, 845 m, 14.viii.2010, leg. K. Dang (2 b ♀♀ NKUM) (Figs 5–6); Mengla, 21°29'50.2"N 101°33'00.7"E, 690 m, hillside above city, 29.vii.2012, beaten from unidentified cucurbitacean climbing plant, leg. D. Rédei (1 L₅ NKUM) (Figs 7–8), same locality, 21°29'50.2"N 101°32'59.4"E, 685 m, 25.ix.2012, canopy net, leg. D. Rédei (1 b ♂ [Figs 22–27, 32–37, 41–42] 1 b ♀ HNHM), same locality, 21°29'49"N 101°33'00"E, 680 m, 28.ix.2012, leg. Y. Cui (2 b ♂♂ 2 b ♀♀ preserved in 100% ethanol; abdomen of two females and genital capsule of one male detached, dissected, mounted on card and preserved dry except of phallus (♂) and genital and postgenital segments (♀♀) [Figs 49–50] which are preserved in plastic microvial with glycerol; NKUM); Mengla, Wangtianshu Nature Reserve, along road, 21°37'35.3"N 101°35'17.3"E, 720 m, 30.vii.2012, beaten and swept from shrubs, leg. D. Rédei (1 b ♂ NKUM, 1 b ♂ HNHM). — **VIETNAM:** LAM DONG PROV.: South Annam, Langbian Prov. [now Vietnam, Lam Dong Prov.], Dran, 3000 ft., iii–iv.1918, leg. C. Boden-Kloss, B.M.1919-12 (2 b ♂♂ 2 b ♀♀ 1 m ♀ BMNH). — **LAOS:** LOUANGPHRABANG PROV.: Pak Neun, 28.ix.1918, leg. R. Vitalis de Salvaza, B.M.1918-1 (1 b ♀ BMNH). — **MALAYSIA:** SARAWAK: Bidi, 9.i.1909, leg. C.J. Brooks, B.M.1936-681 (1 b ♀ BMNH). — **INDONESIA:** SUMATRA: Fort de Kock [= Tebingtinggi], 920 m, 1926, leg. E. Jacobson (1 5th instar larva RMNH), Res. Tapanoeli [= Tapanuli], leg. A.L. v. Hasselt (1 b ♀ RMNH). **BORNEO:** Mahakkam [= Mahakam River], Long-Bloe-oe [= Longbloh?], 1898, leg. Nieuwenhuis (1 b ♀ RMNH), Mahakkam, Boven [= Upper Mahakam River], 1894, leg. Nieuwenhuis (1 b ♀ RMNH). — **LOCALITY UNKNOWN.** “*Atelides \ centrolineatus \ Dall \ Ent. Trans. \ vol 10. pl 5*” (1 b ♀ MRSN, coll. Spinola); “Birite” [unlocated], 13.x.[19]18 (1 m ♀ BMNH).

Diagnosis. Its characteristic habitus and colour (Figs 1–6) allow an immediate recognition of this species not only within the genus *Sagriva* but also in Dinidoridae. The male and female genitalia are illustrated in Figs 22–27, 32–37, 41–42, 49, 51–52. The most conspicuous differences between this species and *S. banna* sp. nov. are provided in Table 1.

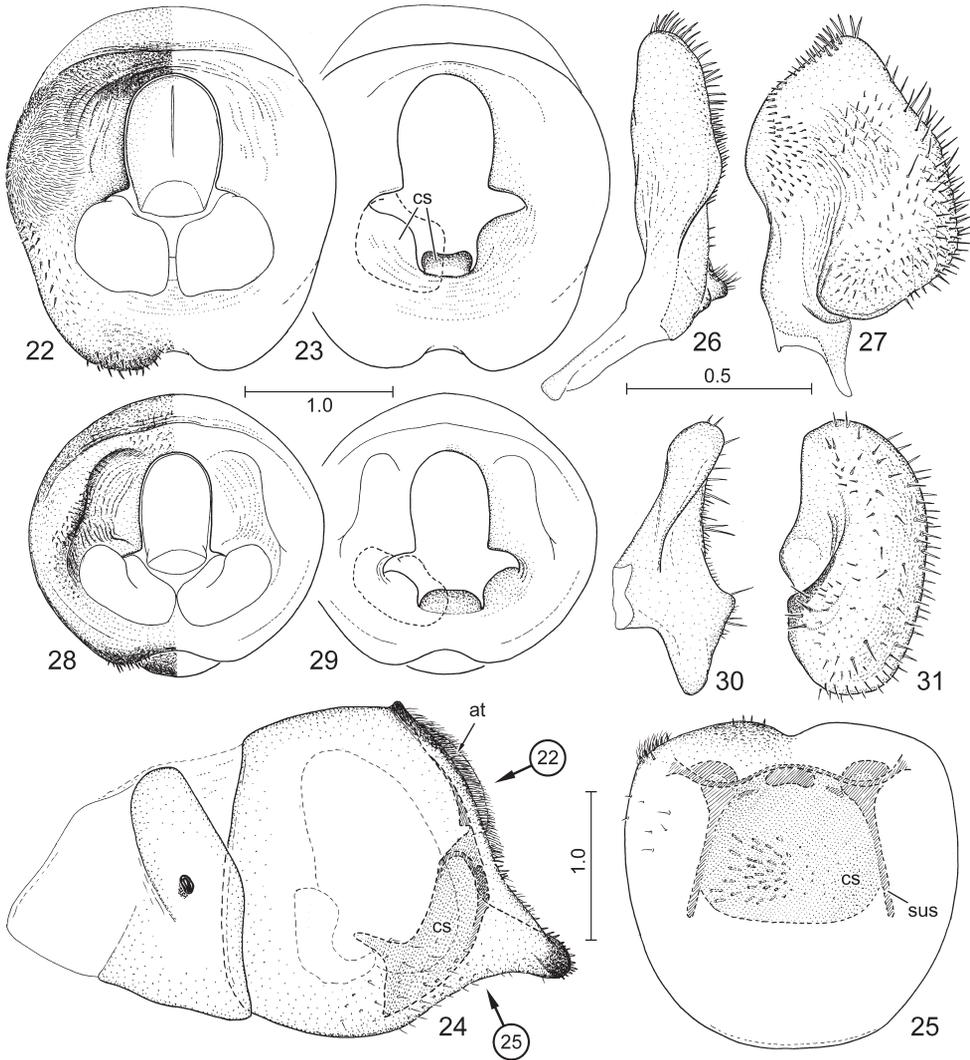
Redescription. The original description of this species (SPINOLA 1850b) is detailed and rather accurate. Further detailed descriptions or redescriptions and illustrations allowing recognition of the species were provided by DALLAS (1852a,b), DISTANT (1901) and DURAI (1987). Therefore it is unnecessary to present another redescription of the external morphology of the species here, but some diagnostic characters useful for separating this species from *S. banna* sp. nov. are figured (Figs 13–17), and the external male and female genitalia are described and illustrated in detail.

External male genitalia (Figs 22–27, 32–37, 41–42). *Genital capsule* (Figs 22–25): outline in most exposed view of its morphologically posterior surface elongate oval, posteriorly deeply and broadly emarginate medially (Fig. 22); dorsal sinus of posterior aperture oval, completely occupied by anal tube; infolding of dorsal rim moderately impressed laterad of dorsal sinus, neighbouring lateral portions provided with relatively long and dense pilosity; cuplike sclerite (Figs 23–25: cs) broad, subrectangular (Fig. 25), completely fused with ventral margin of posterior aperture, with a short and broad, apically emarginate median projection (Fig. 23), with a pair of rather straight suspensory apodemes (Fig. 25: sus). *Paramere* (Figs 26–27) broad, subrectangular in most exposed view (Figs 22, 27). *Phallus*: in repose as in Figs 32–33; in inflated condition as in Figs 35–37. Articulatory apparatus (Fig. 34) broad, with thick, robust basal plates (Fig. 34: bp) and support bridge complex (Fig. 34: sbc), the latter including a relatively thin ponticulus transversalis (Fig. 34: pt); ductus ejaculatorius (Fig. 34: dej) associated with a pair of thick, robust submedian projections of support bridge complex (Figs 34–35: smp) which extend in the support bridge prolongations; erection fluid pump (Fig. 34: erp) relatively large; support bridge prolongations (Fig. 36: sbp) fused into a thick, trough-like band U-shaped in cross-section, closely surrounding ductus seminis ventrally and laterally but open dorsally. *Phallotheca* (Fig. 35: phth) moderately sclerotized, its ventral side posteriorly with a deep median excision neighbored by a pair of posterior lobe-like projections (cf. Fig. 33) which is associated with the base of cp-II (cf. Figs 35–36). *Conjunctiva* short; with a large, elongate, membranous dorsal lobe (Fig. 35, 37: cp-I); with a pair of short lateral lobes (Fig. 36: cp-II) each composed of a larger, membranous dorsal portion and a smaller ventral portion, the latter portion is associated with a pair of sclerites (Figs 36, 42: scp-II), the ventral portions of which are fused medially, forming a closed ring around ductus seminis, dorsal portions produced into a pair of broad, diverging lobes; with a pair of large, voluminous ventrolateral lobes (Figs 35, 37: cp-III?), of peculiar shape, joining to the ventromedian, stem-like portion of conjunctiva, but only communicating with its inner lumen through a narrow, aperture-like pathway (cf. Fig. 36); the latter pair of conjunctival processes is of uncertain identity, potentially representing a ventral branch of cp-II, but judging from the fact that it is not associated with the support bridge prolongation it is more probably homologous with cp-III of TSAI et al. (2011). *Aedeagus* (Figs 36: aed, 41) short, greatly concealed by voluminous conjunctival processes (cf. Fig. 36), almost straight; endophallic reservoir (Fig. 41: res) small, simple, mainly formed by the ventrobasal lumen of endophallic duct, subdivided into two chambers by a vertical septum; ductus seminis (Figs 36, 41: ds) directly opens into the ventrobasal lumen (Fig. 41: vbl); endophallic sperm efferent system composed of two lumina, its wall moderately sclerotized and pigmented, outer wall of aedeagus rather thick but weakly sclerotized and pigmented, with a well-traceable inner chamber (Fig. 41: ich) between them; apex of aedeagus transversely truncate, phallosome directed anteroventrally in inflated condition (cf. Fig. 36).

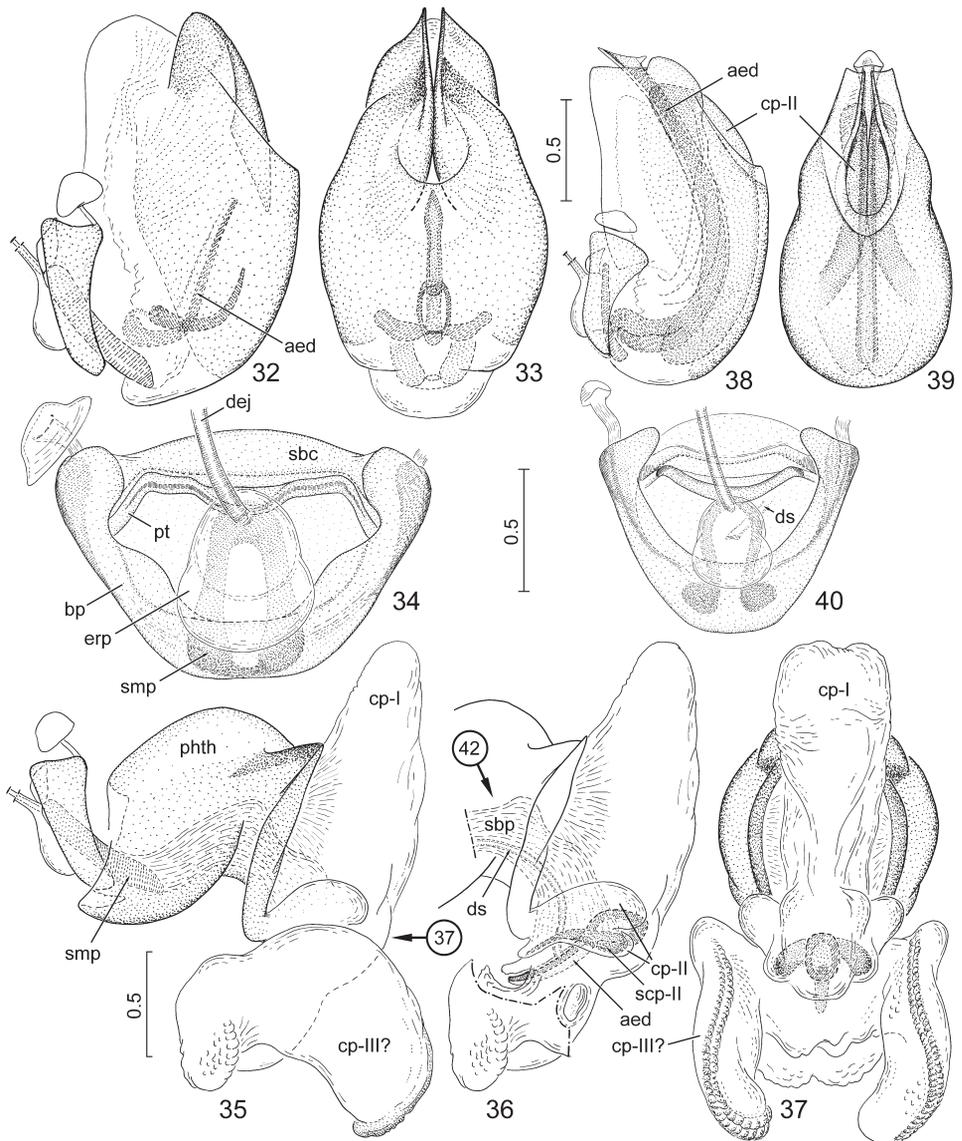
External female genitalia (Figs 49, 51–52). *Terminalia* (Figs 49, 51). Tergite VIII transversal, with a pair of distinct submedian impressions, posterior margin weakly but clearly emarginate at level of lateral margin of laterotergite IX; laterotergite VIII (Fig. 51: lt₈)



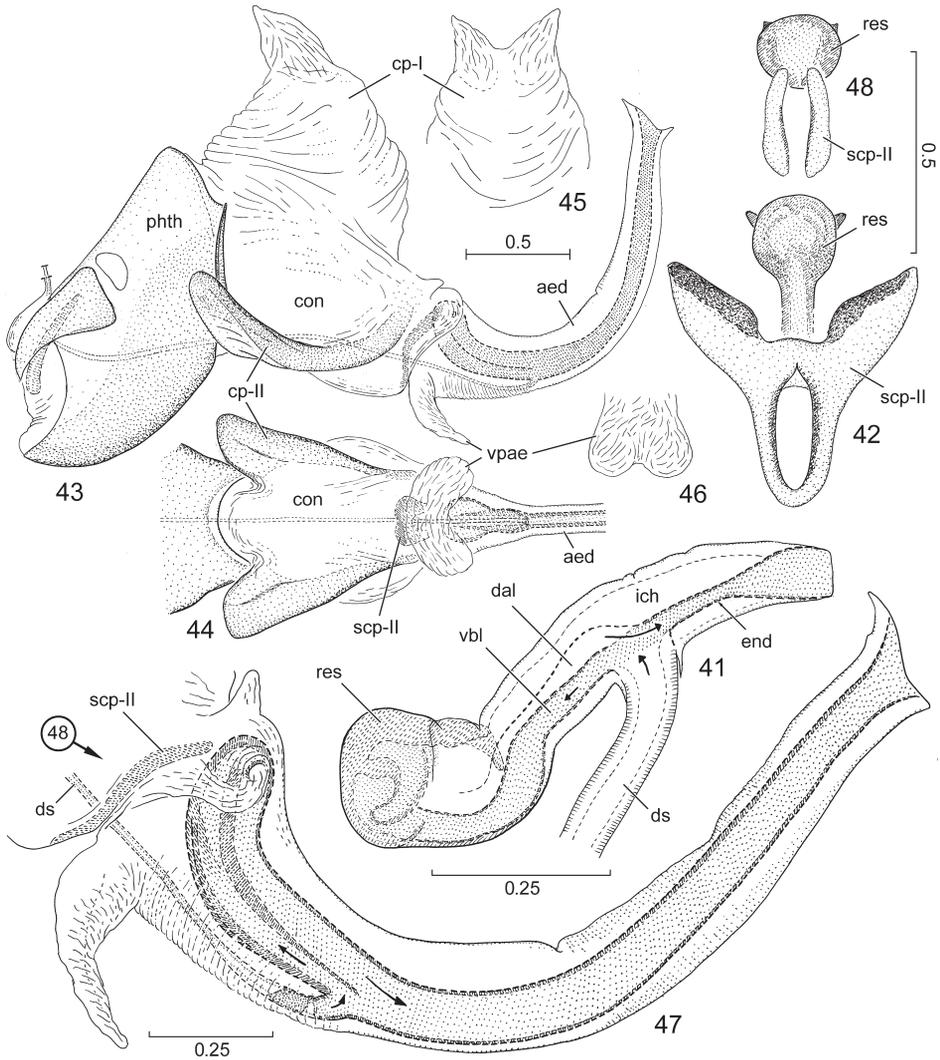
Figs 13–21. Diagnostic characters of *Sagriva vittata* Spinola, 1850 (Figs 13–17) and *S. banna* sp. nov. (Figs 18–21) (brachypterous females). 13, 14, 18 – head, dorsal view; 15, 19 – antenna; 16, 20 – pronotum, scutellum and fore wings, dorsal view; 17, 21 – pterothoracic pleuron, hypocostal lamina, and abdominal ventrite II, most exposed view, evaporatorium densely dotted. Scale bars in mm. Lettering: hcl = hypocostal lamina; sp₂ = spiracle of abdominal segment II; v₂ = abdominal ventrite II.



Figs 22–31. Male genitalia of *Sagriva vittata* Spinola, 1850 (Figs 22–27) and *S. banna* sp. nov. (Figs 28–31). 22, 23, 28, 29 – genital capsule, posterodorsal view (parameres removed in Figs 23 and 29); 24 – segments VIII and IX, lateral view (outline of phallus shown with dotted line); 25 – genital capsule, posteroventral view; 26, 27, 30, 31 – left paramere, each from two different views. Scale bars in mm. Lettering: at = anal tube (= segment X); cs = cuplike sclerite; sus = suspensory apodeme. Arrows in Fig. 24 show aspects of Figs 22 and 25, respectively.



Figs 32–40. Phallus of *Sagriva vittata* Spinola, 1850 (Figs 32–37) and *S. banna* sp. nov. (Figs 38–40). 32, 38 – phallus in repose, lateral view; 33, 39 – same, ventral view; 34, 40 – articular apparatus, most exposed (anterior) view; 35 – inflated phallus, lateral view; 36 – same but proximal portion and right cp-III omitted, most of left cp-III cut away; 37 – inflated phallus, posterior view. Scale bars in mm. Lettering: aed = aedeagus; bp = basal plates; cp-I, cp-II, cp-III? = dorsal, lateral and ventrolateral conjunctival processes, respectively (identity of cp-III doubtful); dej = ductus ejaculatorius; ds = ductus seminis; erp = erection fluid pump; phth = phalotheca; pt = ponticulus transversalis; sbc = support bridge complex; sbp = support bridge prolongation; smp = submedian projections of sbp; scp-II = sclerite associated with cp-II. Arrows in Figs 35 and 36 shows aspects of Figs 37 and 42, respectively.



Figs 41–48. Phallus of *Sagriva vittata* Spinola, 1850 (Figs 41–42) and *S. banna* sp. nov. (Figs 43–48). 41, 47 – aedeagus, lateral view (path of seminal fluid indicated by arrows); 42, 48 – sclerites associated with lateral conjunctival processes (cp-II) and adjacent portion of endophallic reservoir, aspects shown by arrows in Figs 36 and 47, respectively; 43 – inflated phallus, lateral view; 44 – distal part of phallosome, conjunctiva, and proximal part of aedeagus, ventral view; 45 – dorsal lobe of conjunctiva, posterior view; 46 – ventral process of aedeagus, most exposed (posterior) view. Scale bars in mm. Lettering: aed = aedeagus; con = conjunctiva; cp-I, cp-II = dorsal and lateral conjunctival processes, respectively; dal = dorsoapical lumen of endophallic duct; ds = ductus seminis; end = terminal portion of endophallic duct; ich = inner chamber enclosed by endophallic duct and outer wall of phallus; phth = phallosome; res = endophallic reservoir; scp-II = sclerite associated with cp-II; vbl = ventrobasal lumen of endophallic duct; vpa = ventral process of aedeagus. Arrow in Fig. 47 shows aspect of Fig. 48.

subtriangular, posteromesal angle very broadly rounded; valvifer VIII (Fig. 51: vf_8) distinctly longer than broad; laterotergite IX (Fig. 51: lt_9) longer than broad, posterior margin broadly arched at level of segment X, with broad transverse impression close to its anterior margin; contralateral valvifers IX (Fig. 51: vf_9) fused along midline, membranous; valvula IX (Fig. 51: va_9) relatively short, broadly rounded, ramus IX strongly curved, its basal third thick, then constricted, apical third narrower, gradually tapering towards apex. *Gynatrium* (Fig. 52: gy) relatively small, saccular, its wall moderately sclerotized and distinctly pigmented in its whole surface but particularly in the area of a pair of rounded lateral sclerites (derivatives of fecundation sclerite?); orifice of spermathecal duct surrounded by a small, oval sclerite (fecundation sclerite?). *Spermatheca* with a short basal duct-like section lacking cross-striation, then abruptly broadened into a pair of large, saccular lobes (Fig. 52: sl), finally distal portion continued as an elongate, saccular, but rather narrow lobe (Fig. 52: dsl) in the midline; left one of the pair of large, saccular lobes provided with a narrow, indistinctly cross-striated duct opening close to midline but distinctly submedially, terminating in a conspicuously short intermediate part with large proximal and distal flanges and a globose apical receptacle (Fig. 52: ar); about middle 70% of intermediate portion desclerotized, only sections immediately distad of proximal flange and immediately proximad of distal flange are sclerotized and pigmented.

Measurements (brachypterous males, $N = 4$ / brachypterous females, $N = 4$) (in mm). Total length 15.3–16.7 / 16.9–19.2, length of head along midline from base to an imaginary transverse line connecting apices of mandibular plates 2.45–2.61 / 2.56–2.67, width across eyes 3.38–3.43 / 3.32–3.65, interocular distance 2.07–2.13 / 1.86–2.29; lengths of antennal segments (greatest diameter in brackets): scape 0.93–1.09 (0.47–0.55) / 0.93–1.09 (0.50–0.55), pedicel 3.22–3.27 (0.47–0.52) / 3.22–3.86 (0.49–0.52), basiflagellum 1.53–1.47 (0.39–0.39) / 1.25–1.63 (0.36–0.39), distiflagellum 1.58–1.80 (0.28–0.31) / 2.73–3.20 (0.28–0.34); lengths of labial segments (I) 1.47–1.49 / 1.65–1.69, (II) 1.76–1.82 / 1.82–2.09, (III) 1.00–1.05 / 0.96–1.04, (IV) 0.69–0.72 / 0.70–0.72; length of pronotum along midline 3.39–3.92 / 3.81–4.09, greatest width 6.26–6.79 / 6.81–7.37, length of scutellum 3.27–3.92 / 3.21–3.81, width across base 3.54–4.09 / 3.81–4.31; greatest width of abdomen 8.59–9.51 / 9.74–10.90.

Pterygopolymorphism. The following wing morphs are recognized:

Macropterous (Figs 1–2). Surface of membrane about as large as that of corium and clavus combined. In males the tip of the membrane surpasses that of the pregenital abdomen and approaches or reaches the posterior margin of the genital capsule when the wings are at rest. The wings of macropterous females are built in the same way, but as such individuals have a greatly enlarged abdomen, tergite VIII and frequently the posterior portion of tergite VII remain exposed.

Brachypterous (Figs 3–6, 16). Corium short, reaching about the level of the apex of scutellum; membrane truncate, forming a narrow, subtriangular band at the distal end of corium; claval furrow clearly recognizable in both sexes. As the reduced wings of *S. vittata* are shorter than the usual condition found in morphs usually called as brachypterous in other heteropteran groups (e.g. Lygaeoidea), the morph might be termed “micropterous” as well; both terms are frequently used in various groups of Heteroptera, but no clear-cut definition of them exists. The usage of the term “brachypterous” in this species is intended to reflect the presence of a claval furrow and a remnant of the membrane.

Individuals of this species are predominantly brachypterous; of 16 male and 27 female adults, only four macropterous males and four macropterous females have been examined during the present study.

Immatures. A fifth instar larva is illustrated in Figs 7–8; its terminalia indicate that it is a female. The same instar was described and figured by LIS (1991).

Bionomics. Adults and larvae were collected from unidentified species of climbing cucurbitacean plants in Yunnan, China.

Distribution. This species has been reported from disjunct localities ranging from Northeastern India to Borneo (Fig. 56), and it is rare in collections. Two publications (ZHANG et al. 1994, TAN 2005) listed it (as *Atelides centrolineatus*) from Guangxi Zhuang Autonomous Region of China, without explicitly pointing out it represented a new country record, and as a result this record has remained largely overlooked (e.g. LIS 2006); the occurrence of this species in southern China is hereby confirmed. New country records are presented for Thailand and Laos. The available information on the distribution of the species is summarized as follows (exclamatory points indicate records verified during the present study):

INDIA. Sikkim!; West Bengal!; Assam!; Meghalaya! — **BANGLADESH.** Sylhet (DALLAS 1852). — **CHINA.** Yunnan!; Guangxi: Tianlin (ZHANG et al. 1994), Langping (TAN 2005). — **THAILAND** (new country record). Tak Prov.!; Chiang Mai Prov.! — **VIETNAM.** Rivière Claire [= Song Lo]: Upper Tong-kong (KIRKALDY 1910); Ha Giang Prov.: Hagiang [= Ha Giang] (LIS 1992); Lam Dong Prov.! — **LAOS** (new country record). Louang-phrabang Prov.! — **MALAYSIA.** Sarawak: Bidi!, Kuching (LIS 1992). — **INDONESIA.** Sumatra!; Borneo: env. of Mahakam River!

Remarks. The original description of *Sagriva vittata* explicitly states that the type material consists of a single female with long wings (SPINOLA 1850b). Two females, one macropterous and one brachypterous, are present in M. Spinola's collection deposited in MRSN (cf. also CASALE 1981); the first is considered as the holotype, the second, bearing an identification label as *Atelides centrolineatus*, is a non-type. The handwritten label next to the specimens bears the name "*Sugriva depressicornis*" (cf. also CASALE 1981); it is probably an unpublished tentative name for the genus and species. The examined female perfectly matches the original description, therefore its identity as the holotype of *S. vittata* is without question.

The holotype of *Atelides centrolineatus*, a brachypterous female (DALLAS 1852), is supposed to be deposited in the BMNH where most of the types of species described by W. S. Dallas are currently located, however, it was not found during a visit there. DURAI (1987), who accessed the collections of the BMNH, also did not mention the type material of this species, therefore it is considered unlocated, probably lost. The original description and the accompanying excellent illustrations leave no doubt about the synonymy of this species with *Sagriva vittata*, as it was suspected by ATKINSON (1889) and DISTANT (1902) and explicitly proposed by BERGROTH (1904).

Atelides sumatranus was described based on an unspecified number of "aptere" (= apterous) females (BREDDIN 1904); the original description, however, makes it clear that the individual(s) in concern were brachypterous. A single specimen deposited at SDEI was interpreted as holotype by GAEDIKE (1971), thus effectively designating it as a lectotype according to ICZN (1999: Article 74.6). As a consequence, the act of DURAI (1987) designating the same specimen as lectotype was invalid. The above mentioned lectotype has been reexamined during the present study and its synonymy with *S. vittata* proposed by DURAI (1987) is hereby confirmed.

***Sagriva banna* sp. nov.**

(Figs 9–12, 18–21, 28–31, 38–40, 43–48, 50, 53–55)

Type locality. China: Yunnan, Xishuangbanna Dai Autonomous Prefecture, Mengla County, Wangtianshu Nature Reserve, 21°37'39.9"N 101°35'16.9"E.

Type material. HOLOTYPE: ♂, "CHINA: Yunnan, Xishuangbanna \ Mengla, Wangtianshu Nat. Reserve \ 21°37'39.9"N 101°35'16.9"E \ 710 m, 1.viii.2012, leg. D. Rédei", [a label with the same information but in Chinese], "singled from unidentified \ cucurbitacean climbing plant"; mounted on card, intact; deposited at NKUM (Figs 9–10). PARATYPES: CHINA: YUNNAN: same labels as those of the holotype (1 ♂ NKUM) (Figs 28–31, 38–40, 43–48); "Yunnan Province Xishuangbanna \ Mengla County Menglunzhen Meng \ Yuan Village Nangongshan 1000M \ 2010-VIII-13 Zhao Qing" [in Chinese script] (1 ♀ NKUM) (Figs 11–12); "Yunnan Province Xishuangbanna \ Mengla County Menglunzhen Man \ Lun Village Nanping 845M \ 2010-VIII-14 Dang Kai" [in Chinese script] (1 ♀ NKUM); "CHINA: Yunnan, Xishuangbanna \ Mengla, Wangtianshu Nat. Reserve \ 21°37'39.9"N 101°35'16.9"E \ 710 m, 27.ix.2012, leg. D. Rédei", [a label with the same information but in Chinese], "singled from unidentified \ Cucurbitaceae climbing \ on low shrub" (1 ♂ HNHM); "CHINA: Yunnan Province \ Xishuangbanna State: \ Mengla Co., \ 1.5km E to Shangyong \ 6/X/2013 M.L. Jeng leg. \ by light trap", "NMNS ENT \ 7264/369" (1 ♂ NMNS); same locality label, "NMNS ENT \ 7264/368" (1 ♀ NMNS); "2012-VIII-5 \ Yunnan Menghai County Meng'a Township \ Xu Jishan, Chang Lingxiao \ Hebei University Museum" [in Chinese script] (1 ♀ HBUM). VIETNAM: YEN BAI PROV.: "VIETNAM, Yen Bai Prov., Mu \ Cang Chai Distr., Che Tao \ commune, Mu Cang Chai \ Species & Habitats Cons. Area, \ 21.7641°N 104.0430°E," "around Cong Troi (Gate to \ Heaven) Pass, 2040 m, upper \ montane evergreen forest, \ swept & hand-collected, \ 24–29.IX.2016 (#11), \ Ottó Merkl & Phu Pham Van" (4 ♀♀ HNHM, 1 ♀ NMPC).

Additional specimens examined. CHINA: YUNNAN: Xishuangbanna, Mengla, Wangtianshu Nature Reserve, 21°37'39.9"N 101°35'16.9"E, 710 m, 27.ix.2012, singled from unidentified Cucurbitaceae climbing on low shrub, leg. Y. Cui (1 ♀, head and thorax preserved in 100% ethanol, abdomen detached and mounted on card, genital and postgenital segments removed and preserved in plastic microvial pinned with the abdomen, both deposited in NKUM) (Figs 51–52) (not part of the type series).

Diagnosis. *Sagriva banna* sp. nov. conspicuously differs from *S. vittata* by its much smaller size and uniformly black body (Figs 9–12). The most important differences between the two species are provided in Table 1.

Table 1. Diagnostic characters of *Sagriva vittata* Spinola, 1850 and *S. banna* sp. n. other than genitalia.

<i>Sagriva vittata</i> Spinola, 1850	<i>Sagriva banna</i> sp. n.
Dorsum and venter with contrasting yellow, brown and black pattern (Figs 1–8)	Dorsum and venter rather uniformly black (Figs 9–12)
Anteocular part of head more elongate, mandibular plates long, their portion anteriorly surpassing clypeus distinctly longer than clypeus itself (Figs 13–14)	Anteocular part of head shorter, mandibular plates relatively short, their portion anteriorly surpassing clypeus subequal in length to clypeus itself (Fig. 18)
Antenna thick, segment III slightly more than 4 times (♀) longer than their greatest diameter (Fig. 15)	Antenna relatively gracile, segment III slightly more than 7 times (♀) longer than its greatest diameter (Fig. 19)
Pronotum of brachypterous morph 1.7–1.9 times as broad across humeri as its median length (Fig. 16)	Pronotum of brachypterous morph strongly transverse, 2.35–2.7 times as broad across humeri as its median length (Fig. 20)
Scutellum of brachypterous morph 1.05–1.2 times as broad at its base as its length along midline, apical portion distinctly narrowed, apex relatively narrowly rounded (Fig. 16)	Scutellum of brachypterous morph much shorter, 1.35–1.5 times as broad at its base as its length along midline, apex very broadly rounded (Fig. 20)
Fore wing of brachypterous morph about as long as scutellum, membrane truncate, forming a narrow, subtriangular band at the distal end of corium (Fig. 16)	Fore wing of brachypterous morph distinctly shorter than scutellum, membrane lacking (Fig. 20)

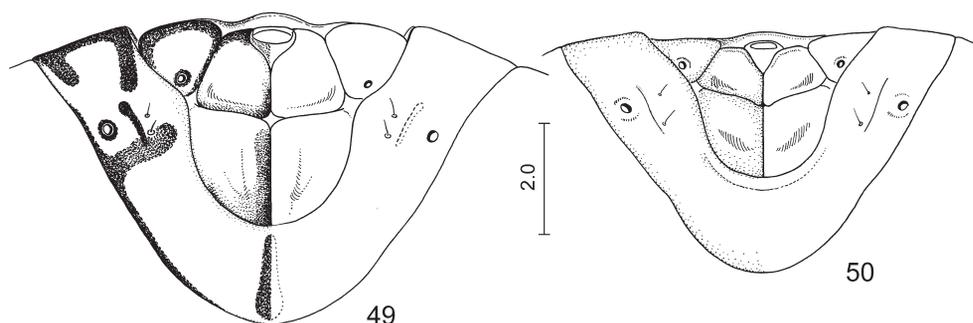
Description. Brachypterous male and female.

Colour. Body and appendages nearly uniformly black; most of distiflagellum except a rather broad basal annulus as well as labium reddish brown; base of scutellum with a small yellowish median patch, apical margin also suffused with yellow medially; with a small, inconspicuous yellowish patch surrounding proximal extremity of R+M vein of fore wing; midline of thoracic venter and mesal portions of coxae brownish; abdominal ventrites III–VII each with a pair of small, rounded, somewhat callose yellowish patch surrounding mesal ones of the two pairs of trichobothria; tergite VII (♂) and sternite VII (♂, ♀) posteriorly margined with brown to yellowish.

Structure. General aspect as in Figs 9–10 (♂) and 11–12 (♀), body short and broad. *Integument* dull, without distinct puncturation, rather coriaceous; integument of scape, pedicel, basiflagellum and legs (mainly femora and tibiae) finely granulate; scutellum strongly, coarsely wrinkled transversally. Body nearly glabrous; mandibular plate with a few scattered stiff hairs around its apex; pregenital abdominal venter with a few scattered hairs only, but posterior margin of abdominal sternite VII with several strong, stiff, oblique or adpressed hairs medially; scape, pedicel, basiflagellum and legs with thick, stiff, semierect or oblique hairs, distiflagellum with dense, short, fine, oblique pilosity and several more scattered, longer and thicker, semierect or oblique setae (Fig. 19).

Head (Fig. 18) short, 1.35–1.55 times as broad across eyes as its length (measured along midline from its base to an imaginary transverse line connecting apices of mandibular plates); mandibular plates relatively short, their portion anteriorly surpassing clypeus subequal in length to clypeus itself, contiguous anteriorly, mesal outlines narrowly diverging towards apex, lateral margins distinctly reflexed; anteocular process short, obtuse; vertex with a pair of large but weak sublateral tubercles between eyes delimited by a pair of shallow oblique furrows mesally; eye small, placed on a short peduncle, head 1.40–1.55 times as broad as interocular distance. *Antenna* (Fig. 19) relatively gracile, pedicel about 9 (♂) or slightly more than 10 times (♀), basiflagellum 6.5–7.5 times (♂, ♀) as long as their greatest diameter respectively. Apex of *labium* reaching posterior margin of metasternum.

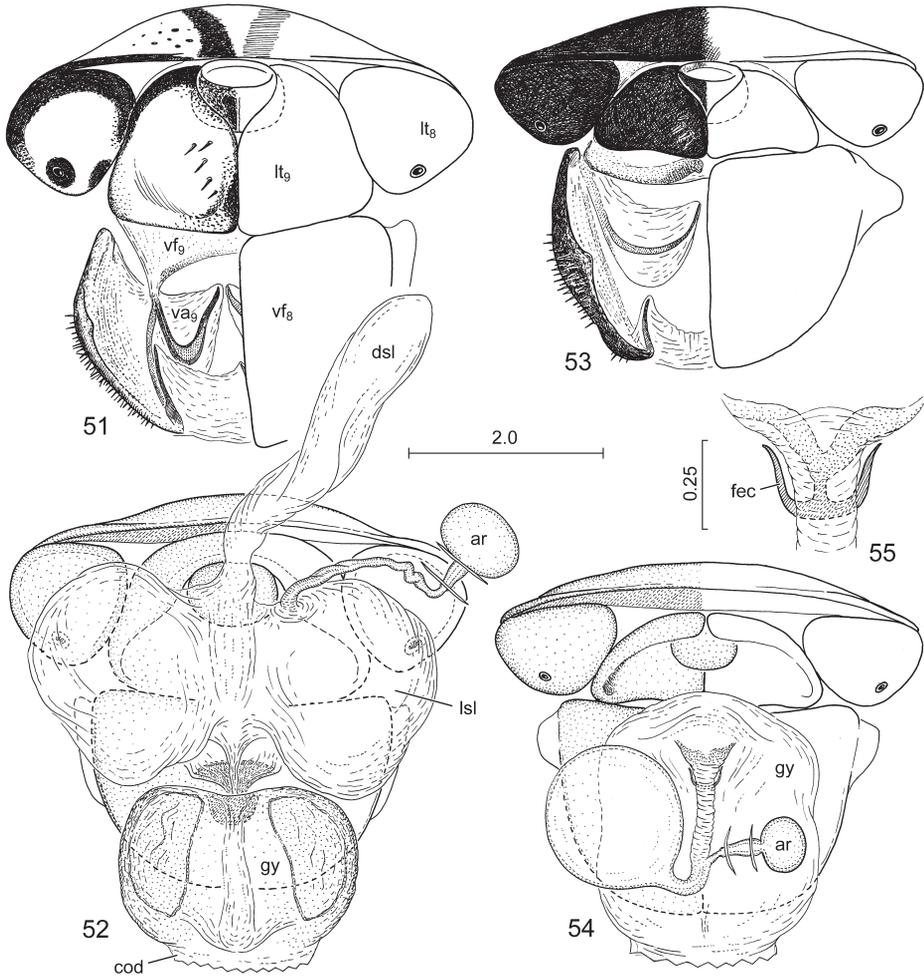
Thorax. *Pronotum* (Fig. 20) subtrapezoid, strongly transverse, 2.35–2.7 times as broad as its median length, anterolateral and humeral angles broadly rounded, anterior margin almost straight, broadly emarginate at middle; with a weakly elevated anteromedian tuberosity; lateral margin weakly concave, almost straight; cicatrices distinct; with a pair of weak submedian impressions posteriad of mesal angles of cicatrices. *Scutellum* (Fig. 20) short, strongly transverse, about 1.35–1.5 times broader at its base than its median length, apical portion only weakly narrowed, apex broadly rounded. *Fore wings* (Fig. 20) distinctly shorter than scutellum, slightly longer than broad, strongly reduced, membrane completely lacking, clavus and corium immovably fused but claval furrow still recognizable as a shallow groove. *Thoracic pleura and sterna.* Meso- and metathoracic venter both with a distinct median groove widened at the middle of both segments, bordered by a pair of thick, tumid, weakly elevated keels. Metathoracic scent gland ostiole with short, spout-like peritreme, evaporatorium extending to mesepimeron and mesepimeroid (Fig. 21). *Legs* as characteristic for the genus, hind tibia with very weak (♂) or more distinct (♀) subbasal dilation.



Figs 49–50. Female terminalia of *Sagriva vittata* Spinola, 1850 (Fig. 49) and *S. banna* sp. nov. (Fig. 50) in posterior view. Scale bars in mm.

Pregenital abdomen broadly rounded, almost circular in dorsal view, about 0.67 times (σ , ♀) as broad as body length, dorsum weakly, venter strongly convex; spiracles II–VI situated on distinct and large protuberance, spiracle VII on smaller protuberances.

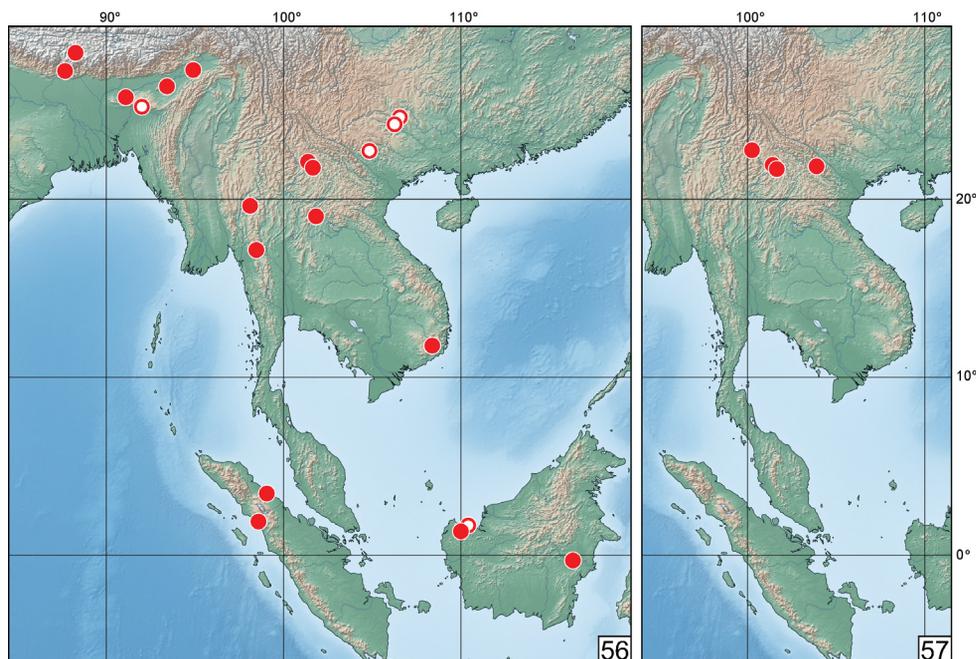
External male genitalia (Figs 28–31, 38–40, 43–48). *Genital capsule* (Figs 28–29): outline in most exposed view of its morphological posterior surface almost circular, less elongate than in *S. vittata*, posteriorly deeply and broadly emarginate medially (Fig. 28); infolding of dorsal rim sharply impressed laterad of dorsal sinus, neighbouring lateral portions provided with short, sparse pilosity; cuplike sclerite as in *S. vittata* but median projection not emarginate (cf. Fig. 29). *Paramere* (Figs 30–31) kidney-shaped in most exposed view (Figs 28, 31). *Phallus*: in repose as in Figs 38–39; in inflated condition as in Figs 43–44. *Articulatory apparatus* (Fig. 40) basically as in *S. vittata* but narrower, submedian projections of support bridge complex thinner, erection fluid pump smaller; support bridge prolongation not dissected out in order to preserve phallus of the single examined male. *Phallosome* posteriorly with an excision somewhat similar to the condition found in *S. vittata*. *Conjunctiva* (Figs 43–44: con) voluminous, about as long as phallosome; with a large, saccular, membranous dorsal lobe (Figs 43, 45: cp-I) apically subdivided into a pair of short branchlets; with a pair of greatly elongate, strongly sclerotized, flattened, arched, apically rounded lateral processes (Figs 38–39, 43–44: cp-II) bases of which are associated with a pair of elongate sclerites on which support bridge prolongation is attached (Figs 47–48: scp-II); without ventral or ventrolateral lobe (cp-III). *Aedeagus* (Figs 38, 43–44: aed, 47) greatly elongate, about as long as phallosome, its distalmost portion narrowly protruding from phallosome in repose (cf. Figs 38–39), strongly curved dorsad, directed posterodorsally in inflated condition (cf. Fig. 43), with a small, flat, rounded, apically bilobed process at its base ventrally (Figs 43–44, 46: vpae); endophallic sperm efferent system forming an arched tube, endophallic reservoir elongate, indistinctly delimited from associated portions of endophallic duct, subdivided into a dorsal and a ventral chamber by a horizontal septum; ductus seminis (Fig. 47: ds) directly opens into the ventrobasal lumen; endophallic sperm efferent system consisting of two lumina, its wall distinctly sclerotized and pigmented in its entire length, but outer wall of aedeagus



Figs 51–55. External female genitalia of *Sagriva vittata* Spinola, 1850 (Figs 51–52) and *S. banna* sp. nov. (Figs 53–55). 51, 53 – terminalia, posterior view, left valvifer VIII opened; 52, 54 – genital and postgenital segments as seen in dorsal view after removal of pregenital abdomen; 55 – proximalmost section of spermathecal duct in dorsal view. Scale bars in mm. Lettering: ar = apical receptacle of spermatheca; cod = common oviduct; dsl = dorsal lobe of spermatheca; fec = fecundation sclerite; gy = gynatrium; lsl = lateral lobe of spermatheca; lt₈, lt₉ = laterotergite VIII, IX; va₉ = valvula IX; vt₈, vt₉ = valvifer VIII, IX.

thin, unpigmented, almost membranous; aedeagus somewhat broadened at its extreme apex, forming a dorsal and a ventral lip-like projections, dorsal one larger than ventral.

External female genitalia (Figs 50, 53–55). *Terminalia* (Figs 50, 53). Tergite VIII transversal, with a pair of distinct submedian impressions, posterior margin broadly rounded, at most insignificantly emarginate at level of lateral margin of laterotergite IX; laterotergite



Figs 56–57. Distribution of *Sagriva vittata* Spinola, 1850 (Fig. 56) and *S. banna* sp. nov. (Fig. 57). Solid circles represent specimens examined during the present study, empty circles unverified literature data.

VIII subtriangular, posteromesal angle narrowly rounded; valvifer VIII distinctly longer than broad; laterotergite IX much broader than long, posterior margin rather abruptly broken at level of segment X, with broad transverse impression close to its anterior margin; contralateral valvifers IX fused along midline, greatly membranous, with a pair of transversely directed, elongate sclerites in their posterior walls; valvula IX short, broadly rounded, ramus IX strongly curved and gradually tapering towards apex. *Gynatrium* (Fig. 54: gy) large, saccular, its wall not sclerotized and not pigmented; orifice of spermathecal duct surrounded by a small, lyra-shaped sclerite (fecundation sclerite) (Fig. 55: fec) formed by a pair of thin, arched branches. *Spermatheca*: proximal section of spermathecal duct relatively short, straight, cross-striated, then bifurcate, both of its distal branches cross-striate; one of the distal branches strongly curved backwards, its diameter about half of that of proximal section, terminated in a large, globose sac; the other distal branch directed towards proximal part of basal section of spermathecal duct, very short and thin (its diameter less than one third of that of proximal section), terminating in a conspicuously short intermediate part with large proximal and distal flanges and a globose apical receptacle; intermediate portion rather uniformly weakly sclerotized, no “flexible zone” can be recognized.

Measurements (holotype / male paratypes, $N = 2$ / female paratypes, $N = 2$) (in mm). Total length 12.2 / 10.8–11.7 / 14.2–14.3, length of head along midline from base to an imaginary

transverse line connecting apices of mandibular plates 1.93 / 1.90–1.93 / 2.13–2.32, width across eyes 3.03 / 2.59–2.75 / 3.05–3.16, interocular distance 1.93 / 1.82–1.83 / 2.13–2.13; lengths of antennomeres (greatest diameters in brackets): scape 0.77 (0.42) / 0.72–0.75 (0.34–0.38) / 0.87–0.88 (0.39–0.42), pedicel 2.67 (0.30) / 2.31–2.55 (0.26–0.28) / 3.12–3.16 (0.29–0.31), basiflagellum 1.35 (0.21) / 1.27–1.35 (0.17–0.18) / 1.65–1.68 (0.23–0.23), distiflagellum 1.65 (0.23) / ?–1.65 (?–0.21) / 1.85–1.90 (0.23–0.24); lengths of labial segments (I) 1.32 / 1.27–1.32 / 1.38–1.41, (II) 1.72 / 1.54–1.60 / 1.76–1.88, (III) 0.86 / 0.99–1.05 / 0.92–0.97, (IV) 0.83 / 0.77–0.80 / 0.88–0.88; length of pronotum along midline 2.31 / 1.87–2.20 / 2.46–2.47, greatest width 5.39 / 5.01–5.25 / 5.82–5.94, length of scutellum 2.42 / 2.09–2.45 / 2.52–2.57, width across base 3.30 / 2.97–3.37 / 3.77–3.78; greatest width of abdomen 7.98 / 7.15–7.70 / 9.40–9.65.

Pterygopolymorphism. Only the short-winged morph is known. Its wing is more strongly reduced than in *S. vittata*, being distinctly shorter than the scutellum, with immovably fused corium and clavus (but with a recognizable remnant of the claval furrow) and lacking membrane (Figs 9–12, 20). In spite of the stronger degree of reduction, as the difference from the condition seen in *S. vittata* is not sharp, the morph is termed “brachypterous” as well.

Etymology. The specific epithet *banna* comes from Banna, the short name of the region Sibsongbanna / Sipsongpanna (in Thai) or Xishuangbanna (in Chinese) where the type locality is located. Noun in apposition, ending not to be changed.

Distribution. The species is known from the type locality and two additional nearby localities in Yunnan Province, southwestern China, and from a locality in Yen Bai Province, northern-central Vietnam (Fig. 57).

Discussion

It is with considerable hesitation that the new species described in this paper is placed into *Sagriva*, as its general facies (Figs 9–12) is rather different from that of *S. vittata* (Figs 1–6). The new species nevertheless shares all morphological characters which were used for defining *Sagriva* by SCHOUTEDEN (1913) and DURAI (1987), and a careful comparison revealed no difference in any part of the exoskeleton which could be judged as of generic level importance. The phallus, particularly the development of the conjunctiva and aedeagus, and the gynatrial complex show striking differences between *S. vittata* and the new species, and it was tempting to propose a new genus-group taxon for the new species based on them. It was, however, concluded that it is impractical and controversial to define a genus based solely on genital characters, also taken into consideration that little information is available on the genital morphology of other taxa of Dinidoridae.

In respect of several characters *Sagriva banna* sp. nov. is more generalized than *S. vittata*. The genitalia of the new species are comparable with those of *Folengus* Distant, 1914, *Thalma* Walker, 1868, and *Urusa* Walker, 1868 (as well as several Tessaratomidae) (J. F. Tsai, pers. comm.), whilst the condition found in *S. vittata* is unique in many respects, particularly the very small aedeagus and the peculiar spermatheca. *Sagriva vittata* and the new species are considered as sister species based on the morphology of the exoskeleton, the shared brachyptery, the similar male genital capsule and female terminalia; the above-mentioned

strong differences in the genitalia are considered as a consequence of additively accumulated unique autapomorphies of *S. vittata*. As a consequence, the new species, *S. banna* sp. nov., is placed into *Sagriva*.

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