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Subdivision of the tribe Kodaianellini Wang, Zhang & Bourgoin, 2016 (Hemiptera, Fulgoroidea, Issidae), with the descriptions of two new subtribes and a new species

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Narayana umbrosa Distant, 1906 (Kodai Kanal), external view.

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Subdivision of the tribe Kodaianellini Wang, Zhang & Bourgoin, 2016 (Hemiptera, Fulgoroidea, Issidae), with the descriptions of two new subtribes and a new species

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ABSTRACT
The issid tribe Kodaianellini Wang, Zhang & Bourgoin, 2016 (Issidae Spinola, 1839, Issinae Spinola, 1839) is revised. A new subtribe, Samantigina n. subtrib., is erected to accommodate *Samantiga* Distant, 1906, and another new subtribe, Narayanina n. subtrib., is erected to accommodate *Lusanda* Stål, 1859, *Narayana* Distant, 1906, *Sivaloka* Distant, 1906, and *Radha* Melichar, 1903 known from India and Sri Lanka. A new species of the genus *Kodaianella* Fennah, 1956, *Kodaianella coomani* n. sp., is described from northern Vietnam. Male and female genitalia structures of *Samantiga abdominalis* Distant, 1906 and *Narayana umbrosa* Distant, 1906 are described and illustrated for the first time. *Lusanda fissiceps* Stål, 1859 is redescribed and illustrated based on the holotype. A key to subtribes and genera of the Kodaianellini is given.

KEY WORDS
Issinae,
identification keys,
morphology,
Oriental Realm,
new species,
new subtribes.

RÉSUMÉ
Subdivision de la tribu Kodaianellini Wang, Zhang & Bourgoin, 2016 (Hemiptera, Fulgoroidea, Issidae), avec la description de deux nouvelles sous-tribus et d'une nouvelle espèce.
La tribu Kodaianellini Wang, Zhang & Bourgoin, 2016 (Issidae Spinola, 1839, Issinae Spinola, 1839) est révisée. Une nouvelle sous-tribu, Samantigina n. subtrib., est créée pour accueillir *Samantiga* Distant, 1906 et une autre nouvelle sous-tribu, Narayanina n. subtrib., est créée pour accueillir *Lusanda* Stål, 1859, *Narayana* Distant, 1906, *Sivaloka* Distant, 1906, et *Radha* Melichar, 1903 connus d'Inde et du Sri Lanka. Une nouvelle espèce du genre *Kodaianella* Fennah, 1956, *Kodaianella coomani* n. sp., est décrite du nord du Vietnam. La structure des genitalia males et femelles de *Samantiga abdominalis* Distant, 1906 et *Narayana umbrosa* Distant, 1906 est décrite et illustrée pour la première fois. *Lusanda fissiceps* Stål, 1859 est redécrite et illustrée à partir de l'holotype. Une clé d'identification des sous-tribus et des genres des Kodaianellini est fournie.

MOTS CLÉS
Issinae,
clés d'identification,
morphologie,
région orientale,
espèce nouvelle,
sous-tribus nouvelles.

INTRODUCTION

The tribe Kodaianellini Wang, Zhang & Bourgoin, 2016 belongs to the subfamily Issinae Spinola, 1839 of the family Issidae Spinola, 1839 (Gnezdilov *et al.* 2020, 2022). It was erected to accommodate issid genera with large remigial lobe and reduced in size remigio-vannal and anal lobes of hind wings (Wang *et al.* 2016). Currently the tribe is comprising five genera, *Dentatissus* Chen, Zhang & Chang, 2014, *Kodaianella* Fennah, 1956, *Kodaianellissus* Wang, Bourgoin & Zhang, 2017 (*Tetricissus* Wang, Bourgoin & Zhang, 2017), *Neokodaiana* Yang, 1994, and *Singamanus* Gnezdilov, 2026, with 18 species known from Japan (Ryukyus), Republic of Korea, China, Laos, Vietnam, Myanmar, Singapore, and Pakistan (Fennah 1956; Chan & Yang 1994; Chen *et al.* 2014; Gnezdilov & Hayashi 2015; Meng *et al.* 2016; Wang *et al.* 2017; Chang *et al.* 2020; Sohail *et al.* 2020; Zhang *et al.* 2020; Park & Jung 2023; Gnezdilov 2026a, b).

Our examination of hind wing structure of the members of the genera *Samantiga* Distant, 1906, *Narayana* Distant, 1906, *Lusanda* Stål, 1859, *Sivaloka* Distant, 1906, and *Radha* Melichar 1903 known from India and Sri Lanka revealed their close relationships with other eastern Asian genera of Kodaianellini listed above which allows us to incorporate these taxa in the tribe Kodaianellini as the monotypical subtribe Samantigina n. subtribe and the subtribe Narayanina n. subtribe for the rest of taxa expanding the range of the Kodaianellini up to Ceylon via Indian subcontinent.

Additionally, our study of the collections from the Muséum national d'Histoire naturelle in Paris (France) and from the Senckenberg Naturhistorische Sammlungen in Dresden (Germany) on the genus *Kodaianella* Fennah, 1956, the most speciose genus of the tribe currently comprising eight species distributed in southern China (Guangxi, Guizhou, Sichuan, and Yunnan Provinces), northern Laos (Phongsaly Province), northeastern Vietnam (Quang Ninh Province), southern Myanmar (Tenasserim: Myitta), and Pakistan (Azad Jammu and Kashmir) (Distant 1906; Fennah 1956; Zhang & Chen 2010; Gnezdilov 2013, 2026a; Chang *et al.* 2020; Sohail *et al.* 2020; Constant & Pham 2024), revealed a new species from Hoa Binh in northern Vietnam which is described below.

MATERIAL AND METHODS

Morphological terminology follows Anufriev & Emeljanov (1988) for head and wings, with the comments by Gnezdilov & Bartlett (2018), and Bourgoin (1993), Gnezdilov (2002, 2003), and Gnezdilov *et al.* (2014) for male and female genitalia.

Photographs were taken using a Canon 5D Mark IV digital camera equipped with a lens Canon MP-E 65mm f/2.8 1-5x macro and Canon Macro Twin Lite MT–26EX-RT flash. Drawings are made using a Leica MZ9.5 stereomicroscope with a camera lucida. Images are produced using Helicon Focus v. 7.6.4 and Adobe Photoshop softwares.

Label information is quoted, with "/" indicating new line and "//" indicating next label.

Abbreviations

Institutions

HNHM	Hungarian Natural History Museum, Budapest;
ZMB	Museum für Naturkunde, Berlin;
MNHN	Muséum national d'Histoire naturelle, Paris;
NHMUK	Natural History Museum, London;
RBINS	Royal Belgian Institute of Natural Sciences, Brussels;
SNSD	Senckenberg Naturhistorische Sammlungen, Dresden;
ZIN	Zoological Institute of the Russian Academy of Sciences, Saint Petersburg.

Morphology

at	teeth of apical group of anterior connective lamina of gonapophyse VIII;
A_1	first anal vein;
$A_{1.1}$	anterior branch of first anal vein;
$A_{1.2}$	posterior branch of first anal vein;
A_2	second anal vein;
ac	anal column;
c-r	intermediate vein between costa and radius veins;
cc	connective cup;
cn	comb of capitulum neck;
CuA	cubitus anterior vein;
cua-cup	intermediate vein between cubitus anterior and cubitus posterior veins;
CuA_1	anterior branch of cubitus anterior vein;
CuA_2	posterior branch of cubitus anterior vein;
CuP	cubitus posterior vein;
dPCL	distal parts of posterior connective laminae of gonapophyses IX.
ep	ear-shaped process of dorso-lateral phallobase lobe;
Gbd	gonospiculum bridge;
ghm	hind margin of gonocoxa VIII;
icua	intermediate vein between branches of cubitus anterior vein;
im	intermediate vein between branches of median vein;
ir	intermediate vein between branches of radius vein;
lf	lateral fields of posterior connective laminae of gonapophyses IX;
lt	teeth of lateral group of anterior connective lamina of gonapophyse VIII.
lts	lateral tooth of capitulum of style;
M	median vein;
m-cua	intermediate vein between median and cubitus anterior veins;
mf	median field of posterior connective laminae of gonapophyses IX;
Pcu	postcubitus vein;
phm	hind margin of pygofer;
R	radius vein;
r-m	intermediate vein between radius and median veins;
R_1	anterior branch of radius vein;
R_2	posterior branch of radius vein;
sc	sac-shaped dorso-apical part of phallobase;
sp	subapical process of dorso-lateral phallobase lobe;
vh	ventral hooks of aedeagus;
vl	ventral phallobase lobe.

SYSTEMATICS

Family Issidae Spinola, 1839
Subfamily Issinae Spinola, 1839

Tribe Kodaianellini Wang, Zhang & Bourgoin, 2016

Kodaianellini Wang, Zhang & Bourgoin, 2016: 232.

Type genus. — *Kodaianella* Fennah 1956, by original designation.

Diagnosis. — Coryphe transverse. Metope wide, with weak or incomplete intermediate carinae, sometimes protruding in shape of two large horns. Rostrum thick and rather short. Fore wings with wide hypocostal plates; R 2-3 (two or three-branched), M 3 (three-branched), CuA 2 (two-branched); clavus long, from 3/4 of wing length to nearly as long as whole wing. Hind wings tri-lobed, with large remigial lobe enlarged latero-apically and curved because of strongly concave costal margin medially and reduced in size, 1.5 times and narrower, remigio-vannal and anal lobes. CuA and CuP of hind wing neither fused on a long distance nor flattened apically. Hind tibia with 1-2 lateral spines distally. First metatarsomere with two latero-apical spines and an entire row of intermediate spines. Hind margin of female sternite VII mainly strongly convex medially or widely concave (in *Kodaianelissus*), or with a deep median notch – in shape of two lobes (in *Dentatissus*). Gonoplacs flat and rounded, short.

Subtribe Kodaianellina Wang, Zhang & Bourgoin, 2016

Kodaianellini Wang, Zhang & Bourgoin, 2016: 232.

Key to subtribes of Kodaianellini Wang, Zhang & Bourgoin, 2016

1. Hind wing with first anal vein two-branched (A_1 2) and anterior branch of first anal vein ($A_{1.1}$) partly fused with Pcu (Fig. 1D). Anal lobe of hind wing 0.7 times as wide as remigio-vannal, with second anal vein simple (A_2 1). Cubital and vannal clefts deep ..... Kodaianellina Wang, Zhang & Bourgoin, 2016
— Hind wing with first anal vein simple (A_1 1), not fused with Pcu (Figs 4D; 9D). Anal lobe of hind wing rudimentary, 0.3 times as wide as remigio-vannal lobe, with second anal vein (A_2) indistinct. Cubital and vannal clefts weak 2

2. Fore wings elongate, with clavus 3/4 of wing length, A_1 and Pcu + A_1 are not prominent (Fig. 9B). Hind wing remigium rather elongate, with simple median vein (M 1) and cubitus anterior with two branches (CuA 2) furcating on its apex (Fig. 9D). Anal lobe half as long as remigio-vannal lobe. Hind tibia with a single lateral spine. Endogonocoxal process with short apical part (Fig. 11G) ..... Samantigina n. subtrib.
— Fore wings enlarged latero-apically (in lateral view), with clavus nearly as long as whole wing and with keel-shaped A_1 and Pcu + A_1 (Figs 4B; 7B; 8B). Hind wing remigium rather triangular (nearly truncate laterally), with M 2-3 and CuA 3-5 furcating after wing middle (Fig. 4D). Anal lobe 4/5 as long as remigio-vannal lobe. Hind tibia with two lateral spines. Endogonocoxal process with long and narrow finger-shaped apical part (Fig. 6F) ..... Narayanina n. subtrib.

Key to genera of Kodaianellina Wang, Zhang & Bourgoin, 2016

1. Remigio-vannal lobe of hind wing with 2-3 transverse veins between anterior ($A_{1.1}$) and posterior ($A_{1.2}$) branches of first anal vein (Wang *et al.* 2017, figs 6, 23). Female sternite VII widely concave medially (Wang *et al.* 2017, fig. 17) ..... *Kodaianellissus* Wang, Bourgoin & Zhang, 2017
— Remigio-vannal lobe of hind wing without transverse veins between branches of first anal vein (Fig. 1D). Female sternite VII strongly convex medially (Fig. 3E) 2

2. Metope dark, with light transverse median stripe. Phallobase with large collar bearing two long and narrow median processes turned laterally; aedeagus without ventral hooks ..... *Neokodaiana* Yang, 1994
— Metope without light transverse median stripe. Phallobase without collar; aedeagus with a pair of ventral hooks 3

3. Ventral hooks of aedeagus furcating, with longer branches strongly curved and directed upwards (Chen *et al.* 2014, figs 2-79L, 2-80L). Style with long and narrow, hook-shaped, lateral tooth directed backwards (Chen *et al.* 2014, figs 2-79I, 2-80I). Hind margin of female sternite VII with a deep median notch – in shape of two lobes (Park & Jung 2023, fig. 3H) ..... *Dentatissus* Chen, Zhang & Chang, 2014
— Ventral hooks of aedeagus mostly simple if furcating, with longer branches directed downwards (Fig. 2B, E). Style with rounded lateral tooth (Fig. 2F). Hind margin of female sternite VII strongly convex, without lobes (Fig. 3E) 4

4. Remigio-vannal lobe of hind wing with an intermediate vein between Pcu and anterior branch of A_1 ($A_{1.1}$) apically forming peculiar large triangular cell (Gnezdilov 2026b, fig. 7). Ventral hooks of aedeagus curved at right angle, with marginal denticles (Gnezdilov 2026b, fig. 12) ..... *Singamanus* Gnezdilov, 2026
— Remigio-vannal lobe of hind wings without an intermediate vein between Pcu and anterior branch of A_1 apically (Fig. 1D). Ventral hooks of aedeagus simply curved, without marginal denticles (Fig. 2B, E) ..... *Kodaianella* Fennah, 1956

Type genus. — *Kodaianella* Fennah 1956, by original designation.

Distribution. — Japan (Ryukyus), Republic of Korea, China, Laos, Vietnam, Myanmar, Singapore, and Pakistan (Fennah 1956; Chan & Yang 1994; Chen *et al.* 2014 ; Gnezdilov & Hayashi 2015; Chang *et al.* 2020; Zhang *et al.* 2020; Sohail *et al.* 2020; Meng *et al.* 2016; Wang *et al.* 2017; Park & Jung 2023; Gnezdilov 2026a, b).

Composition. — Five genera: *Dentatissus* Chen, Zhang & Chang, 2014, *Kodaianella* Fennah, 1956, *Kodaianellissus* Wang, Bourgoin & Zhang, 2017 (*Tetricissus* Wang, Bourgoin & Zhang, 2017), *Neokodaiana* Yang, 1994, and *Singamanus* Gnezdilov, 2026.

Diagnosis. — Remigio-vannal lobe of hind wing 0.25-0.6 times as wide as widest latero-apical part of remigial lobe, with first anal vein two-branched (A_1 2) and anterior branch of first anal vein ($A_{1.1}$) partly fused with Pcu (Fig. 1D). Anal lobe of hind wing 0.6-0.8 times as wide as remigio-vannal lobe, with second anal vein simple (A_2 1). Cubital and vannal clefts deep.

Genus *Kodaianella* Fennah, 1956

Kodaianella Fennah, 1956: 508.

Type species. — *Kodaianella bicinctifrons* Fennah, 1956, by original designation.

Kodaianella coomani n. sp.
(Figs 1-3)

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Type material. — **Holotype. Vietnam** • ♂; "Museum Paris/Tonkin/rég. de Hoa Binh/A. de Cooman 1928"; MNHN-EH-EH33418. **Paratypes. Vietnam** • 1♂; "Museum Paris/Tonkin/rég. de Hoa Binh/A. de Cooman 1928"; MNHN-EH-EH33419 • 1 ♂; "Museum Paris/Tonkin/rég. de Hoa Binh/A. de Cooman 1930"; MNHN-EH-EH33420 • 1♂; "Museum Paris/Tonkin/rég. de Hoa Binh/A. de Cooman 1927"; ZIN • 1♀; "Hoa Binh/Tonkin VII-1934/A. de Cooman" // "Museum Paris/1932, A. de Cooman"; MNHN-EH-EH33421 • 3♀; "Museum Paris/Tonkin/Hoa Binh/(J. de Cooman)/R. Oberthur 1919"; MNHN-EH-EH33422; MNHN-EH-EH33423; MNHN-EH-EH33424 • 1♀; same as for preceding; ZIN • 1♀; "Museum Paris/Tonkin/rég. de Hoa Binh/A. de Cooman 1927"; MNHN-EH-EH33425 • 1♀; "Tonkin/Hoa binh/ de Cooman c" // "1934" // "A. Jacobi/Typus" // "Sivaloka/obscura Jac."; SNSD • 1♀; "Tonkin/Hoa Binh/le Décember 1921/R. Vitalis de Salvaza"; RBINS.

Diagnosis. — Metope very wide, twice as wide as long medially. Fore wings glossy dark brown, with first anal vein (A_1) strongly convex, keel-shaped. Style with two big combs above and below neck.

Etymology. — The species is named after the collector Mr Albert de Cooman to honour his efforts for studying Oriental fauna of Issidae.

Distribution. — Northern Vietnam.

Description

Structure (Fig. 1)

Coryphe transverse, three times as wide as long medially, slightly groove-like concave at midline; anterior margin nearly straight or slightly widely convex; posterior margin concave (Fig. 1A). Diameter of each eye half of width of coryphe. Metope very wide, twice as wide as long medially, convex (well visible from above), with strongly convex lateral margins not hanging above pedicels and with smooth median carina running from its upper margin where it is very weak to its middle where it became distinct and prominent (Fig. 1C). Upper margin of metope widely and weakly concave. Metopoclypeal suture straight (horizontal). Postclypeus slightly flattened dorso-ventrally, without carinae. Ocelli absent. Rostrum barely reaching hind coxae, with 3rd segment short and wide, 1.3 times as long as 2nd segment, not narrowing apically. Pedicel shortly cylindrical. Pronotum 1.5 times as long as coryphe at midline, without carinae, with angularly convex anterior margin and nearly straight posterior margin bearing weak concavity medially. Paradiscal fields of pronotum narrow behind eyes. Paranotal lobes of pronotum wide. Mesonotum 1.5 times as long as pronotum, without carinae. Fore wings covering abdomen, enlarged apically (in lateral view), with widely truncate apical margins, wide subcostal fields, wide hypocostal plates and rather weak knee bulges (Fig. 1B). Corium missing appendix, with many transverse veins except its basal third. Clavus as long as whole wing, open. Basal cell elongate. Forewing vein branching sequence: R 2, furcating closely to basal cell; M 3, firstly furcating before wing middle and anterior branch (M_1) furcating apically; CuA 2, furcating after wing middle. Pcu joining first anal vein (A_1) before claval middle. A_1 strongly convex (keel-shaped) from its base to point of fusion with Pcu. Hind wing with a coupling lobe and narrow appendix of remigium (Fig. 1D). Hind wing vein branching sequence: R 2, furcating below coupling lobe; r-m 1; M 1; m-cua 1; CuA 3, furcating in apical fourth of wing; cua-cup 1; CuP 1; Pcu 1; A_1 2; A_2 1. Pcu and anterior branch of A_1 ($A_{1.1}$) fused in apical half of wing. Fore and middle femora weakly flattened. Hind tibia with two lateral spines distally and 8-9 spines apically. First metatarsomere larger than second one, with two latero-apical and eight intermediate spines in a whole row. Both metatarsomeres with long hair-shaped setae ventrally. Arolium of pretarsus not surpassing beyond claw apices in dorsal view, with weakly concave posterior margin.

Coloration (Fig. 1)

Generally yellowish brown to glossy dark brown on fore wings. Metope yellowish brown to brown below its upper margin. Scapi dark brown. Pedicels dark brown to black. Lower part of postclypeus and anteclypeus brown to dark brown. Hind wings light brown, with brown veins. Rostrum brown to dark brown. Legs yellowish brown to dark brown. Claws dark brown. Apices of leg spines black. Female sternite VII and gonoplacs dark brown. Female anal tube yellowish brown, with dark brown apex.

Male terminalia (Fig. 2)

Pygofer wide (in lateral view), with slightly convex medially hind margins (Fig. 2A). Anal tube twice as longh as wide medially, with turned downwards upper angles (Fig. 2A, C). Anal column wide and short. Penis narrow (in lateral view), weakly curved, with pair of small spiny subapical processes

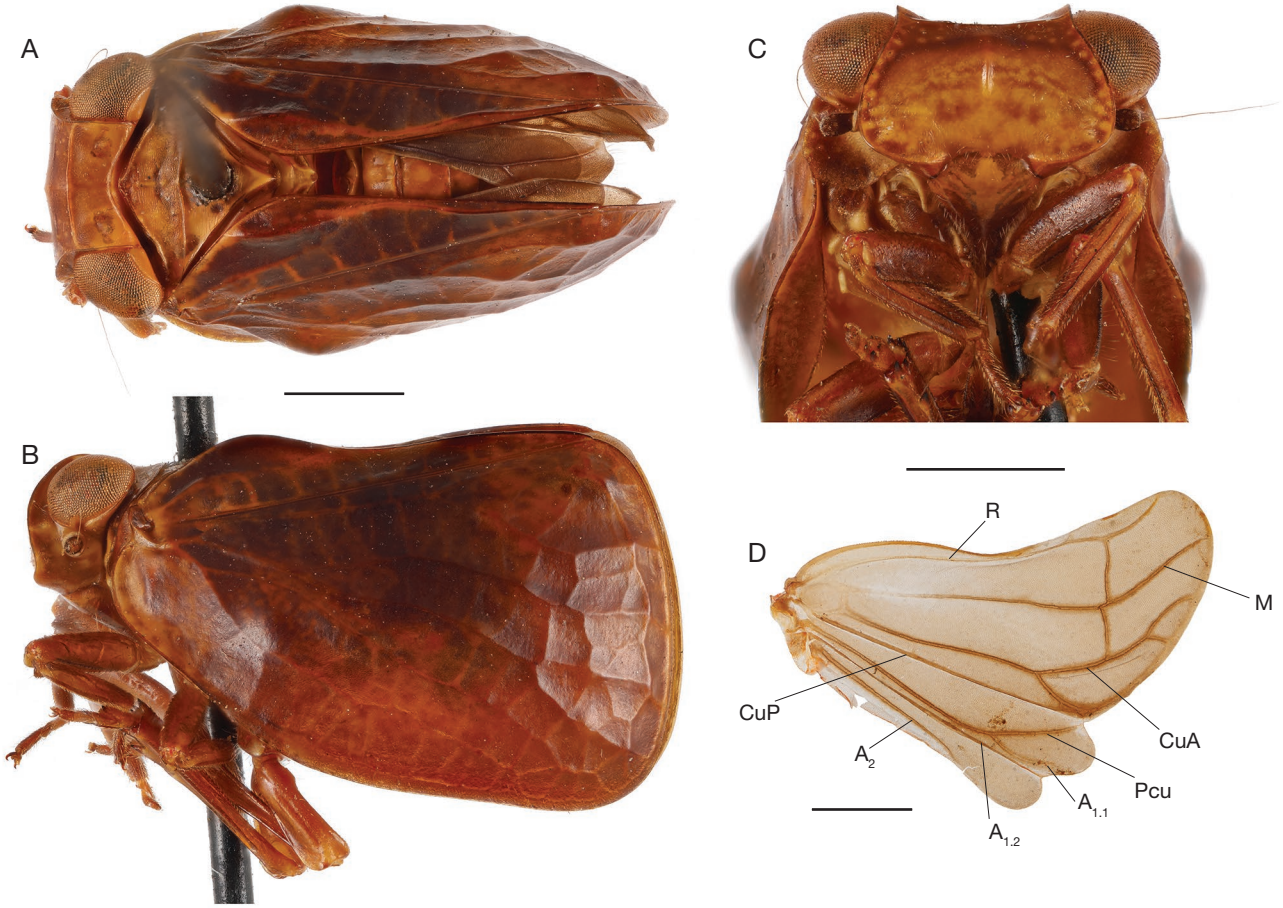

Fig. 1. — *Kodaianella coomani* n. sp., female paratype, external view: **A**, dorsal view; **B**, lateral view; **C**, frontal view; **D**, right hind wing. Abbreviations: see Material and methods. Scale bars: 1 mm.

of dorso-lateral phallobase lobes (Fig. 2B). Dorso-apical part of phallobase in shape of weakly sclerotized sac. Ventral phallobase lobe long and narrow, narrowing apically, exceeding apices of apical aedeagal processes (Fig. 2E). Aedeagus completely covered by phallobase, with pair of narrow ventral hooks half as long as aedeagus, pointed apically and directed downwards. Apical aedeagal processes wide, narrowing apically. Connective large, with a big cup (Fig. 2D). Style massive, with convex hind margin (Fig. 2F). Capitulum of style narrow, arrow-shaped (in dorsal view) (Fig. 2G), with short neck and with two big combs above and below neck. Capitulum of style with small apical and lateral teeth.

Female terminalia (Fig. 3)

Sternite VII strongly convex medially, with a medial notch (Fig. 3E). Gonoplacs rounded, without carinae. Anal tube elongate, narrow, rounded apically, densely covered by setae of different length, with slightly concaved medially lateral margins (in dorsal view) (Fig. 3C); convex, swollen in its apical third (in lateral view) (Fig. 3D). Anal column short, 0.2 times as long as anal tube. Gonocoxa VIII with lobe-shaped hind margin in its proximal part. Endogonocoxal process with long and narrow finger-shaped apical part (Fig. 3F). Anterior connective lamina of gonapophyse VIII elongate, with three rounded teeth in apical group and with three weak small lateral teeth missing carinae (Fig. 3G). Posterior connective laminae of gonapophyses IX elongate (Fig. 3A, B). Distal parts of posterior connective laminae of gonapophyses IX nearly straight, each with two large wide teeth. Lateral fields of posterior connective laminae of gonapophyses IX flat. Median field of posterior connective laminae of gonapophyses IX small, with a pair of short lobes apically. Gonospiculum bridge large, ladle-shaped (Fig. 3B).

Measurement

Total length. Males: 4.5-5.0 mm. Females: 5.5-5.7 mm.

Comparison

Kodaianella mua Constant & Pham, 2024, the only species of the genus known also from Vietnam, also has a wide metope (Constant & Pham 2024, fig. 24D), but still less wide than in the new species. *K. mua* is characterized also by more narrow fore wings and characteristic styles, with capitulum on long neck (Constant & Pham 2024, fig. 25A). By the presence of small spiny subapical processes of dorso-lateral

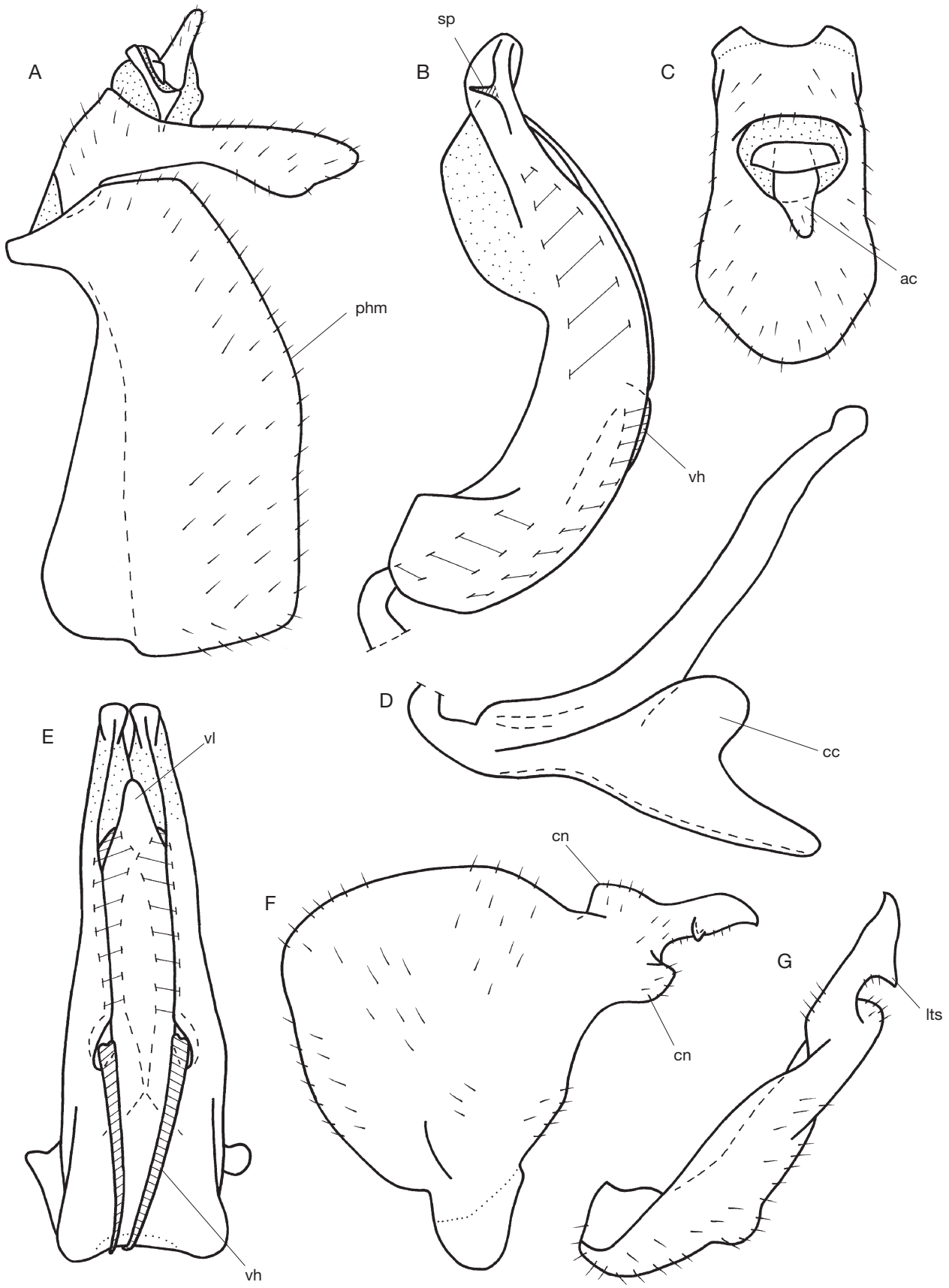

Fig. 2. — *Kodaianella coomani* n. sp., holotype, male genitalia: **A**, pygofer and anal tube, lateral view; **B**, penis, lateral view; **C**, anal tube, dorsal view; **D**, connective, lateral view; **E**, penis, ventral view; **F**, style, lateral view; **G**, style, dorsal view. Abbreviations: see Material and methods. Not to scale.

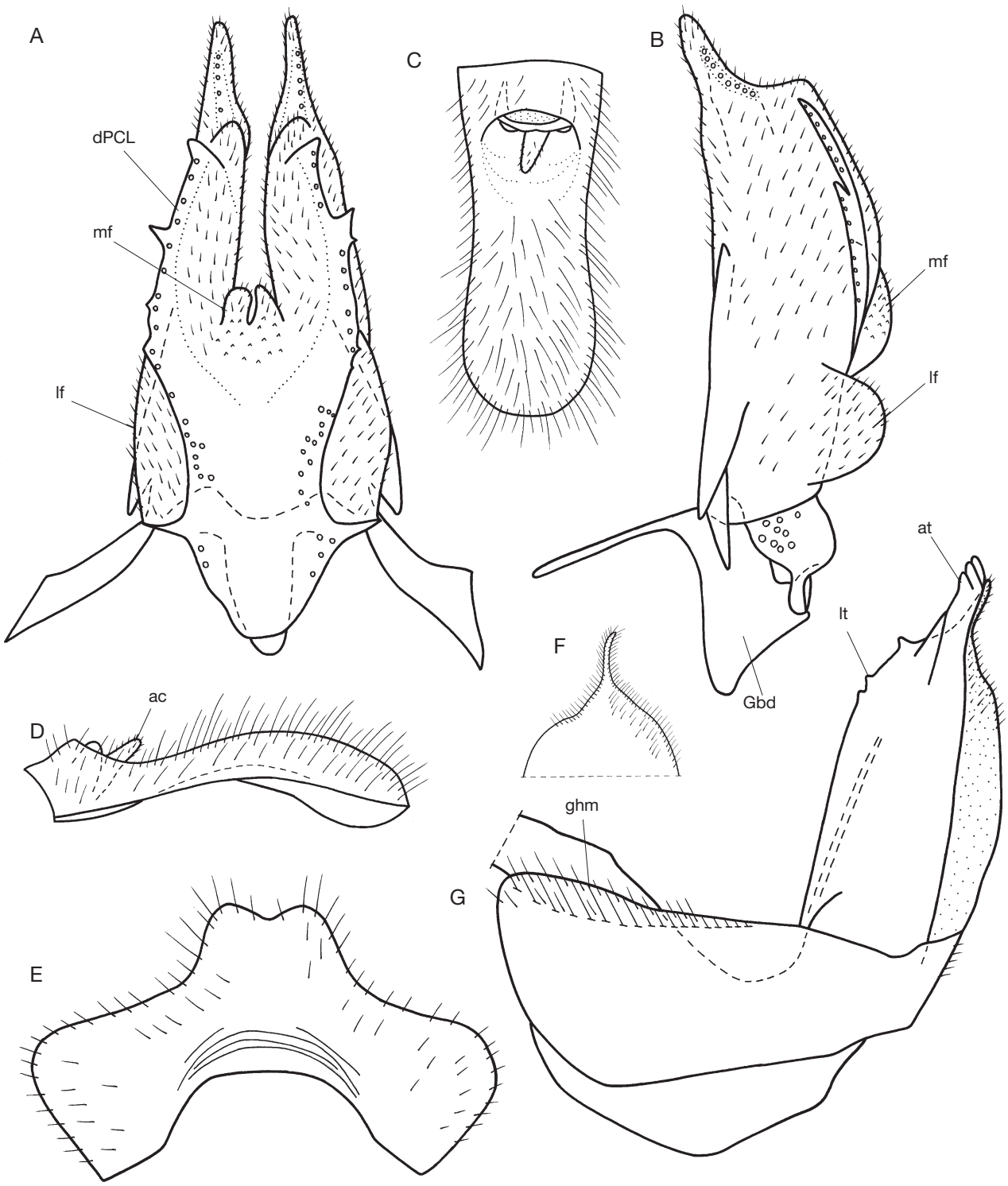

Fig. 3. — *Kodaianella coomani* n. sp., female terminalia: **A**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, ventral view; **B**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, lateral view; **C**, anal tube, dorsal view; **D**, anal tube, lateral view; **E**, sternite VII, ventral view; **F**, apical part of endogonocoxal process; **G**, anterior connective lamina of gonapophyse VIII and gonocoxa VIII, ventral view. Abbreviations: see Material and methods. Not to scale.

phallobase lobes the new species is close to the Chinese species *K. bicinctifrons* Fennah, 1956 and *K. arcuata* (Chang & Chen, 2020), however, it differs by the style which displays two big combs above and below neck (Fig. 2B, F).

Remark

A female listed in the type series and marked as "Typus *Sivaloka obscura* Jac." was never described by A. Jacobi and treated here as a nomen invalidum.

Key to genera of Narayanina n. subtrib.

1. Metope protruding in shape of two large horns (Fig. 8A-C) ..... *Lusanda* Stål, 1859
— Metope without horns 2

2. Anterior margin of coryphe convex at acute angle and metope protruding below its upper margin in shape of short glossy process (Fig. 7A, B) ..... *Radha* Melichar, 1903
— Coryphe transverse, with anterior margin weakly convex, metope without process (Fig. 4 A-C) 3

3. Metope rather flat, with only median carina running from its margin to metopoclypeal suture (Gnezdilov 2013, fig. 2) ..... *Sivaloka* Distant, 1906
— Metope bumpy, with weak sublateral carinae and short, distinct only medially, median carina (Fig. 4C) .... *Narayana* Distant, 1906

Subtribe Narayanina n. subtrib.

urn:lsid:zoobank.org:act:41FC1E3F-6977-477A-86DD-6EF0B13250DD

Type genus. — *Narayana* Distant, 1906, designated here.

Distribution. — Southern India and Sri Lanka (Stål 1859; Distant 1906, 1916; Melichar 1903, 1906; Liang 2001).

Composition. — Four genera: *Lusanda* Stål, 1859, *Narayana* Distant, 1906 (*Sudasina* Distant 1906), *Sivaloka* Distant, 1906, and *Radha* Melichar, 1903.

Diagnosis. — Fore wings enlarged latero-apically (in lateral view), with clavus nearly as long as whole wing bearing keel-shaped A_1 and Pcu + A_1. Remigio-vannal lobe of hind wing reduced in size: 0.1-0.15 times as wide as widest latero-apical part of remigial lobe, with first anal vein simple (A_1 1), not fused with Pcu (Figs 4D, 7D; 8D). Anal lobe of hind wing rudimentary: 0.3 times as wide as remigio-vannal lobe, with second anal vein (A_2) indistinct. Cubital and vannal clefts of hind wing weak. Hind tibia with two lateral spines. Female sternite VII convex or strongly protruding medially. Female anal tube elongate.

Differential diagnosis. — Clearly differs from the nominative subtribe by the following characters of hind wing: cubital and vannal clefts weak; anal lobe rudimentary: 0.3 times as wide as remigio-vannal lobe; first anal vein simple (A_1 1), not fused with Pcu (Figs 4D; 8D); second anal vein (A_2) indistinct. It well differs from Samantigina n. subtrib. by the following morphological characters: fore wings enlarged latero-apically (in lateral view), with clavus nearly as long as whole wing, bearing keel-shaped A_1 and Pcu + A_1 (Figs 4B; 7B; 8B); hind wing remigium rather triangular (nearly truncate laterally), with M 2-3 and CuA 3-5 furcating after wing middle (Fig. 4D); anal lobe 4/5 as long as remigio-vannal lobe; hind tibia with two lateral spines; endogonocoxal process with long and narrow finger-shaped apical part (Fig. 6F).

Genus *Narayana* Distant, 1906

Narayana Distant, 1906: 349.

Type species. — *Narayana rusticitatis* Distant, 1906, by original designation.

Composition and distribution. — Eight species from Sri Lanka and one species from southern India (Melichar 1903; Distant 1906, 1916; Metcalf 1958).

Diagnosis. — Coryphe transverse, anterior margin weakly concave. Metope bumpy, with weak sublateral carinae and short, distinct only medially, median carina. Penis strongly curved (in lateral view), aedeagus with a pair of long ventral hooks directed downwards and fixed by supporting processes of the phallobase basally. Anterior connective lamina of gonapophyse VIII without lateral teeth.

Remark

The type species of the genus was illustrated by Distant (1906, fig. 179), and *Narayana sellata* (Melichar, 1903) was illustrated by Melichar (1903, Taf. III, fig. 8) while other species of the genus are so far known only after the original descriptions by Distant (1906, 1916) and Melichar (1903).

Narayana umbrosa Distant, 1906
(Figs 4-6)

Narayana umbrosa Distant, 1906: 350.

Material examined. — **India** • 1♂; "Kodai Kanal/S. India/T.V. Campbell" // "Brit. Mus./1926–171" // "K.K./5.16"; NHM • 1♀; "Kodai Kanal/S. India/T.V. Campbell" // "Brit. Mus./1926–171" // "269" // "K.K./5.16/249"; NHMUK.

Emended diagnosis. — Fore tibiae foliately flattened. Male anal tube wide, almost twice as long as wide medially, truncated apically. Penis wide, curved at right angle in its apical third (in lateral view), with large sac-shaped dorso-apical part bearing pair of spiny processes laterally, ventral phallobase lobe long and narrowing apically. Aedeagus with a pair of long ventral hooks arising in its apical part and directed downwards, crossed at ventral side of phallobase and fixed by triangular supporting processes on each side of phallobase in its basal third. Style with a comb above capitulum, without neck.

Redescription

Structure (Fig. 4)

Metope bumpy, wide, 1.4 times as long as wide below eyes, with weak sublateral carinae and short, distinct only medially, median carina; upper margin weakly concave; lateral margins convex (Fig. 4C). Carinae of metope neither reaching its upper margin nor metopoclypeal suture which is distinctly convex. Postclypeus large, flattened dorso-ventrally, without carinae. Anteclypeus without carinae. Rostrum short, barely reaching hind coxae, thick; 3rd segment shorter than 2nd one, not narrowing apically. Ocelli absent. Pedicels weakly elongately cylindrical. Coryphe transverse, three times as wide as long at midline; anterior margin weakly concave; lateral margins keel-shaped; posterior margin weakly concave (Fig. 4A). Pro-

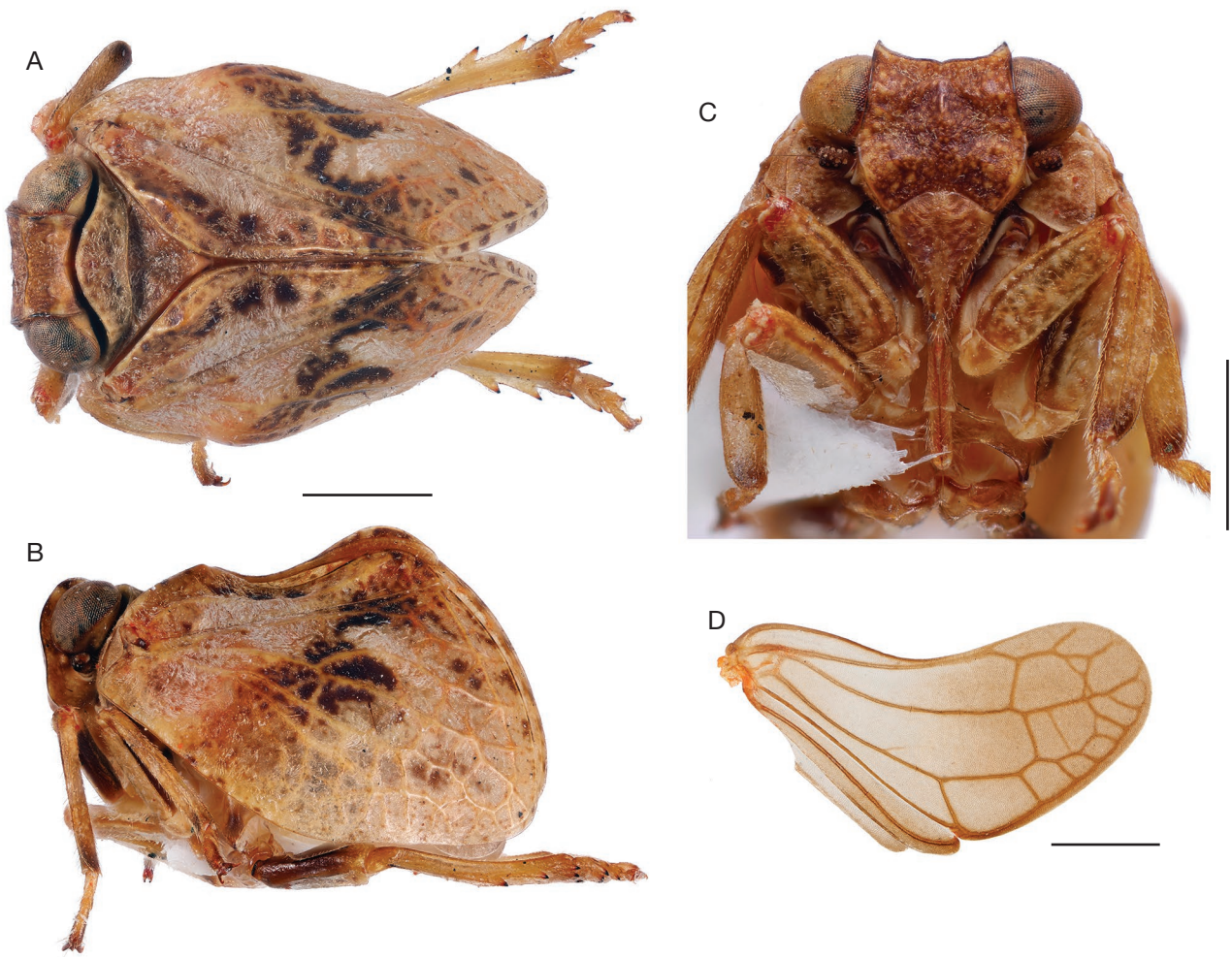

Fig. 4. — *Narayana umbrosa* Distant, 1906 (Kodai Kanal), external view: **A**, male, dorsal view; **B**, male, lateral view; **C**, male, frontal view; **D**, female, right hind wing (basal part of anal lobe is missed). Scale bars: 1 mm.

notum 1.5 times as long as coryphe, without carinae, depressed medially. Paradiscal fields of pronotum narrow behind eyes. Paranotal lobes of pronotum wide and flat. Mesonotum twice as long as pronotum, depressed at midline. Fore wings enlarged apically (in lateral view), with narrow appendix and distinct peripheral vein, wide hypocostal plates and strong knee bulge (Fig. 4B). Clavus as long as whole wing, open, with Pcu joint A_1 before its apex; A_1 strongly prominent (relief). Fore wing vein branching sequence: R 2, furcating in basal fifth of the wing; ir 6; r-m 5; M 3, firstly furcating before wing middle and anterior branch (M_1) furcating apically; im 5; CuA 2, furcating apically; icua 1. Hind wings as long as fore wings, strongly enlarged latero-apically, with strongly concave costal margin, with rudimentary anal lobe and weak cubital and vannal clefts, coupling lobe indistinct (Fig. 4D). Basal cell large. Hind wing vein branching sequence: R 3, furcating after wing middle, anterior branch (R_1) very short, posterior branch (R_2) furcating apically; r-m 3; M 3, furcating apically; m-cua 3; CuA 5, firstly furcating at wing middle and anterior branch (CuA_1) furcating apically three times; CuP 1; Pcu 1; A_1 1, not fused with Pcu; A_2 1 (as a marginal vein). Fore tibiae foliately flattened. Fore and middle femora slightly flattened. Hind tibia with two lateral spines distally and with seven spines apically. First and second metatarsomeres nearly equal in length, but 1st one wider, both with dense long hair-shaped setae ventrally. First metatarsomere with two latero-apical spines and ten intermediate spines in a whole row arranged in arc. Second metatarsomere with only two latero-apical spines. Arolium of pretarsus not protruding beyond claw apices in dorsal view.

Coloration (Fig. 4)

Coryphe and mesonotum yellowish light brown. Metope light yellow, densely covered with brown to dark brown dots. Postclypeus light yellow, with light brown transverse stripes. Pedicels dark brown. Pronotum light yellow, with brown traces of sensory pits. Fore wings yellowish light brown, with dark brown to black spots merging into wide band running from basal third of each wing to apex of its clavus in male. Fore wing clavus with dark brown to black spots between Pcu and A_1 and between A_1 and claval margin. Hind wings light

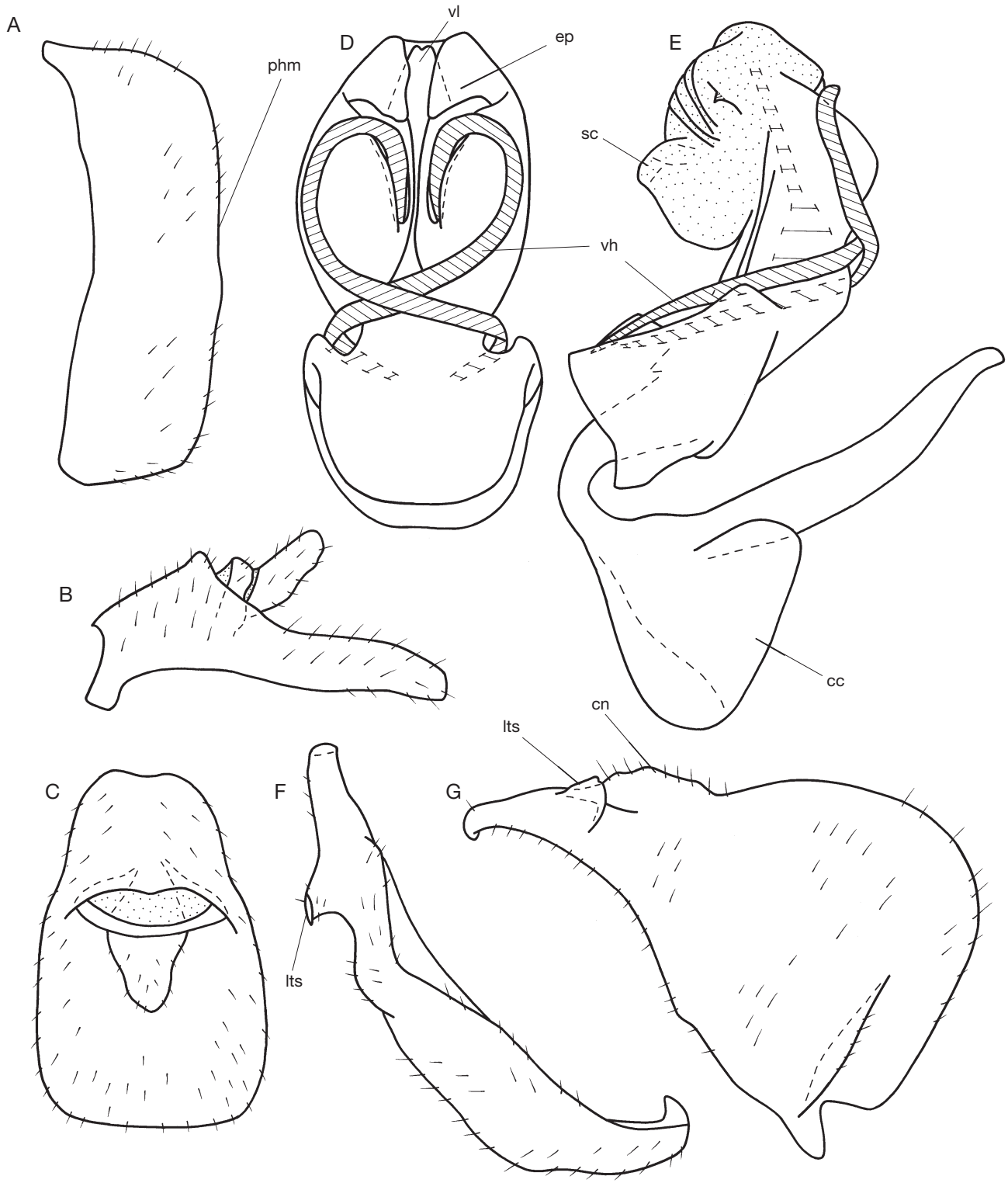

Fig. 5. — *Narayana umbrosa* Distant, 1906 (Kodai Kanal), male genitalia: **A**, pygofer, lateral view; **B**, anal tube, lateral view; **C**, anal tube, dorsal view; **D**, penis, ventral view; **E**, penis and connective, lateral view; **F**, style, dorsal view; **G**, style, lateral view. Abbreviations: see Material and methods. Not to scale.

brown, with brown veins. Hind femora dark brown except yellow apices. Claws dark brown. Apices of leg spines black. Male sternite IV whitish, sternites V-VII dark brown, pygofer, styles, and anal tube straw yellow.

Male terminalia (Fig. 5)

Pygofer elongate vertically, with straight hind margins (Fig. 5A). Anal tube wide, almost twice as long as wide medially, slightly enlarged from its basal third to the middle, truncated apically

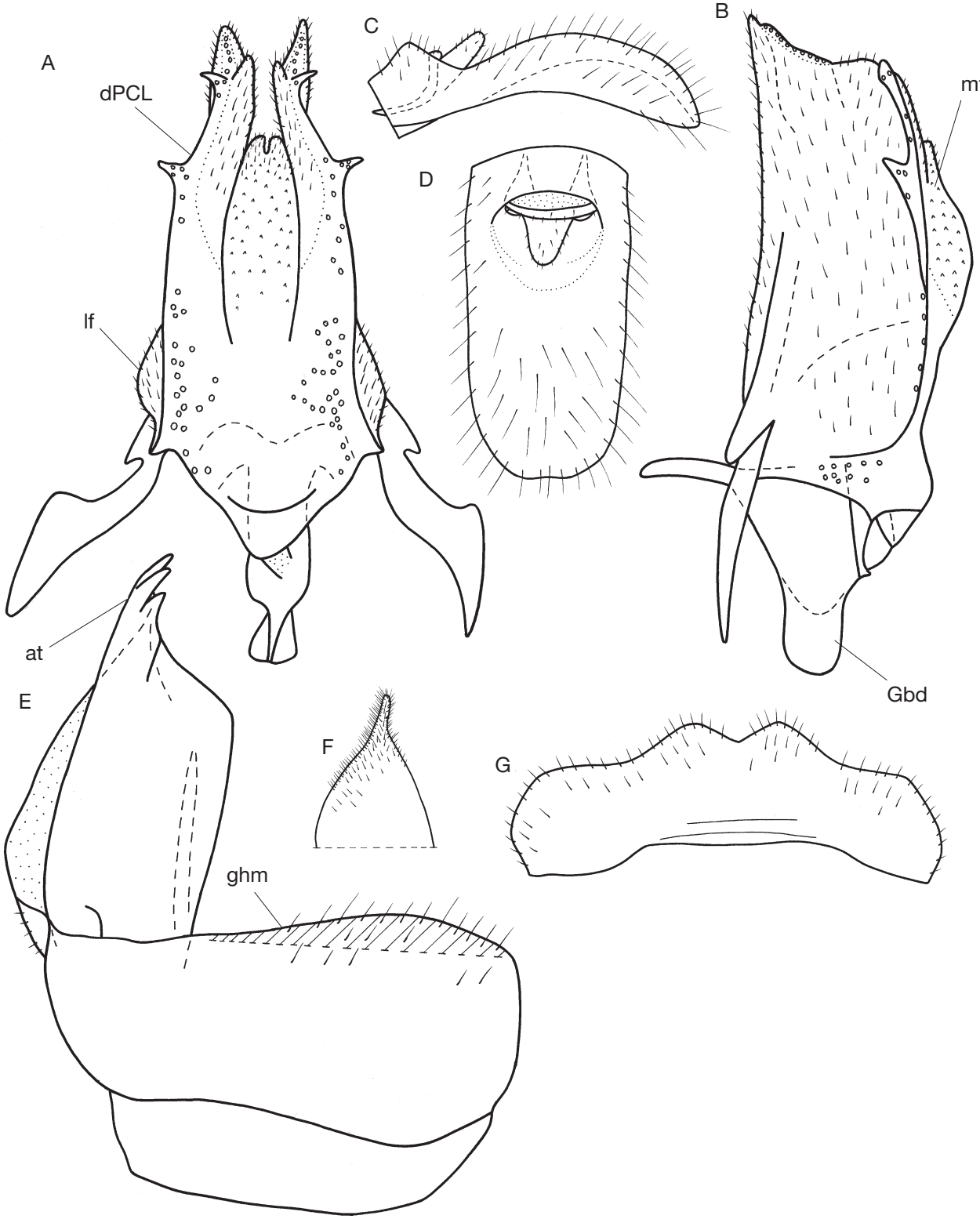

Fig. 6. — *Narayana umbrosa* Distant, 1906 (Kodai Kanal), female terminalia: **A**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, ventral view; **B**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, lateral view; **C**, anal tube, lateral view; **D**, anal tube, dorsal view; **E**, anterior connective lamina of gonapophyse VIII and gonocoxa VIII, ventral view; **F**, apical part of endogonocoxal process; **G**, sternite VII, ventral view. Not to scale.

(in dorsal view) (Fig. 5C), flat (in lateral view) (Fig. 5B). Anal column wide, 0.3 times as long as whole tube. Penis wide, curved at right angle in its apical third (in lateral view), with large sac-shaped dorso-apical part bearing pair of spiny processes laterally (Fig. 5E). Each dorso-lateral phallobase lobe with large apical ear-shaped process turned ventro-medially

and covering ventral phallobase lobe which is long and narrowing apically, with an apical notch (Fig. 5D). Apical processes of aedeagus narrow distally. Aedeagus with a pair of long ventral hooks arised in its apical part and directed downwards, crossed at ventral side of phallobase and fixed by triangular supporting processes on each side of phallobase in its basal third. Ventral hooks of aedeagus with pointed apices. Connective with large cup (Fig. 5E). Style massive, with convex hind margin and with a comb above capitulum; caudo-dorsal angle widely rounded (Fig. 5G). Capitulum of style without neck, with large lateral tooth and distinct apical tooth. Capitulum of style narrow and elongate in dorsal view, slightly narrowing apically (Fig. 5F).

Female terminalia (Fig. 6)
Sternite VII strongly convex, with a deep medial notch, two-lobed (Fig. 6G). Gonoplacs rounded, without carinae. Anal tube twice as long as wide, not narrowing apically, with widely rounded apex, with a weak concavity (in dorsal view) (Fig. 6D), concaved ventrally (in lateral view) (Fig. 6C). Anal column short, 1/5 of anal tube, and thick. Gonocoxa VIII with lobe-shaped hind margin. Endogonocoxal process with long and narrow finger-shaped apical part (Fig. 6F). Anterior connective lamina of gonapophyse VIII elongate, with three rounded teeth in apical group and without lateral teeth (Fig. 6E). Posterior connective laminae of gonapophyses IX elongate (Fig. 6A, B). Distal parts of posterior connective laminae of gonapophyses IX nearly straight, each with two large elongate teeth. Lateral fields of posterior connective laminae of gonapophyses IX weakly convex (Fig. 6A). Median field of posterior connective laminae of gonapophyses IX weakly convex, with a pair of short lobes apically. Gonospiculum bridge large, ladle-shaped (Fig. 6B).

Remark
This is the only species of the genus described from India (Nilgiri Hills) (Distant 1906). The material studied is from neighboring area of Kodai Kanal in southern India.

Genus *Radha* Melichar, 1903

Radha Melichar, 1903: 76.

Type species. — *Radha acuminata* Melichar, 1903, by monotypy.

Composition and distribution. — Monotypical genus known after a single female from Sri Lanka (Melichar 1903, 1906).

Diagnosis. — The genus and species are peculiar by angularly convex anterior margin of coryphe, metope with median and sublateral carinae joint at its upper margin protruding in shape of a short process in lateral view (Melichar 1903, Taf. III, figs 6, 6a) (Fig. 7A-C).

Radha acuminata Melichar, 1903
(Fig. 7)

Radha acuminata Melichar, 1903: 76, Taf. III, figs 6, 6a; 1906: 102. — Distant 1906: 347, fig. 177.

Type material (examined after the photos). — **Holotype. Sri Lanka** • ♀; "Nalanda/Ceylon Horn" [print]// "*Radha*/*acuminata* Mel" [hand written in ink] // "*acuminata* [hand written in ink]/ det. Melichar [print]" // "typus" [print, red]; HNHM.

Redescription
Structure (Fig. 7)
Coryphe with acutely angulate anterior margin protruding in shape of a short process, lateral margins strongly keel-shaped. Metope with median and sublateral carinae joint at its upper margin with a callus. Clypeus, pro- and mesonotum without carinae. Fore wings with wide hypocostal plates. Fore wing vein branching sequence: R 2; M 3; CuA 2. First metatarsomere with continuous row of intermediate spines arranged in an arc.

Female terminalia
Gonoplacs rounded. Hind margin of sternite VII with a large trapezoidal process medially.

Genus *Sivaloka* Distant, 1906

Sivaloka Distant, 1906: 352.

Type species. — *Sivaloka limacodes* Distant, 1906, by original designation.

Composition and distribution. — Monotypical genus known after the type series of the type species from India (Distant 1906; Gnezdilov 2013).

Diagnosis. — Metope wide, with only median carina running from its upper margin and almost reaching metopoclypeal suture (Gnezdilov 2013, fig. 2). Coryphe transverse, nearly twice as wide as long at midline, with anterior margin weakly convex.

Remark
The type species was illustrated by Distant (1906, fig. 181) and Gnezdilov (2013, figs 1, 2).

Genus *Lusanda* Stål, 1859

Lusanda Stål, 1859: 322.

Type species. — *Lusanda fissiceps* Stål, 1859, by monotypy.

Composition and distribution. — Monotypical genus known after a single female from Sri Lanka (Stål 1859; Melichar 1903, 1906).

Diagnosis. — Coryphe transverse, twice as wide as long medially. Metope protruding in shape of two large horns. Fore wings densely covered with pustules. Female sternite VII with large rounded apically median process of hind margin.

Lusanda fissiceps Stål, 1859
(Fig. 8)

Lusanda fissiceps Stål, 1859: 322. — Melichar 1903: 73, Taf. III, fig. 5; 1906: 183, fig. 40.

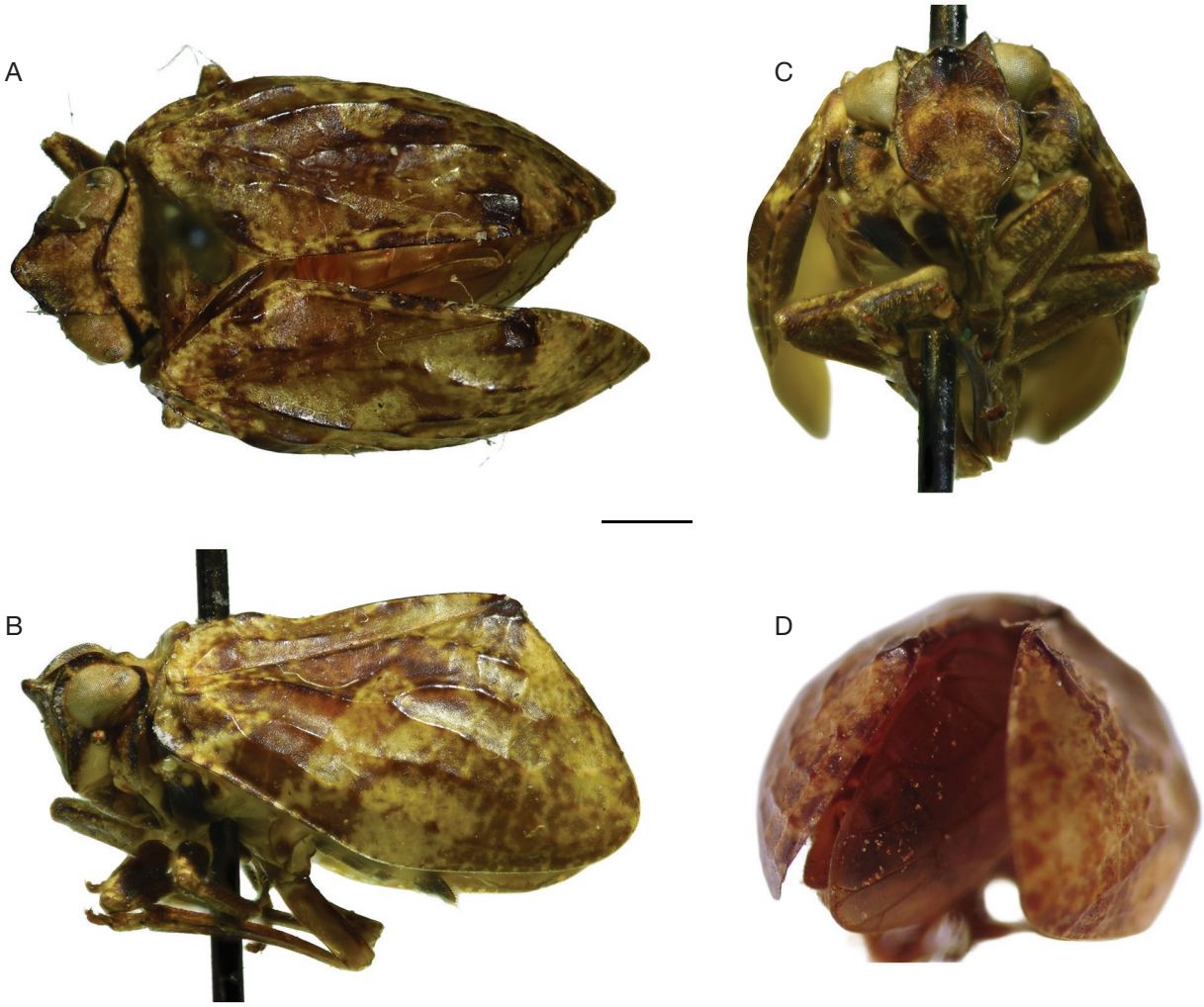

Fig. 7. — *Radha acuminata* Melichar, 1903, holotype, external view: **A**, dorsal view; **B**, lateral view; **C**, frontal view; **D**, caudal view, with hind wing. Scale bars: A-C, 1 mm; D, not to scale.

Type material. — **Holotype. Sri Lanka** • ♀; Ceylon, Hutner leg.; ZMB.

Redescription

Structure (Fig. 8)

Coryphe transverse, twice as wide as long medially; groove concaved medially; anterior margin straight; posterior margin obtusely angularly concaved (Fig. 8A). Metope protruding in shape of two large horns. Pronotum 1.5 times as long as coryphe medially, without carinae; anterior margin convex; posterior margin nearly straight, with weak median concavity. Mesonotum 1.5 times as long as coryphe medially, without carinae. Fore wings enlarged latero-apically (in lateral view), densely covered with pustules, with wide hypocostal plates, distinct knee bulges, and highly prominent first anal vein (A_1) before fusion with Pcu on clavus (Fig. 8B). Basal cell elongate. Fore wing vein branching sequence: R 3, firstly furcating in basal fourth of wing and anterior branch (R_1) furcating before wing middle; M 3, firstly furcating soon after radius before wing middle and posterior branch (M_2) shortly furcating apically; CuA 2, furcating after wing middle; many transverse veins in distal half of the wing. Clavus 0.7 times as long as whole wing. Hind wing with strongly enlarged latero-apically remigial lobe missing appendix, with widely concave costal margin, and very weak cubital cleft; anal lobe not visible (Fig. 8C, D). Remigio-vannal lobe of hind wing reduced in size: 0.1 times as wide as widest latero-apical part of remigial lobe. Radial and median veins running very closely from basal cell. Hind wing vein branching sequence: R 3, firstly furcating after wing middle, anterior branch of radius (R_1) very short, posterior branch (R_2) furcating apically; c-r 1 transverse vein between costal margin and posterior branch of radius (R_2); r-m 2; M 2, furcating apically; m-cua 1; CuA 3, firstly furcating at wing middle and anterior branch (CuA_1) furcating apically; CuP 1; Pcu 1. Hind tibia with two lateral spines distally. First metatarsomere with two latero-apical and nine intermediate spines arranged in a steep arc.

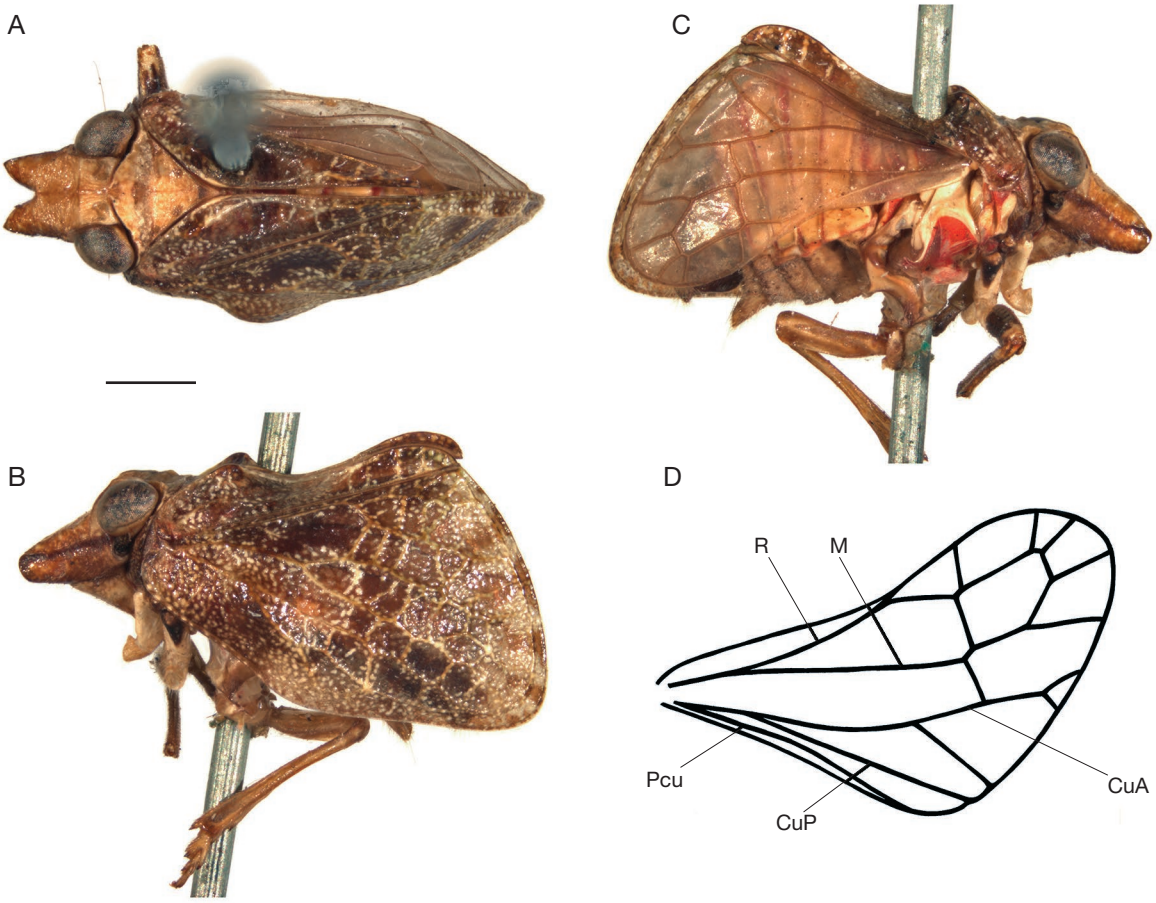

Fig. 8. — *Lusanda fissiceps* Stål, 1859, holotype, external view: **A**, dorsal view; **B**, left lateral view; **C**, right lateral view; **D**, right hind wing (anal lobe not visible). Abbreviations: see Material and methods. Scale bars: 1 mm.

Female terminalia (Fig. 8C)
Sternite VII with large rounded apically median process of hind margin (Fig. 8C). Anal tube elongate, with lateral margins turned downwards. Anal column narrow, 1/4 of anal tube.

Measurement
Total length. 6.3 mm.

Subtribe Samantigina n. subtrib.

urn:lsid:zoobank.org:act:76D1A798-107F-430F-859A-F09304E9A8B6

Type genus. — *Samantiga* Distant, 1906, designated here.

Composition and distribution. — Monotypical tribe distributed in southern India (Nilgiri Hills) (Distant 1906).

Diagnosis. — Fore wing clavus 3/4 of wing length, A_1 and Pcu + A_1 not prominent. Remigio-vannal lobe of hind wing 0.25 times as wide as widest latero-apical part of remigial lobe. Hind tibia with a single lateral spine. Endogonocoxal process short.

Differential diagnosis. — Clearly differs from the nominative subtribe by the following characters of hind wing: cubital and vannal clefts weak; anal lobe rudimentary: 0.3 times as wide as remigio-vannal lobe; first anal vein simple (A_1 1), not fused with Pcu (Figs 4D; 9D); second anal vein (A_2) indistinct. It well differs from Narayanina n. subtrib. by the following morphological characters: fore wings elongate, with clavus 3/4 of wing length, A_1 and Pcu + A_1 are not prominent (Fig. 9B); hind wing remigium rather elongate, with simple median vein (M 1) and cubitus anterior with two branches (CuA 2) furcating on its apex (Fig. 9D); anal lobe half as long as remigio-vannal lobe; hind tibia with a single lateral spine; endogonocoxal process with short apical part (Fig. 11G).

Genus *Samantiga* Distant, 1906

Samantiga Distant, 1906: 351.

Type species. — *Samantiga abdominalis* Distant, 1906, by original designation and monotypy.

Diagnosis. — Coryphe transverse, twice as wide as long at midline. Metope wide, convex, with strong median carina running from its upper margin, but not reaching metopoclypeal suture, and with strong sublateral carinae joint median carina far below its upper margin of metope and converging above metopoclypeal suture. Fore wings elongate, with wide hypocostal plates and wide subcostal fields bearing transverse veins. Hind tibia with a single lateral spine subapically.

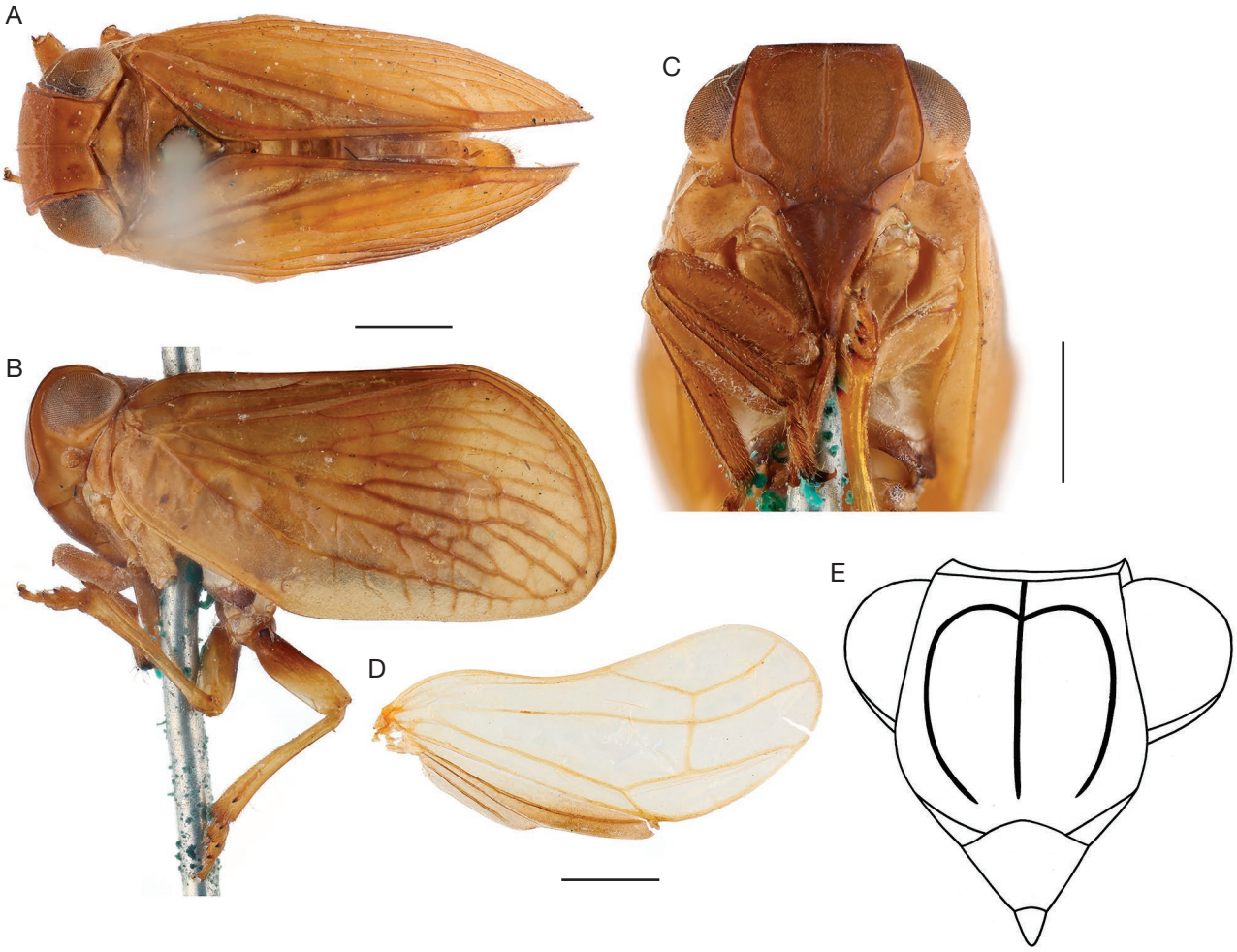

Fig. 9. — *Samantiga abdominalis* Distant, 1906 (Nilgiri Hills) male, external view: **A**, dorsal view; **B**, right lateral view; **C**, frontal view; **D**, hind wing; **E**, face, fronto-lateral view (pedicels missed). Scale bars: A-D, 1 mm.

Samantiga abdominalis Distant, 1906
(Figs 9-11)

Samantiga abdominalis Distant, 1906: 351, fig. 180.

Type material (not examined). — **India** • 1specimen (sex not mentioned); "Nilgiri Hills/ Hampson"; NHMUK.

Material examined. — **India** • 2♂; 1♀; "Nilgiri Hills/S. India/T.V. Campbell" // "Brit. Mus./1926–171"; NHM • 1♀; "Nilgiri Hills/S. India/T.V. Campbell" // "B.M./1924–384"; NHMUK.

Note. — The species was known so far only after the type series and the original description by Distant (1906). The specimens listed above are from the type locality: the Nilghiris hills.

Emended diagnosis. — Generally light yellow, with brown margins of coryphe and metope. Male anal tube large, elongate, with pair of spine-shaped lateral subapical processes directed downwards. Each dorso-lateral phallobase lobe with horn-shaped narrow pointed subapical process directed upwards. Aedeagus with pair of long furcating ventral hooks directed downwards. Style with strongly concaved hind margin and strong comb below capitulum.

Redescription

Structure (Fig. 9)

Coryphe transverse, twice as wide as long at midline, with keel-shaped margins and without median carina; anterior margin nearly straight; posterior margin obtusely angularly concave (Fig. 9A). Eyes large, each being half of coryphe width (in dorsal view). Metope convex, visible from above, wide, 1.2 times as wide below eyes as long medially, with strong median carina running from its upper margin, but not reaching metopoclypeal suture, and strong sublateral carinae joint median carina far below its upper margin and converging above metopoclypeal suture (Fig. 9C). Upper margin of metope straight; lateral margins hanging above pedicels. Metopoclypeal suture convex. Postclypeus flattened dorso-ventrally, without carinae. Anteclypeus convex, without carinae. Pedicel slightly elongate, cylindrical. Rostrum short and thick, projecting beyond middle coxae, with 2nd and 3rd segments nearly equal in length and 3rd segment not narrowing apically. Pronotum 1.5 times as long as coryphe, without carinae; anterior margin acutely angularly convex,

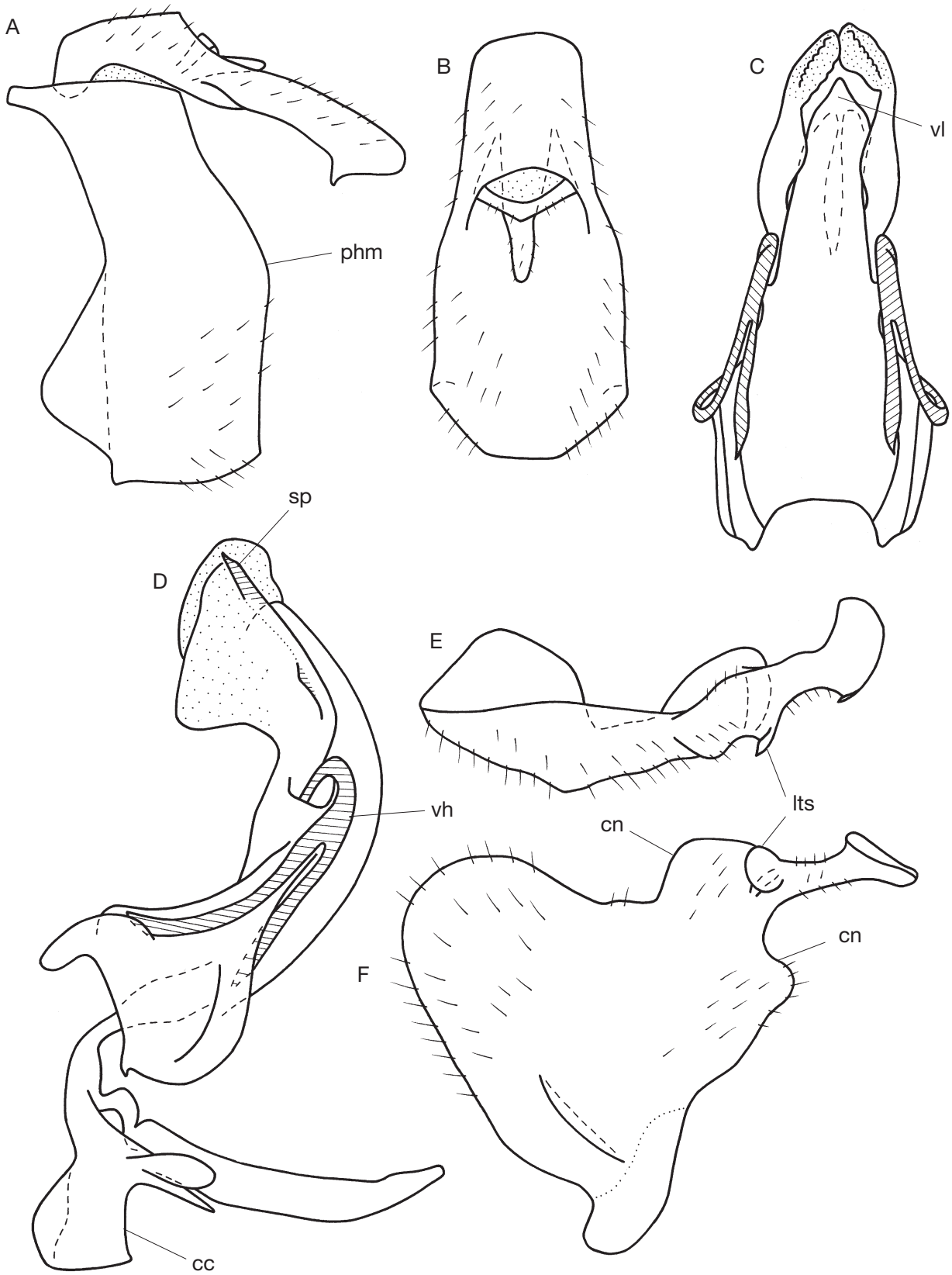

Fig. 10. — *Samantiga abdominalis* Distant, 1906 (Nilgiri Hills), male genitalia structure: **A**, pygofer and anal tube, lateral view; **B**, anal tube, dorsal view; **C**, penis, ventral view; **D**, penis and connective, lateral view; **E**, style, dorsal view; **F**, style, lateral view. Abbreviations: see Material and methods. Not to scale.

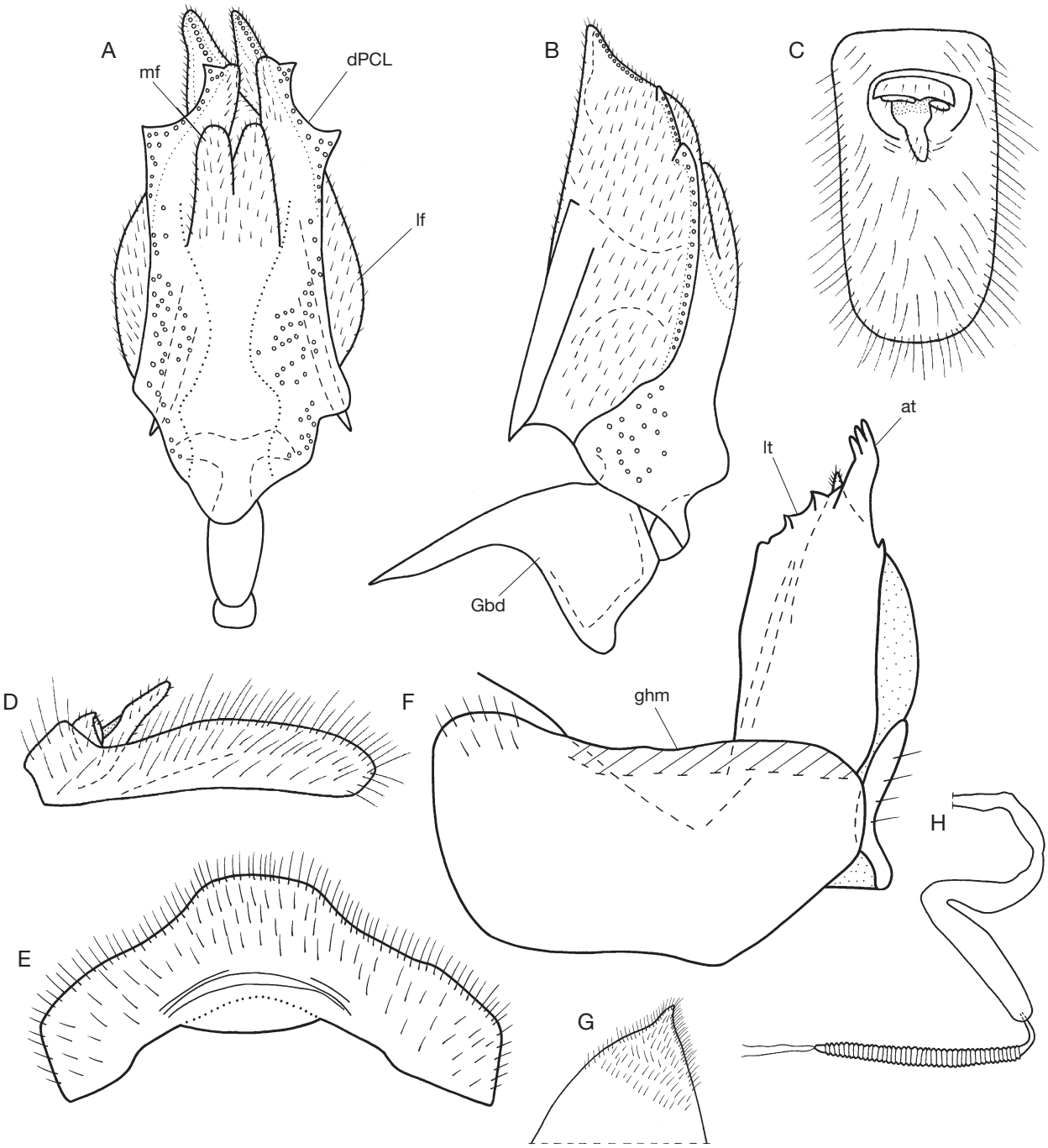

Fig. 11. — *Samantiga abdominalis* Distant, 1906 (Nilgiri Hills), female terminalia: **A**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, ventral view; **B**, posterior connective laminae of gonapophyses IX and gonospiculum bridge, lateral view; **C**, anal tube, dorsal view; **D**, anal tube, lateral view; **E**, sternite VII, ventral view; **F**, anterior connective lamina of gonapophyse VIII and gonocoxa VIII, ventral view; **G**, apical part of endogonocoxal process; **H**, spermatheca. Abbreviations: see Material and methods. Not to scale.

keel-shaped; posterior margin almost straight. Paradiscal fields of pronotum very narrow behind eyes. Paranotal lobes of pronotum wide, nearly triangular, without carinae. Mesonotum slightly longer than pronotum, with weak median carina. Tegulae rather small. Fore wings elongate, with wide hypocostal plates and wide subcostal fields bearing transverse veins (Fig. 9B). Clavus long, 2/3 of wing length. Basal cell large, oval. Fore wing vein branching sequence: R 2, furcating close to basal cell; M 4-6, firstly furcating at basal third of wing and anterior and posterior branches furcating again at wing middle and apically; CuA 2-4, firstly furcating before or at wing middle and anterior and posterior branches sometimes

furcating again. Transverse veins present between main veins mainly in distal half of wing. Pcu joint first anal vein (A_1) at middle of clavus. Hind wings nearly as long as fore wings, with large remigial lobe, remigio-vannal lobe reduced, with Pcu and $A_{1.1}$ separated, and anal lobe rudimentary, half as long as remigio-vannal lobe, second anal vein (A_2) indistinct (Fig. 9D). Costal margin deeply concave, with coupling lobe. Cubital cleft weak. Hind wing vein branching sequence: R 2, furcating after wing middle, with short anterior branch (R_1); r-m 1; M 1; m-cua 1; CuA 2, furcating after wing middle, with short posterior branch (CuA_2); CuP 1; Pcu 1; A_1 1. Legs neither flattened nor foliated. Hind tibia with a single lateral spine subapically and 10-12 spines apically. First and second metatarsomeres nearly equal in length, with dense long setae ventrally. First metatarsomere with two latero-apical and seven intermediate spines in entire row. Claw with three long setae laterally. Each claw apices surpassing beyond hind margin of arolium in dorsal view. Arolium with a pair of elongate dorso-lateral plates.

Coloration (Fig. 9)
Generally light yellow, with brown margins of coryphe and metope and sometimes fore wing veins. Post- and anteclypeus frontally sometimes brown. Apices of leg spines black. Hind femora basally sometimes brown. Dorso-lateral plates of arolium dark brown. Claws brown to dark brown. Abdominal sternites IV-VI sometimes dark brown medially. Apex of process of hind margin of sternite VII, anal tube, and gonoplac margins brown.

Male terminalia (Fig. 10)
Pygofer vertically elongate, with hind margins convex medially (Fig. 10A). Anal tube large, elongate, almost 2.5 times as long as wide medially, enlarged in its distal half, with truncate apex (in dorsal view) (Fig. 10B) and with a pair of spine-shaped lateral subapical processes directed downwards (in lateral view) (Fig. 10A). Anal column short, 1/6 of anal tube, and narrow. Penis strongly curved in lateral view, with large semicircular lobes ventro-basally and weakly sclerotized sac dorso-apically (Fig. 10D). Each dorso-lateral phallobase lobe with horn-shaped narrow pointed subapical process directed upwards. Ventral phallobase lobe long and narrow, narrowing apically, nearly as long as dorso-lateral lobes (Fig. 10C). Aedeagus with a pair of long furcating ventral hooks, with its branches directed downwards and dorso-basally, with its apices covered by supporting processes of the phallobase basally. Style large, with strongly concaved hind margin and strong comb below capitulum (Fig. 10F). Capitulum of style without neck, with large round lateral tooth and enlarged apical part in shape of nearly oval plate (in dorsal view) (Fig. 10E).

Female terminalia (Fig. 11)
Hind margin of sternite VII strongly protruding medially in shape of wide lobe (Fig. 11E). Gonoplacs convex, rounded. Anal tube twice as long as wide medially, parallel-sided, with widely rounded apex (in dorsal view) (Fig. 11C), densely covered by long setae of different size; straight (in lateral view) (Fig. 11D). Anal column short, 0.3 times as long as anal tube. Gonocoxa VIII with lobe-shaped hind margin distally. Endogonocoxal process with short apical part (Fig. 11G). Anterior connective lamina of gonapophyse VIII elongate, with three rounded teeth in apical group and three lateral teeth, two large carinate ones and one small without carina (Fig. 11F). Posterior connective laminae of gonapophyses IX elongate (Fig. 11A, B). Distal parts of posterior connective laminae of gonapophyses IX nearly straight, each with two wide teeth – large proximal one and small distal one (Fig. 11A). Lateral fields of posterior connective laminae of gonapophyses IX weakly convex (Fig. 11A). Median field of posterior connective laminae of gonapophyses IX weakly convex, with a pair of long lobes apically. Gonospiculum bridge large, ladle-shaped (Fig. 11B). Spermatheca without bulb of three-jointed diverticulum ductus (Fig. 11H); ductus receptaculi with a small bulb near to vagina anterior.

Measurement
Total length. Male: 5.3 mm. Females: 5.5-6.0 mm.

DISCUSSION

Within the subfamily Issinae Spinola, 1839 the tribe Kodaianellini Wang, Zhang & Bourgoin, 2016 is a sister group to the tribe Issini Spinola, 1839 due to reduced in size remigio-vannal and anal lobes of hind wings (Gnezdilov *et al.* 2022, 2024). Kodaianellini clearly differ from other tribes of Issinae with well developed hind wings by large remigial lobe, enlarged latero-apically and curved because of strongly concave costal margin medially, and reduced in size, 1.5 times and narrower, remigio-vannal and anal lobes, with CuA and CuP not fused on a long distance neither flattened apically (Figs 1D; 4D; 8D; 9D).

The subtribes Kodaianellina and Narayanina n. subtrib. are the largest groups of the tribe Kodaianellini represented by five and four genera accordingly with the first subtribe covering in distribution Ryukyus, south of Korean Peninsula, China, Laos, Vietnam, Myanmar, Singapore, and Pakistan and the second subtribe located mainly in Sri Lanka, with two species known from southern India while monotypical Samantigina n. subtrib. is known only from southern India. Thus apparently Narayanina n. subtrib. and Samantigina n. subtrib. may be treated as two southwestern branches of the common north-eastern ancestor of the Kodaianellini which is reflected in the trend of reduction of hind wings (Gnezdilov 2020, figs 123-125) from the condition of the subtribe Kodaianellina, with remigio-vannal lobe bearing Pcu fused with $A_{1.1}$, and anal lobe developed, with A_2 well visible (Fig. 1D), to the conditions of the subtribes Narayanina n. subtrib. and Samantigina n. subtrib., with remigio-vannal lobe reduced, with Pcu and $A_{1.1}$ separated, and anal lobe rudimentary (Figs 4D; 9D).

The nominative subtribe Kodaianellina is rather homogenous in sense of male genitalia structure, with the phallobase bearing spiny subapical processes and the aedeagus with a pair of ventral hooks sometimes furcating (Fig. 2B, E), except the

genus *Neokodaiana* Yang, 1994, known from the islands of Taiwan and Ryukyus and Fujian Province of southeastern China (Chan & Yang 1994; Gnezdilov & Hayashi 2015; Meng *et al.* 2016), and distinguished by the phallobase with large collar bearing two long and narrow median processes turned laterally and aedeagus not visible from outside, without ventral hooks (Chan & Yang 1994, fig. 37H, I; Gnezdilov & Hayashi 2015, figs 17, 18; Meng *et al.* 2016, fig. 7C, D). The new species described above, *Kodaianella coomani* n. sp., differs from congeners by very wide metope which brings it close even to the species of the genus *Neokodaiana* Yang. By means of the fore wings, with A_1 strongly convex (keel-shaped), the new species is similar to Sri Lankan and Indian species of the tribe Narayanina n. subtrib.

Most part of taxa of the subtribe Narayanina n. subtrib. are still known from females only which are the type specimens. Thus the male genitalia structure of *Narayana umbrosa* Distant, 1906 described above give an example of subtribal characters which still needs confirmation from examining the other genera. In particular *N. umbrosa* is distinguished by long ventral hooks of aedeagus arising in its apical part, crossed at ventral side of the phallobase and fixed by triangular supporting processes on each side of the phallobase in its basal third (Fig. 5D, E). The genera of the subtribe Kodaianellina are characterized by shorter and non-crossing ventral hooks of the aedeagus and the phallobase without supporting processes basally while the subtribe Samantigina n. subtrib. has such processes of the phallobase (Fig. 10D). *Samantiga abdominalis* Distant, 1906, on the other hand, has horn-shaped narrow subapical process on each dorso-lateral phallobase lobe which are apparently homologous with such processes of *Kodaianellina* species (Figs 2B; 10D).

Available data (published and presented here) on the structure of ovipositor of Kodaianellini reveal closeness of *Kodaianella* Fennah, 1956, *Narayana* Distant, 1906, *Dentatissus* Chen, Zhang & Chang, 2014, and *Samantiga* Distant, 1906, in the structure of posterior connective laminae of gonapophyses IX, with nearly straight or weakly curved distal parts, each with two large teeth, and with lateral fields weakly convex and median field with a pair of lobes (often small) apically (Figs 3A; 6A; 11A) (Chang *et al.* 2020, figs 19, 20, 25, 26; Park & Jung 2023, fig. 3G). *Neokodaiana* Yang, 1994 is distinguished by the median field of posterior connective laminae of gonapophyses IX with a single lobe apically (Meng *et al.* 2016, fig. 8D), could result apparently from the fusion of previously paired lobes of ancestral condition. On the other hand, *Narayana* is very distinct by the anterior connective lamina of gonapophyse VIII which is without lateral teeth (Fig. 6E). The absence of these teeth, however, may also be interpreted as a derived character if we assume the presence of teeth to be a plesiomorphic trait in this taxon.

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