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Revision of the Derbidae of Seychelles Islands (Insecta: Hemiptera: Fulgoromorpha)

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Abstract

The Derbidae fauna of the Seychelles is revised, providing redescriptions for the following species: *Aquaelicium brunnescens* Distant, 1917, *A. elegantulum* Distant, 1917, *A. typicum* Distant, 1917, *Equirria phalaena* Distant, 1917, *Fordicidia robusta* Distant, 1917, *Paraphenice aurea* (Distant, 1917), *P. bimaculata* (Distant, 1917), *Proutista moesta* (Westwood, 1851) and *Sikaiana albomaculata* (Distant, 1917). A new species, *Vekunta bri* **sp. nov.**, increases the number of derbid taxa known from the Seychelles to 10 species in 7 genera. Lectotypes are designated for the following species: *A. typicum, A. brunnescens, A. elegantulum, F. robusta* and *S. albomaculata*. A key to derbid tribes and species of Seychelles is provided.

Key words: Auchenorrhyncha, taxonomy, Cenchreinae, Sikaianini, Zoraidinae, Zoraidini

Rezime

Bann lespes dan fanmir Derbidae sorti Sesel i ganny revize, avek nouvo deskripsyon pour sa bann lespes: *Aquaelicium brunnescens* Distant, *A. elegantulum* Distant, 1917, *A. typicum* Distant, 1917, *Equirria phalaena* Distant, 1917, *Fordicidia robusta* Distant, 1917, *Paraphenice aurea* (Distant, 1917), *P. bimaculata* (Distant, 1917), *Proutista moesta* (Westwood, 1851) ek *Sikaiana albomaculata* (Distant, 1917). En nouvo lespes, *Vekunta bri* **sp. nov.**, i fer ogmante lakantite lespes Derbidae sorti Sesel pour ariv 10 lespes dan 7 zanr. Lektotip i etabli pour sa bann lespes: *A. typicum, A. brunnescens, A. elegantulum, F. robusta, S. albomaculata*.

Zusammenfassung

In dieser Revision der Derbidae der Seychellen wird eine Art, *Vekunta bri* **sp. nov.** erstmals und folgende Arten wieder beschrieben: *Aquaelicium brunnescens* Distant, 1917, *A. elegantulum* Distant, 1917, *A. typicum* Distant, 1917, *Equirria phalaena* Distant, 1917, *Fordicidia robusta* Distant, 1917, *Paraphenice aurea* (Distant, 1917), *P. bimaculata* (Distant, 1917), *Proutista moesta* (Westwood, 1851) und *Sikaiana albomaculata* (Distant, 1917). In Summe sind nunmehr 10 Arten aus 7 Gattungen bekannt. Lectotypen werden für *A. typicum, A. brunnescens, A. elegantulum, F. robusta* und *S. albomaculata* festgelegt. Ein Bestimmungsschlüssel zu Triben und Arten der Derbidae der Seychellen wird präsentiert.

Introduction

The Seychelles archipelago lies in the Indian Ocean northeast of Madagascar. It consists of 115 islands and atolls, of which the inner islands are granitic and the outer ones coralline. The inner islands are terrestrial

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peaks of a mainly submarine plateau which once was a fragment of Gondwana. This plateau is about 600 million years old and was isolated about 75 million years during the break-up of Gondwana. Due to their continental history, age and isolation, the Seychelles host a diverse and archaic flora and fauna, complemented by more recent immigrant taxa of African, Malagasy or cosmopolitan origin (Stoddard, 1984). Diversity and origin of planthoppers of the Seychelles is the focus of a research project funded by the Austrian Science Funds (FWF). In this context, the present paper deals with the family Derbidae.

Comprising 144 genera and 1459 species (Bourgoin, 2008), Derbidae is a large family of planthoppers with worldwide distribution. The family is well represented on palm species in the tropics with at least 92 derbid species associated with different palms (Eskafi, 1982; Howard, 2001; Mariau, 2001; Wilson, 1987a, b). Some derbid species are known to transmit phytoplasmas of the coconut lethal yellows and stolbur group (Boby & Mohankumar, 2007; Philippe *et al.*, 2007; Wilson & Weintraub, 2007). Additionally, *Proutista moesta* (Westwood, 1851) is the vector of the Sugarcane grassy shoot phytoplasma (SCGS) which causes yellowing of leaves and stunting in *Saccharum officinarum* (Tran-Nguyen *et al.*, 2000).

The first derbid planthoppers from Seychelles were collected in 1905 & 1908/1909 by the Percy Sladen Trust Expeditions; the results were published mainly by Distant (1917). Distant created four new genera (three of them monotypic) and described six new species. Since then, only a single additional paper, by Vesey-FitzGerald (1939) who reported the cosmopolitan species *Proutista moesta*, treated the Seychelles' derbid fauna. Synave (1973) excluded Seychelles from his monograph on African Derbidae. In the present paper we give distributional data, descriptions and an identification key to all derbid taxa known from Seychelles.

Material and methods

The insects were provided by the Natural History Museum, London. Additional new material was collected in Seychelles in November/December 2006 and September 2008. Insects were studied with an Olympus SZH10 stereo microscope and drawn with a camera lucida. Photographs were taken with a Micropublisher 5 RTV digital camera (QImaging) attached to a Leica MZ12.5 dissecting microscope and montaged images produced with AutoMontage Pro (Synchroscopy P/L).

The classification used in this paper follows the one proposed by Broomfield (1985).

The following measurements were taken in this study:

- body length: tip of head to tip of forewing
- width of vertex: maximum width
- length of vertex: maximum length at lateral margin of vertex
- width of forewing: width at level of apex of clavus
- maximum width of forewing: maximum width
- length of forewing: base to tip of wing
- width of frons: maximum width
- length of frons: in midline

Depository abbreviations

BMNH	The Natural History Museum, London, United Kingdom
OEKO	Oekoteam, Institute for Animal Ecology and Landscape Planning, Graz, Austria

Results

Key to Derbidae tribes, genera and species of Seychelles

1 Hindwing more than half as long as forewing. Resting position with wings folded above abdomen (Fig. 1A). (Cenchreinae). 3
- Hindwing not more than half as long as forewing. Resting position with wings spread (Figs 10A–D). (Zoraidinae). 2
2 Body ochraceous (Fig. 9A). Eyes dark, very large, reaching to base of clypeus. (Sikaianini). .... *Sikaiana albomaculata* (Distant)
- Body blackish, with light carinae and markings (Fig. 10). Eyes smaller, not reaching to base of clypeus (Figs 10E–F). (Zoraidini). ..... *Proutista moesta* (Westwood)
3 No subantennal processes present. 6
- Head with distinct, crest-like subantennal processes (Figs 5B, 6D, 7B–E). 4
4 Head narrow, pronotum about twice as wide as head (Fig. 5A). ..... *Fordicidia robusta* Distant
- Head broader, width of pronotum less than 1.5 times width of head (Figs 6B, 7B). 5
5 Lateral carinae of vertex blackish (Fig. 7D). Forewing with two black spots: one at the apex of clavus and one near the apex of the forewing (Figs 7A–B). End of anal tube in males with pointed lobes directed ventrad (Figs 15C–E). Ventromedian process of pygofer in males as in Fig. 15F. ..... *Paraphenice bimaculata* (Distant)
- Lateral carinae of vertex yellowish (Fig. 6B). Forewing with a single black spot at the apex of clavus and in some specimens with a longitudinal brown streak along entire wing (Figs 6A–B). End of anal tube in males lobate (Figs 14A–B), ventromedian process of pygofer in males as in Fig. 14C. ..... *Paraphenice aurea* (Distant)
6 Apex of head distinctly angulate in lateral view (Fig. 8A). ..... *Vekunta bri*, **sp. nov.**
- Apex of head rounded in lateral view (Figs 1A, 3A). 7
7 Forewings without setiferous tubercles. Frons narrow, but lateral carinae well separated. *Equirria phalaena* Distant
- Claval veins with a prominent ridge of setiferous tubercles (Figs 1B, 3A–B). Frons very narrow, lateral carinae almost touching each other. 8
8 Upper part of body including eyes dark brown, with a reddish tinge (Figs 3A–B). Vertex of head and a central fascia to pro- and mesonotum yellowish. Clypeus and legs yellowish (Fig. 3C). Forewings very dark brown with some ochraceous spots (Figs 3A–B). Veins sanguineous (Figs 3A–B). Anal tube in male with two small apical processes pointing caudad (Figs 13H). Aedeagus with slender shaft and with process “e” very long and slender (Figs 13A–B). ..... *Aquaelicium elegantulum* Distant
- Upper part of body fuscous-brownish, eyes blackish. Vertex of head and a central fascia to pro- and mesonotum greyish (Figs 1A–B). Clypeus and legs ochraceous (Figs 1A–C). Forewings fuscous-brown with some ochraceous spots, apices of upper apical veins sanguineous (Figs 1A–B). Anal tube in male with two small apical processes pointing ventrocaudad (Figs 11D, I). Aedeagus with process “e” shorter (Figs 11A, 12A). 9
9 Shaft of aedeagus slender (Figs 12A–B). Apex of aedeagus with three acute processes and a semicircular lobe (Figs 12A–B). ..... *Aquaelicium brunnescens* Distant
- Shaft of aedeagus broader (Figs 11A, 11C). Apex of aedeagus with at least six acute processes, without semicircular lobe (Figs 11A–C). ..... *Aquaelicium typicum* Distant

Subfamily Cenchreinae

Genus *Aquaelicium* Distant, 1917

Aquaelicium Distant, 1917: 289.
Type species: *Aquaelicium typicum* Distant, 1917, by original designation.
Endemic genus.

Diagnosis. Combination of the following characters: Antennae large (in males much larger than in females). Subantennal process absent. Head rounded in profile. Frons linear (lateral carinae contiguous to near apex). Lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. Forewing with Cu forked basad of level of apex of clavus; M forked level with or distad of apex of clavus. This genus is very similar to *Equirria*, but differs in the width of the frons and characters of the forewing. In *Aquaelicium* the lateral carinae of frons are nearly touching each other whereas in *Equirria* the lateral carinae are well seperated, but

the frons is still narrow. A prominent ridge of setiferous tubercles is present on the claval veins of the forewing of *Aquaelicium* but absent in *Equirria*. On the forewing of *Equirria* M forks distinctly basad of the level of apex of clavus, whereas in *Aquaelicium* M forks level with or distad of the apex of clavus.

Morphology. Head: Vertex with shallowly v-shaped basal emargination. Median carina present on vertex, absent of frons. Lateral carinae of vertex and frons smooth, without granules. Frons extremely narrow, lateral carinae parallel. Frontoclypeal suture straight. Postclypeus with weakly developed, incomplete lateral carinae, without median carina. Anteclypeus lacking carinae. Rostrum surpassing hind coxae. Head without subantennal processes. Apex of head rounded in lateral view. Second antennal segment in males very large, flattened, paddle-shaped, more than twice as long as wide, in females smaller, bulbous.

Thorax: Hind margin of pronotum obtusely angled; lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. Mesonotum moderately convex, in lateral view moderately raised above the vertex. Mesonotum with three, weakly to moderately developed, longitudinal carinae, usually median carina more prominent. Forewing with closed clavus; claval veins with a prominent ridge of setiferous tubercles; Cu forked basad of level of apex of clavus; M forked level with or distad of apex of clavus; veins of forewing often sanguineous. Hindwing more than half as long as forewing. Resting position with wings folded above abdomen. Hind leg: tibia without lateral spines; tibia with 6 apical teeth in an uninterrupted row; 1st and 2nd tarsomere with 5 apical teeth and no platellae.

Male genitalia: Anal tube very short, anal style with small nodules as in Figs 11E–F, 13 D–E; ventromedian process of pygofer very small, arched; genital styles laterally with a c-shaped process attached as in Figs 11H, 13G.

Aquaelicium typicum Distant, 1917
(Figs 1, 11)

Aquaelicium typicum Distant, 1917: 289.

Types. *Lectotype*, (here designated) ♂, **SEYCHELLES, Mahé**: glued on card, genitalia in genital vial, labelled (handwritten on card) 36, Mahe '08-09', Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). *Paralectotypes*, ♂, pinned, genitalia in genital vial, (round label with red border) Type, H. T., (handwritten) *Aquaelicium typicum* Type Dist., Mahe '08-09', Seychelles Exp., (handwritten) 011, (handwritten) Spec. figd., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). ♂, glued on card, genitalia in genital vial, Silhouette '08, Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), ♂ and ♀ pinned, labelled (handwritten) 79, (printed) Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), *Aquaelicium typicum* Dist. det. R. J. Izzard, 1963 (BMNH).

Remarks. The original description does not mention the designation of a holotype, therefore these specimens are regarded as syntypes. A lectotype is designated to provide a diagnostic reference for the species.

Other material examined. SEYCHELLES, Mahé-N.: 6 ♂, 3 ♀, Mare aux Cochons, near swamp, 4°38'S, 55°25'E, 350m, 12.xii.2006, [34-1, S1-1035 - S1-1038, S1-1042 - S1-1045] (W. Holzinger & B. Komposch) (OEKO); 2 ♂, 4 ♀, Mare aux Cochons, near swamp, 4°38'S, 55°25'E, 350–400m, on *Phoenicophorium borsigianum* (K. Koch) Stuntz (1 ♂, 4 ♀), on *Roscheria melanochaetes* (H.A. Wendl.) H.A. Wendl. ex Balfour (1 ♂), 17.xi.2006, [3-2, S1-1005 - S1-1010, VHLA1] (W. Holzinger & B. Komposch) (OEKO); 1 ♂, 1 ♀, Congo Rouge, montane forest, 4°38'42.4"S, 55°26'01.3"E, 820m, mixed stand of *Phoenicophorium* and *Pandanus*, 17.xi.2006, [12-2, S1-1011, S1-1012] (W. Holzinger & B. Komposch) (OEKO). **Praslin**: 2 ♂, 3 ♀, Vallée de Mai, palm forest, 4°19'45"S, 55°44'15"E, 250m, on *Phoenicophorium borsigianum* (1 ♂, 3 ♀), on *Lodoicea maldivica* (J.F. Gmelin) Persoon (1 ♂), 28.xi.2006 [22-1, S1-1013-1016] (W. Holzinger & B. Komposch) (OEKO); 1 ♀, Vallée de Mai, southern path, palm forest, 4°19'45"S,

55°44’15”E, 130–250m, on *Phoenicophorium borsigianum*, 30.xi.2006 [24-2, S1-1018] (W. Holzinger & B. Komposch) (OEKO); 2 ♂, 1 ♀, 1 ♂ or ♀, Vallée de Mai, end of path “Palm + Pandanus grove”, 4°19’45”S, 55°44’15”E, 130m, on *Verschaffeltia splendida* H.A.Wendl., 30.xi.2006 [24-3, S1-1020 – S1-1023] (W. Holzinger & B. Komposch) (OEKO); 1 ♂, 4 ♀, Vallée de Mai, palm forest, 4°19’45”S, 55°44’15”E, 130–250m, on *Phoenicophorium borsigianum*, 2.xii.2006 [26-1, S1-1024 – S1-1028] (W. Holzinger & B. Komposch) (OEKO); 2 ♂, 3 ♀, Fond Ferdinand, Coco de Mer forest, 4°21’14”S, 55°45’25”E, 50–80m, on *Phoenicophorium borsigianum*, 4.xii.2006, [28-2, S1-1030 – S1-1034] (W. Holzinger & B. Komposch) (OEKO); 1 ♀, near Anse Lazio, shrub, 4°17’31.5”S, 55°42’09.2”E, 2–25m, 3.xii.2006, [27-1, S1-1029] (W. Holzinger & B. Komposch) (OEKO).

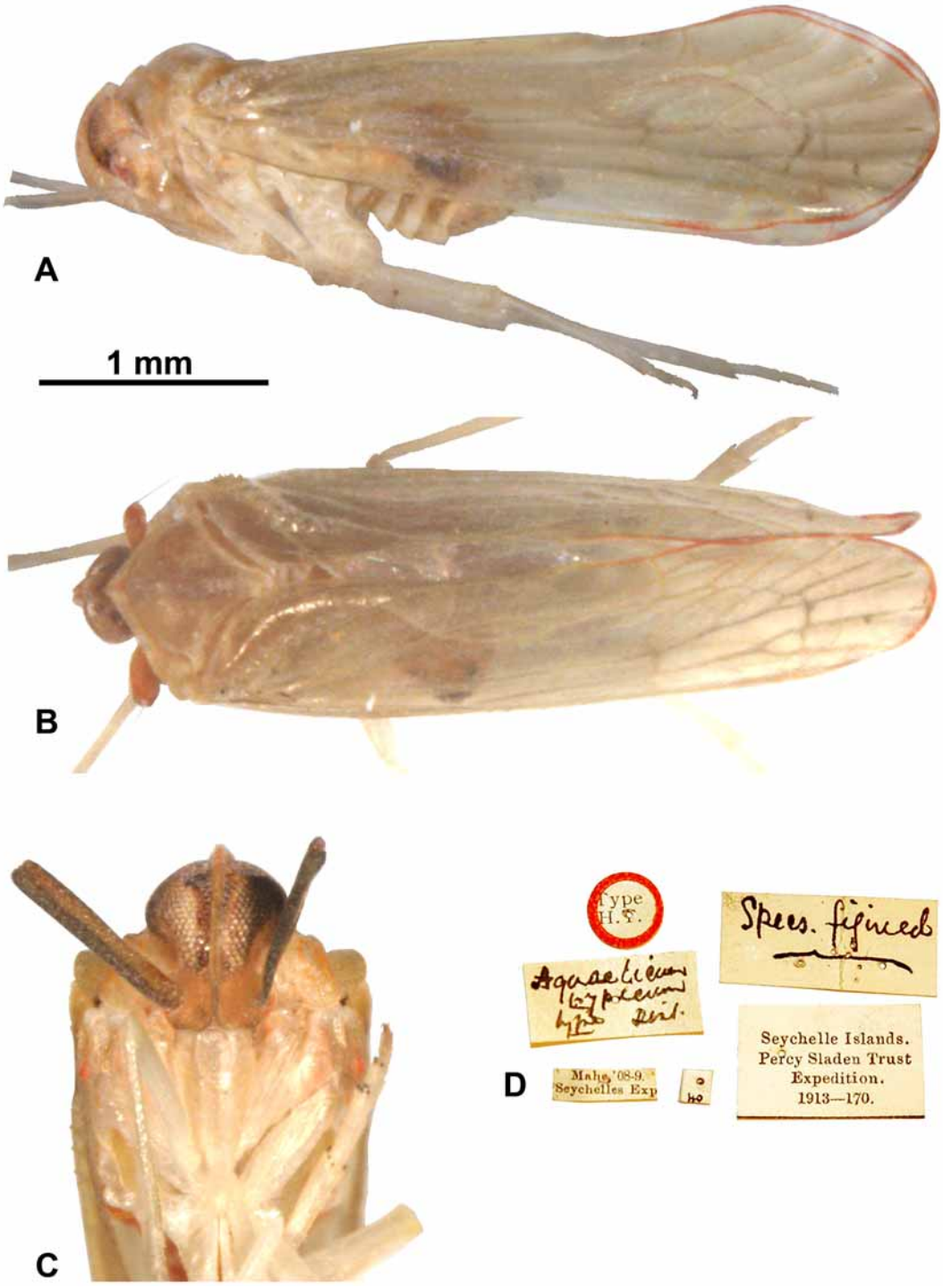

FIGURE 1. *Aquaelicium typicum*: A habitus lateral; B habitus dorsal; C head; D type labels (lectotype). Scalebar 1 mm applies to figures A–B.

Colour. Upper part of body fuscous-brownish to yellowish, eyes blackish. Vertex of head and a central fascia to pro- and mesonotum greyish. Clypeus and legs ochraceous. Forewings fuscous-brown with some ochraceous spots.

Morphology. Body length: male 3.6–4.2 mm, female 3.7–4.0 mm.

Thorax: Forewing 3.6–4.2 times longer than wide (at level of apex of clavus), wing distinctly widening posterior of apex of clavus.

Male genitalia: Anal tube as in Figs 11D–F; genital styles as in Figs. 11G–H. Aedeagus as in Figs 11A–C; apically with at least six acute processes and a flattened ridge with several pointed tips.

Diagnosis. This species closely resembles *A. brunnescens* in colouration and other features, but can be distinguished from the latter by the broader shaft of aedeagus, the lack of a semicircular lobe and the presence of at least six acute processes at the apex of aedeagus, as opposed to only three in *A. brunnescens*. *Aquaelicium typicum* can be differentiated from *A. elegantulum* by the length of the aedeagal process "e", which is much longer and more slender in *A. elegantulum* (Figs 13A–B) than in *A. typicum* (Figs 11A, C).

Distribution. Mahé, Silhouette, Praslin.

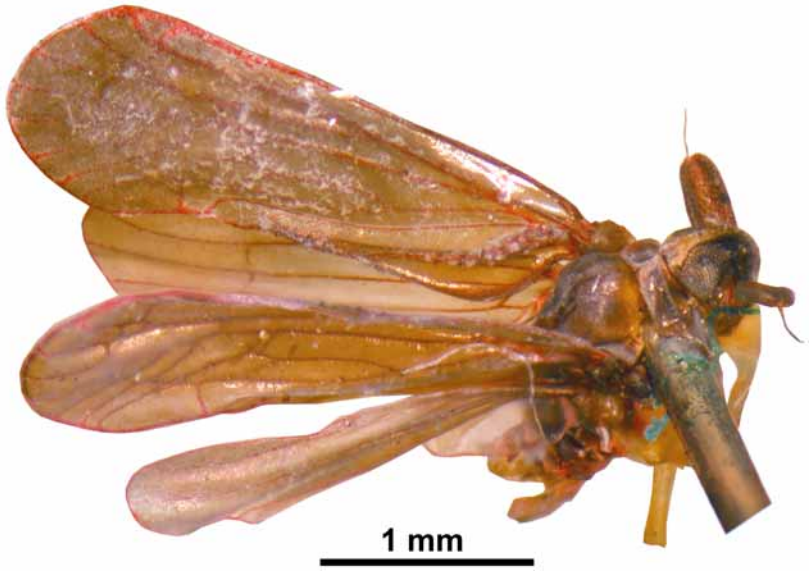

FIGURE 2. *Aquaelicium brunnescens* (paralectotype): habitus lateral.

Aquaelicium brunnescens Distant, 1917
(Figs 2, 12)

Aquaelicium brunnescens Distant, 1917: 290.

Types. *Lectotype*, (here designated) ♂, **SEYCHELLES, Mahé**: pinned, genitalia in genital vial, labelled (handwritten) 139, (printed) Mahe '08-9, Seychelles Exp., (round label with red border) Type, H. T., (handwritten) *Aquaelicium brunnescens* Type Dist., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). *Paralectotypes*, (here designated) ♂, pinned, labelled (handwritten) 139, (printed) Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), ♂, glued on card, labelled (handwritten) 68, Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), ♂, pinned, labelled (handwritten) 79, (printed) Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), ♂, glued, labelled (handwritten) 65, (printed) Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. The original description does not mention the designation of a holotype, therefore these specimens are regarded as syntypes. The specimen from Mahé labelled Type, H. T., is hereby designated as lectotype to provide a diagnostic reference for the species.

Colour. Upper part of body fuscous-brownish to yellowish, eyes blackish. Vertex of head (excluding apex) ochraceous, obscure pale longitudinal fascia to pro- and mesonotum. Clypeus and legs ochraceous. Forewings pale fuscous with darker veins.

Remarks. The type material examined appears to be slightly discoloured due to its age, therefore the colour description above is based on Distant, 1917.

Morphology. Body length: male 3.7–3.9 mm.

Male genitalia: Anal tube of males as in *A. typicum*. Aedeagus as in Figs 12A–B; shaft of aedeagus long and slender; apex of aedeagus with three acute processes and a semicircular lobe.

Distribution. Mahé.

Remarks. This taxon is very similar to *A. typicum*; further studies including a larger number of specimens should verify its status as a distinct species.

Aquaelicium elegantulum Distant, 1917

(Figs 3, 13)

Aquaelicium elegantulum Distant, 1917: 289.

Types. *Lectotype*, (here designated) ♂, **SEYCHELLES:** glued, genitalia in genital vial, labelled (handwritten) *Aquaelicium elegantulum* Type Dist., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). *Paralectotypes*, (here designated), ♂, pinned, labelled (handwritten) 17, (printed) Mahe '08-9, Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH), ♂, glued on card, labelled (handwritten) 74, Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. The original description does not mention the designation of a holotype, therefore these specimens are regarded as syntypes. A lectotype is hereby designated to provide a diagnostic reference for the species.

Other material examined. SEYCHELLES, Mahé: 1 ♂, Congo Rouge, montane forest, 4°38'42.4"S, 55°26'01.3"E, 820m, mixed stand of *Phoenicophorium* and *Pandanus*, 17.xi.2006, [12-2, S1-963] (W. Holzinger & B. Komposch) (OEKO); 2 ♂, near (E) Tea plantation, 2km E Port Glaud, 4°39'42.3"S, 55°26'20.4"E, 350–450m, on *Roscheria melanochaetes* and *Deckenia nobilis* H.A.Wendl, 10.xi.2006, [6-2] (W. Holzinger & B. Komposch) (OEKO). **Praslin**: 3 ♂ 3 ♀, Valle de Mai, 4°19'45''N, 55°44'15''E, 130–250m, 28. and 30.xi.2006, on *Verschaffeltia splendida* and *Nephrosperma vanhoutteanum* (Wendl. ex Van Houtte) Balf.f., [22-1, 24-2 and 24-3] (W. Holzinger & B. Komposch) (OEKO).

Colour. Upper part of body including eyes dark brown, with a reddish tinge. Vertex of head and a central fascia to pro- and mesonotum yellowish. Clypeus and legs yellowish. Forewings very dark brown with some ochraceous spots (Figs 3A–B).

Morphology. Body length: male 4.0–4.2 mm, female 3.1–4.2 mm.

Thorax: Forewing 3.4–3.9 times longer than wide (at level of apex of clavus), wing distinctly widening posterior of apex of clavus.

Male genitalia: Anal tube with two small apical processes pointing caudad (Fig. 13D, E, H). Genital styles as in Figs 13F–G. Aedeagus as in Figs 13A–C, with slender shaft and with process "e" very long and slender (Figs 13A–B).

Diagnosis. This species can be differentiated from the other two species of *Aquaelicium* by the direction in which the two small apical processes of the male anal tube are pointing: caudad in *A. elegantulum* (Fig. 13H), ventrocaudad in *A. typicum* and *A. brunnescens* (Figs 11D, I).

Distribution. Mahé, Praslin.

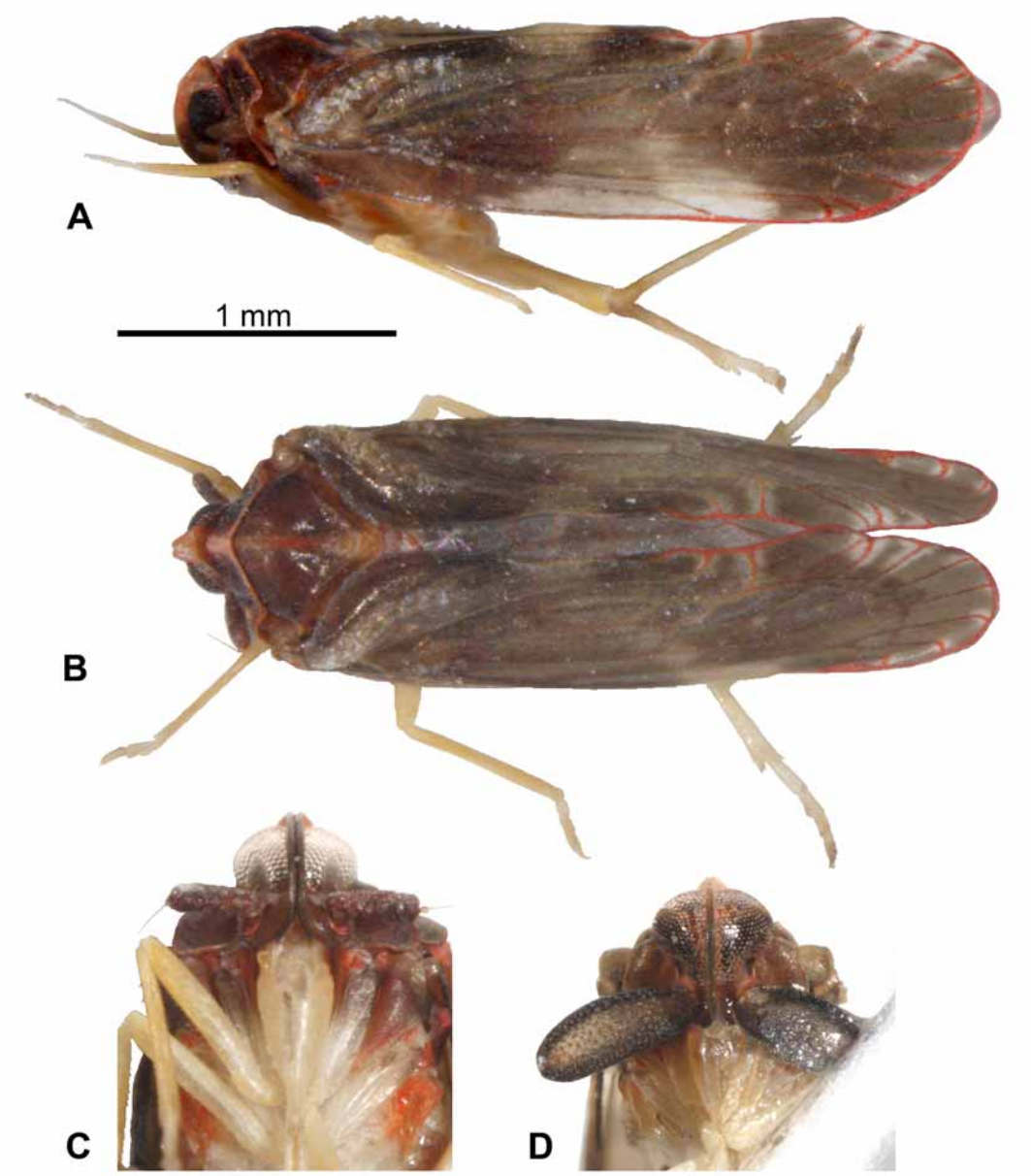

FIGURE 3. *Aquaelicium elegantulum*: A habitus lateral; B habitus dorsal; C head female, D head male. Scalebar 1 mm applies to figures A, B.

Genus *Equirria* Distant, 1917

Equirria Distant, 1917: 290.
Type species: *Equirria phalaena* Distant, 1917, by original designation.
Monotypic, endemic genus.

Diagnosis. Combination of the following characters: Antennae large. Subantennal process absent. Head rounded in profile. Frons narrow but not linear (carinae not contiguous). Lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. M forked distinctly basad of level of apex of clavus. This genus is similar to *Aquaelicium*, for further comments see genus diagnosis of *Aquaelicium*.

***Equirria phalaena* Distant, 1917**
(Fig. 4)

Equirria phalaena Distant, 1917: 290.

Type. *Holotype*, ♂ (examined, not dissected), **SEYCHELLES, Mahé**: pinned, labelled (round label with red border) Type, H. T., (handwritten) *Equirria phalaena* Type Dist., Mahe '08-09', Seychelles Exp., (handwritten) 110, (handwritten) Spec. figd., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. This is the only specimen known of this species. Therefore, in order to preserve all the external structures, the specimen has not been dissected. This means that no description of the male genitalia can be provided at this stage. However, the diagnostic features mentioned above and in the identification key should allow easy identification of this species.

Description. The original description is accurate. Head without subantennal processes. Antennae large. Apex of head rounded in lateral view. Frons narrow but not linear (carinae not contiguous). Lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. Forewings without setiferous tubercles; M forked distinctly basad of level of apex of clavus. Hindwing more than half as long as forewing. Resting position with wings folded above abdomen. Hind tibia without lateral spines; with 5 apical teeth with the outermost spine separated from the other 4 spines by a large diastema; 1st and 2nd tarsomere with 4 apical teeth. Body length 4.1 mm, forewing length 6.5 mm.

Distribution. Mahé, "near Morne Blanc, ca. 800–1000 feet" (Distant 1917: 290).

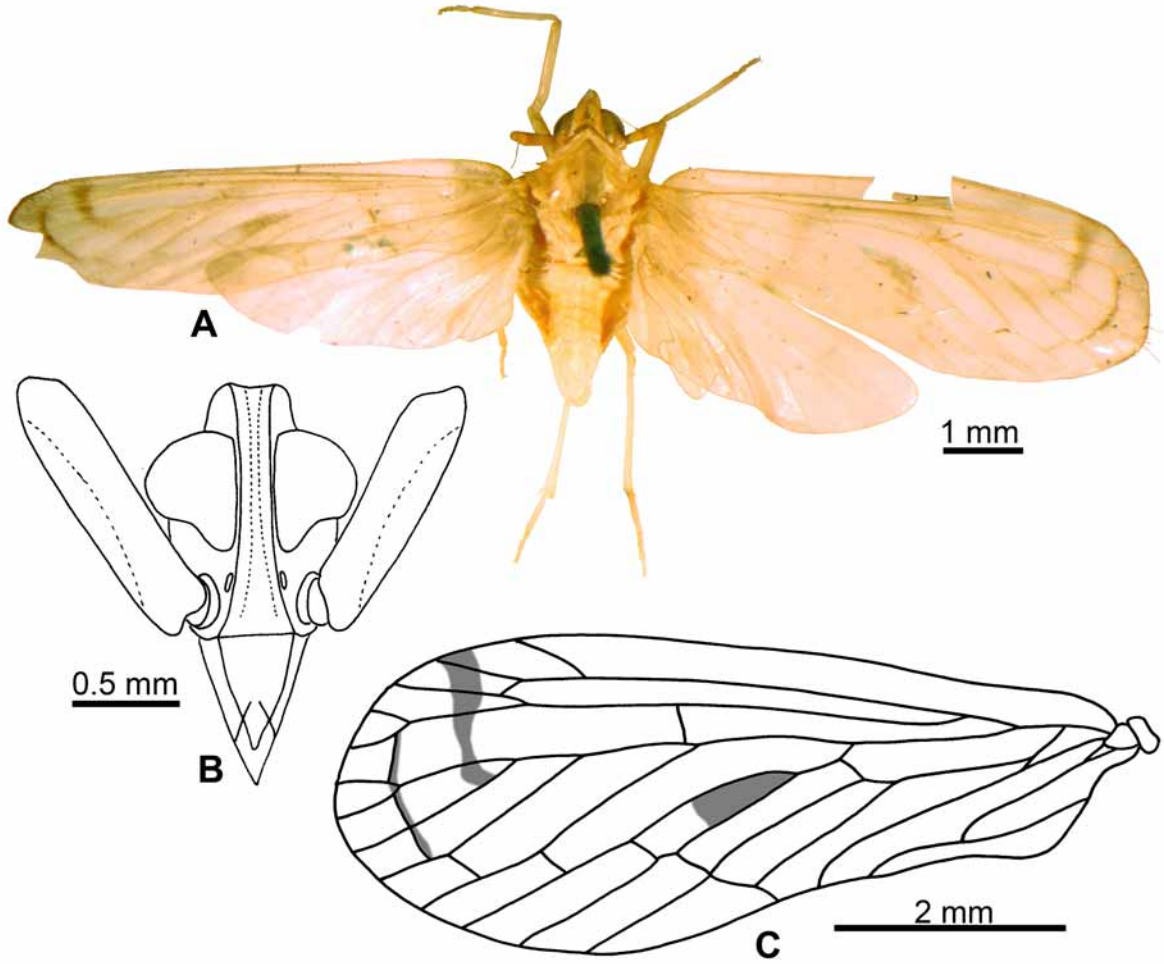

FIGURE 4. *Equirria phalaena* (holotype): A habitus dorsal; B face; C forewing. Scalebar 1 mm applies to figure A; scalebar 0.5 mm applies to figure B; scalebar 2 mm applies to figure C.

Genus *Fordicidia* Distant, 1917

Fordicidia Distant, 1917: 290.
Type species: Fordicidia robusta Distant, 1917, by original designation.
Monotypic, endemic genus.

Diagnosis. Combination of the following characters: Frons very narrow, lateral carinae contiguous to near apex. Well developed crest-like subantennal process. Lateral pronotal carinae and lateral margins foliate, forming a deeply concave fovea.

***Fordicidia robusta* Distant, 1917**
(Fig. 5)

Fordicidia robusta Distant, 1917: 291.

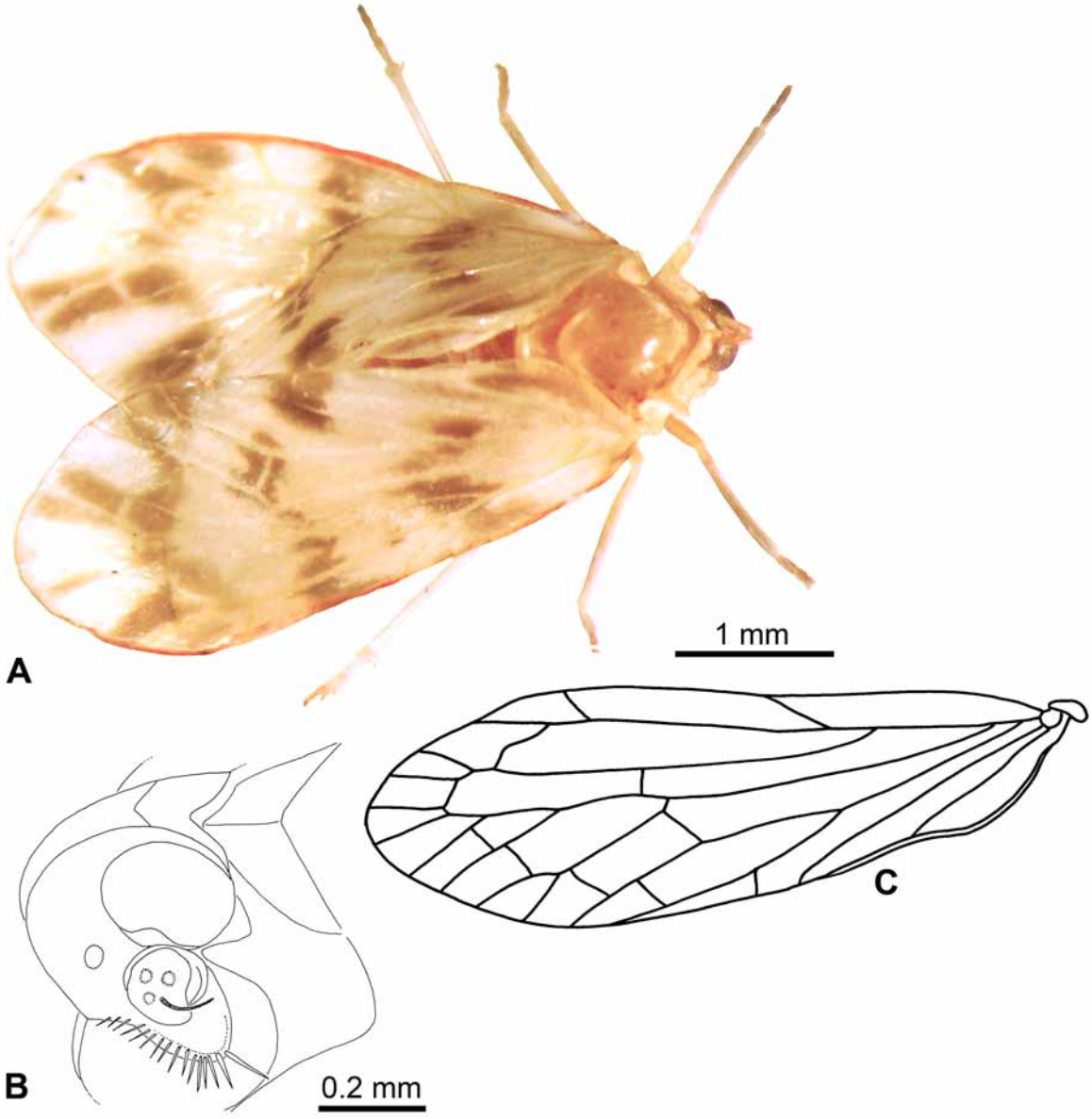

FIGURE 5. *Fordicidia robusta*: A habitus dorsal; B head with subantennal crest; C forewing. Scalebar 1 mm applies to figures A, C; scalebar 0.2 mm applies to figure B.

Types. *Lectotype*, (here designated), ♀ (examined), **SEYCHELLES, Silhouette**: glued on card, labelled "Silhouette '08', Seychelles Exp., (handwritten) 126, (round label with red border) Type, H. T., (handwritten) *Fordicidia robusta* Type Dist., (handwritten) Spec. figd., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). *Paralectotype*, (here designated), ♀ (examined), **Mahé**: pinned [head missing], labelled Mahe '08', Seychelles Exp., (handwritten) Cascade Mahé 104, Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. The two specimens examined match the features given in the original description. The original description further details the type localities. The specimen from Silhouette was collected in the forest above Mare aux Cochons. The original description does not list the number of specimens collected from Mahé. However, Distant seemed to have at least two specimens as he provides details of two different localities: Cascade Estate, 800–1000 feet and over; high forest behind Trois Frères, 1500–2000 feet. We could only locate one specimen from Mahé in the BMNH. Because the original description does not mention the designation of a holotype, these specimens are regarded as syntypes. The specimen from Silhouette labelled Type, H.T., is hereby designated as lectotype to provide a diagnostic reference for the species.

Other material examined. SEYCHELLES, Praslin:1 ♀, Fond Ferdinand, near entrance, on *Phoenicophorium borsigianum*, 4°21'20"S, 55°45'35"E, 10–50m, 4.xii.2006, [28-1] (W. Holzinger & B. Komposch) (OEKO).

Description. The original description is accurate. Body and legs yellowish. Head narrow, pronotum about twice as wide as head. Head with crest-like subantennal processes. Frons very narrow, lateral carinae contiguous to near apex. Lateral pronotal carinae and lateral margins foliate, forming a deeply concave fovea. Forewings subhyaline with three dark, discontinuous transverse bands: one crossing the claval area, a second one crossing in the middle of the wing, and the third, broadest, crossing the apical cells. Costal vein with an orange tinge, other veins concolorous with cells. Hindwing more than half as long as forewing. Resting position with wings folded above abdomen. Body length of female 2.0–2.6 mm, length of forewings 4.5 mm.

Distribution. Mahé, Praslin, Silhouette.

Genus *Paraphenice* Muir, 1924

Paraphenice Muir, 1924: 18.
Type species: *Phenice neavei* Muir, 1924: 18, by original designation.
Imbalara Hesse, 1925: 155, synonymised by Muir, 1928: 502.
Type species: *Imbalara squanifer* Hesse, 1925: 155.
Afrotropical genus, containing 24 species (Bourgoin 2008).

Diagnosis. Combination of the following characters: Vertex not or very little broader than long. Frons without median carina; lateral carinae not contiguous. Head with large, foliate, crest-like subantennal process. Lateral pronotal carinae and ventral lateral margins of pronotum not subfoliately raised to form a cup-like antennal fovea. Forewing with Sc+R fork almost level with union of claval veins; long subcostal cell.

Morphology. Head: Vertex not or very little broader than long; with u-shaped basal emargination. Lateral carinae of vertex with sensory pits. Vertex and frons lacking median carina. Frons very narrow, with strongly elevated and more or less distinctly granulated lateral carinae; lateral carinae subparallel, not contiguous, slightly diverging towards frontoclypeal suture. Frons without median carina. Frontoclypeal suture straight. Postclypeus with moderately developed median and lateral carinae. Anteclypeus with weakly developed median carina, without lateral carinae. Rostrum surpassing hind coxae. Head with large, foliate, crest-like subantennal processes as in Figs 6D, 7B–E. Second antennal segment small, ovate, less than 2 times longer than wide.

Thorax: Hind margin of pronotum obtusely angled. Width of pronotum less than 1.5 times width of head. Lateral pronotal carinae and ventral lateral margins of pronotum not subfoliately raised to form a cup-like antennal fovea. Mesonotum slightly to moderately convex, in lateral view not raised above the vertex.

Mesonotum with three, weakly to moderately developed longitudinal carinae. Forewing with closed clavus. Claval veins without a ridge of setiferous tubercles. Forewing with Sc+R fork almost level with union of claval veins; long subcostal cell. Hindwing more than half as long as forewing. Resting position with wings folded above abdomen. Hind leg: tibia without lateral spines; tibia with 5 apical teeth with the outermost spine separated from the other 4 spines by a large diastema; 1st tarsomere with 6–7 apical teeth and no platellae; 2nd tarsomere with 6 apical teeth and no platellae.

***Paraphenice aurea* (Distant, 1917)**
(Figs 6, 14)

Fescennia aurea Distant, 1917: 288, Plate 51, Fig. 10.
Paraphenice aurea (Distant), Muir 1924: 472.

Types. *Lectotype*, ♂ (examined), **SEYCHELLES, Mahé**: pinned, labelled "Mahe '08-09', Seychelles Exp., (handwritten) 120, (round label with red border) Type, H. T., (handwritten) *Fescennia aurea* Type Dist., (handwritten) Spec. figd., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. Another specimen from the type series that has not been examined is located in the collection at Cambridge. The original description does not mention the designation of a holotype, therefore these specimens are regarded as syntypes. The specimen from Mahé labelled Type, H. T., is hereby designated as lectotype to provide a diagnostic reference for the species.

Other material examined. SEYCHELLES, Curieuse: 1 ♀, Southern part, lowland glacis, 4°17'10"S, 55°43'35"E, 5–50m, 29.xi.2006, [23-1] (W. Holzinger & B. Komposch) (OEKO). **Mahé-N**: 3 ♀, Mare aux Cochons, near swamp, 4°38'S, 55°25'E, 350m, 12.xii.2006, [34-1, S1-955 - S1-957] (W. Holzinger & B. Komposch) (OEKO); 1 ♂ near (E) Tea plantation, 2 km E Port Glaud, 4°39'42,3"S, 55°26'20,4"E, 350–450m, 10.xi.2006, [6-2] (W. Holzinger & B. Komposch) (OEKO). **Silhouette**: 1 ♂, glacis above Anse Lascars, 4°29'26,6"S, 55°15'5,71"E, ~60m, 24.xi.2006, [19-1] (W. Holzinger & B. Komposch) (OEKO).

Remarks. Specimens were collected from *Deckenia nobilis*, *Pandanus sechellarum* Balf.f. and *Pandanus multispicatus* Balf.f.

Colour. Body including lateral carinae of vertex and frons yellow. Apex of rostrum blackish. Forewing yellow with some whitish areas and with one black spot at the apex of clavus, sometimes with a longitudinal brown streak along entire wing, veins concolorous with cells.

Morphology. Body length: male 6.8–7.2 mm, female 7.8–7.9 mm.

Head: Vertex 0.7–0.8 times as long as wide. Frons 3.3 times longer than wide.

Thorax: Forewing 4.8–4.9 times longer than wide (at level of apex of clavus). Hind leg: 1st tarsomere with 6–7 apical teeth.

Male genitalia: Anal tube very long, apex bilobate (Figs 14A–B); pygofer laterally with a pointed process, ventromedian process of pygofer long, bifurcate, with a long, straight process on the left and a strongly curved, partially serrate process on the right side (Fig. 14C). Aedeagus with five apical spines, very similar to the aedeagus of *P. bimaculata* (see below).

Diagnosis. This species can be differentiated from *P. bimaculata* by the colouration of the lateral carinae of the vertex (yellowish in *P. aurea*, blackish in *P. bimaculata*), by the absence of a black spot near the apex of the forewing, by the different shape of the ventromedian process of the male pygofer and the apical lobes of the male anal tube.

Distribution. Curieuse, Mahé, Silhouette.

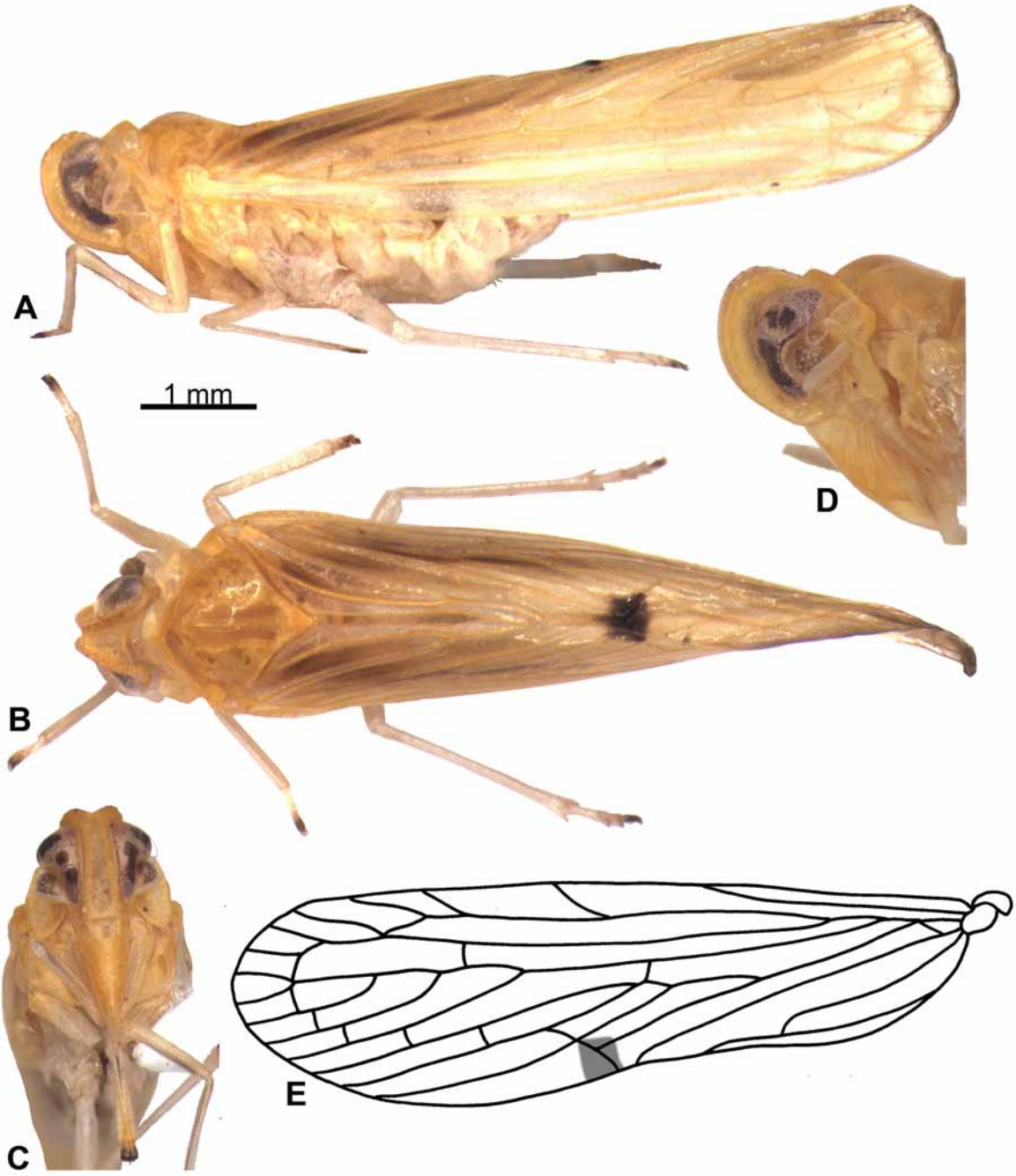

FIGURE 6. *Paraphenice aurea*: A habitus lateral; B habitus dorsal; C, D head; E forewing. Scalebar 1 mm applies to figures A–C, E.

***Paraphenice bimaculata* (Distant, 1917)**
(Figs 7, 15)

Fescennia bimaculata Distant, 1917: 288, Plate 51, Fig. 11.
Paraphenice bimaculata (Distant), Muir 1924: 472.

Type. *Holotype*, ♂ (examined), **SEYCHELLES, Mahé:** pinned, labelled (round label with red border) Type, H. T., (handwritten) *Fescennia bimaculata* Type Dist.,(handwritten) 84, (handwritten) Spec. figd., Mahe '08-09', Seychelles Exp., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

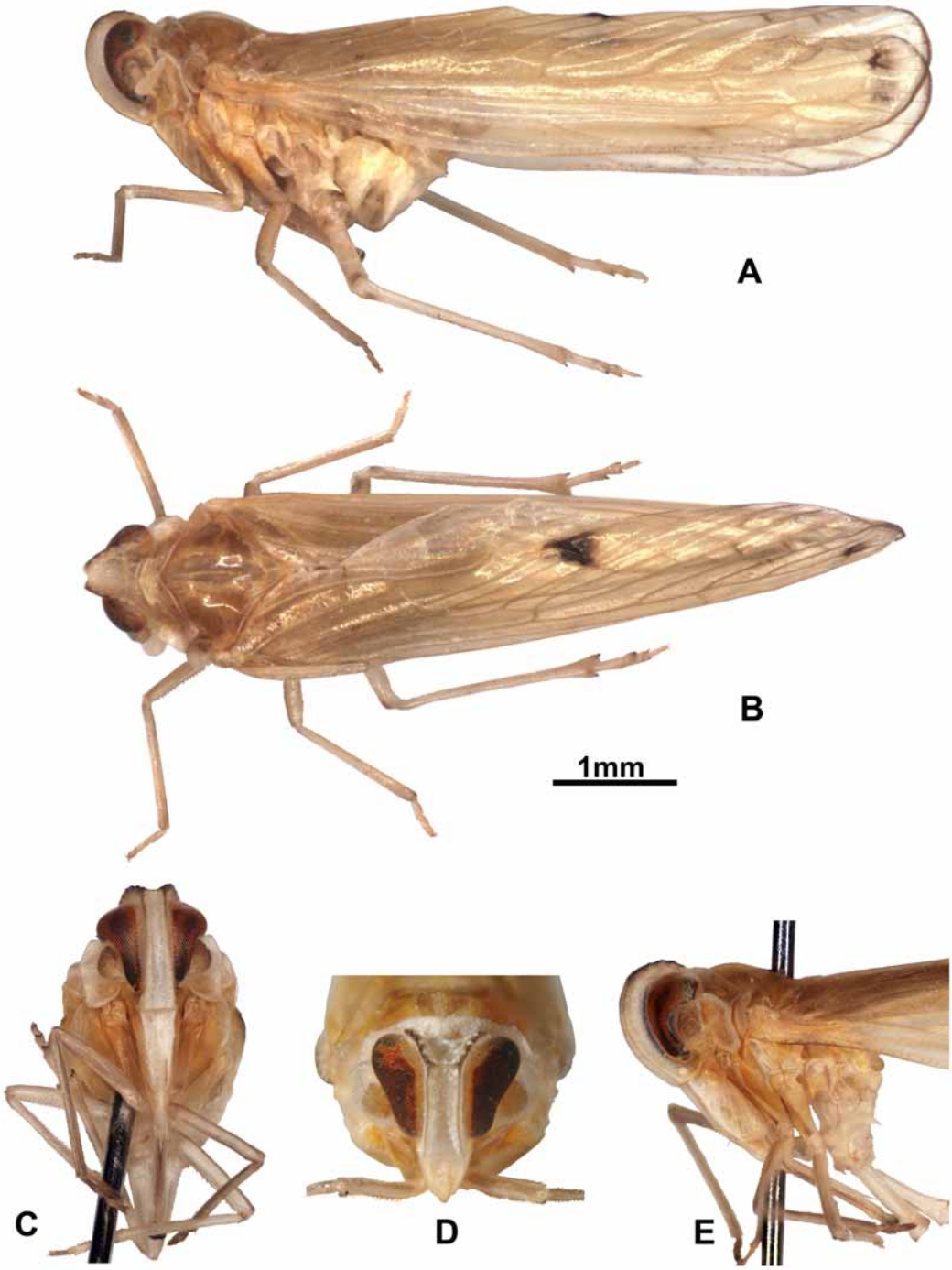

FIGURE 7. *Paraphenice bimaculata*: A habitus lateral; B habitus dorsal; C, D, E head. Scalebar 1 mm applies to figures A–C and E.

Other material examined. SEYCHELLES, Curieuse: 1 ♂, Southern part, lowland glacis, 4°17’10”S, 55°43’35”E, 5–50m, 29.xi.2006, [23-1, S1-950] (W. Holzinger & B. Komposch) (OEKO). **Mahé-N**: 1 ♀**,** Mare aux Cochons, near swamp, 4°38'S, 55°25'E, ~350m, 12.xii.2006, [34-1] (W. Holzinger & B. Komposch) (OEKO). **Praslin**: 1 ♂, Vallée de Mai, end of path “Palm + Pandanus grove”, 4°19’45”S, 55°44’15”E, 250m, on *Verschaffeltia splendida*, 30.xi.2006, [24-3] (W. Holzinger & B. Komposch) (OEKO); 1 ♂, Vallée de Mai, palm forest 4°19'45"S, 55°44'15"E, 130–250m, 28.xi.2006, [22-1] (W. Holzinger & B. Komposch) (OEKO). **Silhouette**: 2 ♀, Glacis above Anse Lascars, 4°29’26”S, 55°15’5”E, 60m, on *Pandanus hornei* Balf.f., 24.xi.2006, [19-1] (W. Holzinger & B. Komposch) (OEKO); 1 ♀, SW La Passe, above Anse Lascars, lowland

glacis, 4°29’26”S, 55°15’5”E, 50–100m, on *Pandanus hornei*, 24.xi.2006, [19-1] (W. Holzinger & B. Komposch) (OEKO); 1 ♂, Glacis above Anse Lascars, 4°29'26,6"S, 55°15'5,71"E, ~60m, 24.xi.2006, [19-1] (W. Holzinger & B. Komposch) (OEKO).

Colour. Body yellow, sometimes head, pronotum and legs paler. Apex of rostrum, lateral carinae of vertex and apical parts of lateral carinae of frons blackish. Forewing yellow with two black spots (one at the apex of clavus and one near the apex of the forewing), subapical cell between subcosta and radius whitish, veins concolorous with cells.

Morphology. Body length: male 6.9 mm, female 7.2–7.7 mm.

Head: Vertex 0.8–0.9 times as long as wide. Frons 3.7 times longer than wide.

Thorax: Forewing 4.2–5.1 times longer than wide (at level of apex of clavus). Hind leg: 1st tarsomere with 7 apical teeth.

Male genitalia: Anal tube very long, apex bifurcate, tips of lobes directed ventrad as in Figs 15C–E; pygofer finishing dorso-laterally with a pointed process (Fig. 15C), ventromedian process of pygofer long, s-shaped with a short spine at midlength pointing right laterad as in Fig. 15F; genital styles dorsally with a small spine as in Fig. 15G. Aedeagus as in Figs 15A–B; with five spines inserting near apex of aedeagus; spine (a) very short; spine (b) reaching just below midlength of aedeagus; spines (c) and (d) very long; spine (e) rounded at base with a paddle shaped tip.

Distribution. Curieuse**,** Mahé, Praslin, Silhouette.

Genus *Vekunta* Distant, 1906

Vekunta Distant, 1906: 8, nom. nov. for *Temesa* Melichar, 1903.
Type species: *Vekunta tenella* Distant, 1906: 287, by original designation.
Temesa Melichar, 1903: 40, preoccupied by Temesa (Mollusca) Adams, 1855.
Type species: *Temesa tenella* Melichar, 1903: 41.
Australasian, Oriental and Palaearctic region, 35 species.

Diagnosis. Combination of the following characters: Subantennal process absent or very small. Head distinctly angulate in profile. Pronotum with no distinct medial disc. Lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. Forewing without trifid MA; with short subcostal cell.

Vekunta bri Löcker, Löcker & Holzinger, sp. nov.

(Figs 8, 16)

Types. *Holotype*, ♂, **SEYCHELLES, Mahé**: Mt. Palmiste, 70–120m, 4°40’19,7’’S, 55°26’37,9’’E, Chrysobalanus shrub, 12.xi.2006, [8-2] (W. Holzinger & B. Komposch) (OEKO). *Paratypes*, 3 ♂, 2 ♀, same locality and date as holotype; ♂, Mahé-N, Mission Lodge E Port Glaud, 4°39’18,4’’S, 55°26’42,3’’E, 500m, 11.xi.2006, [7-1] (W. Holzinger & B. Komposch) (OEKO); 3 ♂ Mahé-N, Ma Josephine SE Victoria; 4°39’~18’’S, 55°28’~22’’E, 330m, 16.xi.2006, [11-3] (W. Holzinger & B. Komposch) (OEKO). **Silhouette**: 16 ♂ 5 ♀ La Passe and coast south 4°29’~10’’S, 55°15’~11’’E, ~10m, 19.xi.2006, [14-1] (W. Holzinger & B. Komposch) (OEKO).

Holotype and paratypes are stored in coll. Oekoteam – Institute for Animal Ecology and Landscape Planning, Graz, Austria (OEKO) except for one male and one female paratype deposited in BMNH.

Etymology. The name “bri” is an arbitrary combination of letters. The species is dedicated to Brigitte Komposch in honour of her outstanding addiction to hopper collecting in Seychelles.

Colour. Body yellow. Apex of rostrum blackish. Forewing pale yellow with a more or less distinct brownish streak near subcosta, veins concolorous with cells.

Morphology. Body length: male 4.9–5.1 mm, female 5.8–6.0 mm.

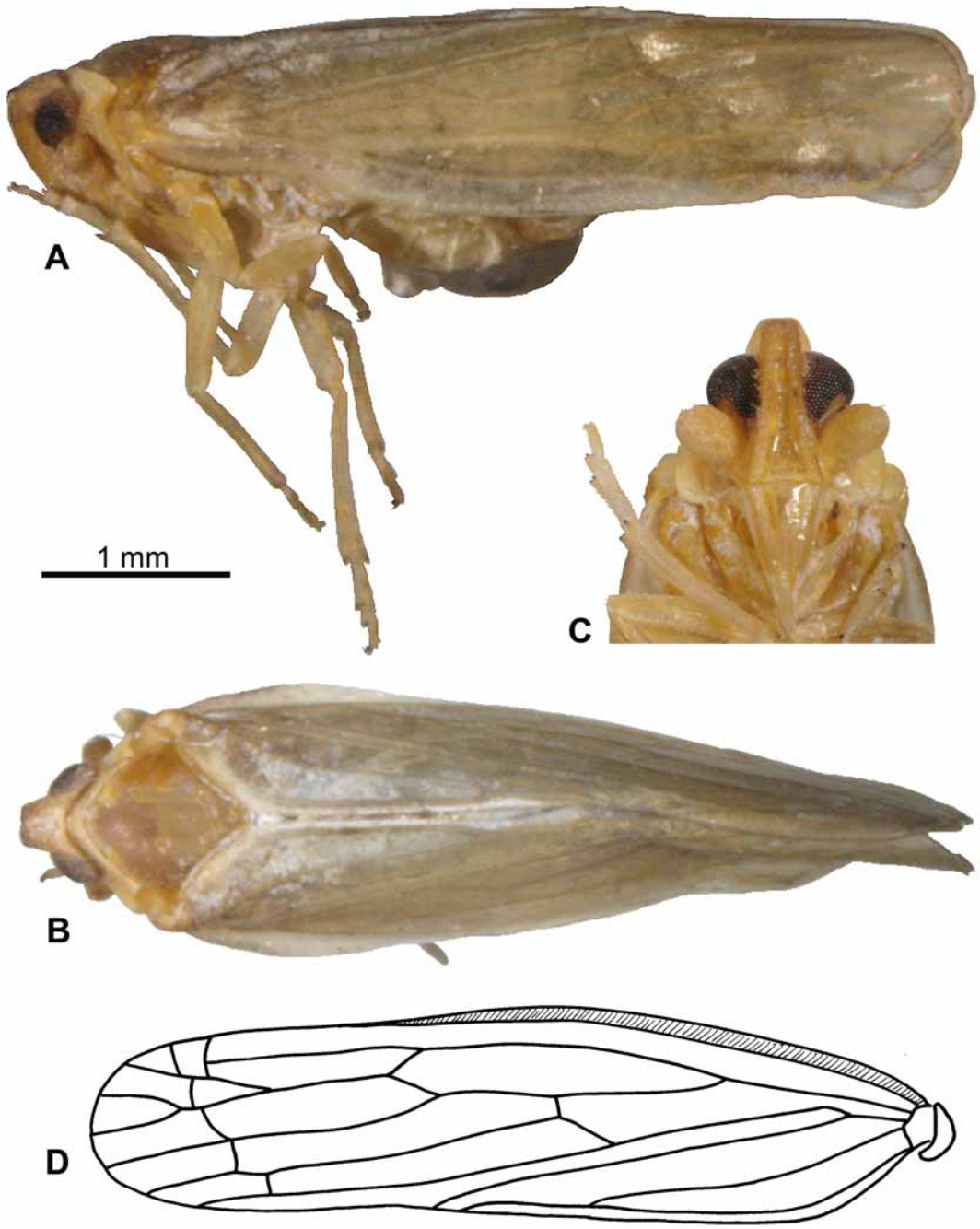

FIGURE 8. *Vekunta bri* (paratype): A habitus lateral; B habitus dorsal; C head; D forewing. Scalebar 1 mm applies to figures A, B, D.

Head: Vertex with u-shaped basal emargination. Lateral carinae of vertex with sensory pits. Vertex and frons lacking median carina. Frons moderately narrow, lateral carinae concave, frons widest near frontoclypeal suture. Frons with strongly elevated, distinctly granulated lateral carinae. Frontoclypeal suture straight. Postclypeus with moderately developed median and lateral carinae, anteclypeus with weakly developed median carina, without lateral carinae. Rostrum surpassing hind coxae. Head without subantennal processes. Apex of head distinctly angulate in lateral view. Second antennal segment small, ovate, less than 2 times longer than wide. Vertex 0.9–1.1 times as long as wide. Frons 2.2–2.3 times longer than wide.

Thorax: Pronotum with no distinct medial disc; hind margin of pronotum obtusely angled; lateral pronotal carinae and ventral lateral margins of pronotum not foliately raised. Mesonotum slightly convex, in lateral view slightly raised above the vertex. Mesonotum with three, weakly developed or evanescent longitudinal

carinae. Forewing with closed clavus. Claval veins with a prominent ridge of setiferous tubercles. Forewing without trifid MA; with short subcostal cell. Hindwing more than half as long as forewing. Resting position with wings folded above abdomen. Hind leg: tibia without lateral spines; tibia with 7 apical teeth in an uninterrupted row; 1st and 2nd tarsomere with 6 apical teeth and no platellae. Forewing 3.9–4.3 times longer than wide (at level of apex of clavus), wing not distinctly widening posterior of apex of clavus.
Male genitalia: Anal tube long, with a hook-shaped tip, pointing left laterad as in Figs 16D–E; pygofer lacking ventromedian process, laterally with an elongated process pointing inwards as in Fig. 16H; genital styles elongated, with a curved tip, about midlength with a process carrying setae as in Figs 16F–G. Aedeagus as in Figs 16A–C; with a long, pointed apical process carrying two spines (a,b) left lateral and two spines (c,d) right lateral.

Distribution. Mahé, Silhouette.

Diagnosis. *Vekunta bri* differs from many other *Vekunta* species by its colour and body shape. Compared to externally similar species, the structures of the male genitalia (anal tube, aedeagus, see Figs 16A–E) allow easy identification.

Remarks. *Vekunta* is a diverse genus in the subtropical and tropical regions of India and Asia, comprising about 35 species (Bourgoin 2008). The generic placement of this new species into *Vekunta*, however, is tentative. It is based mainly on the characters given by Fennah (1952); both *Vekunta* and the family Derbidae as a whole still await a revision and comprehensive phylogenetic analysis.

Subfamily Zoraidinae

Tribe Sikaianini

Genus *Sikaiana* Distant, 1907

Sikaiana Distant, 1907: 398.
Type species: *Sikaiana hyalinata* Distant, 1907, by original designation.
Iguvium Distant, 1917: 287, synonymised by Muir, 1918.
Type species: *Iguvium albomaculatum* Distant, 1917, by monotypy.
Afrotropical, Australasian, Oceanic and Oriental region, 16 species.

Diagnosis. Combination of the following characters: Antennae about as long as frons. Forewing with Cu arising independently from base of forewing; basal median cell broad and short, not nearly reaching the middle of forewing. Hindwings 1/3 of length of forewings.

Sikaiana albomaculata (Distant, 1917)
(Figs 9, 17)

Iguvium albomaculatum Distant, 1917: 287.
Sikaiana albomaculata (Distant, 1917), comb. nov. by Muir, 1918.

Types. *Lectotype*, here designated, ♂ (examined), **SEYCHELLES, Silhouette**: glued on card, labelled 'Silhouette'08, Seychelles Exp., (handwritten) 126, (round label with red border) Type, H. T., (handwritten) *Iguvium albomaculatum* Type Dist., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH). *Paralectotype*, 1 ♀ (examined), **Mahé**: glued on card, right forewing separately on second card, labelled "Mahe, ´08-9' Seychelles Exp., (handwritten) 104, (round label with yellow border) Co-type, (handwritten) *Iguvium albomaculatum* Cotype Dist., Seychelle Islands, Percy Sladen Trust Expedition, 1913-170 (BMNH).

Remarks. The two specimens examined match the features given in the original description. The original description further details the type localities: The specimen from Silhouette was collected on the Mare aux

Cochons plateau, whereas the specimen from Mahé was found on the Cascade Estate, about 800 feet high. Because the original description does not mention the designation of a holotype these specimens are regarded as syntypes. The male specimen labelled Type, H. T., is hereby designated as lectotype to provide a diagnostic reference for the species.

Other material examined. SEYCHELLES, Silhouette: 1 ♂, mixed forest 300 m below (E) Jardin Marron, on *Phoenicophorium borsigianum*, 4°28'52"S, 55°14'26"E, 250–320m, 20.ix.2008, (W. Holzinger) (OEKO).

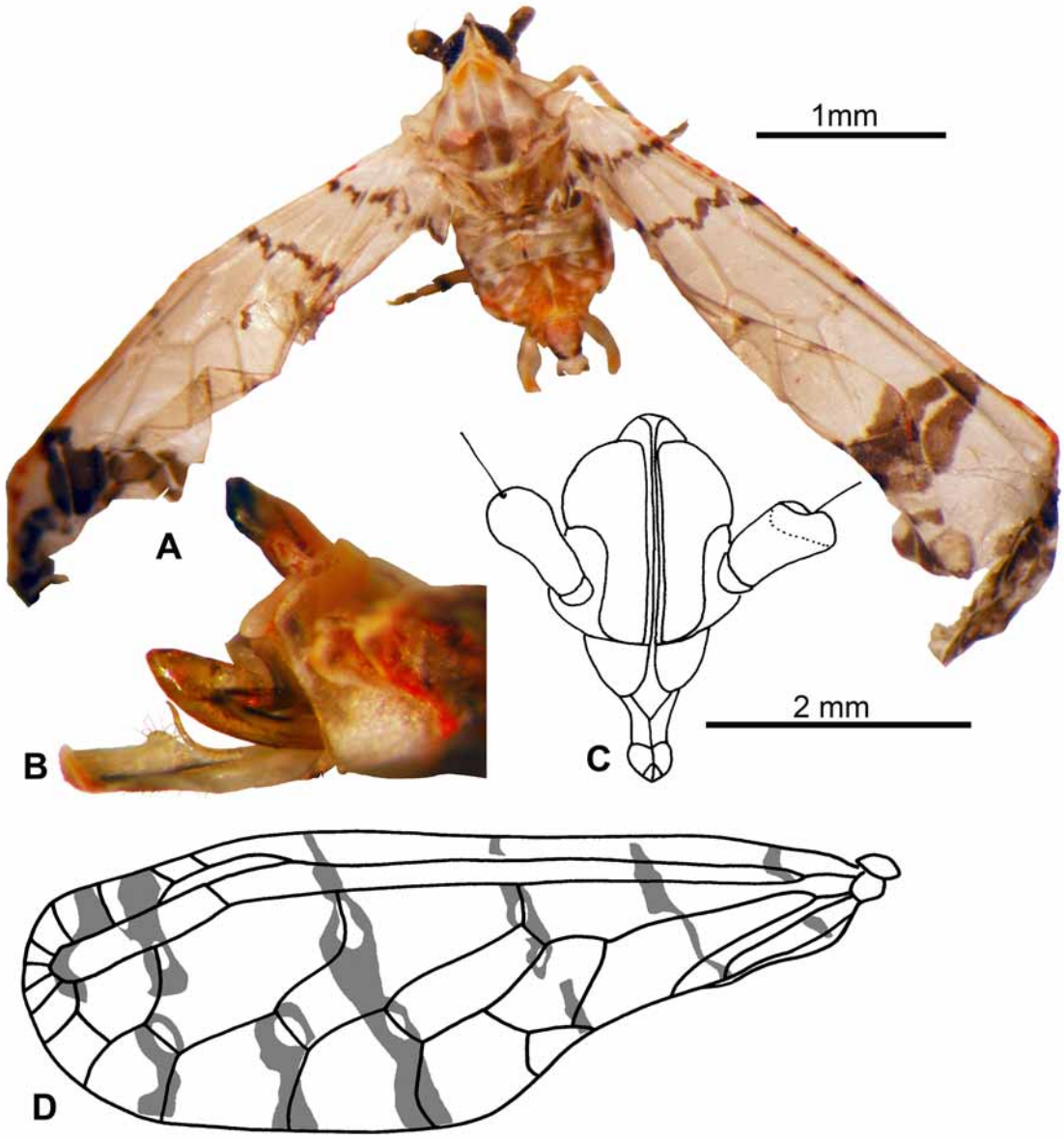

FIGURE 9. *Sikaiana albomaculata*: A habitus dorsal; B male genitalia; C face; D forewing. Scalebar 1 mm applies to figures A, D; scalebar 2 mm applies to figure C.

Description. The original description is accurate. Eyes dark, very large, reaching to base of clypeus. Body and legs ochraceous with darker mottlings. Forewings subhyaline with five dark fasciae crossing few delicate dark markings (see original description and Fig 9). Costal vein with an orange tinge, other veins concolorous with cells. Antennae about as long as frons. Forewing with Cu arising independently from base of forewing; basal median cell broad and short, not nearly reaching the middle of forewing. Hindwing 1/3 of length of forewing. Resting position with wings spread. Body length of male 1.8–1.9 mm, of female about 1.5 mm, length of forewings about 4.1 mm.

Male genitalia: Anal tube short, about 1.3 times as long as wide, apically rounded (Fig. 17B). Pygofer laterally with a small lobe and without ventromedian process (Fig. 17A). Genital styles elongated, with a curved tip, about midlength with a long and slender process and a little lobe pointing dorsad (Fig. 17A). Aedeagus long and slender, bearing three apical spines (a, b, c) (Fig 17A).

Distribution. Mahé, Silhouette.

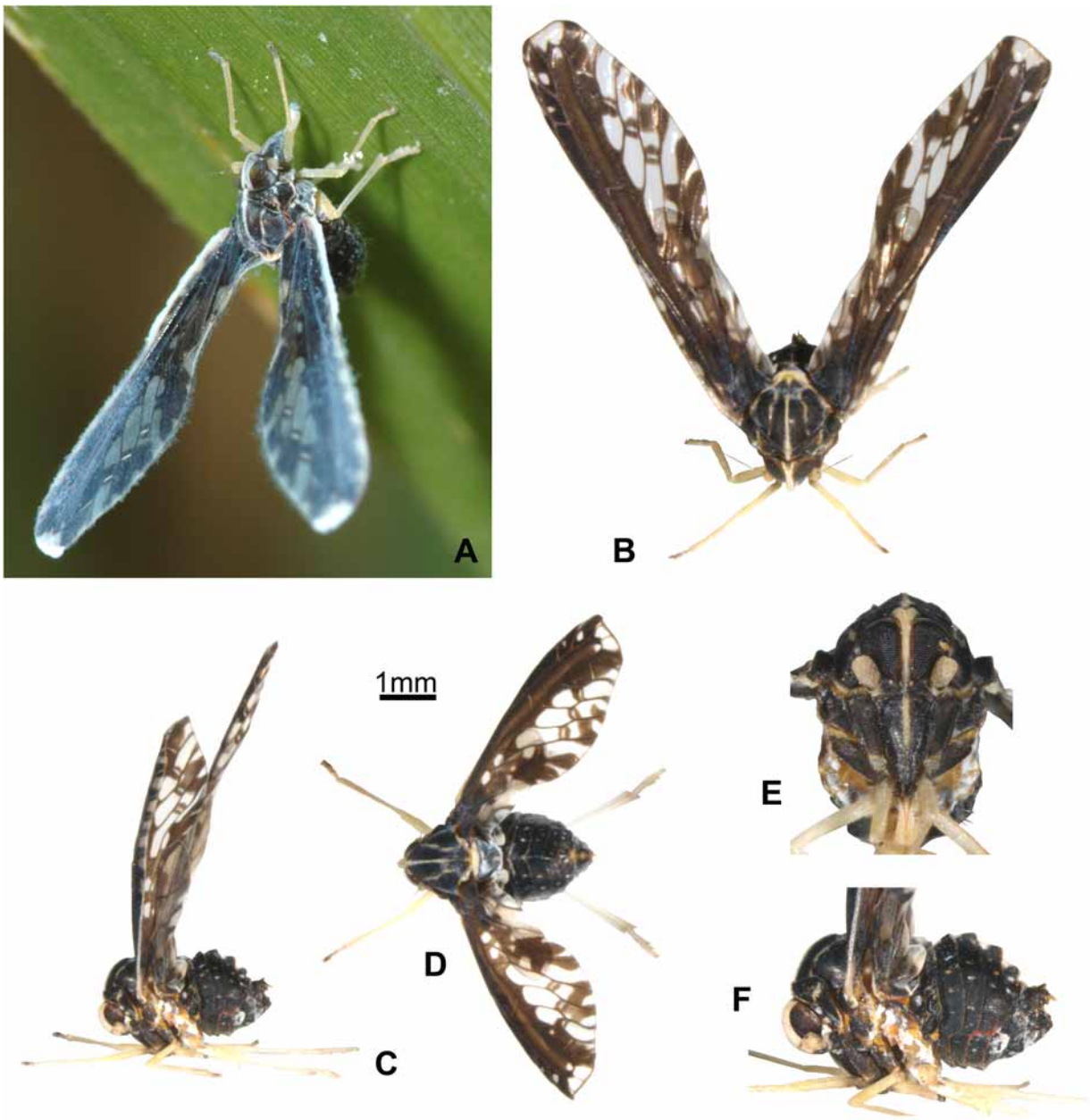

FIGURE 10. *Proutista moesta*: A–D habitus; E head; F body lateral. Scalebar 1 mm applies to figures B–D.

Tribe Zoraidini

Genus *Proutista* Kirkaldy, 1904

Assamia Buckton, 1896: 1.
Proutista Kirkaldy, 1904: 279 nom. nov. for *Assamia* Buckton, 1896, preoccupied by *Assamia* Sørensen 1884.
Type species *Assamia dentata* Buckton 1896: 1.
Afrotropical, Australasian, Oriental region, 13 species.

Diagnosis. Combination of the following characters: Antennae much shorter than frons, subovoid. Thorax wider than head. Forewing with all median sectors single, generally six. Hindwing about half as long as forewing.

***Proutista moesta* (Westwood, 1851)**
(Figs 10, 18)

Derbe (***Phenice***) ***moesta*** Westwood, 1851: 209.
Thracia albipes Walker, 1870: 141, synonymised by Muir, 1918: 174.
Assamia dentata Buckton, 1896: 1, synonymised by Melichar, 1903: 54.
Phenice maculosa Krüger, 1897: 243, synonymised by Kirkaldy, 1907: 174.
Proutista moesta (Westwood), Kirkaldy, 1907: 174.

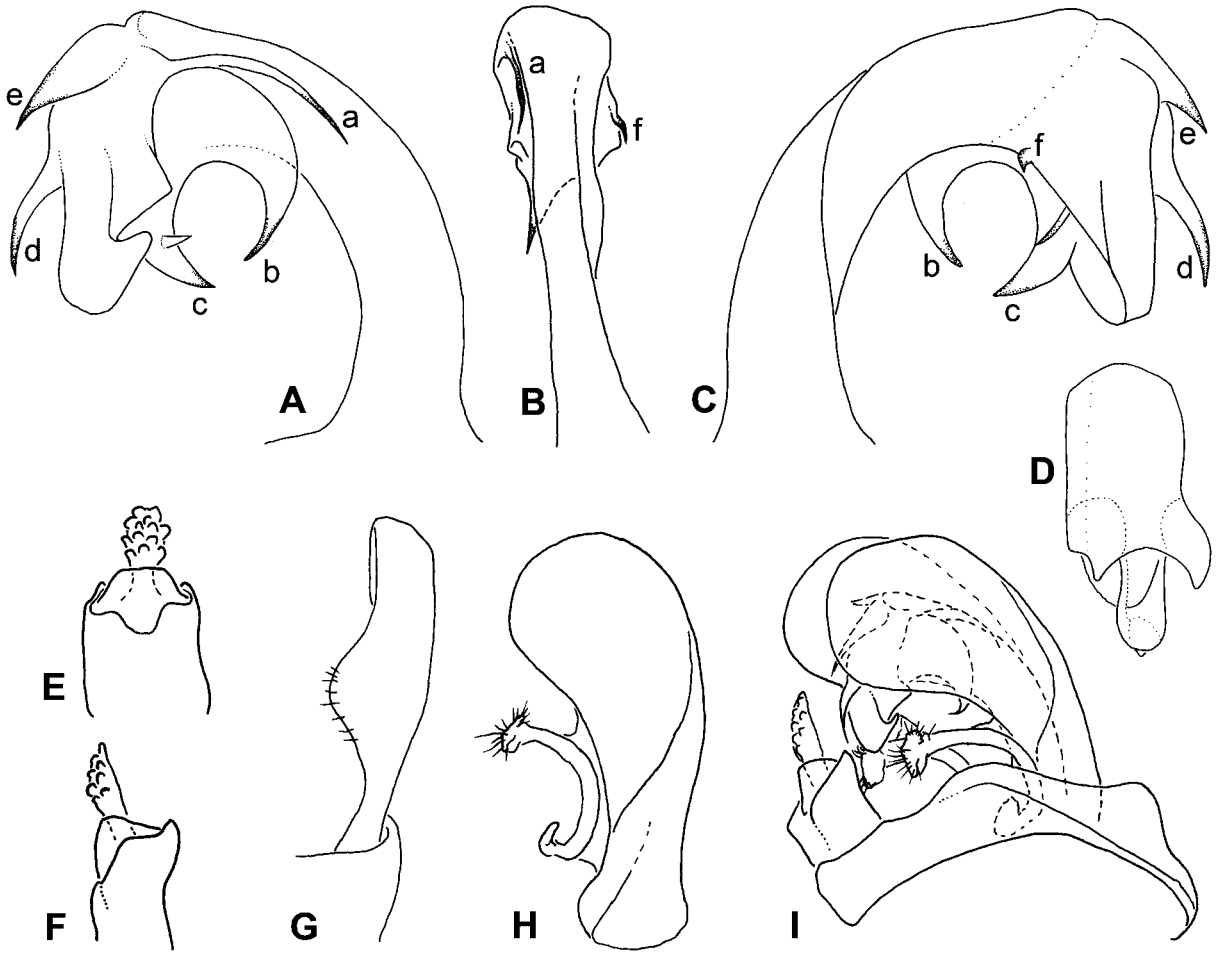

FIGURE 11. *Aquaelicium typicum*: A, B, C aedeagus, (A) left lateral (B) ventral (C) right lateral; D, E, F anal tube; G, H genital style, (G) ventral (H) left lateral; I genital capsule.

Material examined. SEYCHELLES, La Digue: 2 ♂ 2 ♀, Nid d'Aigles ridge, 200–300m, 4°21'11,9"S, 55°50'29,1"E, 10.xii.2006, (W. Holzinger & B. Komposch) (OEKO). **Mahé**: 12 ♂ 9 ♀, Victoria, Mt Fleuri, roadside, on tall grass, 4°37'58,1"S; 55°27'16,7"E; 50m, 6.xi.2006, [2-1] (W. Holzinger & B. Komposch) (OEKO); 1 ♂, Beau Vallon Beach, village, 4°36'30.8"S, 55°25'56.4"E, 0–30m, 5.xi.2006, [1-1, S1-902] (W. Holzinger & B. Komposch) (OEKO); several specimens, Port Glaud, roadside, on tall grass, 4°39'26,5''S, 55°24'35,7''E; 3m, 19.ix.2008, W. Holzinger vid. **Praslin**: 4 ♂, 1 ♀, near Anse Lazio, on tall grass, 4°17'31.5"S, 55°42'09.2"E, 2–25m, 3.xii.2006, [27-1, S1-933 – S1-937] (W. Holzinger & B. Komposch) (OEKO). **Silhouette**: 6 ♂, 2 ♀, La Passe village, 4°29'00"S, 55°14'59"E, 18.xi.2006 and 22.xi.2006, [13-1, 16-1, S1-928 - S1-932] (W. Holzinger & B. Komposch) (OEKO).

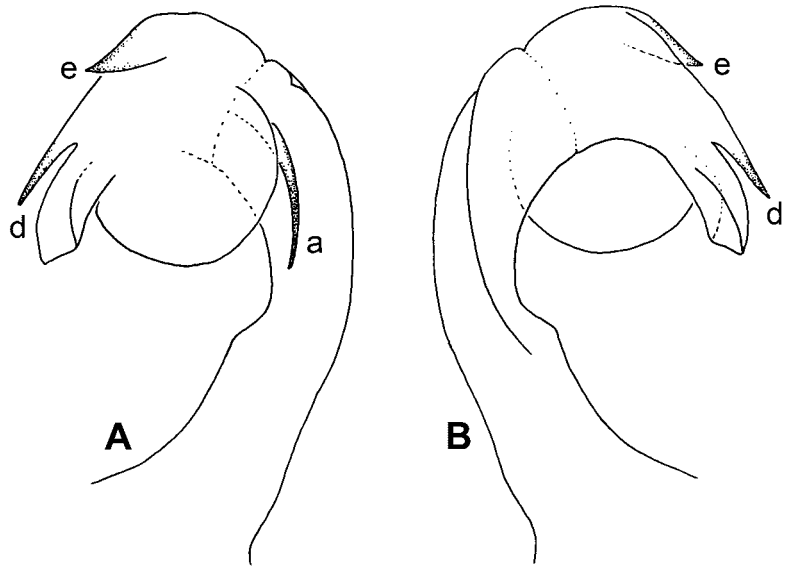

FIGURE 12. *Aquaelicium brunnescens* (lectotype, discoloured by age): A, B aedeagus, (A) left lateral (B) right lateral.

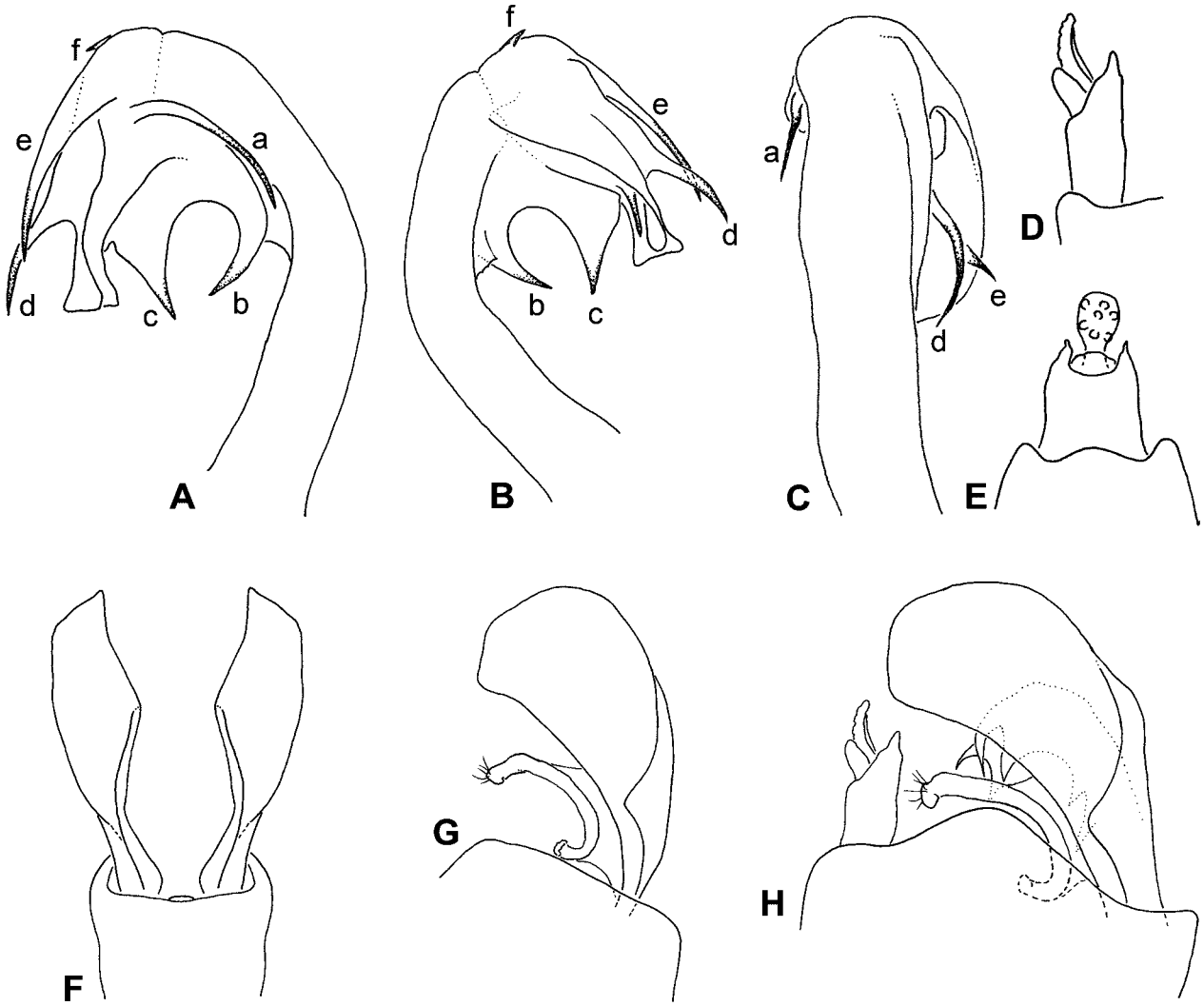

FIGURE 13. *Aquaelicium elegantulum*: A, B, C aedeagus, (A) left lateral (B) right lateral (C) ventral; D, E anal tube; F, G genital styles, (F) ventral (G) left lateral; H genital capsule.

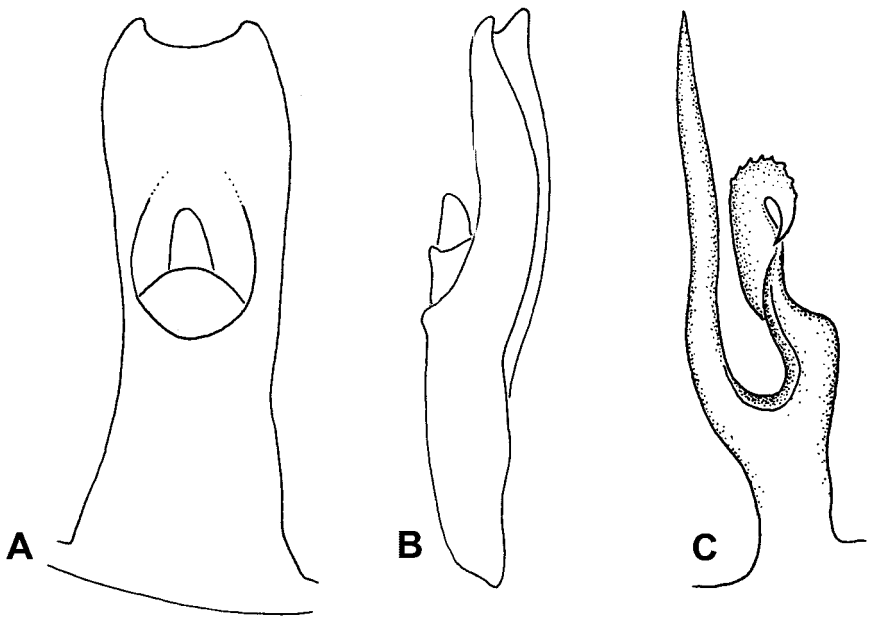

FIGURE 14. *Paraphenice aurea*: A, B anal tube; C ventromedian process of pygofer.

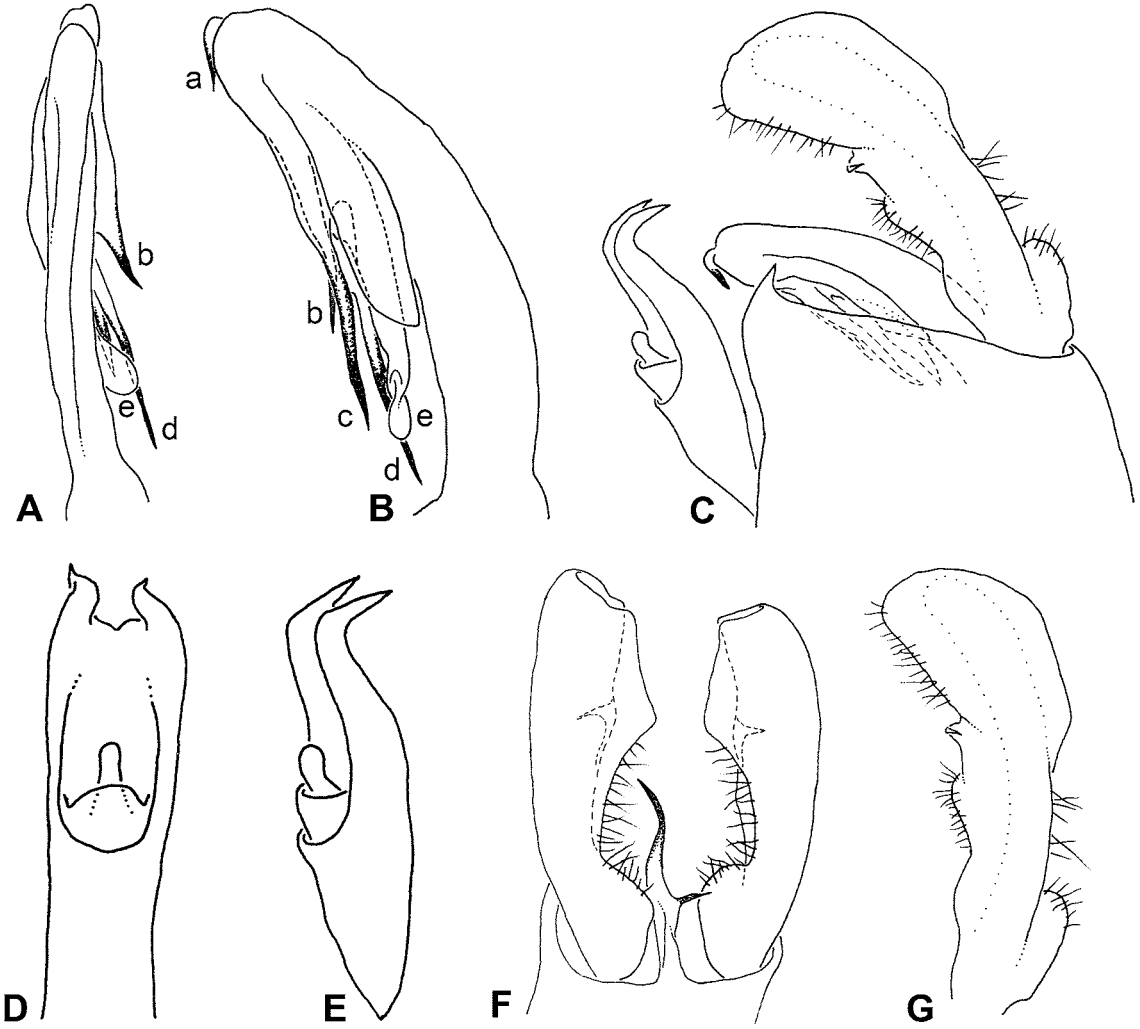

FIGURE 15. *Paraphenice bimaculata*: A, B aedeagus, (A) ventral (B) left lateral; C genital capsule; D, E anal tube; F, G genital styles, (F) ventral (G) left lateral.

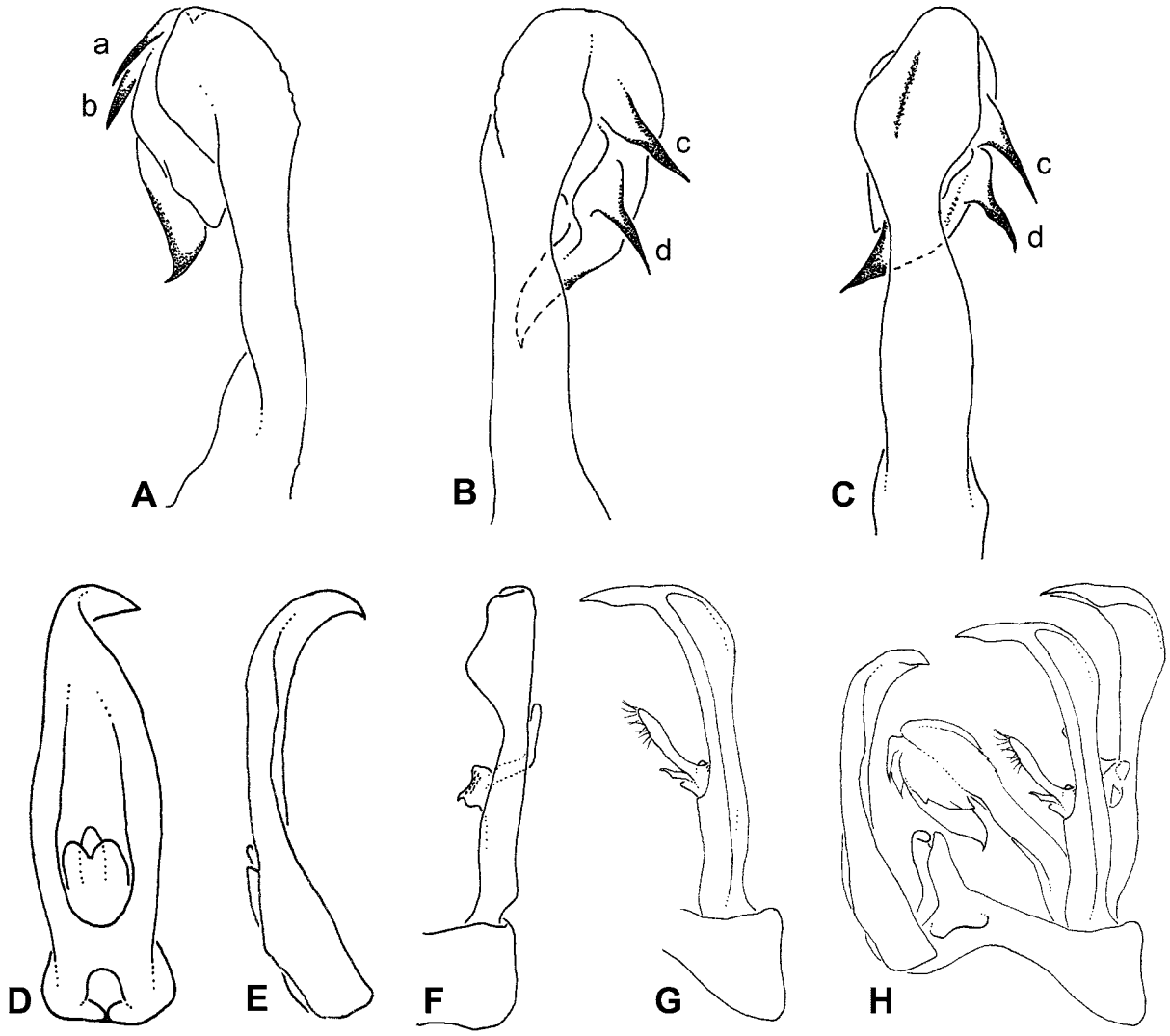

FIGURE 16. *Vekunta bri*: A–C aedeagus, (A) left lateral (B) ventral (C) ventrolateral; D, E anal tube; F, G genital style, (F) ventral (G) left lateral; H genital capsule.

Colour. Head, pronotum and mesonotum black except for pale yellow carinae, antennae and first segment of rostrum. Forewing dark brown to black with white marks as in Figs 10B–D. Legs pale yellow. Abdominal sternites black with yellowish or reddish spots.

Morphology. Body length: male 2.4–2.6 mm (incl. wings 6.3–6.6 mm), female 2.5–3.0 mm (incl. wings 7.0–7.2 mm).

Head: Vertex with shallowly v-shaped basal emargination. Median carina present on vertex, absent of frons. Lateral carinae of vertex and frons smooth, without granules. Frons extremely narrow, lateral carinae parallel. Frontoclypeal suture straight. Postclypeus with prominent median carina and moderately developed lateral carinae. Anteclypeus with moderately developed median and lateral carinae. Rostrum surpassing hind coxae. Eyes not reaching to base of clypeus. Head without subantennal processes. Antennae much shorter than frons. Second antennal segment small, ovate, less than twice as long as wide.

Thorax: Thorax wider than head. Hind margin of pronotum rectangular to obtusely angled. Mesonotum strongly convex, in lateral view distinctly raised above the vertex. Mesonotum with three, well developed, longitudinal carinae. Forewing with all median sectors single. Claval veins without a ridge of setiferous tubercles. Hindwing about half as long as forewing; apex rounded. Resting position with wings spread as in Fig. 10A–D. Hind leg: tibia without lateral spines; tibia with 4 apical teeth with the outermost spine separated from the other 3 spines by a large diastema; 1st tarsomere with 7 apical teeth and no platellae; 2nd tarsomere

with 7–9 apical teeth and no platellae. Forewing 6.3–7.6 times longer than wide (at level of apex of clavus), wing distinctly widening posterior of apex of clavus, forewing 3.7–4.2 times longer than wide (maximum width).

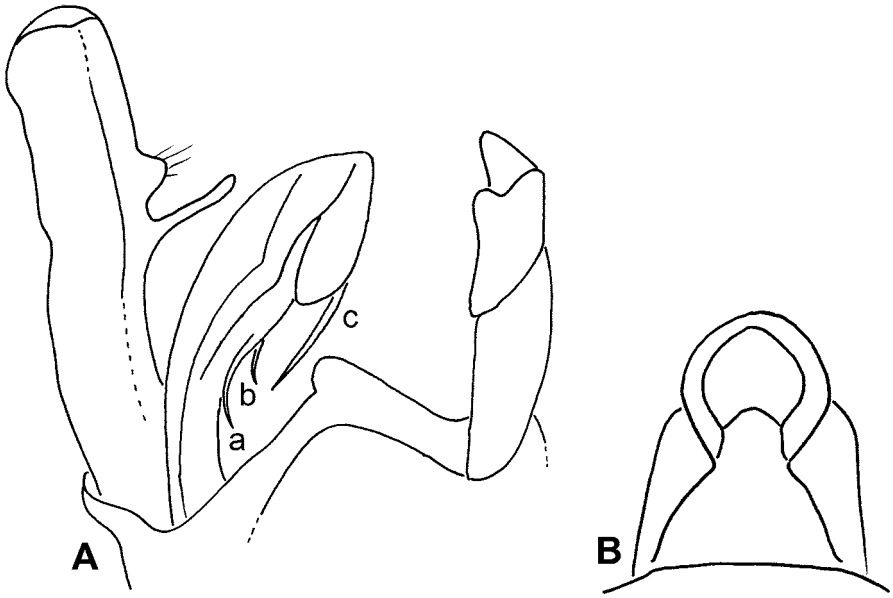

FIGURE 17. *Sikaiana albomaculata*: A genital capsule; B anal tube.

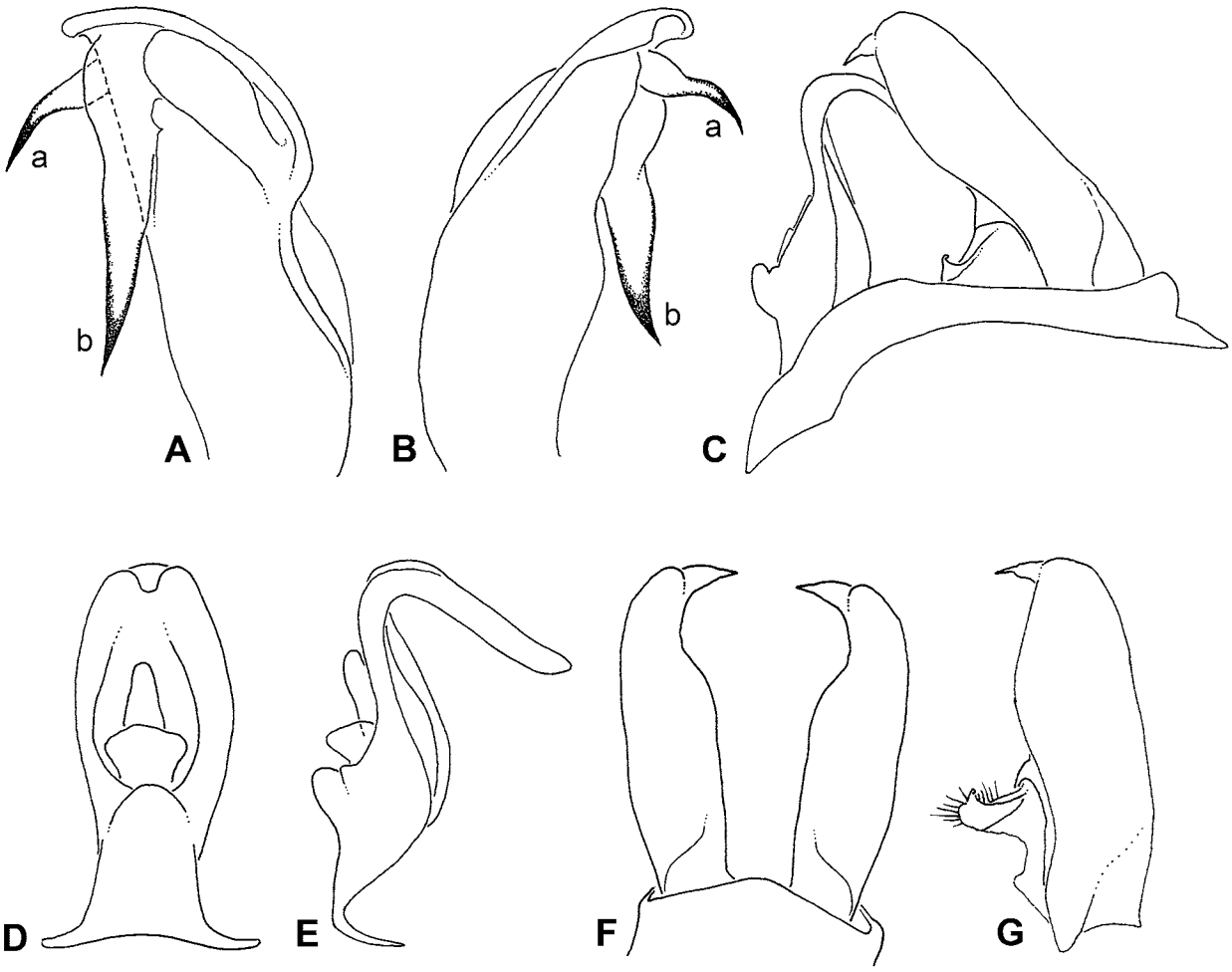

FIGURE 18. *Proutista moesta*: A, B aedeagus, (A) left lateral (B) right lateral; C genital capsule; D, E anal tube; F, G genital styles, (F) ventral (G) left lateral.

Male genitalia: Anal tube in left lateral view s-shaped with a very long apical lobe as in Figs 18D–E; pygofer ventrally rounded, ventromedian process absent as in Fig. 18F; genital styles apically with a pointed tip, dorsally with a partly sclerotised, hook-shaped process below midlength as in Figs 18F–G. Aedeagus as in Figs 18A–B; ventrally with two longitudinal ridges, left lateral with a spoon-shaped flap, apically with two prominent spines, spine (a) about half as long as spine (b).

Distribution. Seychelles (La Digue, Mahé, Praslin, Silhouette), Indonesia, India, Philippines, Sri Lanka, Taiwan, China, Malaysia, Borneo, Japan, Guam, Singapore, Tanzania.

Discussion

The derbid fauna of granitic Seychelles comprises ten species. One of them, *Proutista moesta*, is an introduced alien species. All other species are native and endemic to Seychelles. Four of the seven genera are endemic, indicating the long-term isolation of Seychelles. The high degree of isolation and co-evolution is also reflected in host plant utilization: all endemics are feeding on endemic palms and screwpines (similar to the Mascarenes, see Attié et al. 2008). *Vekunta bri* is the only exception as it was found on shrubs. A world revision of *Vekunta* would be worthwhile to enlight the status of *Vekunta bri* on Seychelles.

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