ACTA ENTOMOLOGICA
MUSEI NATIONALIS PRAGAE
ISSN 1804-6487 (online) – 0374-1036 (print)

2025
65(1): 95–104
doi: 10.37520/aemnp.2025.008
www.aemnp.eu

RESEARCH PAPER

Notes on plant bugs from New Caledonia with descriptions of two new species of the genus *Bolbomiris* (Hemiptera: Heteroptera: Miridae)

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Accepted:
24th March 2025

Published online:
14th June 2025

Abstract. Two new species of *Bolbomiris* Hosseini & Cassis, 2019, *B. picpinensis* Gierlasiński & Taszakowski sp. nov. and *B. koghi* Gierlasiński & Taszakowski sp. nov., are diagnosed and described. Photographic images of habitus and male genital structures, as well as scanning electron micrographs of selected structures of these species, are provided. An updated key to the species of *Bolbomiris* is presented. Additionally, the paper also presents new localities of *Bolbomiris cola* Hosseini & Cassis, 2019, *Bolbomiris samuelsoni* Hosseini & Cassis, 2019, as well as *Peritropis bicolor* Gorczyca, 1999 and *Kanakamiris krypton* Cassis & Monteith, 2006 (Cylapinae), *Fingulus novocaledonicus* Stonedahl & Cassis, 1991 (Deraeocorinae), and *Coridromius variegatus* (Montrouzier, 1861) (Orthotylinae). The occurrence of scopula in *Bolbomiris* and other plant bugs is briefly discussed.

Key words. Hemiptera, Heteroptera, Miridae, Deraeocorinae, Hyaliodini, biodiversity, hot spot, new species, scopula, taxonomy, true bugs, New Caledonia, Australian Region

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Introduction

The tribe Hyaliodini was first established by Carvalho & Drake (1943). Since its inception, the taxonomic classification of this group has undergone several revisions and has been the subject of an ongoing debate (Knight 1943, Carvalho 1952, Henry & Ferreira 2003, Hosseini & Cassis 2019, Kim et al. 2023). According to the most recent research (Kim et al. 2023), Hyaliodini is recognized as a monophyletic group within the subfamily Deraeocorinae. They are characterized by the following traits: straight posterior margin of the pronotum, hyaline hemelytra, regular and dense punctation on the R + M vein, broad embolium area, abdomen not reaching the apex of the cuneus, and blunt hypophysis of the right paramere (Kim et al. 2023).

Hyaliodini is currently represented in New Caledonian fauna by eighteen endemic species grouped in five genera (Hosseini & Cassis 2019, Gierlasiński & Taszakowski 2024, Gierlasiński et al. 2024).

During the examination of the Heteroptera material deposited in the Upper Silesian Museum (Bytom, Poland) (USMB), eight specimens of the genus *Bolbomiris* Hosseini & Cassis, 2019 from New Caledonia were found, based on which we describe two new species in this paper. Images of habitus and male genitalia, along with scanning electron micrographs of selected morphological structures, are provided. Moreover, new localities of *Bolbomiris cola* Hosseini & Cassis, 2019, *Bolbomiris samuelsoni* Hosseini & Cassis, 2019, as well as *Peritropis bicolor* Gorczyca, 1999, *Kanakamiris krypton* Cassis & Monteith, 2006 (Cylapinae), *Fingulus novocaledonicus* Stonedahl & Cassis, 1991 (Deraeocorinae), and *Coridromius variegatus* (Montrouzier, 1861) (Orthotylinae) are also given.

When preparing the checklist of the Miridae of New Caledonia (Gierlasiński & Taszakowski 2024), the authors omitted the recently described species – *Felisacus schuhi* Namyatova & Cassis, 2016 (Bryocorinae). Thus, the total number of plant bug species (including those described in this work) known from New Caledonia is 72.

Material and methods

The studied specimens come from the collection of New Caledonian true bugs deposited in the Upper Silesian Museum (Bytom, Poland), which includes specimens collected during two Polish expeditions to New Caledonia (December 2006 – by Marek Wanat and Roland Dobosz, and March–April 2008 – by Roland Dobosz) (Taszakowski et al. 2019).

The photographs of type specimens were taken in the Laboratory of Insect Anatomy and Morphology of the Institute of Biology, Biotechnology and Environmental Protection, the University of Silesia in Katowice (Katowice, Poland). The focus-stacked colour photographs were prepared with a Leica M205C stereo microscope with a high diffuse dome illumination Leica LED5000 HDI, Leica Flexacam C3 digital camera, and LasX ver. 5.1.025593 software. The pygophores were imaged using the above equipment, other genital structures were obtained using a Leica DM 3000 upright light microscope with a Leica MC 190 HD digital camera and Leica application suite 4.12.0 software.

SEM micrographs were prepared in the Educational Laboratory of Scanning Microscopy, Institute of Biology, Biotechnology and Environmental Protection, the University of Silesia in Katowice (Katowice, Poland) using a Phenom XL scanning electron microscope (Phenom-World B.V., Eindhoven, The Netherlands) at 15 kV accelerating voltage with a BackScatter Detector (BSD). Specimens were uncoated. To obtain high-quality figures, fragments of specimens (for both light microscopy and SEM) were imaged at high magnifications.

Images were combined using the Image Composite Editor (panoramic image stitcher). The figures were prepared using Adobe Photoshop 2025 graphic editor. Measurements were made with LasX ver. 5.1.025593 software and presented in millimeters (mm).

Male genitalia were separated from the insect body using standard entomological pins. Then, they were boiled three times (about five minutes in total) in a 10% potassium hydroxide (KOH) solution and consequently dissected. The morphological terminology follows Hosseini & Cassis (2019) and Schuh & Weirauch (2020).

The map was prepared in SAGA GIS 7.1.1 (http://www.saga-gis.org) using WGS84 datum and EPSG: 3395 (World Mercator cylindrical projection).

Detailed label data are cited in their original form. A backward slash (\) separates the rows on the label, and a double backslash (\\) separates individual labels. The following abbreviations of the depositories are used:

MNHN Muséum national d'Histoire naturelle, Paris, France;
USMB Upper Silesian Museum, Bytom, Poland.

Taxonomy

Family Miridae Hahn, 1833

Subfamily Deraeocorinae Douglas & Scott, 1865
Tribe Hyaliodini Carvalho & Drake, 1943

Genus *Bolbomiris* Hosseini & Cassis, 2019

Bolbomiris cola Hosseini & Cassis, 2019

Material examined. 1 ♂, "NEW CALEDONIA (S) \ Pic du Pin; base, 280 m \ 22°14.9'S 166°49.7'E \ 25.12.2006, forest; night coll. \ leg. R. Dobosz & M. Wanat" \\ 5915/27466 \\ MB0408271 (USMB); 1 ♀, "NEW CALEDONIA (S) \ Dzumac Mts.; 900 m \ 22°01.9'S 166°28.0'E \ 30.12.2006, netting \ leg. R. Dobosz & M. Wanat" \\ 5915/10537 \\ MB0408307 (USMB).

Biology. Unknown. The specimens were collected in the rainforest (Fig. 2).
Distribution. This species is endemic to New Caledonia and was previously known from four localities on this island (Fig. 1) (Hosseini & Cassis 2019).

Bolbomiris koghi Gierlasiński & Taszakowski sp. nov.

(Figs 3–5)

Material examined. Holotype: ♀, "NEW CALEDONIA (S) \ Mt. Koghi; 450-500 m \ 22°10.7'S 166°30.4'E \ 16.12.2006, rainforest \ leg. R. Dobosz" \\ 5915/2844 \\ MB0408247 \\ HOLOTYPE \ *Bolbomiris koghi* \ Gierlasiński & \ Taszakowski, 2025 (MNHN). Paratype: 1 ♀, "NEW CALEDONIA (S) \ Mt. Koghi; 450-500 m \ 22°10.7'S 166°30.4'E \ 16.12.2006, rainforest \ leg. R. Dobosz" \\ 5915/2820 \\ MB0408371 \\ PARATYPE \ *Bolbomiris koghi* \ Gierlasiński & \ Taszakowski, 2025 (USMB). Holotype is glued on the card.

Diagnosis. *Bolbomiris koghi* Gierlasiński & Taszakowski sp. nov. is recognized by the following combination of characters: dorsum brown, hemelytra slightly lighter than pronotum, cuneus reddish in color; scape mostly pale, pronotum uniformly brown; scutellum dark brown with whitish apical part; body length in female 3.10 mm; scape relatively long, in female almost as long as head width, and two times as long as interocular distance; pedicel in female 2.30× as long as head width; anterior margin of pronotum over three times shorter than posterior margin.

Fig. 1. Distribution map of *Bolbomiris cola* Hosseini & Cassis, 2019 in New Caledonia (yellow circles – published localities, red triangles – new ones).

Description. ***Female.*** Body elongate-ovoid, length 3.10 mm (Fig. 3).

Colouration. Dorsum brown, partially light brown. Head brown to reddish. Eyes blackish with reddish parts at edges. Antennae: scape mostly stramineous, darker at base, with a few red spots on inner side (Fig. 3D); pedicel stramineous with darkened apical part (Fig. 3A); flagellum darkened. Labium: all segments yellowish, last one slightly darkened. Pronotum brown (Figs 3A–C). Scutellum dark brown with whitish spot at apex (Figs 3A, B). Hemelytra reddish-brown to brown; clavus dark brown; corium brown to light brown; embolium light brown; R + M vein blackish; cuneus reddish (Fig. 3A); membrane light brown with transparent apical part (Fig. 3C). Thoracic pleura yellowish with reddish peritreme. All legs distinctly bicoloured; femora reddish to dark brown; tibiae dark brown in basal half, stramineous in apical part (Fig. 3C). Abdomen dark brown to reddish.

Vestiture. Dorsum as well as eyes without setae. Antennae: scape without setae (Figs 3D, 4E), pedicel and flagellomeres with very short setae. Pronotum: without setae. Scutellum without setae. Legs: femora and tibiae with sparse setae, tarsi with dense and long setae (Figs 4D, F).

Texture. Head with longitudinal groove between eyes (Fig. 4A), pronotum densely punctate, except for callar region (Fig. 4B); scutellum impunctate (Figs 3A, B); hemelytra very delicately and irregularly punctate, in some parts impunctate; clavus irregularly punctate, base of R + M vein with row of deep punctures (Figs 3A, B); propleuron impunctate.

Structure. Antennae: scape almost as long as head width, 2× as long as interocular distance; total length of scape and pedicel 0.80× as long as body length, pedicel 2.31× as long as head width, 1.21× as long as posterior width of pronotum. Pronotum: mesal length 0.53× as long as maximal width of pronotum; anterior margin of pronotum over three times narrower than maximal width of pronotum. Scutellum: slightly tumid. Hemelytra: Fig. 3A. Thoracic pleura and scent efferent system of metathoracic scent gland: Fig. 4C. Legs: Figs 3C, 4D.

Measurements. Female (n = 2, holotype / paratype, mm). Body. Length, clypeus–apex of membrane: 3.10 / 3.11; width: 1.41 / 1.41. Head. Length (perpendicular view): 0.46 / 0.46; width, including compound eyes: 0.74 / 0.72; interocular distance: 0.36 / 0.34; eye dorsal width: 0.19 / 0.19. Antenna. Length of antennomere I: 0.72 / 0.75; II: 1.71 / 1.71; III: 0.93 / missing; IV: 0.56 / missing. Pronotum. Mesal length: 0.75 / 0.81; anterior pronotal width: 0.44 / 0.45; posterior pronotal maximal width (straight): 1.41 / 1.42. Scutellum. Anterior width: 0.53 / 0.50; mesal

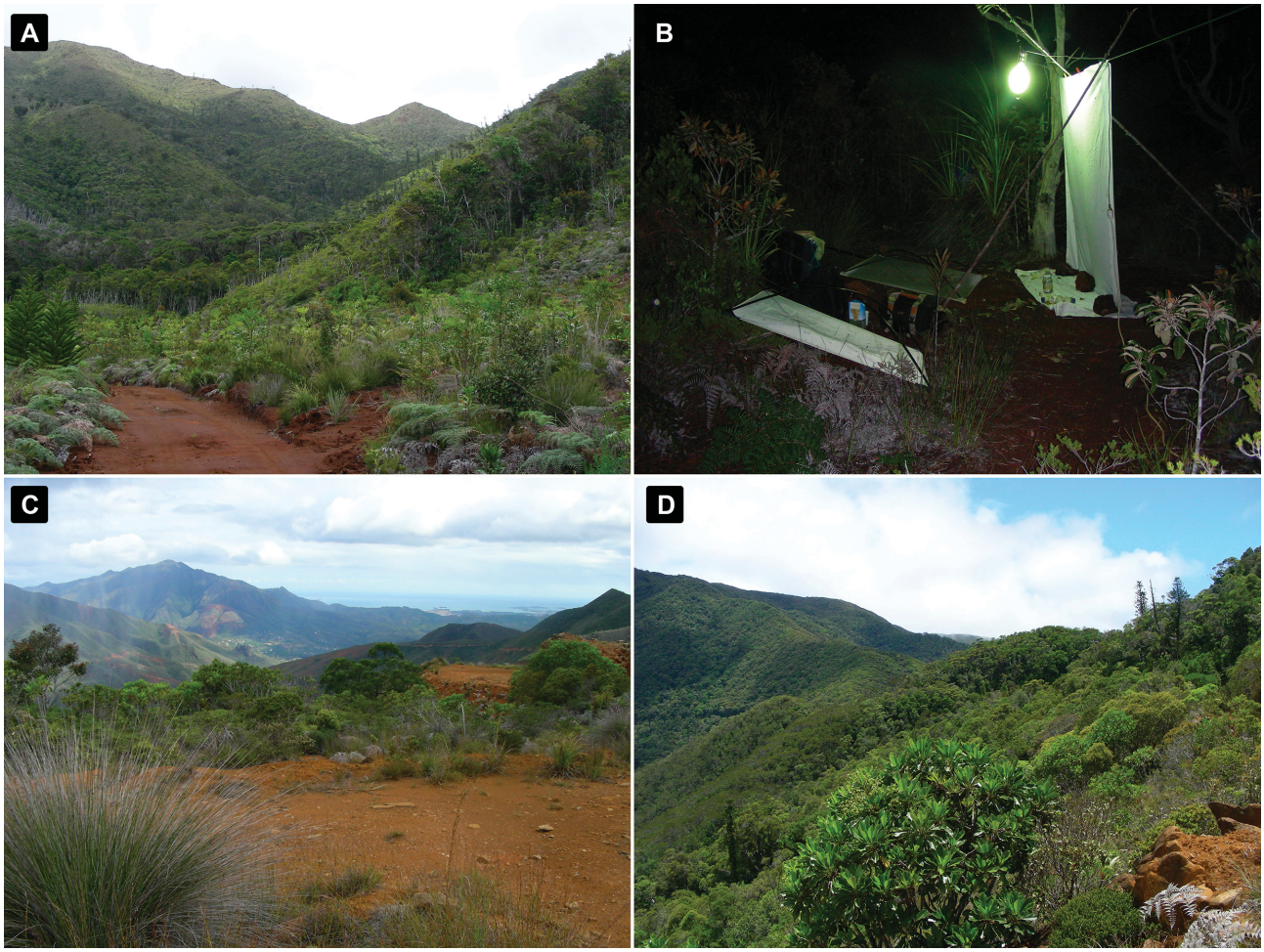

Fig. 2. Collection sites. A – Pic du Pin, 25.xii.2006. Photo by M. Wanat. B – Pic du Pin, 25.xii.2006, night collection with light trap. Photo by M. Wanat. C–D – Dzumac Mts. Photo by R. Dobosz.

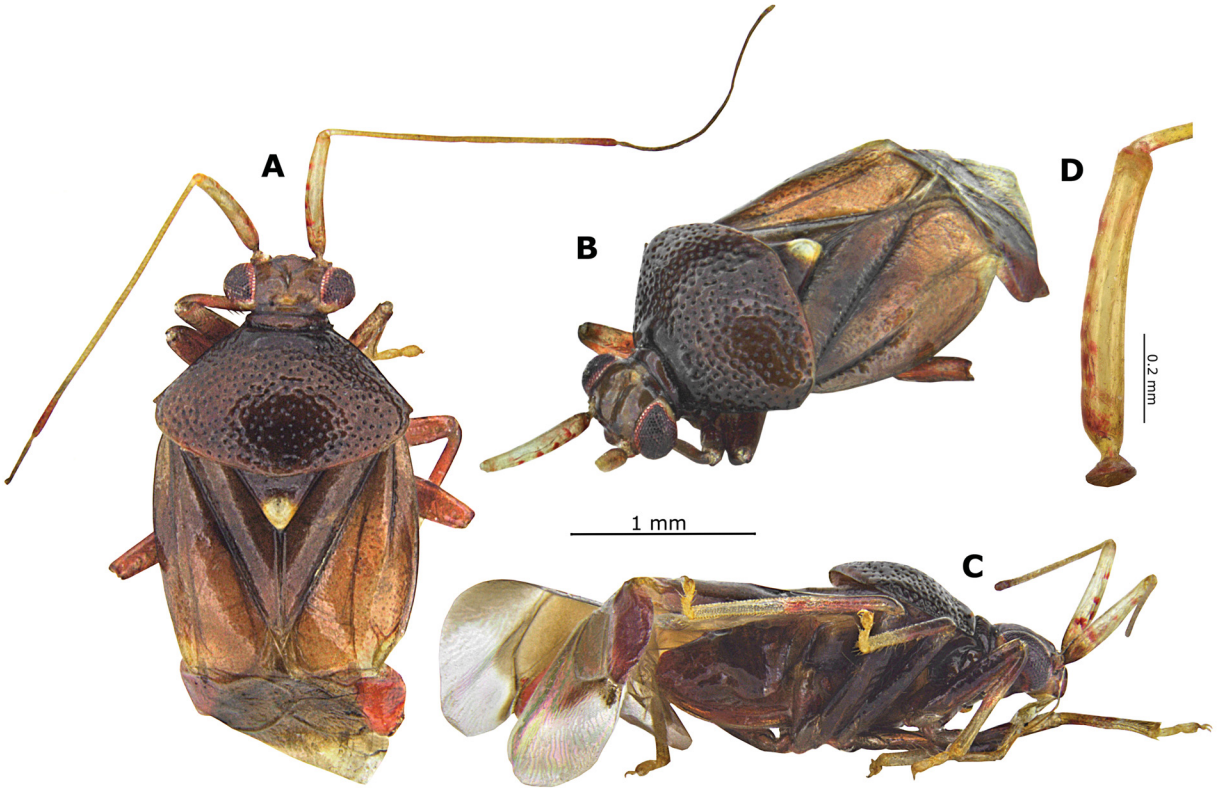

Fig. 3. *Bolbomiris koghi* Gierlasiński & Taszakowski sp. nov.: A – holotype, female, dorsal view. B–D – paratype, female (B – antero-dorso-lateral view; C – lateral views; D – scape).

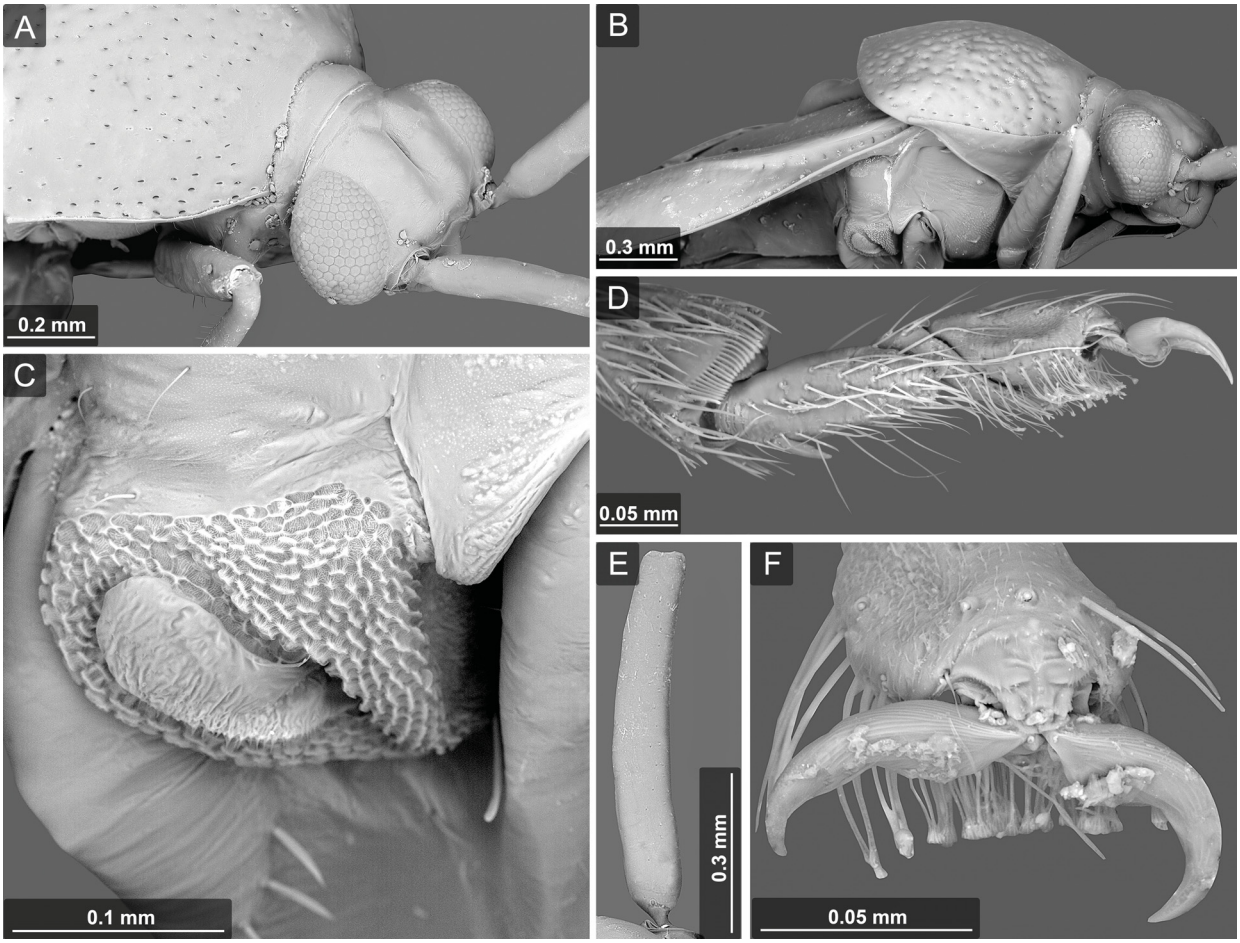

Fig. 4. *Bolbomiris koghi* Gierlasiński & Taszakowski sp. nov., holotype, female, SEM micrographs. A – head and pronotum in antero-latero-dorsal view; B – head, pronotum and hemelytra in lateral view; C – metathoracic scent gland peritreme; D – protarsus in lateral view; E – scape; F – pretarsal structures of protarsus.

length: 0.33 / 0.35. Hemelytron. Claval commissure: 0.55 / 0.58; outer margin length of cuneus (straight): 0.63 / 0.52.
Etymology. The species is named after its locus typicus, Mt. Koghi. Noun in apposition.
Biology. Unknown. The type specimens were collected in the rainforest.
Distribution. *Bolbomiris koghi* Gierlasiński & Taszakowski sp. nov. is known only from the type locality in New Caledonia (Fig. 5).

Bolbomiris picpinensis Gierlasiński & Taszakowski sp. nov.

(Figs 5, 6–8)

Material examined. Holotype: ♂, "NEW CALEDONIA (S) \ Pic du Pin; base, 280 m \ 22°14.9'S 166°49.7'E \ 25.12.2006, forest; at light \ leg. R. Dobosz & M. Wanat" \\ 5915/9837 \\ MB0407786 \\ HOLOTYPE \ *Bolbomiris* \ *picpinensis* \ Gierlasiński & \ Taszakowski, 2025 (MNHN). Holotype and its genitalia are glued on the card.

Diagnosis. *Bolbomiris picpinensis* Gierlasiński & Taszakowski sp. nov. is recognized by the following combination of characters: dorsum distinctly bicolored, ranging from dark brown to yellowish, partially reddish in color; pronotum brown with shades ranging from light brown to dark brown; scutellum dark brown, with yellow edges near the apex; clavus entirely dark brown; body length in male 3.90 mm; scape relatively long, in male 0.90× as long as head width, and over 2.50× as long as interocular distance; pedicel in male 2.25× as long as head width; vertex medially with a prominent groove; anterior margin of pronotum about two times shorter than posterior margin. Left paramere with very long setae on sensory lobe.
Description. ***Male.*** Body elongate-ovoid, length 3.90 mm (Fig. 6A).

Colouration. Dorsum bicolored, ranging from dark brown to yellowish, sometimes reddish in color. Head brown. Eyes blackish with reddish parts at edges. Antennae: scape yellowish with reddish basal part; pedicel yellowish with darkened apical part (Fig. 6); flagellomeres missing. Labium: all segments stramineous, tip of last one darkened. Pronotum brown with slightly reddish lateral parts, anterior margin colored dark brown (Figs 6A, B). Scutellum dark brown with yellow edges near apex (Figs 6A, B). Hemelytra yellowish to brown; clavus dark brown; corium brown to yellowish brown; embolium yellowish; R + M vein dark brown; cuneus yellowish, with reddish inner margins; membrane blackish, veins reddish (Fig. 6A). Thoracic pleura and external scent efferent system of metathoracic scent gland yellowish to reddish. All legs yellowish; tibiae with rows of black dots (Fig. 6). Abdomen yellowish to reddish-brown.

Vestiture. Dorsum without setae. Eyes without setae. Antennae: scape and pedicel with a few short setae. Pronotum without setae. Scutellum without setae. Legs with sparse, short setae.

Texture. Head (Fig. 7A) and pronotum densely punctate, except for callar region (Fig. 7A); scutellum impunctate (Fig. 7B); hemelytra delicately and irregularly punctate, in some parts impunctate; clavus irregularly punctate, base of R + M vein with row of punctures; propleuron impunctate.

Structure. Antennae: scape 0.90× as long as head width, 2.52× as long as interocular distance; total length of scape and pedicel 0.70× as long as body length, pedicel 2.25× as long as head width, 1.38× as long as posterior width of pronotum. Pronotum: mesal length 0.64× as long as maximal width of pronotum; anterior margin of pronotum twice as narrow as maximal width of pronotum. Hemelytra and legs: Figs 5A, B.

Male genitalia. Pygophore (Fig. 8A), aedeagus (Fig. 8B), left paramere: sensory lobe with very long setae, apophysis spatulate (Figs 8D–F); right paramere: lateral edges non-parallel, both sides curved, without projection (Fig. 8C); endosoma with long ductus seminis and elongate secondary gonopore.

Measurements. Male (n = 1, mm). Body. Length, clypeus–apex of membrane: 3.90; width: 1.61. Head. Length (perpendicular view): 0.54; width, including compound eyes: 0.87; interocular distance: 0.31; eye dorsal width: 0.29. Antenna. Length of antennomere I: 0.78; II: 1.96; III: missing; IV: missing. Pronotum. Mesal length: 0.90; anterior pronotal width: 0.67; posterior pronotal maximal width (straight): 1.42. Scutellum. Anterior width: 0.50; mesal length: 0.62. Hemelytron. Claval commissure: 0.66; length of hemelytra: 2.35.
Etymology. The species is named after its type locality, Pic du Pin; an adjective.
Biology. Unknown. The specimen was collected in the forest and attracted to light (Fig. 2B).
Distribution. *Bolbomiris picpinensis* Gierlasiński & Taszakowski sp. nov. is known only from the type locality in New Caledonia (Fig. 5).

Fig. 5. Distribution map of *Bolbomiris koghi* Gierlasiński & Taszakowski sp. nov. (red triangle) and *B. picpinensis* Gierlasiński & Taszakowski sp. nov. (yellow circle) in New Caledonia.

Bolbomiris samuelsoni Hosseini & Cassis, 2019

(Fig. 9)

Material examined. 1 ♂, "NEW CALEDONIA (S) \ Dzumac Mts.; 900 m \ 22°01.9'S 166°28.0'E \ 29.12.2006, bitting \ leg. R. Dobosz & M. Wanat" \\ 5915/10465 \\ MB0408368 (USMB); 1 ♀, "NEW CALEDONIA (S) \ Dzumac Mts.; 900 m \ 22°01.9'S 166°28.0'E \ 28.12.2006 \ leg. R. Dobosz & M. Wanat" \\ 5915/4082 \\ MB0407676 (USMB); 1 ♀, "NEW CALEDONIA (S) \ Dzumac Mts.; 900 m \ 22°01.9'S 166°28.0'E \ 28.12.2006 \ leg. R. Dobosz & M. Wanat" \\ 5915/4096 \\ MB0407868 (USMB).

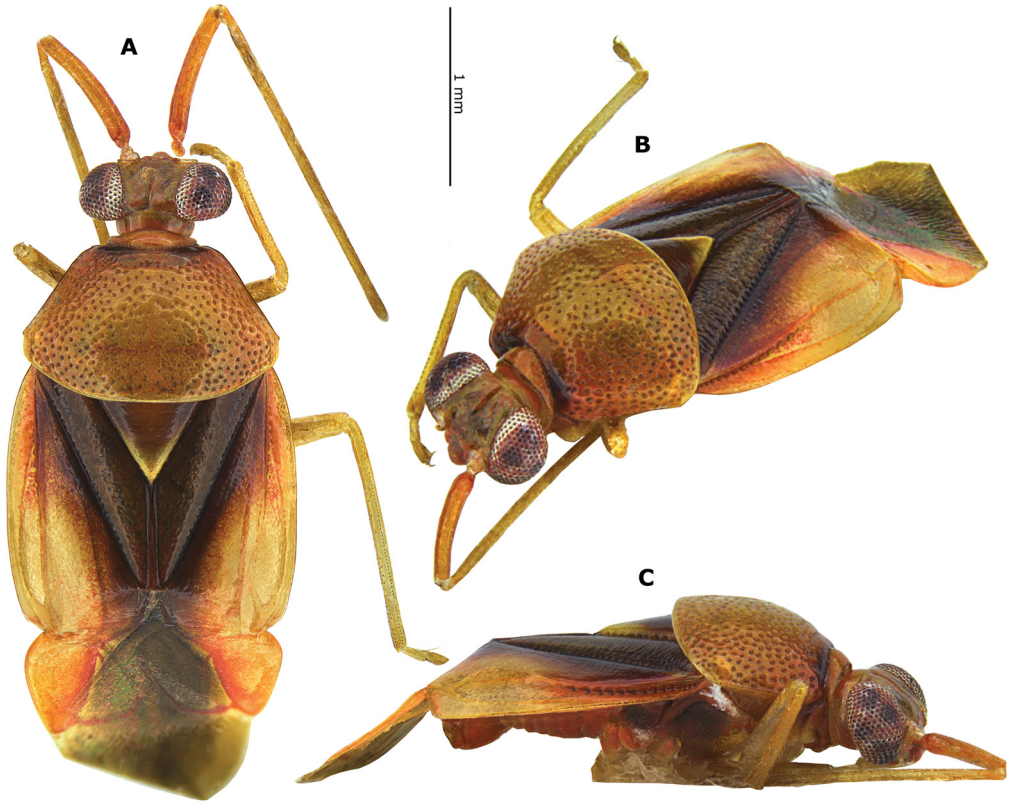

Fig. 6. *Bolbomiris picpinensis* Gierlasiński & Taszakowski sp. nov., holotype, male (A – dorsal view, B – antero-dorso-lateral view, C – lateral view).

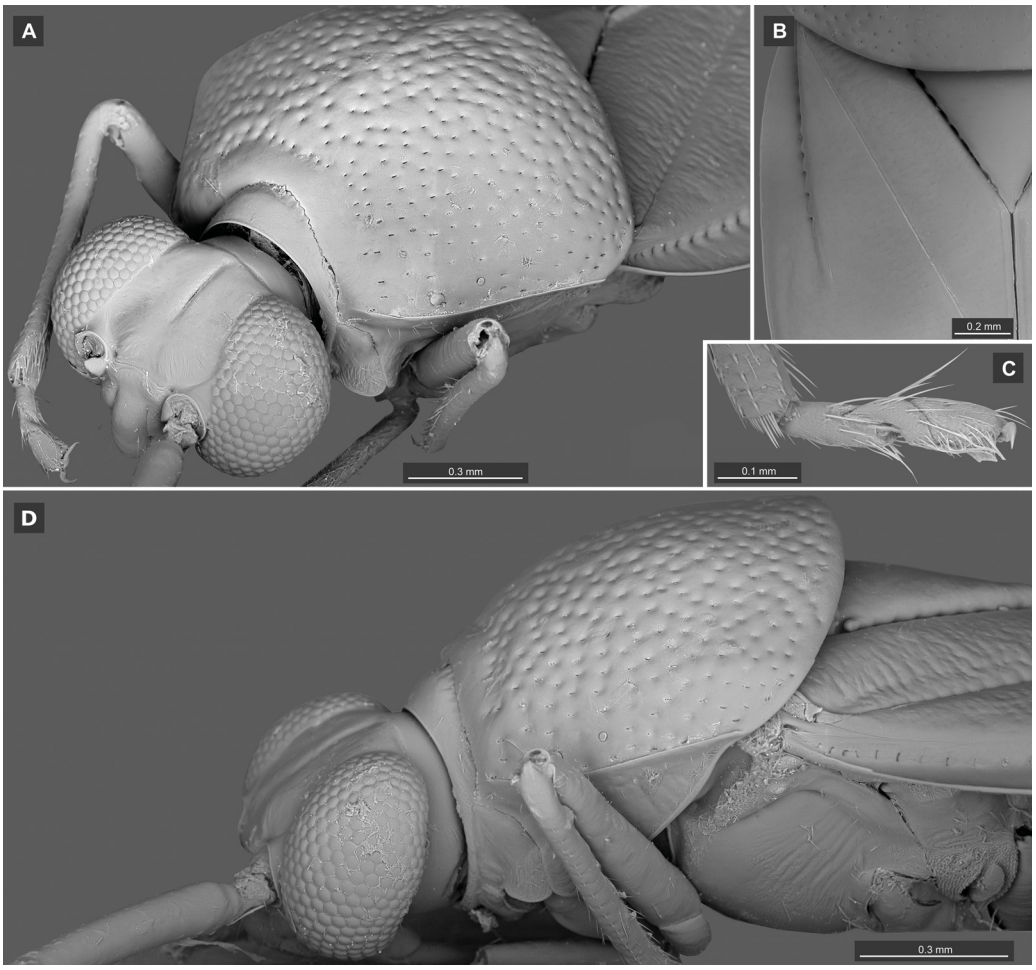

Fig. 7. *Bolbomiris picpinensis* Gierlasiński & Taszakowski sp. nov., holotype, male, SEM micrographs. A – head and pronotum in antero-dorso-lateral view; B – posterior part of pronotum, anterior part of hemelytra, and scutellum in dorsal view; C – metatarsus in lateral view; D – head, pronotum, and scutellum in lateral view.

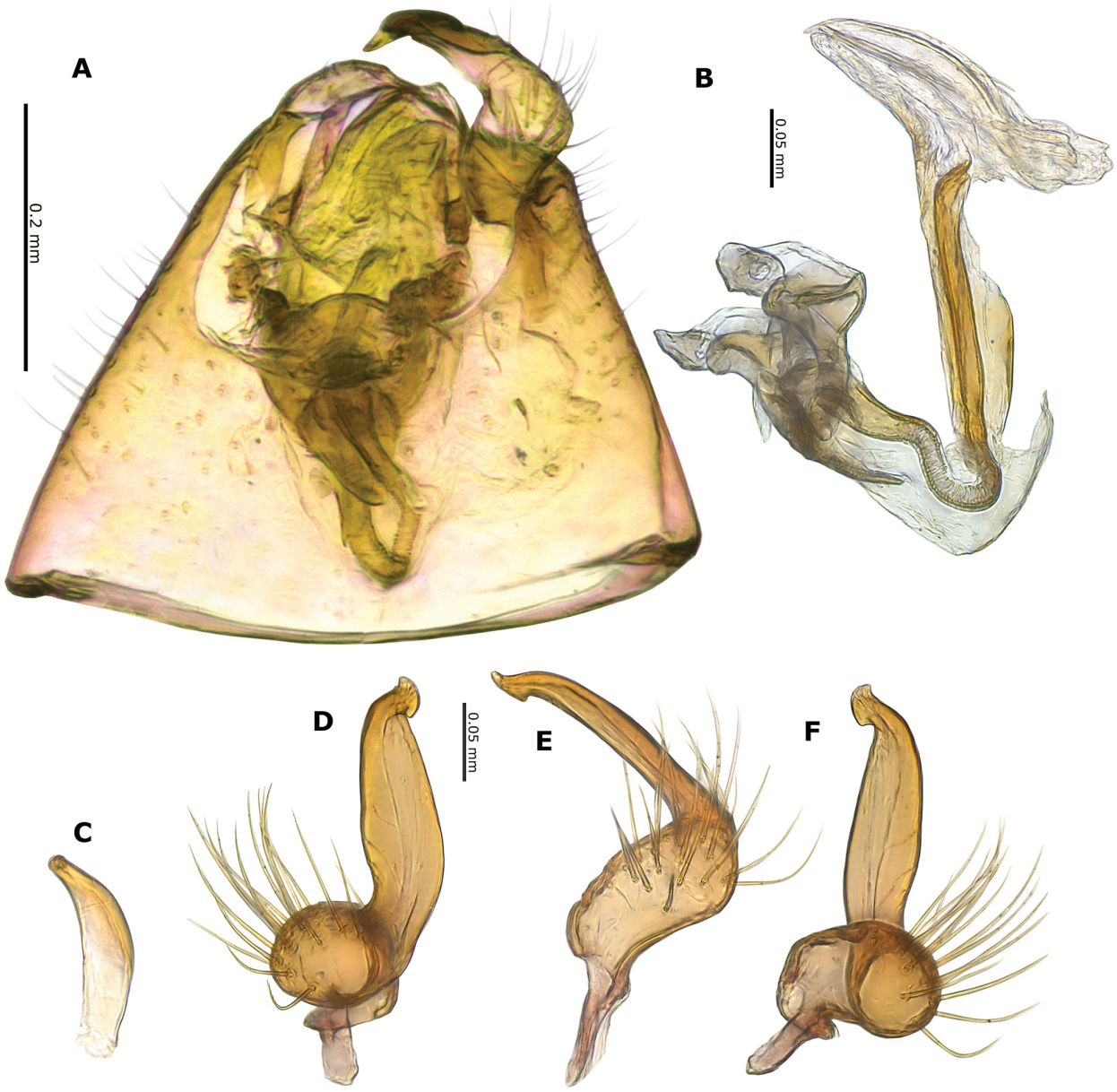

Fig. 8. *Bolbomiris picpinensis* Gierlasiński & Taszakowski sp. nov., male genitalia: A – pygophore; B – aedeagus; C – right paramere; D–F – left paramere shown from different angles to highlight details in structure.

Biology. Unknown. The specimens were collected in the forest (Figs 2C, D).

Distribution. This species is endemic to New Caledonia and was previously known from three localities on this island (Fig. 10) (Hosseini & Cassis 2019).

Bolbomiris sp.

Material examined. A specimen of an unidentified, possibly undescribed *Bolbomiris* has also been photographed near Touho, New Caledonia (20°48′55.08″N, 165°13′44.59″E) on 14 October 2024 by Amaury Durbano (Fig. 10).

Key to New Caledonian species of *Bolbomiris*

(based on Hosseini & Cassis 2019)

1 Pronotum dark brown to black. 2
– Pronotum yellowish to yellowish brown. 3
2 Scape stramineous with red dots on the inner side. .... ***B. koghi*** Gierlasiński & Taszakowski **sp. nov.**
– Scape uniformly to mostly dark brown, sometimes with the distal quarter stramineous. .... ***B. cola*** Hosseini & Cassis, 2019
3 Scutellum and clavus brown, distinctly darker than yellowish pronotum (Fig. 6), left paramere with very long setae on sensory lobe, distinctly longer than the width of this lobe (Figs 8D–F). ..... ***B. picpinensis*** Gierlasiński & Taszakowski **sp. nov.**
– Scutellum and clavus about the same colour as pronotum (Fig. 3), left paramere with short setae on sensory lobe (Hosseini & Cassis 2019: figs 11a–c). .... ***B. samuelsoni*** Hosseini & Cassis, 2019

Fig. 9. Distribution map of *Bolbomiris samuelsoni* Hosseini & Cassis, 2019 in New Caledonia (yellow circles – published localities, red triangle – the new one).

Fig. 10. Unknown species of *Bolbomiris*. Photo: Amaury Durbano – Association Hô-üt.

New records of New Caledonian plant bugs

Subfamily Cylapinae Carvalho, 1957
Tribe Fulviini Uhler, 1886

Peritropis bicolor Gorczyca, 1999

(Figs 11A, B)

Material examined. 1 ♂, "NEW CALEDONIA (N) \ 21°20.196'S 164°57.324'E \ Pindai 50 m \ 18.03.2008 at light \ leg. R. Dobosz & T. Blaik" \\ 5915/26347 \\ MB0408115 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°05.9'S 166°38.3'E \ Riviére Bleue Parc \ 20.12.2006 190 m refuge \ at light \ leg. R. Dobosz" \\ 5915/3968 \\ MB0408165 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°10.648'S 166°30.430'E \ Mt Koghi rainforest \ 06.03.2008 480 m \ netting, beating \ leg. T. Blaik" \\ 5979/203 \\ MB0408066 (USMB).

Distribution. A New Caledonian endemic. So far, it is known from two (type) male specimens (Gorczyca 1999).

Tribe Vanniini Gorczyca, 1997

Kanakamiris krypton Cassis & Monteith, 2006

(Figs 11C, D)

Material examined. 1 ♀, "NEW CALEDONIA (S) \ 22°01.9'S 166°28.0'E \ Dzumac Mts 900 m \ (Mt Ouin road junction) \ 28.12.2006 night collecting \ leg.R. Dobosz & M. Wanat" \\ 5915/1784 \\ MB0407793; 1 ♀ "NEW CALEDONIA (S) \ 22°01.9'S 166°28.0'E \ Dzumac Mts 900 m \ (Mt Ouin road junction) \ 28.12.2006 night collecting \ leg. R. Dobosz & M. Wanat" \\ 5915/1704 \\ MB0407840.

Remarks. A New Caledonian endemic. So far, it is known from a large series of type specimens (Cassis & Monteith 2006).

Subfamily Deraeocorinae Carvalho, 1957
Tribe Deraeocorini Carvalho, 1957

Fingulus novocaledonicus Stonedahl & Cassis, 1991

(Figs 11E, F)

Material examined. 1 ♂, "NEW CALEDONIA (N) \ 21°08.941'S 165°19.407'E \ Aoupinié (refuge) \ 26.03.2008 400 m at light \ leg. R. Dobosz & T. Blaik" \\ 5915/26962 \\ MB0408305 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°18.1'S 166°44.7'E \ Plaine du Champ de Bataille \ 40 m maquis \ 17.12.2006 leg. R. Dobosz, \ M. Wanat & P. Krzyżyński" \\ 5915/25549 \\ MB0408361 (USMB).

Distribution. A New Caledonian endemic. So far, it is known from a few type specimens (Stonedahl & Cassis 1991).

Subfamily Orthotylinae Van Duzee, 1916
Tribe Coridromiini Van Duzee, 1916

Coridromius variegatus (Montrouzier, 1861)

(Figs 11G, H)

Material examined. 1 ♂, "NEW CALEDONIA (S) \ 22°10.7'S 166°30.4'E \ Mt Koghi 420-450 m \ 18.12.2006 maquis \ leg. R. Dobosz & M. Wanat" \\ 5915/25839 \\ MB0408261 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°19.5'S 166°54.9'E \ Forêt Nord 200 m \ 26.12.2006 rainforest \ leg. R. Dobosz & M. Wanat" \\ 5915/27364 \\ MB0408056 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°10.443'S 166°45.760'E \ Bois du Sud camp 210 m \ 24.03.2008 , at light \ rainforest \ leg. R. Dobosz & T. Blaik" \\ 5915/27038 \\ MB0408237 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 22°10.5'S 166°45.8'E \ Bois du Sud 160 m \ 23.12.2006 camp \ leg. R. Dobosz" \\ 5915/8297 \\ MB0408397 (USMB); 1 ♂, "NEW CALEDONIA (S) \ 21° 16.648'S 166° 30.430'E \ Mt Koghi rainforest \ 06.03.2008 480 m \ at light \ leg. R. Dobosz & T. Blaik \\ 5915 / 23529 \\ MB0408344 (USMB); 1 ♀, "NEW CALEDONIA (S) \ 22°05.9'S 166°38.3'E \ Riviére Bleue Parc \ 20.12.2006 190 m refuge \ at light \ leg. R. Dobosz" \\ 5915/7094 \\ MB0408320 (USMB).

Distribution. A relatively frequently recorded species known from New Caledonia and Fiji (Tatarnic & Cassis 2008).

Discussion

Taxonomy and systematics. Both newly described species, *B. koghi* Gierlasiński & Taszakowski sp. nov. and *B. picpinensis* Gierlasiński & Taszakowski sp. nov., belong to the tribe Hyaliodini as they meet the criteria provided by Hosseini & Cassis (2019): broad and transparent embolium, and the presence of punctate R + M vein on hemelytra. Moreover, both of these species belong to the genus *Bolbomiris* because they possess the following characters: body robust, elongate-ovoid to broadly ovoid; head strongly transverse; antennae long and gracile, scape elongate; callar region of pronotum obsolete; pronotum broad, shield-like, strongly convex and strongly punctate; humeral angles broadly rounded; scutellum impunctate,

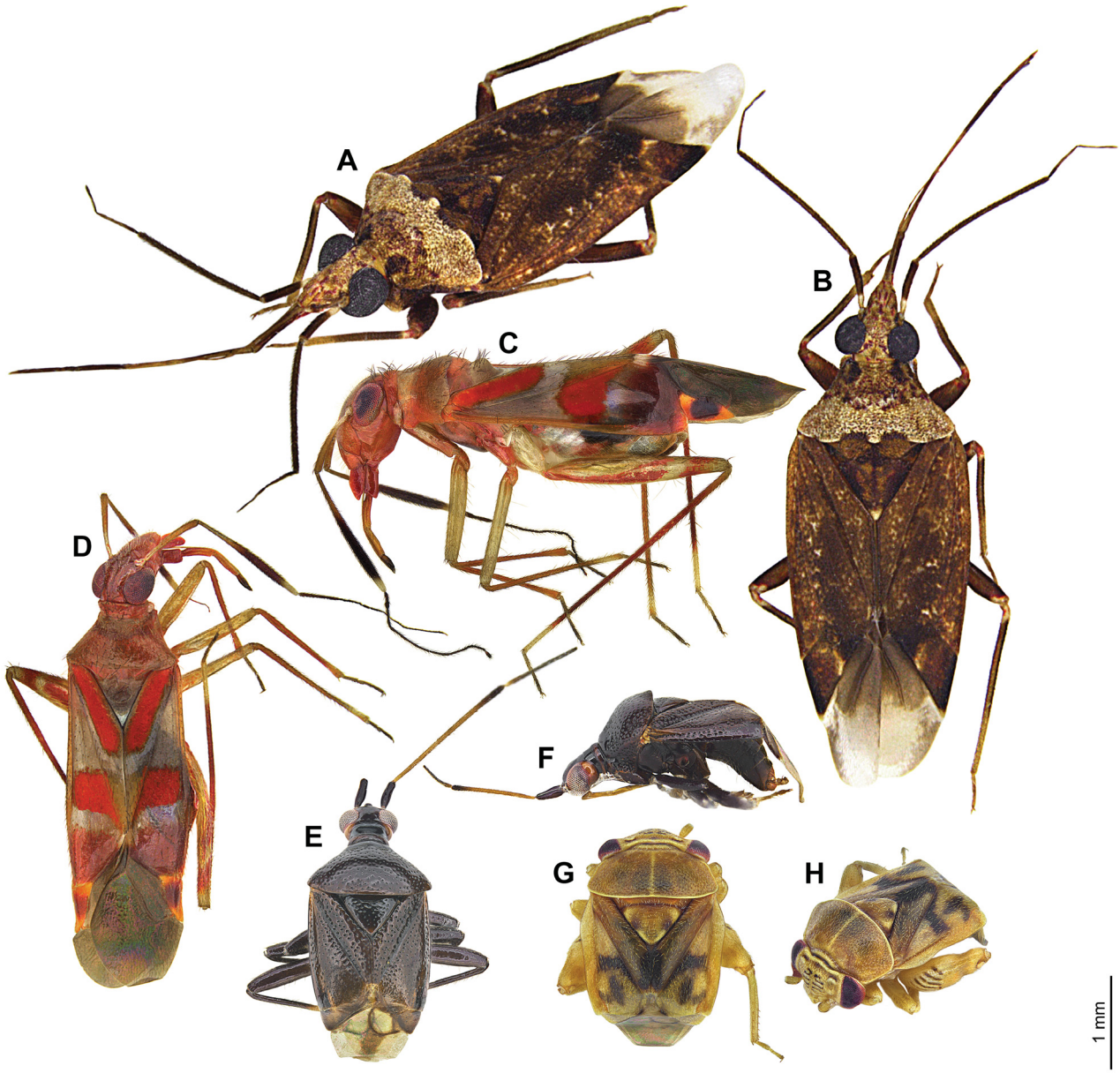

Fig. 11. A–B – *Peritropis bicolor* Gorczyca, 1999, male; C–D – *Kanakamiris krypton* Cassis & Monteith, 2006, female; E–F – *Fingulus novocaledonicus* Stonedahl & Cassis, 1991, male; G–H – *Coridromius variegatus* (Montrouzier, 1861), male.

glabrous; lateral margins of scutellum tuberculate; propleuron impunctate; R + M vein with short row of punctures; hemelytra strongly deflexed; metathoracic scent gland peritreme broad, tongue-like, not reaching dorsal margin of evaporative area.

Bolbomiris koghi Gierlasiński & Taszakowski sp. nov. distinctly differs from its congeners in its relatively small body length, not reaching 3.20 mm. Although some species such as *B. cola* have an even smaller male body size (e.g., 2.60 mm), *B. koghi* possesses a unique set of characters (stramineous scape with red dots on the inner side, brown scutellum with whitish apex, and red cuneus), which does not occur simultaneously in other species.

Bolbomiris picpinensis Gierlasiński & Taszakowski sp. nov. distinctly differs from its congeners in the light coloration of the pronotum, clearly contrasting with the dark scutellum and clavus. Moreover, the sensory lobe of the left paramere is covered with very long setae, distinctly longer than the width of this lobe.

Occurrence of scopula in plant bugs. Wygodzinsky (1966) described spatulate setae on the tarsi in several taxa of Emesinae (Reduviidae). He pointed out that these setae are sometimes abundant on the third tarsomeres of the middle and hind legs and form the so-called scopula. Subsequently, Weirauch (2007) presented the occurrence of a scopula on the third tarsomere of all three pairs of legs of the Saicinae (currently tribe Saicini within Emesinae), which was confirmed in further studies (Castro-Huertas & Melo 2023, 2024, 2025; Standring et al. 2024). Nakatani & Yasunaga (2018) presented a micrograph of the pretarsal structure of *Fingulus henrytomi* Nakatani & Yasunaga, 2018 (Fig. 22) (Deraeocorinae: Deraeocorini),

where characteristic spatulate setae are visible on the third tarsomere. Chan & Cassis (2020) reported setiform setae or setae with apices truncate or spatulate on the ventral surface of the third tarsomere in Saturniomirini (Deraeocorinae). Hosseini & Cassis (2019) showed a dense distribution of stamina-shaped setae on the ventral surface of the second and third tarsomeres of *Bolbomiris* and the third tarsomere of *Plikomiris* Hosseini & Cassis, 2019. Both species we described have this type of setae on the second and third tarsomeres (Figs 4D, F, 7C). These structures correspond to the flattened and widened tenant seate (scopula) of Emesinae, so we propose using this term when referring to them. Due to the presence of a scopula on all pairs of legs, a locomotor function was postulated by Weirauch (2007). However, further research is required to provide details of the use of spatulate hairs.

Acknowledgments

We thank Marek Wanat (Museum of Natural History, University of Wrocław, Poland) for sharing photos of the collection sites, and also Amaury Durbano (Association Hô-üt) for sharing a picture of a representative of a probably undescribed species of *Bolbomiris.* We also thank Reza Hosseini (University of Guilan, Iran), Junggon Kim (Duy Tan University, Vietnam) and Petr Kment (National Museum of the Czech Republic, Prague) for valuable comments on the manuscript.

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