

ON KIRKALDY'S TYPES OF *FELISACUS FILICICOLA*,
NESODAPHNE KNOWLESI AND *PSEUDOLOXOPS VITIENSIS*
(HEMIPTERA, MIRIDAE) ¹

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(With 11 text-figures)

Thanks to the courtesy of our colleague Doctor Wayne C. Gagné we were able to study, redescribe and illustrate the three species mentioned above, described by Kirkaldy from Fiji.

The types are to be found in the collection of the Department of Entomology, Bernice P. Bishop Museum, Honolulu, Hawaii.

***Felisacus filicicola* (Kirkaldy, 1908)**
Knight, 1935

(Fig. 1)

Hyaloscytus elegantulus filicicola Kirkaldy, *Proc. Lin. Soc. N. S. Wales*, Sydney, 33: 377; *Felisacus filicicola* Knight, *Ins. Samoa Hem.*, 2 (5): 200, 1935; Id. Woodward, *Pacific Sci.*, 8 (1): 44, 1954; Id. Carvalho, *Arq. Mus. Nac. R. Jan.*, 44: 103, 1957; Id. Woodward, *Pacific Sci.*, 12: 236, 1958.

Characterized by its color and structure of male genitalia.

Female: Length 3.8 mm, width 0.9 mm. *Head*: Length 0.4 mm, width 0.6 mm, vertex 0.36 mm. *Antenna*: Segment I, length 0.8 mm; II, 1.2 mm; III and IV, mutilated. *Pronotum*: Length 0.7 mm, width at base 0.8 mm. *Cuneus*: Length 0.60 mm, width at base 0.20 mm.

General coloration hyaline, hemelytra transparent; eyes, humeral angles of pronotum, two small fasciae on exocorium contiguous to apex of clavus, extreme apex of embolium, light brown; antennae (except peduncle) tending to reddish; abdomen reddish towards distal end and apically.

Body with long erect hairs mainly on scutellum, clavus and basal portion of corium and antennae.

Male: Similar to female in coloration and general aspect.

Specimen studied: Lectotype, female, Rewa, Fiji, Muir, 1906 from the collection

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of the B. P. Bishop Museum, Honolulu, Hawaii.

According to Kirkaldy it "differs from *elegantulus* (Reuter, 1904), Ofv. F. Vet. Soc. Forh. 47 (5): 2, fig. 1, by at least the basal half of the first segment of the antennae being ochraceous, usually the first two segments being so. The colouring of the body is somewhat variable, often suffused with red; the pronotum may be immaculate, or the posterior-lateral angles may be more or less widely fuscous. In all the specimens before me, the head is more distinctly exerted than in Reuter's figure, but I presume that this extra part is usually withdrawn into the pronotum. Viti Levu (November; Muir's n.º 5); Rewa (April, Muir); Navua (February, Muir); beaten from a bracken-like fern."

For comparison of species in the genus *Felisacus* Distant one should check the works of Woodward (1954, 1958).

Nesodaphne knowlesi Kirkaldy, 1908

(Figs. 2-6)

Nesodaphne knowlesi Kirkaldy, *Proc. Linn. Soc. N. S. Wales*, (Sydney), 33: 381; Id. Cheesman, *Trans. Ent. Soc. London*, 75 (1): 157, 1927; Id. Knight, *Ins. Samoa*, 2, Hem. 5: 211, 1935; Id. Carvalho, *An. Acad. Brasil. Ci.*, 24 (1): 90, 1952; Id. Carvalho, *Arq. Mus. Nac. R. Jan.*, 48: 171, 1959.

Eutinginotum raitae Cheesman, *Entom.*, 59: 266, fig. 1926 (Syn. by Cheesman, *Trans. Ent. Soc. London*, 75: 157, 1927).

Characterized by its color and structure of male genitalia.

Male: Length 5.0 mm, width 1.8 mm. **Head:** Length 0.6 mm, width 1.0 mm, vertex 0.36 mm; **Antenna:** Segment I, length 0.8 mm; II, 1.6 mm; III, 0.6 mm; IV, 0.4 mm. **Pronotum:** Length 1.0 mm, width at base 1.6 mm. **Cuneus:** Length 0.64 mm, width at base 0.40 mm.

General coloration brownish to cinnamon with pale yellow and tomentose spots; segments I and II of antennae with three pale spots (base, apex and middle portion), segments III and IV, black; head and pronotum tomentose, disc with tufts of erect black hairs; scutellum brownish, pale apically, tomentose basally; hemelytra brownish to cinnamon, with pale spots on embolium and silvery tomentose spots on clavus and corium; clavus black apically, cuneus translucent at middle, brownish apically and subbasally with a pale spot at inner angle followed by a small contiguous black spot on paracuneus; membrane fuscous, ner-

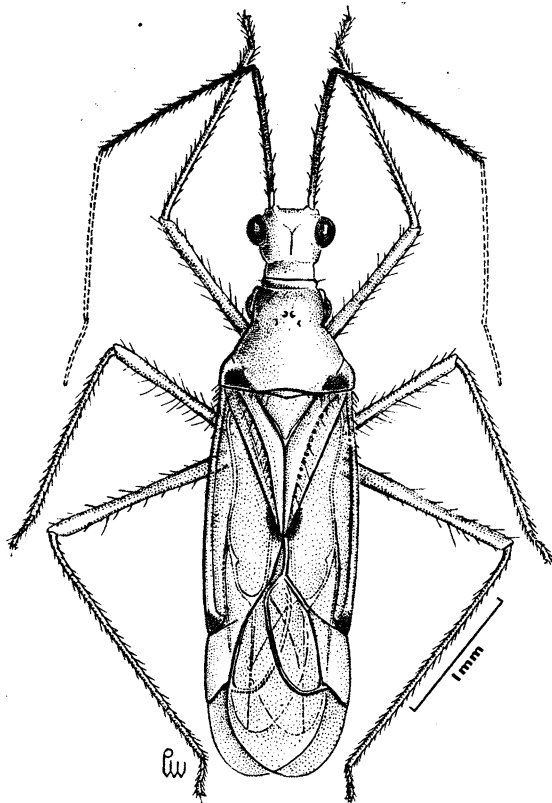


Fig. 1 — *Felisacus filicicola* (Kirkaldy), female, lectotype.

vures pale apically, two pale spots beyond apex of cuneus. Underside pale, legs pale yellow, femora marmorate with brown at apical portion, tibiae with two dark fasciae.

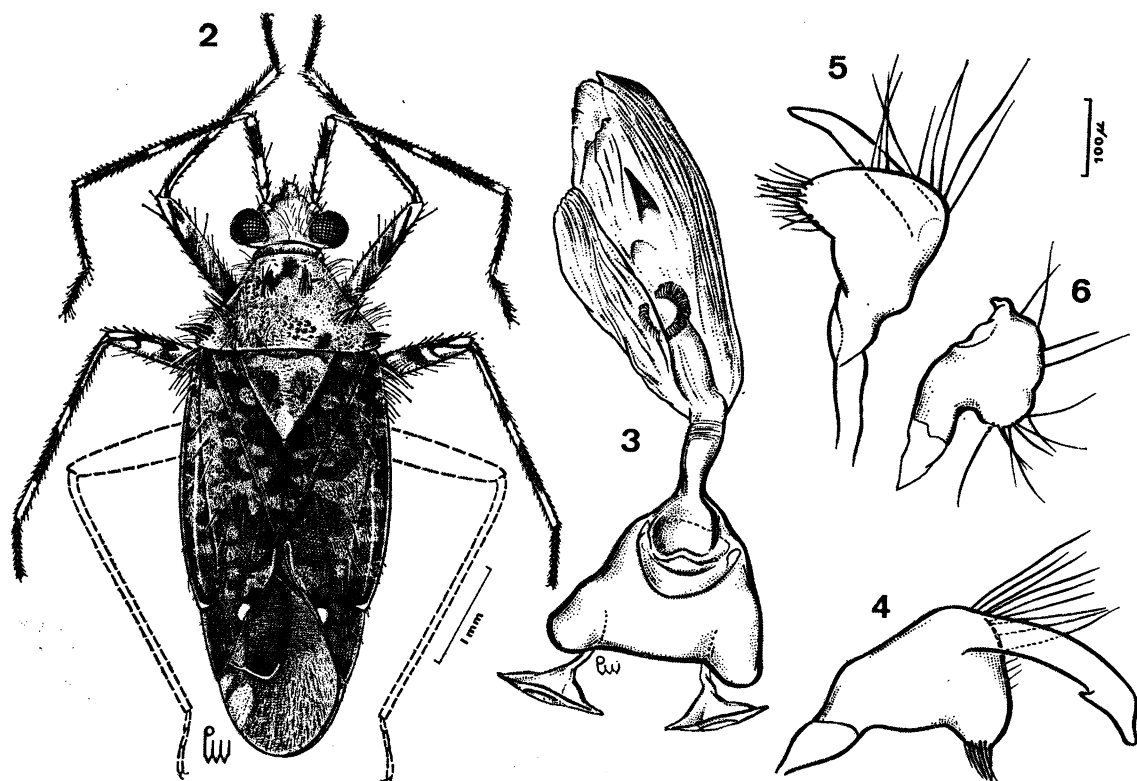
Body with long erect pubescence and tomentose areas, disc of pronotum with tufts of erect hairs, clypeus prominent, rostrum reaching middle coxae, embolium very wide folded upwards basally, eyes large and noticeable granulose.

Genitalia: Penis (fig. 3) with aedeagus provided with membranous lobes and a small sclerotized spiculum. Left paramere (figs. 4 e 5) with basal portion large and apex characteristic. Right paramere (fig. 6) small, pointed apically.

Female unknown.

Specimen studied: Holotype, male, Fiji, 349, from the collection of the Bernice P. Bishop Museum, Honolulu, Hawaii.

Kirkaldy describes the species as follows: "Head, sterna, etc., testaceous. Antennae dark fuscous; basal half and apex of first; base, a middle ring, and apex of second; apices of third and fourth; whitish-testaceous. Pronotum pale purplish-brown, two subanterior spots, collar, and posterior margin (very narrowly) pale. Scutellum, clavus and interior third of corium, dark purplish-brown; posterior angle of scutellum greenish-yellow. Rest of corium dark fuliginous, spotted with hyaline. Sternites yellowish-green. Legs multiannulate with fuscous. Length 5 mill. Lautoka (Knowles, n.^o 349), on *Artocarpus incisa* and Tobacco-leaves. I hope to amplify this diagnosis and figure this interesting Mirid."



Nesodaphne knowlesi Kirkaldy — Fig. 2: Male, holotype; fig. 3: penis; figs. 4 and 5: left parameres; fig. 6: right paramere.

***Pseudoloxops vitiensis* (Kirkaldy, 1908)**

Carvalho, 1955

(Figs. 7-11)

Tichorhinus vitiensis Kirkaldy, *Sydney Proc. Linn. Soc.*, 33: 377.*Pseudoloxops vitiensis* Carvalho, *Rev. Chil. Ent.*, 4: 224, 1955; Id. Carvalho, *Arq. Mus. Nac. R. Jan.*, 47: 128, 1958.

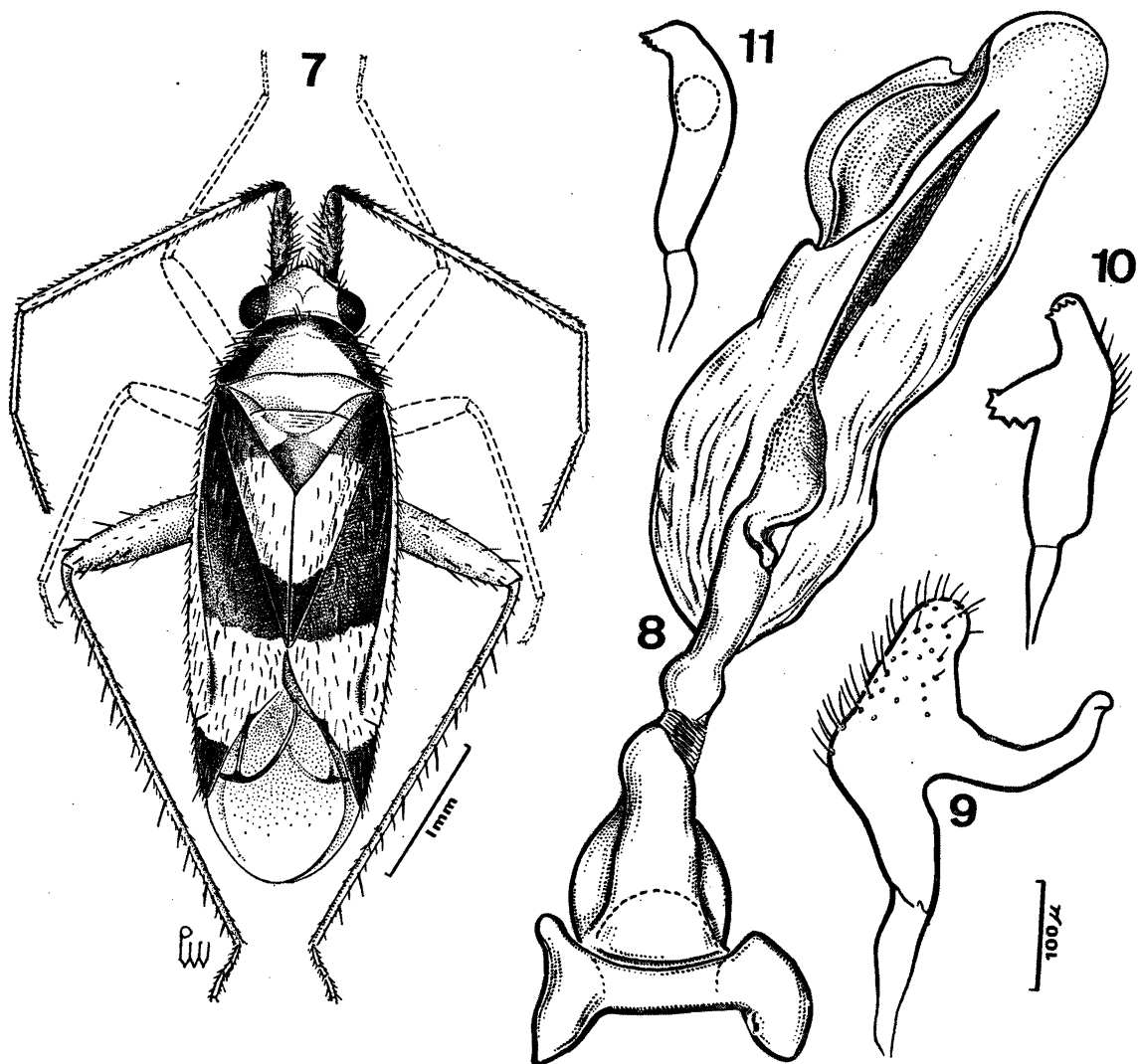
Characterized by its color and structure of male genitalia.

Male: Length 3.6 mm, width 1.2 mm.

Head: Length 0.2 mm, width 0.7 mm, ver-

tex 0.36 mm. *Antenna*: Segment I, length 0.4 mm; II, 1.6 mm; III, 0.6 mm; IV, 0.6 mm. *Pronotum*: Length 0.4 mm, width at base 1.0 mm. *Cuneus*: Length 0.44 mm, width at base 0.28 mm.

General coloration reddish with pale yellow areas; segment I and base of segment II of antennae, head, pronotum (except semilunar roundish central pale yellow spot on disc), scutellum (except pale basal portion), clavus (except large median pale spot), embolium and corium (except apical



Pseudoloxops vitiensis (Kirkaldy) — Fig. 7: Male, holotype; fig. 8: penis; fig. 9: left paramere; figs. 10 and 11: right paramere.

third), clouding at apex of embolium, cuneus (except basal portion), spot on paracuneus and nervures of membrane (partially), red or reddish; mesoscutum and membrane, pale; underside of body and legs pale yellow.

Genitalia: Penis (fig. 8) with aedeagus showing a median sclerotized spiculum following the secondary gonopore. Left paramere (fig. 9) rounded apically with a long and curved lateral arm. Right paramere (figs. 10 e 11) branched apically, the proximal arm wider.

Female unknown.

Specimen studied: Holotype, male, Rewa, Fiji, Muir, 1906, from the collection of the Bernice P. Bishop Museum, Honolulu, Hawaii.

Kirkaldy describes the species as follows: "Ivory-white, tinged beneath with yellowish or brownish, furnished with whitish pubescence on tegmina, etc. Vertex partly suffused, rather obscurely, with reddish. First segment of antennae, base of second, clypeus, anterior and lateral margins of pronotum (broadly), posterior angle of scutellum, basal half corium, base and apex (broadly) of clavus, apical half of cuneus, membranous veins, etc. sanguineous. Third and fourth segments of antennae whitish. Wings hyaline, veins white, apical half of femora pale yellowish-brown. The hairs on the head, antennae, etc., dark.

Antennae standing out well in front of head, second segment one-half longer than third and fourth together. Length 4 mill. Rewa (March, Muir)."

SUMMARY

The authors redescribe and figure the following species of Miridae (Hemiptera) described by Kirkaldy from Fiji (1908) which types are deposited in the B. P. Bishop Museum, Honolulu: *Felisacus filicicola*, *Nesodaphne knowlesi* and *Pseudoloxops vitiensis*. The male genitalia of *knowlesi* and *vitiensis* are also illustrated.

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