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The *Campsicnemus popeye* species group (Diptera: Dolichopodidae) from French Polynesia

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Abstract

A new species-group (the *popeye* group) of the mega-diverse dolichopodid genus *Campsicnemus* from French Polynesia is described to include six new species: *C. craigi* Evenhuis, **sp. nov.**; *C. elinae* Evenhuis, **sp. nov.**; *C. meyeri* Evenhuis, **sp. nov.**; *C. moorea* Evenhuis, **sp. nov.**; *C. pectinatus* Evenhuis, **sp. nov.**; and *C. popeye* Evenhuis, **sp. nov.** Keys to *Campsicnemus* species groups in French Polynesia and to species in the *C. popeye* group are given.

Key words: French Polynesia, *Campsicnemus*, Dolichopodidae, taxonomy, Tahiti, Marquesas, Moorea, keys

Introduction

Surveys from 2004–2007 in the Society Islands by myself and others (partly under the auspices of a grant from the National Science Foundation) have discovered dozens of new species of the mega-diverse (with an estimated 300–400 species) dolichopodid genus *Campsicnemus* Haliday, the Pacific species of which are currently under revision on a larger scale. Among the new species discovered during this study, six new species have been found from the Society Islands and the Marquesas in French Polynesia that fit into a new species group (named here the *popeye* group). This group is keyed, defined, and discussed below; and the new species within them are described and illustrated.

Material and methods

Specimens studied in this study derive primarily from material collected during the Terrestrial Arthropods of French Polynesia Survey funded by the U.S. National Science Foundation. Additionally, older material in the Bishop Museum, Honolulu (BPBM), collected by the Pacific Entomological Survey in 1929 and 1931, and collecting trips in 1977 and 1988 (by S.L. Montgomery) were examined. Holotypes are deposited in BPBM. Where length of series allow, duplicate paratypes are deposited in the Essig Museum, University of California, Berkeley (UCB). Specimens that have been databased at UCB as part of the French Polynesia Arthropod Survey have numbers in the format BPBMxxxxxxx and are placed in square brackets. These data are held in the Essig Museum, University of California, Berkeley (these numbers not to be confused with Bishop Museum type numbers in this paper that are in the series “BPBM Type 1x,xxx”).

Morphological terminology follows Evenhuis (2008, 2011, 2012). Abbreviations are as follows: ac—acrostichal setae; CI, CII, CIII—fore, mid, and hind coxae, respectively; dc—dorsocentral setae (enumerated from anterior to posterior); fb—funny bone; FI, FII, FIII—fore, mid, and hind femora, respectively; II_{t1}—mid basitarsus; II_{t2,5}—mid tarsomeres 2–5; MSSC—male secondary sexual characters; np - notopleural setae; oc—ocellar setae; pa—postalar setae; ph—posthumeral setae; sc—scutellar setae (enumerated on one side from midpoint laterad); TiI, TiII, TiIII—fore, mid, and hind tibiae respectively; vt—vertical setae.

Systematics

Campsicnemus Haliday

Camptosceles Haliday, 1832: 357 (subgenus of *Medeterus*). Suppressed by I.C.Z.N. (1958: 349 [Opinion 531]).

Leptopezina Macquart, 1835: 554. Type species *Diastata gracilis* Meigen, 1820, by monotypy. *Nomen oblitum* (see Evenhuis 2003).

Campsicnemus Haliday in Walker, 1851: 187. Type species: *Dolichopus scambus* Fallén, 1823, by validation of I.C.Z.N. (1958: 351 [Opinion 531]). *Nomen protectum* (see Evenhuis 2003).

My study of *Campsicnemus* in the Pacific has identified seven species groups known only from French Polynesia. All except the *popeye* group are endemic to single island archipelagos within French Polynesia: four of these are known only from the Marquesas (Evenhuis 2009): the *gladiator* group (4 species), the *englundi* group (3 species), the *aa* group (5 species), and the *hihiroa* group (3 species); and two species groups were known previously only from the Society Islands (Evenhuis 2008): the *lobatus* group (5 species), and the *zigzag* group (5 species). The *popeye* group described here marks the third species group known from the Society Islands but is more widespread, with one species (*C. pectinatus*, **sp. nov.**) being found from the Marquesas. With the six new species described in this paper, there are now 31 species of *Campsicnemus* known from French Polynesia. Characters distinguishing these species groups are found primarily in the legs, the main exception being those in the *lobatus* group, which are distinguished by the wing shape and apical infuscation. Generally, wing venation is relatively stable within species of Pacific *Campsicnemus*, differences that are most notable are found in the amount of or patterns of infuscation or “smokiness”.

Key to species groups of *Campsicnemus* in French Polynesia

(based on males)

- 1 Fore coxa with a cluster of three to four black setae subapically on anterior surface (directed forward) that appear to be fused together to form a thorn-like projection; II_1 shortened and with an apical spur of varying shapes or with a strong apical seta ... (Marquesas) ... *gladiator* group
- Fore coxa without a modified cluster of setae; II_1 not as above. ... 2
- 2 Mid femur with conspicuous ventral swellings and concavities with associated patches of strong setae ... (Marquesas) ... *englundi* group
- Mid femur normal in shape and without setae in patches as above ... 3
- 3 Fore tibia with conspicuous hook-like or pad-like sclerotized protuberance apically ... (Marquesas) ... *aa* group
- Fore tibia without such a protuberance apically (not to be confused with an apical tibial comb, which is not a sclerotized structure of the tibia) ... 4
- 4 Mid basitarsus with conspicuously long, thick setae ... (Marquesas) ... *hihiroa* group
- Mid basitarsus may be densely haired but without such long thick setae. ... 5
- 5 Wing with apical spot and/or band of infuscation on posterodistal portion; wing often falcate apically ... (Society Islands) ... *lobatus* group
- Wing without an apical spot or band of infuscation distally ... 6
- 6 Mid femur with conspicuous short, strong black setae of varying shapes on subapical third of ventral surface; $TiII$ not flared or swollen distally ... (Society Islands) ... *zigzag* group
- Mid femur without conspicuous subapical strong black seta ventrally; $TiII$ distinctly flared, bent, or swollen distally ... (Society Islands, Marquesas) ... *popeye* group

The *popeye* group

Diagnosis. Members of this group are characterized by those species with the combination of a cylindrical II_1 1.5 to 2.5 times longer than the second tarsomere, without apical modifications; and the mid tibia widest apically or contorted with a swollen area on the apical portion, with characteristic rows or patches of setae.

Included species:

craigi Evenhuis, **sp. nov.** (Society Islands [Tahiti Nui]; holotype ♂ in BPBM; examined).

elinae Evenhuis, **sp. nov.** (Society Islands [Tahiti Nui]; holotype ♂ in BPBM; examined).
meyeri Evenhuis, **sp. nov.** (Society Islands [Tahiti Nui, Tahiti Iti]; holotype ♂ in BPBM; examined).
moorea Evenhuis, **sp. nov.** (Society Islands [Moorea]; holotype ♂ in BPBM; examined).
pectinatus Evenhuis, **sp. nov.** (Marquesas Islands [Nuku Hiva]; holotype ♂ in BPBM; examined).
popeye Evenhuis, **sp. nov.** (Society Islands [Tahiti Nui, Tahiti Iti]; holotype ♂ in BPBM; examined).

Key to males of species in the *popeye* group

- 1 Antennal postpedicel as long as wide, pointed or rounded apically; IIt_1 slightly longer than IIt_2 , with long hairs basally, tapering in length distally (Fig. 1b) *craigi* Evenhuis, **sp. nov.**
- Antennal postpedicel 2.5–4.0 times longer than wide, pointed apically; IIt_1 1.75–2.00 times length of IIt_2 2
- 2 Mid tibia contorted, with single thick leaf-like setae at bend (Fig. 3) *meyeri* Evenhuis, **sp. nov.**
- Mid tibia rounded, swollen or contorted, but without single leaf-like seta at bend of contortion 3
- 3 Mesoscutum predominantly brown, yellowish laterally; $TiII$ kinked subapically with compact row of 4–5 long black setae (Fig. 2); FII with strong setae restricted to subapical ventral patch *elinae* Evenhuis, **sp. nov.**
- Mesonotum predominantly yellow; $TiII$ without such a kink or compact row of strong setae; FII with strong ventral setae in other areas other than or in addition to subapical patch 4
- 4 Swollen area of $TiII$ with “comb” of thick slightly curved and flattened chaetae (Fig. 4b); apex of $TiII$ with 2 extremely long, spiky setae, longer than IIt_2 ; mesoscutum without admedian vittae of contrasting color (Marquesas) ... *pectinatus* Evenhuis, **sp. nov.**
- Swollen area of $TiII$ without comb of strong chaetae; apical setae of $TiII$ not longer than IIt_2 ; mesoscutum with admedian brown vittae contrasting with yellow ground color 5
- 5 Mesal surface of $TiII$ with patch of short stubby setae subbasally (Fig. 6a, s1); mesoapical row of strong setae interrupted subapically (Fig. 6b, s2); postpedicel length 2.5 times width *popeye* Evenhuis, **sp. nov.**
- Mesal surface of $TiII$ with row of longer black setae subbasally (Fig. 5b, s1); mesoapical row of strong setae continuous from bend to apex, not interrupted (Fig. 5b, s2); postpedicel length 4.0 times width *moorea* Evenhuis, **sp. nov.**

Campsicnemus craigi Evenhuis, **sp. nov.**

(Fig. 1)

Diagnosis. Within the *popeye* group it is closest in appearance to *C. meyeri* by virtue of the short antennal postpedicel (as long as wide or shorter) and the slightly bowed and setate fore basitarsus. It can be separate from *C. meyeri* by the characteristically long hairs of the mid basitarsus, the longer antennal postpedicel, and the moderately long stiff hairs of the mid femur (much shorter in *C. meyeri*).

Description. Male. Body length: 2.4–2.6 mm. Wing length: 2.8–3.0 mm. **Head:** Black, dark brown near clypeus; oc and vt black, about one-half length of antennal arista; face constricted at middle, eyes holoptic, contiguous below antennae for length of 3–4 ommatidia; palpus small, brown; proboscis brown, extending below eye in lateral view; antennal segments black to brown; postpedicel long, subtriangular, length subequal to width; arista slightly longer than head height. **Thorax:** Dorsum of mesoscutum, scutellum, and mediotergite dark brown, paler brown laterally; pleura yellowish except for brown laterotergite and anepimeron; thoracic setae black: 1 + 3 dc; 2 np; 2 ph; 1 pa; 1 + 1 sc; ac absent; halter stem and knob white. **Legs:** CI yellowish, with three black setae on apical one-third; CII and CIII brown; FI and FII yellowish, FIII yellowish brown basally, becoming darker brown on dorsoapical one-half; remainder of legs brown; foreleg unmodified, without MSSC; FII with stiff setae ventrally, row of 3–4 longer black setae on ventroapical one-third, oriented anteriorly; $TiII$ (Fig. 1a) flared, wider apically than basally, with row of 6 long setae on mesobasal one-third (MSSC), row of strong setae on basal half on lateral surface, with longest of those just beyond middle; small patch of 4 small acute thorn-like setae mesally at middle; ring of 5–6 strong spiky setae apically (MSSC). IIt_1 (Fig. 1b) slightly bowed, short, about 1.5 times length of IIt_2 , with row of conspicuously long curved hairs mesally (MSSC); IIt_{2-4} with mesal hairs shorter than on IIt_1 but erect, curved and conspicuous. Remainder of leg segments without MSSC. **Wing:** pale smoky throughout. **Abdomen:** Dark brown with short black hairs dorsally on each tergite, a few longer hairs laterally on tergite I; sternites brown. Hypopygium brown, not dissected; fb absent. **Female.** As in male except for lack of MSSC; antennal postpedicel length about 0.75 times width.

Types. HOLOTYPE ♂ (BPBM Type 16,648) [BPBM1013175] and 1 ♂ [BPBM1013176] and 6 ♀

[BPBM1013177] **PARATYPES** from FRENCH POLYNESIA: **Society Is:** TAHITI NUI: Mt. Mauru, Faatautia, near stream and hydro-electric structure, 720 m, 17°37'39"S, 149°31'26"W, 19.vii.2006, sweeping seeps and wet rocks, N. Evenhuis, P. O'Grady. **OTHER PARATYPES:** FRENCH POLYNESIA: **Society Is:** TAHITI NUI: 1 ♂ [BPBM1013178], Mt. Mauru, Faatautia, 730 m, 17°37'45"S, 149°21'10"W, riparian habitat above and below lava tube, 19.vii.2006, N. Evenhuis, P. O'Grady. 1 ♂, Mt. Mauru, stream, in lava tube and nearby tributary, 740 m, 17°37'45"S, 149°21'11"W, 5.ix.2006, D.A. Polhemus. Holotype and paratypes in BPBM.

Etymology. Named for Dr. Douglas Craig, in recognition of seminal work he has done on French Polynesian dipterology (especially with Simuliidae) and its geological and biogeographical history.



FIGURES 1–2. *Campsicnemus* male mid legs. **1.** *C. craigi* Evenhuis, **sp. nov.**; **a.** femur and tibia, left leg, mesal view; **b.** tibia and two basalmost tarsi, left leg, lateral view. **2.** *C. elinae* Evenhuis, **sp. nov.**, femur and tibia, left leg, mesal view. Abbreviations: Ilt1 = midleg basitarsus; Till = midleg tibia. Scale bars = 0.1 mm.

***Campsicnemus elinae* Evenhuis, sp. nov.**

(Fig. 2)

Diagnosis. Of those in the *popeye* species group, fits with those species that possess a long antennal postpedicel (length more than 2.5 times width) and having the mid basitarsus length more than 2 times the length of the second tarsal segment (i.e., *C. elinae*, *C. meyeri*, and *C. popeye*). It differs from *C. meyeri* and *C. craigi* in the vestiture of the male mid tibia in possessing a small patch of hairs mesally on the basal third and a conspicuous patch of long hairs apically (these patches of hairs absent in *C. popeye* and *C. craigi*).

Description. Male. Body length: 1.8–2.5 mm. Wing length: 2.2–2.8 mm. **Head:** Black; oc and vt black, about one-third length of antennal arista; face constricted at middle, eyes holoptic, contiguous below antennae for length of 3–4 ommatidia; palpus small, dark brown; proboscis brown, extending below eye in lateral view; antennal segments dark brown; postpedicel long, lanceolate, length about 2.5 times width; arista slightly longer than head height. **Thorax:** Dorsum of mesoscutum, scutellum, and mediotergite dark brown, paler brown laterally; pleura yellowish except for brown laterotergite and anepimeron; thoracic setae black: 1 + 3 dc; 2 np; 2 ph; 1 pa; 1 sc; ac absent; halter stem white, knob pale brownish. **Legs:** CI, CIII yellowish white, CI with three strong black setae apically; CII yellowish brown; FI and FII yellowish brown, FIII yellowish brown ventrally and mesally, brown dorsally and laterally; remainder of legs brown; foreleg and hindleg unmodified, without MSSC; FII with two rows

of strong black setae: on with 5–6 long black setae of subapical one-third; one as a dense patch of 5–6 smaller black setae lateroventrally on subapical one-fourth; TiII (Fig. 2) slightly twisted and flared, widest apically, apical one-fourth kinked and folded over bearing dense patch of 4–5 very long black setae, paired rows of 4 dense short black setae on subapicomesal one-fourth, single thick strong long black chaeta at apical one-third, row of stiff setae laterally on basal half (MSSC), smaller black setae and hairs along entire ventral surface, single strong black seta mesoapically. IIt₁ long, longer than TiII, about 2.5 x length of IIt₂, without MSSC. **Wing:** pale smoky throughout.

Abdomen: Brown, darker brown posteriorly forming transverse bands, with short black hairs dorsally on each tergite, a few longer hairs laterally, longest on tergite I; sternites brown. Hypopygium brown, not dissected.

Female. As in male except for lack of MSSC; antennal postpedicel subtriangular, length subequal to width.

Types. **HOLOTYPE** ♂ (BPBM Type 16,637) [BPBM1013172], and 1 ♂ (headless) [BPBM101317], 3 ♀ [BPBM1013174] **PARATYPES** from FRENCH POLYNESIA: **Society Is:** TAHITI NUI: Mt. Mauru, Faatautia, 730 m, 17°37'45"S, 149°21'10"W, riparian habitat above and below lava tube, 19.vii.2006, N. Evenhuis, P. O'Grady. Holotype and paratypes (all preserved in ethanol) in BPBM.

Remarks. Holotype male with top of head cracked open and brain matter partially extruded; left antenna broken off and missing. The kink/folding at the apex of the mid tibia appears to be an artifact of drying but all three male specimens at hand never left a fluid preservation immediately after collecting and all show this feature, so it may actually be present in life.

Etymology. This species is named for Elin Teurarii (née Claridge) for her expert help in coordinating Malaise trap collecting, fieldwork logistics, and specimen data for the French Polynesian arthropod survey.

Campsicnemus meyeri Evenhuis, sp. nov.

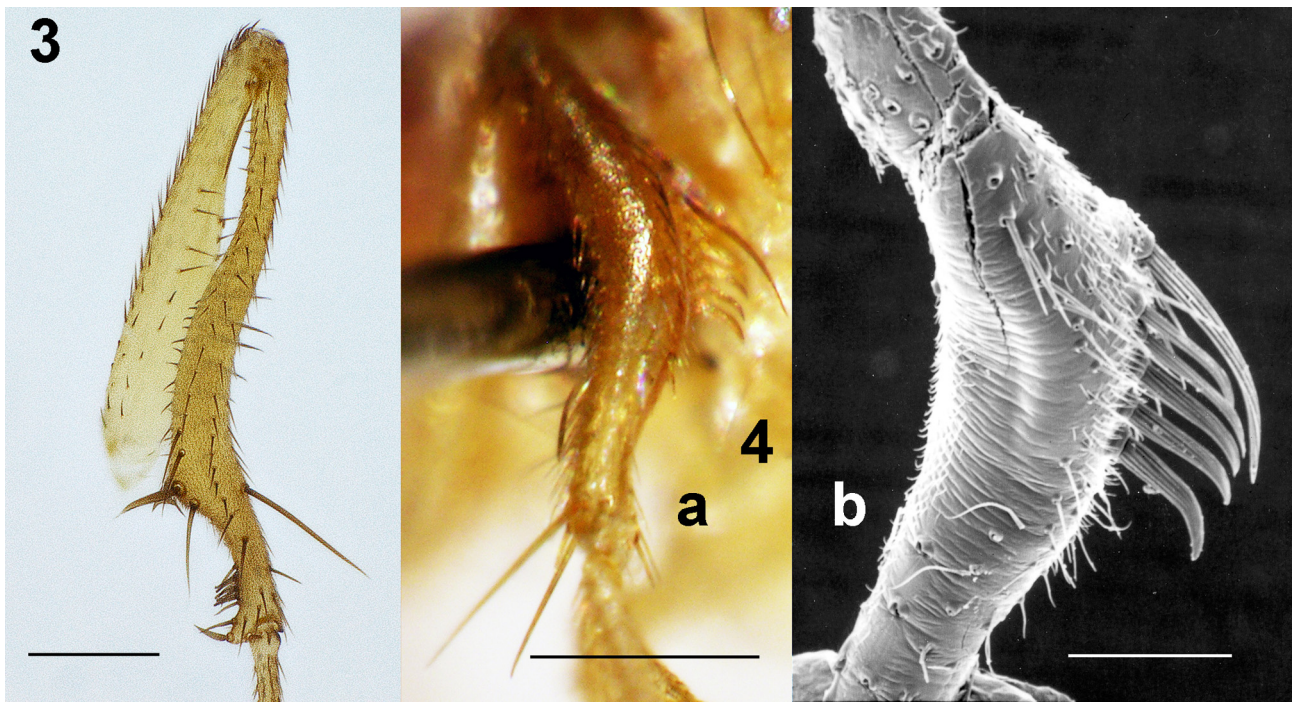
(Fig. 3)

Diagnosis. Fits closest to *C. popeye*, sp. nov., by virtue of a swollen area on the mid tibia, but can easily be separated from it by the swollen area bearing multiple clusters of setae (bearing only a single strong seta and dense fine hairs in *C. popeye*).

Description. Male. Body length: 2.3–2.4 mm. Wing length: 2.3–2.4 mm. **Head:** Black; oc and vt black, subequal in length to antennal arista; front, occiput, and vertex black with blue highlights; face constricted at middle, eyes almost holoptic, contiguous below antennae for length of 4 ommatidia; palpus small, dark brown; proboscis brown, extending below eye in lateral view; antennal segments black to brown; postpedicel long, lanceolate, length about 2.5 x width; arista missing in all three specimens. **Thorax:** Mesoscutum and scutellum brown dorsally, yellowish brown to yellow laterally, pleura yellowish white except for black anepimeron; thoracic setae black: 3 dc; 2 np; 2 ph; 1 pa; 1 sc; ac absent; halter stem and knob yellowish brown. **Legs:** CI, CIII yellowish white, CI with two strong black setae apically; CII yellowish white, with 2 brown longitudinal stripes medially; femora and tibiae yellowish; tarsi yellowish brown; foreleg unmodified, without MSSC; FII with row of 6 strong black setae ventrally near middle; FIII with 10–12 long hairs ventrally on distal half, 3 shorter curved strong black setae subapically (MSSC); TiII (Fig. 3) contorted, swollen and widest at apical third, with 3 long thick setae mesally at bend of swollen area and single thick, leaflike seta at bend, laterally with single long chaeta at apical one-third, row of smaller stiff hairs laterally, mesally, and mesolaterally; dense patch of peglike setae subapically on mesal surface; apex with single thick leaflike setae mesally and ring of 5–6 thinner stiff hairs (MSSC), smaller black setae and hairs along entire ventral surface. IIt₁ short, about 1.5 x length of IIt₂, without MSSC. Remainder of leg segments without MSSC. **Wing:** Pale smoky throughout. **Abdomen:** Brown with short black hairs dorsally on each tergite, a few longer hairs laterally; tergal interstices whitish; sternites yellowish brown. Hypopygium brown with paler brown cerci, not dissected. **Female.** As in male except for lack of MSSC.

Types. **HOLOTYPE** ♂ (BPBM Type 16,651) from FRENCH POLYNESIA: **Society Is:** TAHITI NUI: Mt. Marau, 1170 m, 10.v.2006, Malaise, E. Claridge [BPBM1013235]. **PARATYPES:** FRENCH POLYNESIA: **Society Is:** TAHITI NUI: 1 ♂ [BPBM101236], 2 ♀ [BPBM101237], Papenoo Valley, stream below Marato Hotel, 16.vii.2006, P. O'Grady. TAHITI ITI: 1 ♂ [BPBM101304], Taiarapu above Vaiufaufa, 900 m, 24–25.ix.1977, S.L. Montgomery. Holotype and paratypes in BPBM.

Etymology. Named for Dr. Jean-Yves Meyer, in thanks for his assistance during our fieldwork in Tahiti and in recognition of his efforts at promoting and fostering research on the fauna and flora of French Polynesia.



FIGURES 3–4. *Campsicnemus* male mid legs, left leg, lateral view. **3.** *C. meyeri* Evenhuis, **sp. nov.**, femur and tibia **4.** *C. pectinatus* Evenhuis, **sp. nov.** **a.** light microscope image of tibia, showing two long apical setae. **b.** scanning electron image of tibia showing “pecten” of thick setae. Scale bars for 3a,b, 4a = 0.1 mm; bar for 4b = 0.05 mm.

***Campsicnemus moorea* Evenhuis, sp. nov.**

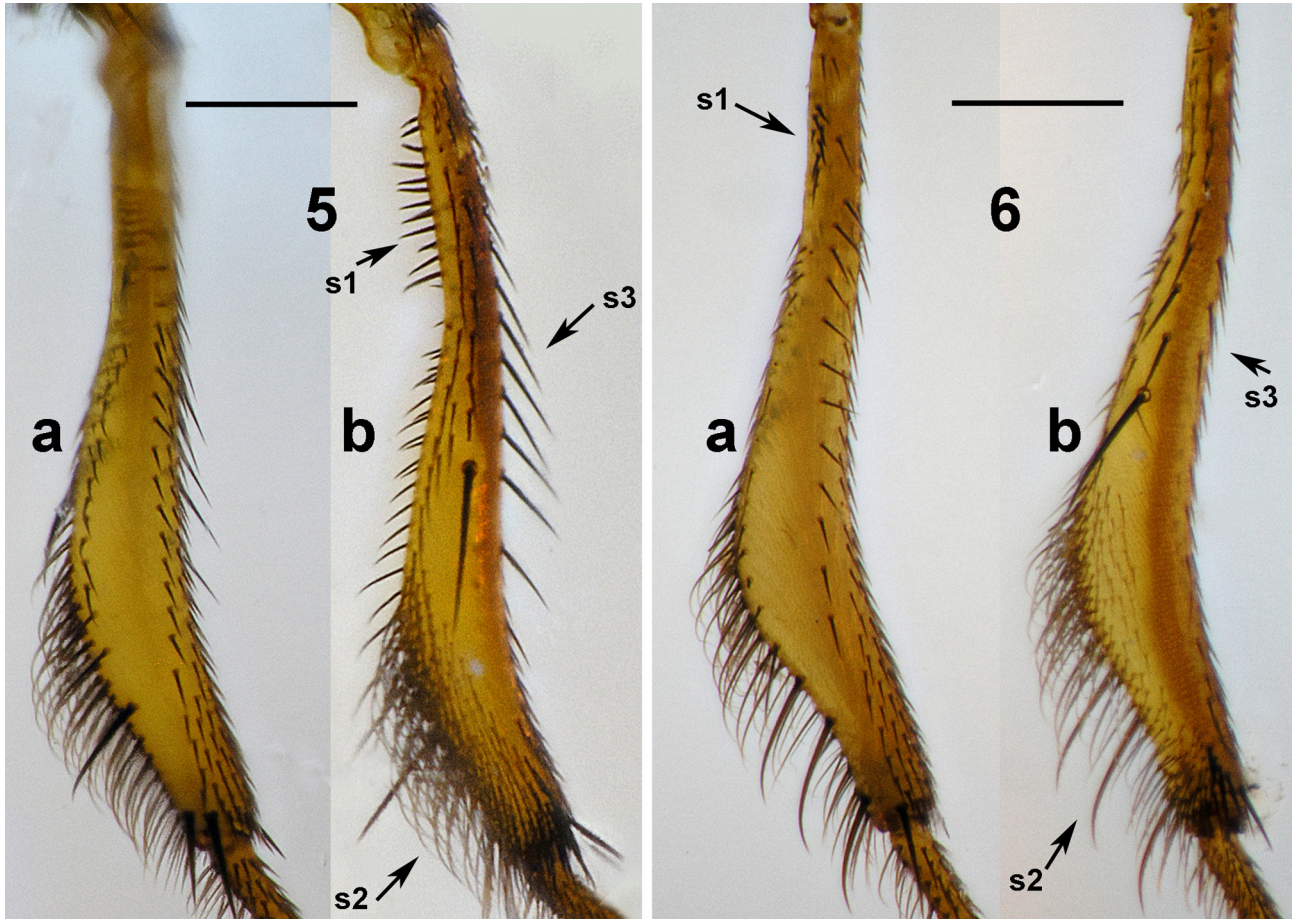
(Fig. 5)

Diagnosis. Most similar in appearance to *C. popeye*, **sp. nov.** but can be separated from it by the mid tibia possessing a row of black setae mesoapically (absent in this area of the mid tibia in *C. popeye*) and the postpedicel being longer (4.0 times width) than in *C. popeye* (2.5 times width).

Description. Male. Body length: 3.0–3.2 mm. Wing length: 3.1–3.6 mm. **Head:** Black, face dark brown, paler brown near clypeus; oc and vt black, about one-third length of antennal arista; front, occiput, and vertex black with blue highlights; face constricted at middle, eyes almost holoptic, contiguous below antennae for length of 3–4 ommatidia; palpus small, brown; proboscis brown, extending below eye in lateral view; antennal segments black to brown; postpedicel yellow basally, brown apically, long, lanceolate, length about 4.0 x width; arista slightly longer than head height. **Thorax:** Yellow; mesoscutum with paired admedian brown vittae, flared, becoming thickest posteriorly; thoracic setae black: 4 dc; 2 np; 2 ph; 1 pa; 1 sc; ac absent; halter stem white, knob brownish. **Legs:** Coxae yellowish white (except CII with single thin brown longitudinal stripe medially), CI with three black setae apically; femora yellow brown, FIII yellowish brown basally, becoming darker brown on dorsoapical two-thirds; remainder of legs yellowish brown; foreleg unmodified, without MSSC; FII with 2 rows of black setae ventrally, patch of thicker setae subapically on ventral surface; FIII with row of 6 long strong black setae on basal half of ventral surface (MSSC). TiII (Fig. 5) slightly bowed and flared, widest subapically, with rows of stiff setae along mesal, mesolateral, and lateral surfaces, row of long stiff setae on basal half of lateral surface (Fig 5b, s3), and dense long curled hairs on apical one-fourth of mesal surface, 2–3 long thick curved setae admixed with these hairs at bend and apex, absent subapically (Fig. 5b, s2), single thick strong curved setae at midpoint on lateral surface, row of thick setae subbasally on mesal surface (Fig. 5b, s1), ring of 4–5 strong setae apically, admixed with dense patch of short black setae (MSSC). IIt₁ long, about 2 x length of IIt₂, with 2 rows of dense hairs laterally (MSSC). IIt₂ with sparser long hairs laterally (MSSC). Remainder of leg segments without MSSC. **Wing:** Pale smoky throughout. **Abdomen:** Tergites brown except for yellowish laterally on tergites II–IV, with short black hairs dorsally on each tergite, a few longer hairs laterally; sternites yellowish white. Hypopygium yellowish, not dissected. **Female.** As in male except as follows: lack of MSSC; antennal postpedicel length about 1.5 x width; tarsi brown; tergites II–V with yellow laterally.

Types. HOLOTYPE ♂ (BPBM 16,656) and 2 ♀ PARATYPES from FRENCH POLYNESIA: Society Is: Moorea: Tohia summit area, ferns in small gulch, 1150 m, 12.ix.2006, D.A. Polhemus. OTHER PARATYPES: FRENCH POLYNESIA: Moorea: 3 ♀, same data except 1205 m, ferns on ridge crest, day fog. Holotype and paratypes in BPBM.

Etymology. The specific epithet derives from type locality on the island of Moorea and is treated here as a noun in apposition.



FIGURES 5–6. *Campsicnemus* male mid tibiae. 5. *C. moorea* Evenhuis, **sp. nov.**; a. right leg, mesal view; b. left leg, lateral view. 6. *C. popeye* Evenhuis, **sp. nov.**; a. right leg, mesal view; b. left leg, lateral view. Abbreviations: s1 = setal area 1 (subbasal row of setae); s2 = setal area 2 (row of strong curved setae from bend to apex); s3 = setal area 3 (row of setae on basal half of tibia). Scale bars = 0.1 mm.

Campsicnemus pectinatus* Evenhuis, **sp. nov.*
(Fig. 4)

Diagnosis. Fits closest to *C. meyeri*, **sp. nov.** but is distinguished from it by the conspicuous mid tibial pecten (absent in *C. meyeri*) and the mid tibia with two long stiff setae apically (these long apical setae absent in *C. meyeri*).

Description. Male. Body length: 2.2 mm. Wing length: 2.4 mm. **Head:** Black, face dark brown to black, clypeus yellow; oc and vt yellowish white, about one-third length of antennal arista; front, occiput, and vertex black with blue highlights; face constricted at middle, eyes almost holoptic, contiguous below antennae for length of 3–4 ommatidia; palpus small, brown; proboscis yellowish brown, extending below eye in lateral view; antennal segments yellow; postpedicel long, thin, lanceolate, length about 4.0 x width; arista slightly longer than head height. **Thorax:** Mesoscutum, scutellum, and pleura yellow; thoracic setae yellowish brown: 3 dc; 2 np; 2 ph; 1 pa; 1 sc; ac absent; halter stem and knob yellowish. **Legs:** Yellowish white; foreleg unmodified, without MSSC; FII with 3 long yellow setae ventrally at middle; TiII (Fig. 4) contorted, swollen medially, with “comb” of long thick

leaflike setae (Fig. 4b) in middle on lateral surface, row of stiff hairs mesally, with ring of 6 long strong spiky setae on apical third, 2 pointed mesally longest, longer than IIt_2 (MSSC). IIt_1 long, about 2 x length of IIt_2 , without MSSC. Remainder of leg segments without MSSC. **Wing:** Yellowish subhyaline. **Abdomen:** Segments I–V reddish brown, VI–VII yellowish, all with short black hairs dorsally on each tergite, a few longer hairs laterally; sternites reddish brown. Hypopygium yellow, not dissected. **Female.** Unknown.

Types. **HOLOTYPE** ♂ (BPBM 16,655) from FRENCH POLYNESIA: **Marquesas:** NUKU HIVA: Toovii, Oomu, 900 m, 16–19.vii.1977, W.C. Gagné & S.L. Montgomery. Holotype in BPBM. The left midleg of the holotype was been removed for SEM photography and is mounted on an SEM stub.

Etymology. The specific epithet derives from the Latin *pecten* = “comb”; referring to the comb-like arrangement of setae on the mid tibia of males of this species.

***Campsicnemus popeye* Evenhuis, sp. nov.**

(Fig. 6)

Diagnosis. Most similar to *C. moorea*, **sp. nov.** but can be separated from it by the setation of the mid tibia: the presence of a patch of short stubby setae subbasally on the mesal surface in *C. popeye* (these setae longer and much more conspicuous in *C. moorea*), the absence of a row of long strong setae in the medial third of the lateral surface (this row strong and conspicuous in *C. moorea*), and the mesal surface with a row of 5–7 long curved setae from bend to tibial apex along the mesal surface (this row only with 2–3 such setae and they are absent subapically in *C. moorea*).

Description. Male. Body length: 3.0–3.2 mm. Wing length: 3.1–3.6 mm. **Head:** Black, face dark brown, paler brown near clypeus; oc and vt black, about one-third length of antennal arista; front, occiput, and vertex black with blue highlights; face constricted at middle, eyes almost holoptic, contiguous below antennae for length of 3–4 ommatidia; palpus small, brown; proboscis brown, extending below eye in lateral view; antennal segments black to brown; postpedicel brown, yellow medially, long, lanceolate, length about 4.0 x width; arista slightly longer than head height. **Thorax:** Yellow; mesoscutum with paired admedian brown vittae, flared, becoming thickest posteriorly; thoracic setae black: 4 dc; 2 np; 2 ph; 1 pa; 1 sc; ac absent; halter stem white, knob brownish. **Legs:** Coxae yellowish white (except CII with single thin brown longitudinal stripe medially), CI with three black setae apically; femora yellow brown, FIII yellowish brown basally, becoming darker brown on dorsoapical two-thirds; remainder of legs yellowish brown; foreleg unmodified, without MSSC; FII with 2 rows of black setae ventrally, patch of thicker setae subapically on ventral surface; FIII with row of 6 long strong black setae on basal half of ventral surface (MSSC). $TiII$ (Fig. 6) slightly bowed and flared, widest at apical third, with row of short fine setae along lateral surface (Fig. 6b, s3), dense long curled hairs at bend of mesal surface, 5–7 long thick curved setae admixed with these hairs from bend to apex (Fig. 6b, s2), single thick strong curved setae near midpoint on lateral surface, row of short stubby setae subbasally on mesal surface (Fig. 6a, s1), ring of 3 strong setae apically, admixed with dense patch of short black setae (MSSC). IIt_1 long, about 2.5 times length of IIt_2 , with row of stiff spines mesally, fine long hairs laterally (MSSC). IIt_2 with sparser long hairs laterally (MSSC). Remainder of leg segments without MSSC. **Wing:** Pale smoky throughout. **Abdomen:** Tergites brown except for yellowish laterally on tergites II–IV, with short black hairs dorsally on each tergite, a few longer hairs laterally; sternites yellowish white. Hypopygium yellowish, not dissected. **Female.** As in male except as follows: lack of MSSC; antennal postpedicel length about 1.5 times width; tarsi brown; tergites II–V with yellow laterally.

Types. **HOLOTYPE** ♂ (BPBM Type 16,658) [BPBM101254] and **PARATYPE** ♀ [BPBM101255] from FRENCH POLYNESIA: **Society Is:** TAHITI NUI: Mt. Marau, 730 m, 14–15.VII.2006, yellow pan trap, N. Evenhuis. **OTHER PARATYPES:** FRENCH POLYNESIA: **Society Is:** TAHITI NUI: 2 ♂ [BPBM101256], Mt. Marau, 1350 m, 11–20.v.2006, 21–30.v.2006, Malaise trap, E. Claridge; 2 ♂ [BPBM101257], 6 ♀ [BPBM101258], same data except: 1170 m, 10.v.2006. TAHITI ITI: 1 ♂ [BPBM101259], 1 ♀ [BPBM101260], Mt. Teatara, mossy forest on north slope, 980 m, 7.ix.2006, D.A. Polhemus; 1 ♂ [BPBM101261], Taiarapu, above Vaiufaufa, 900 m, 24–25.ix.1977, S.L. Montgomery. Holotype in BPBM. Paratypes in UCB and BPBM. All specimens are preserved in ethanol except for the pinned ♂ collected by Montgomery.

Etymology. The specific name derives from the American cartoon character “Popeye the Sailor Man”, who had swollen forearms; and refers to the swollen mid tibia of the males. The name is treated here as a noun in apposition.

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