

*This contribution is published
to honor Dr. Amnon Freidberg,
a scientist, a colleague and a friend,
on the occasion of his 75th birthday.*

The *Amblysilopus ammoni* and *megastoma* groups in New Guinea (Diptera: Dolichopodidae: Sciapodinae)

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ABSTRACT

Two new species groups in the rich genus *Amblysilopus* Bigot (Diptera: Dolichopodidae: Sciapodinae) are described from New Guinea. The *ammoni* group with an elongate surstylus comprises six species: *A. ammoni* n. sp., *A. ibiscorum* n. sp., *A. kaindi* n. sp., *A. okapa* n. sp., *A. pascali* n. sp., *A. pulverulentus* (Parent) and *A. riuensis* n. sp. The *megastoma* group with a greatly enlarged proboscis in both sexes is described with two species, *A. ialibu* n. sp. and *A. megastoma* n. sp. Known females of both the *ammoni* and *megastoma* groups have some anterior dorsocentral setae reduced to fine hairs, normally a character only found as a male secondary sexual character in Sciapodinae. This is another example in the Sciapodinae where an otherwise male secondary sexual character has been incorporated into the female phenotype.

KEYWORDS: Diptera, Dolichopodidae, Sciapodinae, long-legged flies, Australasian Region, Papua New Guinea, biodiversity, new species, taxonomy, identification key.

INTRODUCTION

The Sciapodinae (Dolichopodidae) are a cohesive dolichopodid subfamily, often readily identified by the excavated vertex and/or branched vein M. The genus *Amblysilopus* comprises metallic blue-green flies often with slender yellow legs and “swept-back” wings. Most species are small-sized (wing length less than 3.0 mm) and rather delicate. The legs of males are often elongate and bear fine secondary sexual characters such as modified setae and flags, and as such are easily damaged in traps or sweep samples.

The genus is pan-tropical with many species and acts as a “holding taxon” rather than a strict monophyletic clade (see review in Bickel 1994, 2009a). The Australian *Amblysilopus* fauna is the best documented with 84 described species (Bickel 1994). However, many more species await both collection and description, especially from the poorly known Oriental and Australasian tropics. As an example of potential richness, the fauna of the small-sized Fiji archipelago comprises 30 species (Bickel 2006, 2009a). The *Amblysilopus* fauna of the topographically complex New Guinea

region is particularly rich. This paper treats the fauna of two species groups, each defined by strong synapomorphies: the *ammoni* group with seven species, and the *megastoma* group with two species.

Regarding the diversity of small Diptera in topographically complex New Guinea, it should be noted that most species are known from a few locations, often only the type locale, and almost all from Papua New Guinea. The New Guinea fauna would be much larger if the fauna of the poorly known Indonesian Papua and West Papua provinces were available (also see Bickel 2009b).

MATERIALS AND METHODS

The material studied or cited in this revision is kept in use the following repositories: AMNH – American Museum of Natural History, New York; AMS – Australian Museum, Sydney; ANIC – Australian National Insect Collection, CSIRO, Canberra; BPBM – Bishop Museum, Honolulu; MNHN – Museum National d’Histoire Naturelle, Paris.

Species are defined based on the male genitalia and male secondary sexual characters (MSSC). Keys are based on non-genitalic characters where possible, although accurate identification often requires examination of the male postabdomen. Since the male genitalia are external in Sciapodinae, clearing the hypopygium usually is not necessary. Descriptions are condensed to avoid unnecessary repetition. Photographs were made with a Leica M205A photomontage system. The left lateral view of the hypopygium or male genital capsule is shown for most species. In describing the hypopygium, ‘dorsal’ and ‘ventral’ refer to morphological position prior to genitalic rotation and flexion. Thus, in figures showing a lateral view of the hypopygium, the top of the page is morphologically ventral, while the bottom is dorsal. Morphological terminology follows Cumming and Wood (2017). Measurements were made on representative dry specimens (usually the holotype). Body length of males is measured from the base of the antennae to the tip of the 7th abdominal segment. The CuAx ratio is the length of the m–cu crossvein/distal section CuA. The position of features on elongate structures such as leg segments is given as a fraction of the total length, starting from the base. The relative lengths of the podomeres are representative ratios and not measurements, and they are given for each leg in the following formula and punctuation: trochanter + femur, tibia, tarsomere 1/2/3/4/5. The following abbreviations and terms are used: I, II, III – pro-, meso-, metathoracic legs; C – coxa; F – femur; FSSC – female secondary sexual character(s), non-genitalic characters found only on female body; MSSC – male secondary sexual character(s), non-genitalic characters found only on male body; T – tibia; t – tarsus; t₁₋₅ – tarsomeres 1–5. Setation is recorded as follows: ac – acrostichal setae; ad – anterodorsal; av – anteroventral; dc – dorsocentral setae; dv – dorsoventral; hm – postpronotal setae; npl – notopleural setae; pa – postalar setae; pd – posterodorsal; pm – presutural supra-alar setae; ppl – proepisternal setae; pv – posteroventral; sa – postsutural supra-alar setae; sr – presutural intra-alar setae.

TAXONOMY

Genus *Amblypsilopus* Bigot, 1888

Diagnosis: *Head.* Vertex distinctly excavated; head width almost always greater than height; row of short orbital setae and strong postvertical seta; strong diverging ocellar setae; male vertical seta usually weak and reduced, or absent; female vertical always strong; male face flat to only slightly bulging; male clypeus narrowed and distinctly free from eye margin in most species (MSSC); female clypeus almost always adjacent to sides of eyes; pedicel with short dorsal and ventral setae; first flagellomere usually subrectangular to subtriangular, sometimes modified in males; arista usually distinctly dorsal and arising near base of first flagellomere, although sometimes dorsoapical or apical; arista usually short, not much longer than head width; rarely with male apical flags or modifications.

Thorax. ac setae variable, from biseriate to absent; 4–5 pairs dc, almost always sexually dimorphic, in males two posterior dc (dc_1 and dc_2) always strong, and anterior dc variously reduced and hair-like (MSSC); in females, usually all dc setae strong, only slightly decreasing in size anteriorly; median scutellar setae strong, laterals always reduced to weak hairs or absent.

Legs. Often elongate and “delicate”; femora rarely with strong ventral setae; many characters diagnostic in defining species and species groups developed on legs, such as following MSSC: (a) tibiae and/or tarsomeres elongated or shortened, (b) tarsomeres I and II flattened, (c) III t_{3-5} flattened and padlike, (d) tibiae and tarsi I and II with short erect or crocheted setae, (e) male TI or It₁ with pale curved posterior hairs.

Wing. Usually hyaline, but sometimes with apical maculations, vein M₁ usually with elbow-shaped bend, crossvein m–cu straight and usually forming right angle with vein M.

Abdomen. Relatively long in male; terga sometimes translucent yellow; hypopygial peduncle (segment 7) not greatly prolonged; hypandrium usually asymmetrical, with narrow left lateral arm, arising near base of hypandrium; phallus with dorsal angle; epandrial lobe with 2 strong apical bristles; surstylus and cercus various.

Remarks: *Amblypsilopus* is a rich and complex pan-tropical genus that acts as a “holding taxon” for many small and often delicate members of the Sciapodinae. The genus is not strongly defined and is possibly polyphyletic. However, *Amblypsilopus* can be split into good monophyletic species groups defined on male genitalic and secondary sexual characters, and thus provide the basic units or clades for systematic study. *Amblypsilopus* species are defined by a mosaic of male characters many of which are highly plastic in expression and lack evident polarities. The nomenclatorial history of *Amblypsilopus* is discussed in Bickel (1994).

**Key to males of the *Amblypsilopus amnoni* and *megastoma* groups
from New Guinea (Diptera: Dolichopodidae: Sciapodinae)**

1 Vertex strongly excavated on either side of ocellar tubercle, or if weakly excavated, vein M distinctly branched, with M₂ present at least as a fold on membrane;

- mesonotum short, about as wide as long; hypopygium exerted and distinctly pedunculate; posterior mesonotum never flattened (subfamily Sciapodinae)....2
- Vertex not excavated, vein M_2 usually absent; other characters various...
..... other Dolichopodidae
- 2 Vein M unbranched but with gentle anterior bend beyond crossvein dm–cu (vein M_2 totally absent, without fold or indication on membrane); all dc and vertical seta present and strong in both sexes *Mesorhaga* Schiner
- Vein M branched and vein M_2 present, even if as fold on membrane; if unbranched, then males with anterior dc as weak hairs; other features various.....3
- 3 Arista dorsal or dorsoapical on subrectangular postpedicel; male tibial chaetotaxy often weak; crossvein dm–cu usually straight; vein M_2 usually straight, not arched; male vertical setae hairlike or absent, male clypeus narrowed and free from eye margin; male lateral scutellar setae hair-like or absent; body often appearing delicate, with elongate legs; male $III_{t_{3-5}}$ rarely flattened and padlike (*Amblypsilopus* Bigot).....4
- Without most or all of above charactersother Sciapodinae (not treated here)
- 4 Tibia I with single outstanding curved posterior seta, variously positioned, but usually along distal half, or if lacking long seta on tibia I, present on It_1 near joint with tibia; tibia on distal fifth to sixth slightly expanded with white ventral pile; male vertical seta usually reduced and weak; legs usually elongate and yellow; abdominal segments sometimes partially translucent yellow5
- Tibia I without outstanding posterior seta, or with series of short posterior setae; other features various.....other *Amblypsilopus* (not treated here)
- 5 Labella of both sexes greatly enlarged (Figs 20, 22); both sexes with basitarsus I longer than tibia I; tibia I with short pale curved posterior seta at $\frac{9}{10}$, just before apex (It_5 black, flattened and expanded into apical pinnate flag; cercus long and flagellate (*megastoma* Group).....6
- Labella unmodified, not enlarged; other characters various7
- 6 Clypeus pale yellow; enlarged labella trapezoidal; wing length <4.8 mm; scutellum dorsally dark blue but with yellow dorsal rim; hypopygium basally yellow and distally dark brown (Figs 18–21). (<1000 m)*A. megastoma* n. sp.
- Clypeus yellow with green reflections; labella elongate, blade-like; wing length >5.2 mm; scutellum dorsally entirely blue-green; hypopygium entirely dark brown (Figs 22–24). (>2000 m) *A. ialibu* n. sp.
- 7 Surstylus elongate digitiform and curved, at least $\frac{1}{3}$ length of epandrium; base of basitarsus III near join with tibia III with 2 short ventral setae (*ammoni* Group)8
- Surstylus short, less than $\frac{1}{4}$ length of epandrium; basitarsus III various.....
...other *Amblypsilopus* with posterior curved seta on ♂ tibia I (not treated here)
- 8 Cercus rather thick and setose with ventral recurved arm; basitarsus I longer than tibia I; leg I tarsomere 5 without apical tarsal flag9

- Cercus elongate, digitiform and curved, basitarsus I variable; leg I tarsomere 5 modified into flattened black flag..... 10
- 9 Thorax metallic blue-green; tibia I slightly bowed, and slightly flattened with whitish ventral pile along length; basitarsus I ventrally bare; sternite 8 yellow; hypopygium almost entirely yellow with basal hypandrium infuscated; surstylus curved, digitiform about half length of epandrium; cercus basally swollen, with distal cercus digitiform arm recurved against base (Figs 14, 15). (>2000 m)....
.....*A. ibiscorum* n. sp.
- Thorax almost entirely yellow; tibia I ventrally bare; basitarsus I with group of 3 black ventral setae at very base (MSSC); sternite 8 dark brown; hypopygium dark brown with yellow surstylus and cercus; cercus with blade-like ventral arm arising near $\frac{2}{5}$ and recurved back towards cercal base, and distally tapering with long hairs (Figs 16, 17)..... *A. riuensis* n. sp.
- 10 Cercus distinctly branched into two or more distinct arms..... 11
- Cercus with single elongate unbranched arm or with short projection..... 12
- 11 Basitarsus I shorter than tibia I; tibia I slightly bowed, with ventral surface of distal third ivory colored; leg I tarsomere 4 slightly flattened with ivory colored pruinosity, and leg I tarsomere 5 black and expanded into apical pinnate flag; wing hyaline; hypopygium mostly dark brown; cercus in broad C-shape with setose dorsal arm and curved bladelike medially directed ventral arm (Figs 9–12).....
.....*A. kaindi* n. sp.
- Basitarsus I longer than tibia I; leg I tarsomere 5 slightly flattened; wing with brownish infuscation on distal quarter; hypopygium mostly yellow; cercus with basal triangular projection from which elongate arm diverges at right angles (Fig. 13).....*A. pulverulentus* (Parent)
- 12 Thorax mostly yellow; hypopygium yellow; surstylus curved, elongate, almost twice as long as epandrium; cercus basally swollen, becoming elongate and extended, flagelliform and curled, almost 3× as long as epandrium (Figs 5–8)
.....*A. okapa* n. sp.
- Thorax mostly metallic green-blue; hypopygium color various; surstylus curved, elongate, shorter than epandrium; cercus subequal to or shorter than epandrium
..... 13
- 13 Basitarsus I subequal to TI; leg I tarsomere 5 black, flattened and expanded into apical pinnate flag; hypopygium basally yellow but distally brown, cercus short, digitiform, only slightly swollen basally, and unbranched with pale yellow hairs (Figs 1, 2)..... *A. amnoni*
- Basitarsus I unusually long and bowed, more than twice length of tibia I; leg I tarsomere 4 flattened into three bright ivory colored surfaces; leg I tarsomere 5 black, flattened and expanded into large apical pinnate flag; hypopygium dark brown; cercus swollen basally, on point like extension of epandrium, and elongate with two digitiform arms (Figs 3, 4)..... *A. pascali* n. sp.

The *Amblypsilopus ammoni* group

Diagnosis: *Head.* Major head setae often yellow on both sexes; vertical seta on lateral frons slightly shorter than postvertical; first flagellomere short, rounded subtriangular; arista dorsal, and as long as head height.

Thorax. Two pairs of long ac present, with shorter pair anteriormost; two strong posterior dc and weak hair-like dc anterior in males, and also in known females; median scutellar setae strong, laterals absent.

Legs. Coxa I yellow; coxae II and III brown, at least basally and remainder of legs mostly yellow; tibia I with single long curved posterior seta variously positioned, but usually along distal half (sometimes with additional weaker setae distad); TI on distal fifth to sixth slightly expanded with white ventral pile; TII with anterior seta at $\frac{4}{5}$, and usually without ad setae.

Abdomen. Segment 7 (hypopygial peduncle) elongate with tergum 7 much longer than sternum 7 (Fig. 1a); epandrium subtriangular to subrectangular; surstylus distally narrowed and curved, elongate, hypandrium with smooth ventral surface; phallus without subapical barb-like projection; cercus various.

Remarks: Almost all species of the *Amblypsilopus ammoni* group are known from montane rainforest of Papua New Guinea, at elevations mostly above 1500 m. The only exception is *A. riuensis* from 250–300 m on low-lying Sudest Island in Milne Bay Province.

Species of the *ammoni* group are readily recognized by the curved digitiform surstylus, often as long as or longer than the epandrium (e.g., Figs 2, 7, 13, 15). Also, known females of the *ammoni* group have some anterior dorsocentral setae reduced to fine hairs, normally a character only found as a male secondary sexual character in Sciapodinae. This is another example in the Sciapodinae where an otherwise male secondary sexual character has been incorporated into the female phenotype (see Bickel 1994). Other characters of note in both sexes of the *ammoni* group are the pair of short ventral setae near base of basitarsus III and the antennal pedicel with a strong dorsal seta, but without a corresponding ventral seta.

Seven species from the *ammoni* group, all from Papua New Guinea, are treated below: *ammoni* n. sp., *ibiscorum* n. sp., *kaindi* n. sp., *okapa* n. sp., *pascali* n. sp., *pulverulentus* (Parent), *riuensis* n. sp.

I have seen damaged specimens of another species from West Sepik Province, Green River that belongs in the *ammoni* group (BPBM).

Amblypsilopus ammoni n. sp.

(Figs 1, 2)

LSID: urn:lsid:zoobank.org:act:136F3F3B-1BF2-43D0-8ED4-7BE598746D6E.

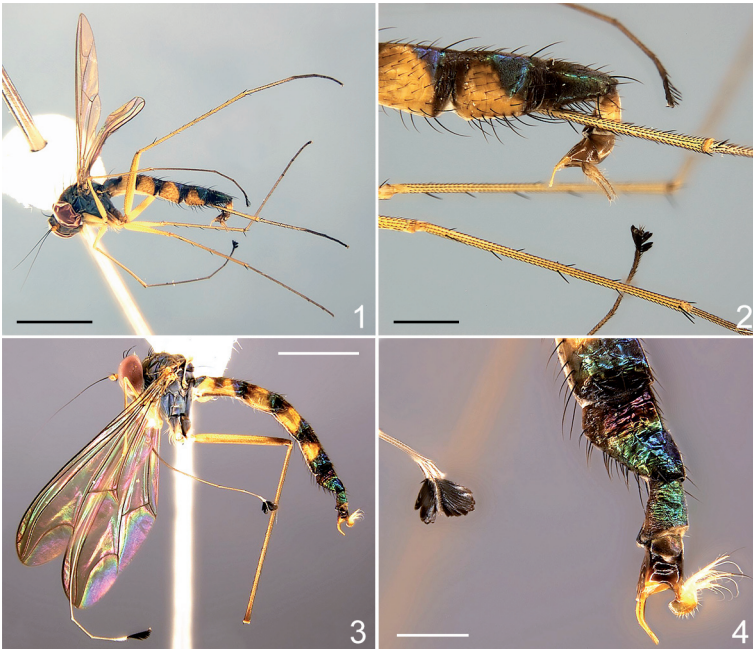
Etymology: The species is named in honor of Amnon Freidberg, for his contributions to the study of the Tephritoidea and to me personally as a most valued referee for Zootaxa manuscripts.

Description: Male. Length 4.3 mm, wing 4.5×1.4 mm (Fig. 1).

Head. Vertex, frons, face and clypeus mostly metallic blue-green, with a dusting of fine yellowish pruinosity; row of short white orbital setae and strong white post-vertical seta; strong diverging ocellar setae and pair short posterior hairs on ocellar tubercle; short black vertical seta on lateral slope of vertex; upper face slightly bulging, distal face and clypeus laterally with yellowish cuticle; palp yellow with yellow setae; proboscis pale yellow; antenna mostly yellow with dark brown arista; scape short; pedicel with subapical coronal of short black setae and with strong dorsal seta, ventral seta absent; postpedicel subtriangular with apical arista, length almost twice head height, and simple; ventral postcranium with white setae.

Thorax. Entirely metallic blue-green with bronze reflections, with yellowish cuticle along sutures, and with dusting of grey pruinosity, denser over pleura; metepimeron infuscated; setae black; 2 pairs of long posterior ac, with shorter pair anteriormost; 2 strong posterior dc and 4 weak hair like dc anteriorly (MSSC); 1 pa, only 1 sa, only 1 sr, 2 npl, 1 hm, and 1 pm; median scutellar setae strong, laterals absent.

Legs. CI, all trochanters, femora, tibiae, and basal tarsomeres yellow, with distal tarsomeres becoming infuscated, and as noted below; CII and CIII brownish basally, becoming yellow distally; CI with 3 pale yellow distolateral setae and white hairs:



Figs 1–4: (1, 2) *Amblypsilopus amnoni* n. sp.: (1) male habitus, left lateral; (2) male postabdomen and apical tarsomeres of leg I; (3, 4) *A. pascali* n. sp.: (3) male habitus, left lateral; (4) male postabdomen and tarsomeres 4–5 of leg I. Scale bars 2.0 mm in Figs 1, 3 and 0.2 mm in Figs 2, 4.

CII with white anterior hairs; CIII with pale yellow lateral seta at $\frac{1}{3}$; legs with short black vestiture; I: 5.0, 6.3, 6.6/2.0/1.5/0.5/0.7; FI slightly swollen in basal third; TI slightly bowed, and with pale posterior seta at $\frac{5}{6}$ (MSSC), It_1 elongate, subequal to TI; It_5 black, flattened and expanded into apical pinnate flag (MSSC); II: 5.0, 8.0, 7.0/1.6/1.5/0.7/0.4; FII with short subapical pv seta; TII with short ad setae at $\frac{1}{10}$, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, and with shorter pd at $\frac{1}{10}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{3}{4}$, with apical corona of ad, av, pv and dorsal setae at $\frac{4}{5}$; III: 7.0, 12.3, 5.8/2.3/1.5/1.0/0.5; TIII with strong ad at $\frac{1}{8}$, short av setae, 4 short spaced anterior setae along distal two-thirds, 5 spaced short dorsal seta along length, and with corona of short ad, av, and pv apical setae; $IIIIt_1$ with pair short ventral setae near base.

Wing. Hyaline, elongate; vein M_1 in right-angled arch M_1 to approach R_{4+5} and join costa anterior to wing apex; dm-cu straight; CuAx ratio 1.5; lower calypter pale yellow with fan of pale yellow setae; haltere yellow.

Abdomen. Tergite 1 metallic blue green; tergites 2–5 mostly yellow, but brown anteriorly near tergal overlap, and with metallic blue-green coloration along posterior third with dark brown border before tergal edge; tergite 6 basally metallic blue-green; tergite 7 brown but ventrally yellow, preabdomen with short black vestiture and longer setae near posterior tergal margins; sternite 8 pale yellow; hypopygium (Fig. 2) basally pale yellow but distally brown, with yellow surstylus, phallus and cercus; epandrium subrectangular; surstylus curved and narrow, sickle-like, shorter than length of epandrium, and with some fine hairs subapically; cercus short, digitiform, only slightly swollen basally and unbranched with pale yellow hairs.

Female. Similar to male, except as noted: head setae black; vertical seta strong; face not bulging, metepimeron distinctly yellow; 2 strong dc posteriorly, with 2–3 weaker anterior hair-like dc; TI bare, straight lacking ventral pile; TI distinctly longer than It_1 ; tarsus I unmodified; $IIIIt_1$ also with pair short ventral setae near base.

Holotype: ♂ Papua New Guinea: Western Province, SE slope of Mt Arik (= Ian), NW of Tabubil, 5.10°S 141.09°E, 1625 m, 6–12.iv.1994, R.B. Lachlan (AMS).

Paratypes: 1♂ 1♀, same as holotype; 1♂, same but 1–4.iv.1994; 1♀, 16–20.iii.1993 (AMS).

Remarks: *Amblypsilopus ammoni* is known only from the rainforest type locality near 1600 m at Tabubil, Western Province, Papua New Guinea. Males have a long basitarsus I and leg I tarsomere 5 is modified into a black pinnate flag, and the cercus is short, slightly curved and unbranched.

Amblypsilopus pascali n. sp.

(Figs 3, 4)

LSID: urn:lsid:zoobank.org:act:BBAA4C0F-2D16-47C0-82A4-3464125BEA54.

Etymology: This species is named in honor of Pascal Sannuto for his logistical contribution to this study.

Description: Male. Length 7.2 mm, wing 6.6×1.8 mm (Fig. 3).

Similar to *A. amnoni* except as noted:

Head. Pedicel with subapical coronal of short black setae and with both strong dorsal and ventral seta.

Legs (all leg II and tarsus of leg III missing). CI, all trochanters, femora, tibiae and basal tarsomeres yellow, with distal tarsomeres becoming infuscated, and as noted below; CII dark brown basally, yellow on distal half, and CIII all dark brown; legs with short black vestiture; I: 8.5, 9.6, 21.0/3.0/2.5/1.0/2.2; TI slightly bowed, and with long curved pale yellow seta near $\frac{7}{8}$, subtended basally by 4 weaker posterior setae (MSSC) and slightly swollen apically; It_1 unusually long and bowed, more than twice length of TI (MSSC) (Fig. 4); It_4 flattened into 3 bright ivory colored surfaces and with black setae near join with It_5 (MSSC); It_5 black, flattened and expanded into large apical pinnate flag with (MSSC); III: 11.0, 19.3, tarsus missing; TIII setation similar.

Wing. CuAx ratio 2.0.

Abdomen. Tergite 1 metallic blue green; tergites 2–5 mostly yellow, but brown anteriorly near tergal overlap and with metallic blue-green coloration along posterior third, with dark brown border before tergal edge; tergite 6 basally metallic violet, but distally, along with tergite 7, metallic blue-green; preabdomen with short black vestiture and longer setae near posterior tergal margins; sternite 8 dark brown; hypopygium (Fig. 4) with dark brown epandrium and yellow surstyli, distal phallus and cercus; epandrium subrectangular; surstylus curved, about as long as epandrium, narrowed and sickle-like, and bare of setae; cercus swollen basally, on pointed extension of epandrium, and elongate with two digitiform arms bearing pale yellow setae, shorter arm near $\frac{2}{5}$, and longer distal arm with black curved apical set, and with long curved yellow median seta arising near $\frac{1}{2}$.

Female. Unknown.

Holotype: ♂ **Papua New Guinea:** Western Province, SE slope of Mt Arik (= Ian), NW of Tabubil, 5.10°S 141.09°E, 1625 m, 1–4.iv.1994, R.B. Lachlan (AMS).

Remarks: *Amblypsilopus pascali* is known only from the rainforest type locality near 1600 m at Tabubil, Western Province, Papua New Guinea, and is close to the sympatrically occurring *A. amnoni*. However, it is clearly larger, has male basitarsus I more than twice length of tibia I, male leg I tarsomere 4 flattened and ivory colored, and tarsomere 5 flattened into a large rounded black pinnate flag (Fig. 4).

Amblypsilopus okapa n. sp.

(Figs 5–8)

LSID: urn:lsid:zoobank.org:act:03D71B66-448B-4DFD-83C9-7FC2955FF7A4.

Etymology: The specific epithet, *okapa*, is an indigenous place name and a noun in apposition.

Description: Male. Length 5.3–5.7 mm, wing 5.2×1.3–5.4×1.5 mm (Fig. 5).

Similar to *A. amnoni* except as noted:

Head. Setation and coloration similar; upper face of males slightly bulging, clypeus metallic blue-green at base, but yellow distally.

Thorax. Almost entirely yellow, but mesonotum and scutellum with shining metallic blue-green cuticle with little pruinosity; setation similar.

Legs. All coxae and remainder of legs pale yellow, with distal tarsomeres infuscated, and as noted below; CI with 3 pale yellow distolateral setae and whitish hairs; CII with brown hairs; CIII with brown lateral seta at $\frac{1}{3}$; legs with short black vestiture, and mostly bare of major setae; I: 6.4, 9.8, 7.4/3.0/2.2/0.8/0.7; TI straight, with pale yellow posterior seta at $\frac{7}{8}$ (MSSC) and swollen subapically with whitish ventral hairs (MSSC), It_1 shorter than TI; It_{3-4} (Fig. 8) with anterior surface ivory colored; It_5 black, dorsoventrally flattened and expanded into apical pinnate flag (MSSC); II: 6.2, 11.6, 9.2/2.1/1.7/0.7/0.4; setation similar; III: 8.6, 16.3, 6.7/2.3/1.5/0.9/0.5; TIII setation similar; $IIIIt_1$ also with pair short ventral setae near base.

Wing. CuAx ratio 1.4; haltere yellow, sometimes with infuscated head.

Abdomen. Tergites 1–4 yellow, but some specimens with narrow matt brown band before distal tergal edge; tergites 5 and 6 mostly yellowish various with metallic blue-green cuticle near distal margin and dorsally; tergite 7 and sternite 8 yellowish; vestiture brownish; hypopygium (Figs 6, 7) almost entirely yellow, but epandrium



Figs 5–8: *Amblypsilopus okapa* n. sp.: (5) male habitus, left lateral; (6) male postabdomen; (7) male postabdomen (Mt Suckling, PNG); (8) tarsomeres 4–5 of male leg I. Scale bars 2.0 mm in Fig. 5 and 0.2 mm in Figs 6–8.

infuscated on some specimens; epandrium tapering triangular; surstylus curved, elongate, almost twice length of epandrium; cercus basally swollen, becoming elongate and extended, flagelliform and curled, almost three times length of epandrium [also see Remarks, below].

Female. Similar to male, except as noted: face not bulging; thoracic coloration similar; 2 strong dc posteriorly, with 2–3 weaker anterior hair-like dc; TI bare and lacking ventral pile; It_1 distinctly longer than TI; tarsus I unmodified; III_{t_1} also with pair short ventral setae near base; legs and abdomen mostly yellow.

Holotype: ♂ **Papua New Guinea:** Eastern Highlands Province, Okapa [$6^{\circ}31'S$ $145^{\circ}37'E$], 2120 m (as 7000 ft), 6.ix.1964, R. Hornabrook (ANIC).

Paratype: 1♀, same but 5.xi.1964 (ANIC).

Other material examined: Papua New Guinea: 1♂, Morobe Province, Mt Missim, 1900 m, 10–15.v.1967, G.A. Samuelson (BPBM); 1♂, Oro Province, Mt Suckling, Mau 1, Peori-Gawm, 1200 m, 12.vii.1972, J.L. Gressitt (BPBM).

Remarks: *Amblypsilopus okapa* is known from elevations of 1900–2200 m in the mountains of the Eastern Highlands and Morobe provinces, and at 1200 m in Oro Province, Papua New Guinea. It is close to *A. amnoni*, and also has leg I tarsomere 5 modified into a black pinnate flag. However, the hypopygium of *A. okapa* is striking and diagnostic (Fig. 6), with its long curved surstylus and elongate flagelliform cercus. The male from Mt Suckling, Oro Province (Fig. 7) is slightly smaller, and its surstylus is about 1.5 times the length of the epandrium, while the cercus is only about twice the epandrial length. I regard this as intraspecific variation since the three male specimens have similar coloration, leg setation and MSSC.

As well, the female basitarsus I of *A. okapa* is longer than its tibia I, whereas in the male it is shorter than its tibia. Generally in the Sciapodinae, having basitarsus I equal to, or distinctly longer than tibia I is a male character, as in *A. ibiscorum* and *A. amnoni* described here.

Amblypsilopus kaindi n. sp.

(Figs 9–12)

LSID: urn:lsid:zoobank.org:act:27C48558-3F91-44C0-9341-4D2682FE562E.

Etymology: The specific epithet, *kaindi*, is an indigenous place name and a noun in apposition.

Description: Male. Length 6.3 mm, wing 6.0×1.4 mm (Fig. 9).

Similar to *A. amnoni* except as noted:

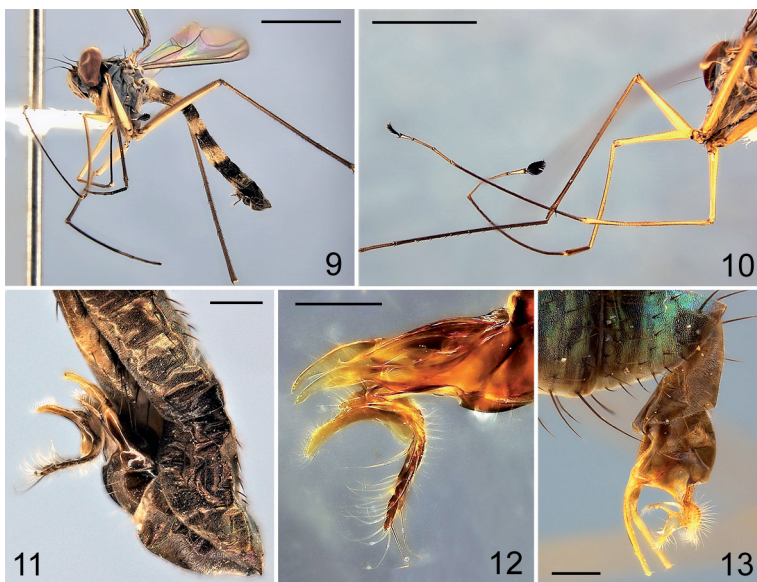
Head. Row of short black orbital setae and black postvertical seta; tiny black vertical seta on lateral slope of vertex; upper face of males slightly bulging, distal face and clypeus metallic blue-green; proboscis pale yellow; scape and pedicel yellow, postpedicel brown; scape short; pedicel with subapical coronal of short setae and strong dorsal and ventral seta; postpedicel subtriangular with apical arista, length almost twice head height.

Thorax. Metallic blue-green with some yellowish cuticle on metepimeron.

Legs. CI, all trochanters, femora, tibiae, and basal tarsomeres I and II yellow, with distal tarsomeres becoming infuscated, and as noted below; CII and CIII brownish basally, becoming yellow distally; leg III brownish; CI with 3 pale yellow distolateral setae, and white hairs; CII with white anterior hairs; CIII with pale yellow lateral seta at $\frac{1}{3}$; legs with short black vestiture; I: 7.0, 11.0, 7.5/1.0/1.2/0.7/0.9 (Fig. 10); TI slightly bowed, and with pale posterior seta at $\frac{5}{6}$ (MSSC), and with ventral surface of distal third ivory colored and slight expanded apically with some pale posterior hairs (MSSC), It_1 elongate, narrow and shorted than TI; It_4 slightly flattened dorsoventrally and with ivory colored pruinosity (MSSC); It_5 black, flattened and expanded into apical pinnate flag (MSSC); II: 7.0, 13.1, 12.8/2.5/2.0/0.7/0.5 (Fig. 10); FII with short subapical pv seta; TII with short ad setae at $\frac{1}{10}$, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, and with shorter pd at $\frac{1}{10}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{3}{4}$, with apical corona of ad, av, pv and dorsal setae; III_1 only slightly shorter than TII; III: 10.0, 18.2, 9.2/3.0/2.2/1.3/0.7; TIII without strong ad seta, some short av and dorsal setae, and with short ad, av, and pv apical setae; III_1 with pair short ventral setae near base.

Wing. CuAx ratio 1.7.

Abdomen. Tergite 1 metallic blue-green but yellow laterally; tergites 2–4 mostly yellow, but brown anteriorly along basal third and distal sixth, and with faint brown dorsal stripe dorsally; tergites 5–8 mostly dark brown with metallic reflections; hypopygium (Figs 11, 12) mostly dark brown including cercus, but surstylus yellow;



Figs 9–13: (9–12) *Amblypsilopus kaindi* n. sp.: (9) male habitus, left lateral; (10) male legs I and II, posterior; (11) male postabdomen, left lateral; (12) hypopygium, left lateral; (13) *A. pulverulentus* (Parent), holotype, hypopygium, left lateral. Scale bars 2.0 mm in Fig. 9, 1.0 mm in Fig. 10, and 0.2 mm in Figs 11–13.

epandrium subrectangular; hypandrium with short hypandrial hood and long left lateral arm; surstylus elongate and curved with only fine setae; cercus basally with setose digitiform lateral projection, and divided into broad C-shape with dorsal arm curved and bearing lateral hairs and apical seta, and with ventral arm curved and blade-like and directed medially to meet ventral arm of other cercus along midline.

Female. Unknown.

Holotype: ♂ Papua New Guinea: Morobe Province, Mt Kaindi, nr Wau, 7.24°S 146.44°E, 1550–2300 m, 14–29.x.1992, ex *Caldchuria*, Y. Basset (BPBM).

Remarks: *Amblysilopus kaindi* is known only from the Mt Kaindi rainforest locality between 1150–2300 m near Wau, Morobe Province, Papua New Guinea. Males have an elongate tibia I and basitarsus I (Fig. 10), and leg I tarsomere 4 has an ivory colored surface, while tarsomere 5 is modified into a black pinnate flag. The cercus is broadly C-shaped with setose dorsal arm and curved blade-like ventral arm directed medially to meet ventral arm of adjacent cercus along midline. This species has a rather long abdomen, about twice the combined length of the head and thorax together.

Amblysilopus pulverulentus (Parent, 1939)

(Fig. 13)

Chrysosoma pulverulentum Parent, 1939: 162.

Amblysilopus pulverulentus (Parent): Bickel 1994: 288.

Redescription: Male. Length 5.0 mm.

Similar to *A. amnoni* except as noted:

Head. [Antenna mostly yellow with dark brown arista.]

Legs. CI, all trochanters, femora, tibiae and basal tarsomeres yellow, with distal tarsomeres becoming infuscated, and as noted below; CII and CIII yellow but infuscated laterally; legs with short black vestiture; [TI slightly flattened dorsoventrally and with pale posterior seta before apex; tarsus very long and narrow, T2 $\frac{1}{3}$ × as long as TI, and It₁ twice the length of distal tarsus; It₅ slightly flattened and expanded]; II: 6.5, 10.0, 9.0/2.0/1.3/0.7/0.4; FII with short subapical pv seta; TII with short ad setae at $\frac{1}{10}$, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, and with shorter pd at $\frac{1}{10}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{3}{4}$, with apical corona of ad, av, pv and dorsal setae at $\frac{1}{5}$; III: 7.5, 14.5, 5.8/2.1/1.5/0.8/0.4; TIII with strong ad at $\frac{1}{8}$, short av setae, 4 short spaced anterior setae along distal two-thirds, 5 spaced short dorsal seta along length, and with corona of short ad, av and pv setae; IIIIt₁ with pair of short ventral setae near base.

Wing. [Hyaline, but with brownish infuscation in distal quarter of wing.]

Abdomen. Tergite 1 metallic blue-green yellowish medially; tergite 2 mostly yellow, but metallic blue-green anteriorly near tergal overlap; tergites 2–6 mostly metallic blue green, but yellow ventrally; preabdomen with short black vestiture and longer setae near posterior tergal margins; tergite 7 and sternite 8 brown; hypopygium (Fig. 13) almost entirely yellow with basal hypandrium infuscated;

epandrium tapering triangular; surstylus elongate, curved and digitiform, longer than epandrium; cercus with basal triangular projection from which elongate arm diverges at right angles, and with fine yellow hairs.

Female. Unknown.

Holotype (examined): ♂ **Papua New Guinea:** Edie Creek [Morobe Province, approx. 1100 m], F.H. Taylor (ANIC). The species was described from a single male. The male holotype is badly damaged, missing the wings, head and leg I. However, the hypopygium is present and diagnostic for this species. The redescription above is based on the damaged holotype, with some additional details in brackets, translated from the French description.

Remarks: *Amblysilopus pulverulentus* is known only from Edie Creek, Morobe Province, Papua New Guinea, not far from Wau. The cercus (Fig. 13) is diagnostic with a basal triangular projection, from which an elongate arm diverges at right angles. The male leg I has the tibia slightly flattened dorsoventrally, an elongate tarsus, more than twice the length of the tibia, and tarsomere 5 flattened and expanded. The wing is unusual in having a brownish infuscation in the distal quarter of the wing.

Amblysilopus ibiscorum n. sp.

(Figs 14, 15)

LSID: urn:lsid:zoobank.org:act:B0BF79D0-5128-4299-A8C4-908DDAE7BE41.

Etymology: *Amblysilopus ibiscorum* is named after all members of the IBISCA Mt Wilhelm expedition (see Leponce *et al.* 2016).

Description: Male. Length 5.4 mm, wing: 5.5×1.6 mm (Fig. 14).

Similar to *A amnoni* except as noted:

Head. Major head setae black.

Thorax. Entirely metallic blue-green with bronze reflections, with yellowish cuticle along sutures and with dusting of yellowish pruinosity, denser over pleura, and giving dull appearance to cuticle; setae black; metepimeron pale yellow.

Legs. All coxae, trochanters, femora, tibiae, and basal tarsomeres yellow, with distal tarsomeres becoming infuscated, coxae with similar pale yellow setation; legs with short black vestiture; I: 6.0, 7.4, 10.7/2.7/1.8/0.9/0.7; TI slightly bowed, and very slightly flattened with whitish ventral pile along length (MSSC) and without distal posterior seta, It₁ elongate, longer than to TI; It₅ unmodified; II: 6.5, 11.2, 9.7/2.2/1.7/0.7/0.4; FII with short subapical pv seta; TII with 4 spaced short ad setae and 5 shorter pd setae along length, with apical corona of ad, av, pv and dorsal setae; III: 8.7, 14.1, 6.0/2.3/1.2/0.7/0.5; TIII with strong ad at 1/8, short av setae, 4 short spaced anterior setae along distal two-thirds, 5 spaced short dorsal seta along length, and with corona of short ad, av and pv setae; IIIIt₁ with pair of short ventral setae near base.

Wing. CuAx ratio 1.0; lower calypter pale yellow with fan of pale yellow setae; haltere yellow.

Abdomen. Tergite 1 metallic blue-green; tergites 2–4 mostly yellow, with matt brown posterior margin before tergal edge; tergites 5 and 6 yellow, but with metallic blue-green coloration dorsally and on posterior quarter; tergite 7 metallic blue-green; sternite 8 yellow; hypopygium (Fig. 15) almost entirely yellow with basal hypandrium infuscated; epandrium tapering triangular; surstylus curved, digitiform about half length of epandrium; cercus basally swollen, with distal cercus digitiform arm recurved against base, and with yellow hairs.

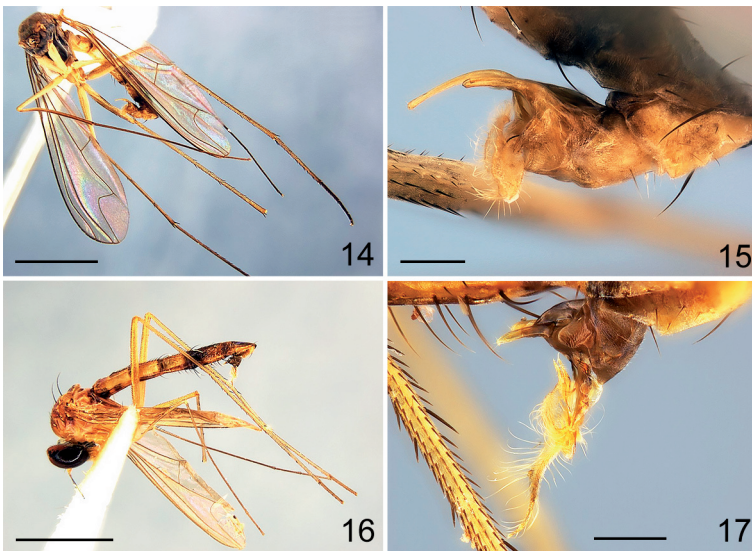
Female. Similar to male, except as noted: face not bulging; clypeus wider and almost adjacent to sides of eyes; antenna brownish; 2 strong posterior dc and 3 weaker anterior hair-like dc; TI bare, unbowed lacking ventral pile; TI distinctly longer than It_1 ; $IIIIt_1$ also with pair short ventral setae near base.

Holotype: ♂ Papua New Guinea: Chimbu Province, Mt Wilhelm, 5.8150°S 145.1580°E, 2700 m, Malaise trap, 28–29.x.2012, P2977, Gewa, Damag, Novotny & Leponce (MNHN).

Paratype: 1♀, same as holotype but 26–27.x.2012 (MNHN).

Other specimens examined: Papua New Guinea: 1♂, Morobe Province, Mt Kaindi, 2350 m, Malaise trap, *Nothofagus* environment, 2.viii.1971, Tawi (BPBM).

Remarks: *Amblysilopus ibiscorum* is known from mixed montane *Nothofagus* forest sites, near 2700 m in Chimbu Province and 2350 m in Morobe Province, Papua New Guinea. Of note is the strong contrast between the yellow coxa I and the adjacent dark metallic blue-green mesothoracic pleura. Males have a long basitarsus I but leg I tarsomere is simple, without flags or other modifications. The recurved cercus is diagnostic for this species.



Figs 14–17: (14, 15) *Amblysilopus ibiscorum* n. sp.: (14) male habitus, left anterior; (15) male postabdomen, left lateral; (16, 17) *A. riuensis* n. sp.: (16) male habitus, left lateral; (17) male postabdomen, left lateral. Scale bars 2.0 mm in Figs 14, 16 and 0.2 mm in Figs 15, 17.

Amblysilopus riuensis n. sp.

(Figs 16, 17)

LSID: urn:lsid:zoobank.org:act:D0E3F2DF-B16D-482B-9C21-66856E33BA72.**Etymology:** The species is named after the Mt Riu type locality on Sudest Island.**Description: Male.** Length 5.6 mm, wing 4.2×1.1 mm (Fig. 16).Similar to *A. ibiscorum* except as noted:*Thorax.* Almost entirely yellow, except with shining metallic blue-green reflection on mesonotum, and metepimeron somewhat infuscated.*Legs.* All coxae, trochanters, femora, tibiae, and basal tarsomeres yellow, with distal tarsomeres becoming infuscated, coxae with black setation; legs with short black vestiture; I: 5.7, 6.9, 11.3/2.2/21/distal tarsomeres missing; TI slightly bowed, with pale yellow curved posterior seta at $\frac{3}{5}$ (MSSC) and without whitish ventral pile along length, It_1 elongate, longer than to TI with group of 3 black ventral setae at very base (MSSC); It_5 missing; II: 5.8, 8.8, distal tarsomeres missing; III: 8.8, 14.9, 6.2/2.3/distal tarsomeres missing; setation similar; $IIIIt_1$ also with pair short ventral setae near base.*Abdomen.* Tergite 1 metallic blue green; tergites 2–7 mostly yellow, but with brown band along posterior fifth of each tergite 2–5, but wider and more metallic posterior band on tergite 4; sternite 8 dark brown; hypopygium (Fig. 17) dark brown with yellow surstylus and cercus; epandrium tapering triangular; surstylus curved, digitiform about $\frac{1}{3}$ × as long as epandrium; cercus elongate, with pale yellow hairs, with blade-like ventral arm arising near $\frac{2}{5}$ and recurved back towards cercal base, and cercus distally with mound bearing long hairs, and tapering with long apical hairs.**Female.** Unknown.**Holotype:** ♂ Papua New Guinea: Milne Bay Province, Sudest Island, Mt Riu [11°31'S 153°26'E], 250–350 m, 10.xi.1956, Fifth Archbold Expedition to New Guinea, L.J. Brass (AMNH).**Remarks:** *Amblysilopus riuensis* is known only from Sudest Island, Milne Bay Province, Papua New Guinea. The thorax is almost entirely yellow, and the elongate cercus, with its blade-like ventral arm arising near mid-length and recurved back towards the cercal base cercus is diagnostic for this species.The *Amblysilopus megastoma* Group**Diagnosis:** *Head.* Major head setae black; males with short black hair-like vertical seta on lateral slope of vertex (MSSC), female with strong vertical seta; proboscis pale yellow with labella on both sexes greatly extended and expanded, comprising two translucent white glabrous lips with pseudotracheae clearly visible externally; antennal pedicel with subapical coronal of short black setae and stronger dorsal seta; postpedicel subrectangular, with apical arista.*Thorax.* Mostly yellow, shining with little pruinosity, but mesonotum with shining metallic blue reflections; setae black; 2 pairs of long ac, with short pair anteriormost,

both sexes with 2 strong posterior dc and weak hair-like dc anterior; median scutellar setae strong, laterals absent.

Legs. All coxae and legs mostly yellow; legs mostly bare of major setae; TI with short pale curved posterior seta at $\frac{9}{10}$, just before apex (MSSC); It_1 longer than TI in both sexes; It_5 black, flattened and expanded into apical pinnate flag (MSSC).

Wings. Hyaline, elongate; vein M_1 in right-angled arch M_1 to approach R_{4+5} and join costa anterior to wing apex; $dm-cu$ straight,

Abdomen. Tergites mostly yellow; epandrium subrectangular; surstylus as short projecting arm; cercus flagelliform.

Remarks: The *Amblypsilopus megastoma* group is known from two species (*ialibu* n. sp. and *megastoma* n. sp.) in Papua New Guinea, one from 700–800 m in the Star Mountains and females from coastal lowlands near Madang, and the second species above 2000 m from Southern Highlands and Oro provinces.

Both sexes have the labella enlarged into yellow translucent plates (narrower in females) with clearly visible pseudotracheae. Males of the two known species have leg I tarsomere 5 modified into an apical black pinnate flag. Both sexes have a yellow clypeus and the basitarsus of leg I longer than tibia I. Also, as in the *ammoni* group, known females have the some anterior dc setae reduced to fine hairs, normally a character only found as a male secondary sexual character in Sciapodinae.

Amblypsilopus megastoma n. sp.

(Figs 18–21)

LSID: urn:lsid:zoobank.org:act:2C943C29-0323-453B-A76F-854C23ABC717.

Etymology: The specific epithet is derived from Greek *mega*, meaning large, and *stoma* for mouth, in reference to the enlarged proboscis of this species.

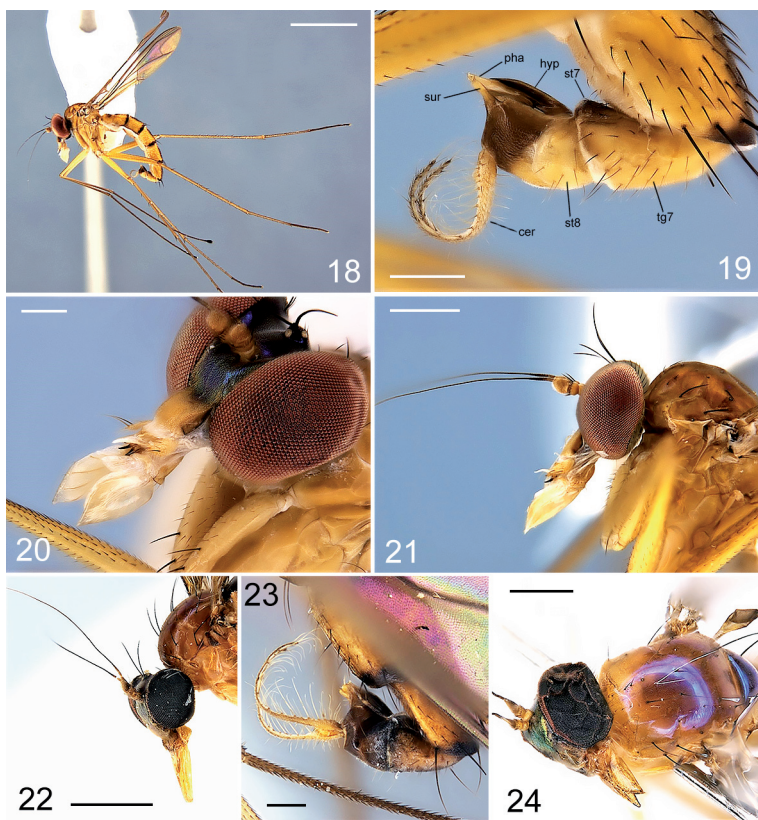
Description: Male. Length 4.3 mm, wing 4.5×1.4 mm (Fig. 18).

Head (Fig. 20). Vertex, frons, shining metallic blue, face mostly metallic blue-green, with a dusting of fine yellowish pruinosity; clypeus pale yellow; row of short black orbital setae and postvertical seta dorsalmost; strong diverging ocellar setae and pair short posterior hairs on ocellar tubercle black; short black hair-like vertical seta on lateral slope of vertex; upper face slightly bulging, palp yellow with brown setae; proboscis pale yellow; with pale yellow hairs, but labella greatly extended and expanded, comprising two trapezoidal translucent white glabrous lips with pseudotracheae clearly visible externally; antenna yellow with dark brown arista; scape short; pedicel with subapical coronal of short black setae and stronger dorsal seta; postpedicel rounded, subrectangular, with apical arista, length almost twice head height, and simple; ventral postcranium with short white hairs.

Thorax. Almost entirely yellow, without pruinosity, but mesonotum with shining metallic blue reflections, and scutellum dorsally dark blue but with yellow dorsal rim and yellow ventrally; setae black; 2 pairs of long ac, with short pair anteriormost, 2 strong posterior dc and 4 weak hair-like dc anterior (MSSC); 1 pa, only 1 sa, only

1 sr, 2 npl, 1 hm, and 1 pm; median scutellar setae strong, laterals absent.

Legs. All coxae and legs yellow with distal tarsomeres infuscated; CI with 3 black yellow distolateral setae and short yellowish hairs: CII with 2 black anterolateral setae and black anterior hairs; CIII with black lateral seta at $\frac{1}{3}$; legs with short black vestiture and mostly bare of major setae; I: 4.7, 6.7, 9.0/1.7/1.8/0.8/0.7; TI with short pale curved posterior seta at $\frac{9}{10}$, just before apex (MSSC); It_1 longer than TI; It_5 black, flattened and expanded into apical pinnate flag (MSSC); II: 5.3, 9.2, 8.5/1.9/1.5/0.8/0.5; FII with short subapical pv seta; TII with short ad setae at $\frac{1}{10}$, with short anterior setae at $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, and with shorter pd at $\frac{1}{2}$ and $\frac{3}{4}$, with apical corona of ad, av, pv and dorsal setae; III: 7.2, 12.8, 5.8/2.0/1.5/1.0/0.5; TIII with strong ad at $\frac{1}{8}$, short av setae, some 10 short spaced anterior setae along distal



Figs 18–24: (18–21) *Amblypsilopus megastoma* n. sp.: (18) male habitus, left lateral; (19) male postabdomen, left lateral; (20) male head, left anterior; (21) female head, left lateral; (22–24) *A. ialibu* n. sp.: (22) male head and thorax, left lateral; (23) male postabdomen, left lateral; (24) male head and thorax, dorsal. Abbreviations: cer – cercus, hyp – hypandrium; pha – phallus, st – sternite, sur – surstylus, tg – tergite. Scale bars 2.0 mm in Fig. 18, 0.2 mm in Figs 19, 20, 22, 23, and 0.5 mm in Figs 21, 24.

three-quarters, 5 spaced short dorsal setae along length, and with corona of short ad, av and pv setae.

Wing. Hyaline, elongate; vein M_1 in right-angled arch M_1 to approach R_{4+5} and join costa anterior to wing apex; dm-cu straight; CuAx ratio 1.3; lower calypter pale yellow with fan of black setae; haltere yellow.

Abdomen. Tergite 1 yellow; tergites 2–6 mostly yellow, but each with ovate dorsal metallic blue markings and matt brown along tergal margin; tergites 7 and 8 yellow; tergites with short black vestiture and row long black marginal setae; hypopygium (Fig. 19) basally yellow and with distal half and hypandrium dark brown, but surstylus and phallus yellowish; epandrium subrectangular; surstylus as short projecting arm; cercus yellow and flagelliform, with fine yellow hairs.

Female. Similar to male, except as noted: vertical seta strong; face not bulging; clypeus wider and almost adjacent to sides of eyes; proboscis (Fig. 21) also extended but narrower; blade-like; 2 pairs of strong ac; dc also like male, with 2 strong posterior setae and 2 faint hairs anterior; legs without MSSC; It_1 longer than TI ; It_5 unmodified; abdominal coloration similar.

Holotype: ♂ Papua New Guinea: Western Province, Star Mtns, Camp 2, 5°10'S 141°15'E, 700–850 m, ii–iii.2013, yellow pans, C. Muller (AMS).

Paratype: 1 ♀, same data as holotype.

Other material examined: Papua New Guinea: 2 ♀, Madang Province, Baitabag, 5°07'30"S 145°46'00"E, 70 m, 27–29.vii.1999, yellow pans, R. Kitching (AMS).

Remarks: *Amblysilopus megastoma* is known from Papua New Guinea, 700–800 m in the Star Mountains, Western Province and from two possible females from lowland Madang Province. Males have the labella enlarged into trapezoidal plates, whereas in females the labella are enlarged but narrower. Males have leg I tarsomere 5 is modified into a black pinnate flag. Both sexes have a yellow clypeus and the basitarsus of leg I longer than tibia I.

Amblysilopus ialibu n. sp.

(Figs 22–24)

LSID: urn:lsid:zoobank.org:act:CF1C6DF5-3652-4783-BF7A-F6BA3F6BAAE7.

Etymology: The specific epithet *ialibu* is a place name of indigenous origin and a noun in apposition.

Description: Male. Length 5.9 mm, wing 5.8×1.9 mm (Fig. 22).

Similar to *A. megastoma* except as noted:

Head. Clypeus yellow with metallic green reflections; labella comprising two elongate yellow tapering blades with pseudotracheae visible externally.

Thorax. Scutellum entirely shining metallic blue-green dorsally.

Legs. Coloration, coxae, setation and relative podomere ratios similar; It_1 also longer than TI ; It_5 black, flattened and expanded into more open apical pinnate flag (MSSC).

Abdomen. Preabdominal coloration similar; epandrium (Fig. 23) entirely dark brown; but surstylus and phallus yellowish; epandrium subrectangular; surstylus as short projecting arm; cercus yellow and flagelliform, with fine yellow hairs.

Female. Similar to female *A. megastoma* but proboscis yellow and blade-like as in male.

Holotype: ♂ **Papua New Guinea:** Southern Highlands Province, Mt Ialibu [6°16'S 143°59'E], 2550 m, no date, J.L. Gressitt (BPBM).

Paratype: 1♀, same as holotype but “Ialibu”, 2600 m, 8–14.iv.1968, J. Gressitt & T. Maa.

Other material examined: Papua New Guinea: 1♂, Oro Province, Myola 2, 2100 m, forest, 16.ix.1985, J.W. Ismay (AMS).

Remarks: *Amblypsilopus ialibu* is known from elevations above 2000 m in the Southern Highlands and Oro provinces, Papua New Guinea. It is close to the lower elevation of *A. megastoma*, and the two species have similar male genitalia and leg MSSC. However, *A. ialibu* is distinctly larger, has elongate tapering labella, the scutellum entirely dark metallic blue-green dorsally, the clypeus has metallic green reflections, and the epandrium entirely dark brown.

ACKNOWLEDGEMENTS

I thank the following curators for information and the loan of specimens: D. Grimaldi (AMNH), D. Smith and R. Cox (AMS), Alan Landford (ANIC), N. Evenhuis and K. Arakaki (BPBM). John Martin provided the excellent photographs and Natalie Tees prepared the plates in Photoshop.

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