

INSECTS OF CAMPBELL ISLAND.

DIPTERA : SCIARIDAE

By Wallace A. Steffan

DEPT. OF ENTOMOLOGY AND PARASITOLOGY, UNIVERSITY OF CALIFORNIA, BERKELEY

Abstract: *Xylosciara brevipes* Steffan, *Corynoptera subantarctica* Steffan, and *Bradysia campbellensis* Steffan are described as new. *Bradysia rubra* (Harrison) is assigned a new status. A key is provided for the identification of the above genera and species.

A number of fungus gnats of the family Sciaridae were collected on recent expeditions to Campbell I. One described and 3 new species, representing 3 genera, are represented in this material. The recent works of Frey (1942, 1948) and Tuomikoski (1960) have provided a sound basis for clarification of the taxonomy of this family. Since sciarids can be transported easily it is possible that these species have been described elsewhere; however, after a careful study of the literature, 3 of these species appear to be new. The generic concepts of Tuomikoski, even though based chiefly on European material, are used in this paper. The types are to be deposited in the D. S. I. R., Nelson, New Zealand. The paratypes are to be distributed by Bishop Museum, Honolulu.

Methods: An adequate study of these flies requires several methods of specimen preparation. Specimens mounted on paper points and preserved in alcohol were studied for gross morphological and color characters; however, for detailed morphological studies, specimens of each species, if available, were slide mounted, using Euparal or Hoyer's mounting media. Hoyer's proved to be more satisfactory both in respect to optical properties and handling ease.

Measurements were made with the use of an ocular micrometer mounted in a compound microscope. Head: antennal and leg ratios were measured under low power (35 \times); 10 divisions on the ocular micrometer scale=.19 mm. The head measurement was taken from tip of the labrum to the top of the anterior ocellus. The leg ratio consists of length of femur, tibia, and basitarsus respectively. The tibial spur ratio consists of the measurement, in micrometer units under high power (440 \times), of each of the tibial spurs of the front, middle, and hind legs respectively. The ratios of the various wing veins were calculated under low power (250 \times), each 10 divisions=.135 mm.

The drawings are based on photographs taken of the slide mounted material; however, before completion, the drawings were compared with the original slide material, specimens preserved in alcohol, and specimens mounted in glycerine.

Acknowledgments: I am indebted to Dr. J. L. Gressitt for the opportunity of studying the Campbell Island sciarid fauna. I also wish to thank Dr. R. A. Harrison and Mrs. B. M. May for the loan of the type material of *Bradysia rubra* (Harrison). Dr. Frank R. Cole, Dr. R. L. Usinger, and Dr. P. D. Hurd were also kind enough to read and correct

the manuscript.

KEY TO GENERA AND SPECIES

1. Palpi 2-segmented; legs shortened; setae of apex of tibia_I undifferentiated **Xylosciara brevipes**
 Palpi 3-segmented; apex of tibia_I with well differentiated unilateral tibial comb;
 legs normally elongated 2
2. Wing reduced in both sexes, shorter than antenna **Corynoptera subantarctica**
 Wing longer than antenna..... 3
3. Palpal segment 3 approximately 1/2 diameter of 1 & 2, and 2× as long as 2; ♂
 genitalia basally with distinct tuft of setae; inner surface of clasper concave
 **Bradysia rubra**
 Palpal segment 3 same diameter as 1 & 2, approximatey 1.5× as long as 2; ♂
 genitalia basally without differentiated setae; inner surface of clasper straight to
 slightly convex..... **Bradysia campbellensis**

Xylosciara brevipes Steffan, n. sp. Fig. 1 a, b.

♀. *Head*: Eyes haired, eye-bridge with 2 rows of facets. Head/antennal ratio: 10 : 30. Antennae clothed with setae as long as or longer than width of flagellar segments; scape and pedicel globular, scape 2/3 size of pedicel, both with single band of setae; flagellar segments short with 2-3 bands of setae on each segment; flagellar segment 3, 3/4 as long as wide; 1st and terminal flagellar segments 2× as long as others. Front with patch of 8-10 setae; frontoclypeus bare. Labrum and labellum considerably reduced. Palpi 2-segmented (fig. 1B); segment 1 swollen, with 3 strong preapical setae; segment 2 reduced to short peg, with 2 apical setae. *Thorax*: Notum with weak bristles. Scutellum with 2 strong posterior median bristles and 4 weak laterals. Posterior pronotum bare; anterior pronotum with 3 setae: prothoracic episternum with 5 setae. Posterior dorsal angle of katepisternum slightly greater than 90°. Posterior extension of mesothoracic epimeron short. *Wings* (fig. 1A): 1.05 mm, 2× as long as antennae. Sc indistinct. Costa, R₁, and R₅ with macrotrichia; posterior veins bare and very faint. R₁ ending well before base of M-fork; costa ending approximately 3/4 distance between tips of R₅ and M₁. Ratio of base of M to r-m: 25 : 7. Halteres covered with dense pubescence and with sparse longitudinal row of setae. *Legs* short; leg ratio: anterior, 13 : 15 : 5; posterior: 19 : 20 : 8. COXA_{III} with 3 setae on dorsal surface. Tibia_I without distinct setal arrangement at apex. Tibial spurs subequal, ratio: 25 : 20 : 20 : 20 : 20; hind tibial spurs slightly shorter than width of tibial apex. Abdomen sparsely covered with short setae; posterior segments weakly sclerotized.

This species is described from a single specimen, which is, unfortunately, a ♀; however, it is so distinct that I do not hesitate to name it. Relationships cannot be indicated until the ♂ is found. In Frey's key (1942) this species would key out to the genus *Cosmosciara*, which Tuomikoski places in the genus *Plastosciara* Berg sensu Tuomikoski. This species could possibly fit into the enlarged concept of this genus, but the ♀ characters indicate a closer relationship to *Xylosciara* Tuomikoski. The discovery of the ♂ should clarify this problem.

Holotype ♀ (D. S. I. R.), Tucker Cove, 4 m, Campbell I., Malaise trap, 27.XI-1.XII.1961, J. L. Gressitt.

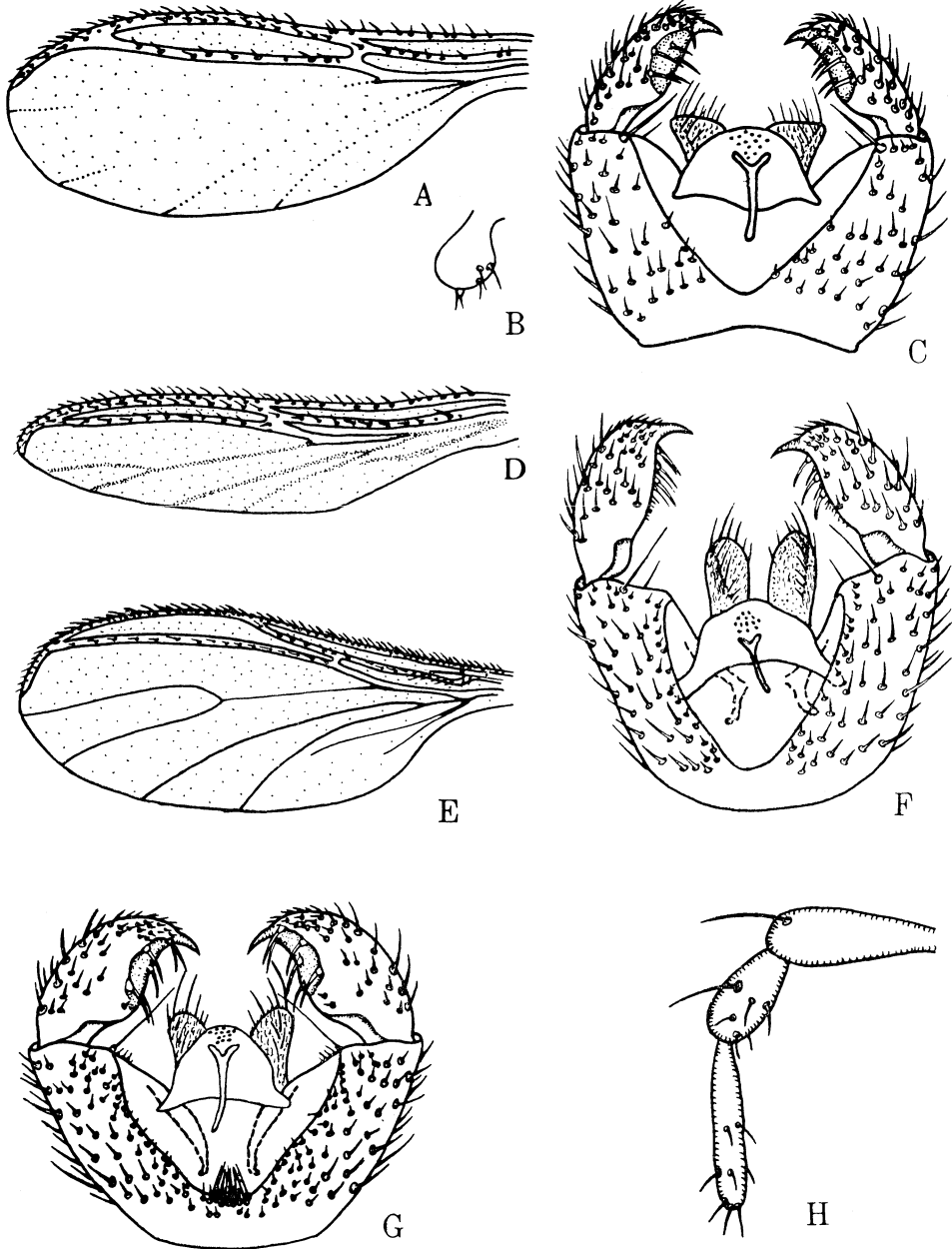


Fig. 1. A, *Xylosciara brevipes* n. sp., wing; B, same, palpus; C, *Corynoptera subantarctica* n. sp., ventral view of ♂ genitalia; D, same, ♂ wing; E, *Bradysia campbellensis* n. sp., ♂ wing; F, same, ventral view of ♂ genitalia; G, *B. rubra* (Harrison), ventral view of ♂ genitalia; H, same, palpus.

Corynoptera subantarctica Steffan, n. sp. Fig. 1 c, d.

♂. *Head* dark brown. Eyes haired, eye-bridge with 2–3 rows of facets. Antenna yellowish brown, thickly clothed with short setae; scape and pedicel globular, subequal; scape with a single diagonal row of 4–5 setae; pedicel with 2–3 rows of setae; flagellar segments subequal with slight decrease in length apically, segment 3, 2× as long as wide, neck 1/5 length of segment; terminal segment bullet-shaped, as long as flagellar segment 1. Front with patch of 16–20 setae; frontoclypeus with 2 median setae. Palpi 3-segmented; segments 1–2 subequal, 3 about 1.2× longer than 2; segment 1 with strong preapical seta and median dorsal group of 4–8 sensory pegs; segment 2 with 1 strong median seta and 3–5 shorter subapical setae; segment 3 with 2 apical and 1–2 subapical setae. Head/antennal ratio: 20 : 70. *Thorax* yellowish brown. Notum with strong dorsocentrals becoming weaker anteriorly; weak acrosticals; 3 strong supra-alars. Scutellum with 4 strong bristles, 2 outer ones 3/4 as long as 2 inner ones. Posterior pronotum bare; anterior pronotum with 1 strong and 2 weaker setae; prothoracic episternum with 4 weak setae. Posterior dorsal angle of katepisternum approximately 90°. *Wings* (fig. 1D) reduced: 1.52 mm, shorter than antennae. Sc faint to absent. Costa, R₁, and R₅ with macrotrichia, posterior wing veins bare. R₁ ending in costa well before base of M-fork. Costa ending approximately 1/2 distance between tips of R₅ and M₁. Ratio of r-m to M-petiole: 5 : 20; ratio of base of M to Cu-petiole: 20 : 10. Halteres brownish yellow, covered with minute hairs and a single row of strong setae. *Legs* brownish yellow; leg ratio: anterior, 20 : 25 : 12; posterior, 30 : 37 : 16. Coxa_{III} with 6–8 setae on dorsal distal 1/2. Tibia_I with unilateral apical tibial comb consisting of 8 setae separated from the shorter tibial setae by bare triangular area, 3 long setae immediately proximad of tibial comb. Tibial spurs subequal, ratio: 40 : 42 : 42 : 45 : 45; posterior spurs somewhat longer than width of tibial apex. *Abdomen* yellowish brown, covered with brown to black setae except sternites II and III which have only 1–10 setae in median portion of sclerites. *Genitalia* (fig. 1C): Tergite IX 3/4 as long as wide, uniformly bristled. Tergite X lobed, squared to slightly rounded at apex and densely haired with several long setae extending from apical margins of lobes. Claspers about 3× as long as wide; inner margin broadly concave on apical 1/2, with a single stout terminal spur; concave area bordered proximally by 4 strong bristles (equal to length of spur or longer), bordered distally by 2 strong bristles, 1 on each side of spur; 1 median bristle near center of concave area. Entire genital apparatus covered with bristles.

♀: Similar to ♂ except for genitalic differences and shorter antennae. Head/antennal ratio: 20 : 40. Penultimate flagellar segment as long as wide. Flagellar segment 3, 1.4× as long as wide.

In the 11 slide-mounted specimens measured the following variations were noted: Head: 1–2 setae on frontoclypeus; palpal segment 1 with 1–2 setae (usually 1). Legs: leg ratio: anterior, 20 : 22 : 10/20 : 25 : 12; posterior, 28 : 35 : 16/30 : 37 : 16. Wings: Costa ends 1/2–2/3 before tip of M₁; ratio of base of M to r-m: 20 : 5/20 : 10. Tibial spur ratio: 30 : 32 : 33 : 35 : 35/42 : 45 : 45 : 50 : 50.

This species fits in the group of *Corynoptera* (*C. blanda* group of Tuomikoski) which have a 3-rowed eye-bridge, normally veined wings and normal halteres, the shorter flagellar segments, 1 seta on palpal segment 1, and the claspers with the distinct terminal spurs and concave areas. It differs from other members of this group in the possession of a rather distinct tibial comb. In Frey's 1942 key it would be placed in the genus *Bradysia*. This

species differs from all others of this region by the greatly reduced wings of both sexes.

Holotype ♂ (D. S. I. R.), Beeman Beach, Campbell I., *Bulbinella*, *Poa*, turf, moss, 11–15. XII. 1961, J. L. Gressitt; allotype ♀, Courrejolles Penin., 200 m, Campbell I., in mollymawk nest, 14. XII. 1961, Gressitt. The following series of paratypes are all from Campbell I.: 3 ♀ ♀, Tucker Cove, 4 m, Malaise trap, 1–3. XII. 1961, Gressitt; 2 ♀ ♀, Tucker Cove, 1–50 m, 1–5. XII. 1961, Gressitt; 1 ♂, 1 ♀, Tucker Cove, 1–50 m, Berlese of moss, 21–25. XI. 1961, Gressitt; 1 ♀, Beeman Camp, 20–30 m, *Dracophyllum*, 12. XII. 1962, K. P. Rennell; 1 ♂, Beeman Camp, 15 m, 13. II. 1962, Rennell; 1 ♂, Beeman Camp, 2–50 m, Berlese of debris on beach, 12–17. XII. 1961, Gressitt; 1 ♂, Beeman Camp, 2–50 m, *Poa*, 18–21. XII. 1961, Gressitt; 2 ♀ ♀, St. Col Ridge, 180–280 m, *Bulbinella* and *Coprosma*, 7. XII. 1961, Gressitt; 1 ♂, St. Col Ridge, 180–280 m, Berlese of moss on rocks, 24, 26, 30. XI. 1961, Gressitt; 1 ♀, Mt. Azimuth, 350–450 m, 14. XII. 1961, Gressitt; 1 ♂, Shoal Pt., 7. II. 1963, K. A. J. Wise; 1 ♂, Lookout Bay, Perseverance Harbor, Berlese of leaf mold under tussock, 3. II. 1963, Wise; 1 ♀, Mt. Dumas above 400 m, 6. II. 1963, Wise.

Bradysia campbellensis Steffan, n. sp. Fig. 1 e, f.

♂: *Head* dark brown. Eyes haired, eye-bridge with 3–4 rows of facets. Antenna brown, thickly clothed with short setae; scape and pedicel globular, subequal; scape with diagonal row of 4–5 setae 2× as long as those of pedicel; pedicel with 2–3 horizontal rows of setae; flagellar segments subequal throughout; 3rd segment 2.1× as long as wide, neck 1/5 length of segment; terminal segment as long as or longer than flagellar segment 1. Front with patch of 18 setae; frontoclypeus with 1 median seta situated dorsally. Palpi 3-segmented, segments 1 & 2 subequal, segment 3 about 1.5× longer; segment 1 with 1 strong preapical seta and median dorsal group of 18–20 sensory pegs enclosed in a relatively distinct pit; segment 2 with 2 preproximal, 2 strong median, and 4 preapical setae; segment 3 with 2 apical and 4 subapical setae. Head/antennal ratio: 20 : 75. *Thorax* brown. Notum with strong dorsocentrals becoming slightly weaker anteriorly; weak acrosticals; 5 strong supra-alars. Scutellum with 2 strong bristles and 6 weak laterals in 2 rows. Posterior pronotum bare: anterior pronotum with 1 strong and 2 weak setae; prothoracic episternum with 5 strong setae. Posterior dorsal angle of katepisternum approximately 100°. *Wing* (fig. 1E): 2.18 mm, approximately 1.5× longer than antenna. Sc indistinct. R₁ ends approximately 1/2–3/4 distance of r-m before base of M-fork. Costa ends approximately 3/4 distance between tips of R₅ and M₁. Costa, R₁, and R₅ with macrotrichia, posterior wing veins bare. M-petiole weak to absent. Ratio of r-m to M-petiole: 30 : 110; ratio of base of M to Cu-petiole: 35 : 20. Halteres yellowish brown with dense pubescence and single longitudinal rows of setae. *Legs* brownish yellow; leg ratio: anterior, 27 : 31 : 16; posterior, 35 : 46 : 20. Coxa_{III} with 4 strong and 4 weaker setae on dorsal distal 1/2. Tibia_I with unilateral apical comb consisting of 8 setae separated from shorter tibial setae by bare triangular area, 2–3 setae immediately proximad of tibial comb. Tibial spurs almost subequal, ratio: 40 : 40 : 50 : 55 : 60. *Abdomen* dark brown, covered with light brown to brown setae except sternites I, II, and III which are bare on at least anterior 1/2. Tergite VIII bordered posteriorly by 2 rows of setae. *Genitalia* (fig. 1F): Tergite IX about 3/4 as long as wide, uniformly bristled except for 3 long bristles on posterior margin. Tergite X lobed, rounded at apex, covered with dense hairs and several long setae on apical margins. Inner edge of apex of basiforceps with long, whip-like hair extending posteriorly 1/2 length of clasper. Claspers approximately 2× as long as wide, inner margin straight to slightly

convex, with stout terminal spur; 6 long (longer than spur) bristles on inner, upper 1/2 of clasper in 2 rows. Ventral base of genitalia without distinct tuft of setae.

♀: Similar to ♂ except for genitalic differences and the following characters. Head/antennal ratio: 20 : 50; flagellar segment 3, 1.6× longer than wide. Two setae on frontoclypeus. Wing length 2.08 mm. Leg ratio: anterior, 23 : 25 : 12; posterior, 30 : 39 : 17.

In 20 slide-mounted specimens the following variations were noted. Head: 1-3 setae on frontoclypeus; palpal segment 1 with 1-2 setae. Wings: length, 1.9/2.28 mm; Costa ends 2/3-3/4 distance between tips of R_5 and M_1 ; ratio of r-m to base of M: 34 : 42/35 : 57. Leg ratio: anterior, 23 : 25 : 12/30 : 36 : 20; posterior, 30 : 39 : 17/40 : 55 : 25.

This species belongs to the genus *Bradysia* Winnertz sensu Tuomikoski (1960) by virtue of possession of the following characters: eyes hairy; maxillary palpi 3-segmented, segment 1 with sensory pegs contained in a distinct pit; posterior pronotum bare; tibia_I with distinct apical comb; spurs of tibia_{II} and tibia_{III} subequal; wing veins M and Cu without macrotrichia. *B. campbellensis* appears to fit in Tuomikoski's group F (*B. bicolor* group). It can be distinguished easily from *B. rubra* (Harrison) by the shorter and thicker palpal segment 3 and the character of the ♂ genitalia (absence of basal patch of setae and flat or slightly convex inner surface of clasper).

Holotype ♂ (D. S. I. R.), Tucker Cove, 4 m, Campbell I., Malaise trap, 27. XI-1. XII. 1961, Gressitt; allotype ♀, Tucker Cove, 4 m, Campbell I., Malaise trap, 1-3. XII. 1961, Gressitt. The following series of paratypes are all from Campbell I.: Tucker Cove, 4 m, Malaise trap, Gressitt: 6♂♂, 6♀♀, 27. XI-1. XII. 1961; 15♂♂, 10♀♀, 1-3. XII. 1961; 1♂, 8♀♀, 3-5. XII. 1961; 3♂♂, 3♀♀, 5-8. XII. 1961; 1♂, 10♀♀, 16-18. XII. 1961; 1♂, 6♀♀, 18-21. XII. 1961. Tucker Cove, 1-50 m Gressitt: 1♂, 21-25. XI. 1961; 1♂, 26-30. XI. 1961; 2♂♂, 1♀, 1-5. XII. 1961; 2♀♀, 6-11. XII. 1961. 1♀, Beeman Hill, 2-50 m, 21-25. XI. 1961, Gressitt; 7♂♂, Lookout Bay Beach, 16-19. XII. 1961, Gressitt; 1♂, 1♀, Northwest Bay area, 5. II. 1963, Wise.

Bradysia rubra (Harrison), n. comb. Fig. 1 g, h.

Sciara rubra Harrison, 1955, Rec. Dom. Mus. 2 (4) : 213.

♂: *Head* brown to reddish brown. Eyes short haired, eye-brige with 3 rows of facets. Antennae brown; scape and pedicel globular, subequal; scape with diagonal row of 4-5 setae, all except one, which is about 2× as long, same size as setae of pedicel; pedicel with 2-3 rows of setae; flagellar segments subequal throughout; flagellar segment 3, 2.5× as long as wide, neck about 1/6 length of segment; terminal flagellar segment as long as or slightly longer than flagellar segment 1. Front with patch of 18-20 setae; frontoclypeus with 1 dorsal seta. Palpi (fig. 1H) 3-segmented; segments 1 & 3 subequal, 3, 1/2 diameter of 1 & 2, 2 about 1/2 as long as 1; segment 1 with 1 strong preapical seta almost as long as segment 2, also with 18-20 sensory pegs in median dorsal area; segment 2 with 1 long median seta and 5 weaker setae on distal 1/2; segment 3 with 3 apical and 5 median-subapical setae. Head/antennal ratio: 20 : 80. *Thorax* brown to reddish brown. Notum with 2 strong dorsocentrals, anterior dorsocentrals weaker; acrosticals weak; 4-5 strong supra-alars. Scutellum with 2 strong median posterior bristles and 6 or more weak laterals. Posterior pronotum bare; anterior pronotum with 4-6 setae; prothoracic episternum with 8 setae. Posterior dorsal angle of katepisternum slightly greater than 90°. *Wing* 2.37 mm, about 1.5× as long as antenna. Sc present but weak. R_1 ends about length of r-m from

base of M-fork. Costa ends approximately $3/4$ distance between tips of R_5 and M_1 . Costa, R_1 , and R_5 with macrotrichia; posterior wing veins bare. M-petiole weak to absent. Ratio of r-m to M-petiole: 35 : 115; ratio of base of M to Cu-petiole: 45 : 35. Halteres brown, lighter at base, with dense pubescence and single longitudinal row of setae. *Legs* brown; leg ratio: anterior, 30 : 38 : 20; posterior, 40 : 55 : 22. $Coxa_{III}$ with 4-6 setae on dorsal distal $1/2$. $Tibia_I$ with unilateral tibial comb consisting of 8 setae separated from shorter tibial setae by bare triangular area, 3 setae immediately proximad at comb. Tibial spurs almost subequal, ratio: 55 : 55 : 70 : 75 : 75. Posterior tibial spurs longer than width of apex of tibia. *Abdomen* brown to reddish brown, covered with brown to black setae except for sternites I, II, and VIII which have setae only on margins. Median $1/2$ of tergite VIII bare. *Genitalia* (fig. 1G): tergite IX $1/2-2/3$ as long as wide, setae somewhat denser near lateral margins, apical area bare. Tergite X lobed, gently rounded, covered with dense short hairs and several long setae around posterior margins. Inner apical margin of basiforceps with single long whip-like seta extending to middle of clasper. Clasper about $2\times$ as long as wide; inner margin strongly concave on distal $1/2$; concave area bordered by 6 long tuberculed bristles and one stout terminal spur. Ventral base of genitalia with distinct tuft of setae. Claspers and basiforceps uniformly covered with long and short setae.

♀: Similar to ♂ except for genitalic differences and the following characters. Palpal segment 1 with 1-2 setae, sensory area more distinctly bordered; palpal segment 2 with 8-10 setae; 3 with 7 median-subapical setae.

In 20 slide-mounted specimens studied the following variations were noted. Head/antennal ratio: 20 : 75/20 : 80. Zero-2 setae on frontoclypeus. Palpal segment 2: ♂, 5-6 setae; ♀, 7-10 setae. Six-8 setae on prothoracic episternum. Leg ratio: anterior, 26 : 31 : 17/30 : 40 : 20; posterior, 35 : 45 : 20/41 : 60 : 25.

This redescription is based on the large series of specimens listed below. I have compared these specimens with the types and find them to be the same. The types are damaged but the key structures are present. This species also belongs to the *B. bicolor* group of Tuomikoski. It differs from the preceding species (*B. campbellensis*) by the much longer and more slender palpal segment 3, the more numerous setae on palpal segment 2, and the ♂ genitalic characters; especially the tuft of setae at the ventral base of the genitalia and the concave inner surface of the claspers.

Holotype, allotype & paratypes in D. S. I. R., from Campbell I., 1943, J. H. Sorensen; Additional records all from Campbell I.: Tucker Cove, 4 m, Malaise trap, Gressitt: 2♂♂, 4♀♀, 27.XI-1.XII.1961; 8♂♂, 1-3.XII.1961; 2♀♀, 3-5.XII.1961; 1♂, 1♀, 5-8.XII.1961; 4♂♂, 16-18.XII.1961; 2♂♂, 18-21.XII.1961. 1♂, 1♀ Tucker Cove, 1-50 m, *Poa*, 21-25.XII.1961, Gressitt; 3♀♀, Tucker Cove, 0-100 m, sedge, 7.VIII.1962, Rennell; 1♂, Tucker Cove, 1-50 m, 6-11.XII.1961, Gressitt; 1♀, Tucker Cove, 4 m, 26-30.XI.1961, Gressitt; 2♀♀, Lookout Bay Beach, 16-19.XII.1961, Gressitt; 1♀, Perverserance Harbor, 2 m, 25.VII.1962, Rennell; 1♀, Moubray Hill, 200 m, 12.XII.1961, Gressitt; 2♀♀, Beeman Camp, 2-50 m, *Bulbinella*, 26-30.XI.1961, Gressitt; 1♂, 1♀, Beeman Camp, 2-50 m, *Poa*, 12-17.XII.1961, Gressitt; 1♀, Beeman Camp, 30 m, flowering *Dracophyllum*, 3.VIII.1962, Rennell; 1♀, Beeman Camp, 100-150 m, *Coprosma*, 3.VIII.1962, Rennell; 1♀, St. Col Ridge, 180-280 m, *Bulbinella*, 7.XII.1961, Gressitt; 1♀, Tucker Cove-St. Col Ridge, 30.XI.1961, Gressitt; 1♀, Beeman Hill, 100-180 m, 2.XII.1961, Gressitt; 1♀, Beeman Lookout, 19.XII.1961,

Gressitt; 1♂, St. Col Ridge, 180–280 m, lichens on *Dracophyllum*, 4, 7, 8, 13. XII. 1961, Gressitt; 1♂, Beeman Camp, 30 m, sedge, 27. VII. 1962, Rennell; 1♂, Mt. Lyall, 150 m, on fern, 3. XII. 1961, Gressitt; 1♂, Lookout Bay Beach, sedge: *Carex trifida*, 3. XII. 1961, Gressitt; 1♂, Shoal Pt., bank of stream, 7. II. 1963, Rennell.

Discussion: One other species, *Sciara annulata* Meigen, has been recorded from Campbell I.; however, the specimen is a ♀ and the record should be questioned. Tuomikoski (1960) has synonymized *Sciara annulata* Meigen under *Sciara hyalipennis* Meigen which he in turn designated as type of his genus *Ctenosciara*. I have compared the descriptions of this species with that of *S. annulata*, Tonnoir and Edwards (1927) and do not think they are the same. This problem will remain obscure until the material of Tonnoir and Edwards can be examined and compared with the European material.

A worthwhile project for a worker in the New Zealand-Australian region would be to revise the Sciaridae of this area, including the Sciaridae of Campbell I. and Macquarie I. (Colless, 1962), in the light of the new and sounder concepts made available by Frey and Tuomikoski.

REFERENCES

- Colless, D. H. 1962. Insects of Macquarie Island, Diptera: Sciaridae. *Pacific Ins.* 4 (4): 955–57.
- Frey, R. 1942. Entwurf einer neuen Klassifikation der Mückenfamilie Sciaridae (Lycoriidae). *Notul. Ent.* 22: 5–44.
- 1948. Entwurf einer neuen Klassifikation der Mückenfamilie Sciaridae (Lycoriidae). II. Die nordeuropäischen Arten. *Ibid.* 27: 33–92.
- Harrison, R. A. 1955. Report on Diptera of Auckland and Campbell Islands. *Rec. Dom. Mus.* 2 (4): 205–31.
- Shaw, F. R. 1953. A review of some of the more important contributions to our knowledge of the systematic relationships of the Sciaridae (Diptera). *Proc. Haw. Ent. Soc.* 15: 25–32.
- Tonnoir, A. L. & F. W. Edwards. 1927. New Zealand Fungus Gnats (Diptera: Mycetophilidae). *Trans. Proc. New Zealand Inst.* 57: 747–878.
- Tuomikoski, R. 1960. Zur Kenntnis der Sciariden (Dipt.) Finlands. *Ann. Zool. Soc. "Vanamo"* 21 (4): 1–164.