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A revision of the Patagonian predaceous midges of the subgenus *Acanthohelea* of *Stilobezzia* excluding the *S. (A.) edwardsi* group (Diptera: Ceratopogonidae)

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A revision of the Patagonian predaceous midges of the subgenus *Acanthohelea* of *Stilobezzia* excluding the *S. (A.) edwardsi* group (Diptera: Ceratopogonidae)

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In this revision of the Patagonian predaceous midges of *Stilobezzia* (*Acanthohelea*) (Diptera: Ceratopogonidae), the seven previously known species, *Stilobezzia bicinctipes* Ingram and Macfie, *S. hirsuta* I. and M., *S. ornaticrus* I. and M., *S. patagonica* I. and M., *S. rava* I. and M., *S. succinea* I. and M. and *S. varia* I. and M. are redescribed, illustrated and their distributions are expanded. Diagnoses are provided for *Stilobezzia curvistyla* Cazorla and Spinelli, *S. longisternalis* Cazorla and Spinelli and *S. nigerrima* I. and M., and the male of *S. bicinctipes* and the female of *S. ornaticrus* are described for the first time. Seven new species are described with photographs: *S. estepae*, *S. mapuche*, *S. megatheca*, *S. monomorphica*, *S. pabloi*, *S. spinosa* and *S. tridentis*. The species are illustrated by photographs, and a key to males and females is provided as well as distributional maps for all species.

<http://zoobank.org/urn:lsid:zoobank.org:pub:CCEB2CB7-2FB3-4ABF-BCD4-75021AD6C338>

Keywords: *Stilobezzia* (*Acanthohelea*); new species; redescrptions; Patagonia

Introduction

The predaceous midge genus *Stilobezzia* Kieffer is a large, diverse group of Ceratopogonidae that is worldwide in distribution except for Antarctica and some islands (Borkent 2014). Adult females are important predators on other small insects, and the immature stages are found in a wide variety of aquatic and semiaquatic habitats, including streams, lakes and pond margins, puddles, swamps, rice fields, rock pools, and tree holes (de Meillon and Wirth 1991; Cazorla et al. 2006).

Ingram and Macfie (1931) noted that *Stilobezzia* is apparently the dominant predaceous genus in the family in Argentinean and Chilean Patagonia, and described 10 new species from this region: *S. bicinctipes*, *S. edwardsi*, *S. furva*, *S. hirsuta*, *S. nigerrima*, *S. ornaticrus*, *S. patagonica*, *S. rava*, *S. succinea* and *S. varia*. They were included in the subgenus *Neostilobezzia* Goetghebuer (Wirth 1974), which was subsequently regarded as a junior synonym of *Acanthohelea* Kieffer (Wirth and Grogan 1988). These species are known only from the type locality, except for *S. (A.) succinea* and *S. (A.) varia* which were reported from Tierra del Fuego and neighbouring islands (Spinelli and Grogan 1999). Cazorla and Spinelli (2007) redescribed the female of *S. (A.) nigerrima*, described its male for the first

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time and recorded that species from Chile, and also described a new species, *S. (A.) curvistyla* from the Argentinean province of Neuquen. Cazorla and Spinelli (2012a) proposed the *S. (Acanthohelea) edwardsi* group to include the following Patagonian species: *S. (A.) edwardsi*, *S. (A.) furva* and four new species, *S. (A.) borkenti*, *S. (A.) downesi*, *S. (A.) grogani* and *S. (A.) ingrami*. This species group exhibits important differences in the male genitalia from the other known species in the subgenus *Acanthohelea*. The most recently described species from Patagonia was *S. (A.) longisternalis* Cazorla and Spinelli (2012b). Apart from the Patagonian species, there are 14 other Neotropical species in this subgenus (Borkent and Spinelli 2007; Cazorla and Spinelli 2010; Grogan et al. 2013).

The collection of the División Entomología of the Museo de La Plata, Argentina (MLPA) houses numerous specimens of *Stilobezzia (Acanthohelea)* collected on several dozen field trips to Argentinean and Chilean Patagonia during the past 30 years. We provide a revision of the Patagonian species of the subgenus exclusive of the *S. (A.) edwardsi* group, including descriptions and illustrations of seven new species and the previously unknown male of *S. bicinctipes* and the female of *S. ornaticrus*. Also included are redescriptions of the seven previously known species and a key to adult males and females.

Materials and methods

Specimens were collected with Malaise and light traps, and/or aerial nets, preserved in 70% ethanol, then subsequently dissected and slide mounted in Canada balsam. They were examined and measured with a compound microscope. Photographs were taken with a Canon Powershot 610 digital camera through a Zeiss Axiostar Plus microscope (División Zoología Invertebrados, Museo de La Plata, Argentina).

Terms of structures follow those in the *Manual of Central America Diptera* (Brown et al. 2009). *Aedeagus* \times *longer than basal breadth* refers to the ratio between the aedeagus length (distance from the convergent tips of the two aedeagal sclerites to an imaginary line between the sclerite bases) and basal breadth (distance between sclerite bases); *stem* refers to main body of the parameres; *absence/presence of secondary sexual dimorphism* refers to the lack/presence in males of extragenital characters that usually differs from females, such as the shape of flagellomeres, tarsal claws, width of wing, etc. Acronyms used in the figures are: AS, aedeagal sclerites; P, parameres; TS, triangular sclerite.

The types of *S. bicinctipes*, *S. hirsuta*, *S. ornaticrus*, *S. patagonica*, *S. rava*, *S. succinea*, and *S. varia* were examined in the Natural History Museum, London (BMNH). We also studied specimens deposited in the Canadian National Collection of Insects, Ottawa (CNCI), collected during 1984–1985 by J. Antony Downes in northern Argentinean and Chilean Patagonia. Downes' personal collection numbers are presented after locality and other data (e.g. JAD 1651/3). Holotypes, allotypes and paratypes of the new species are deposited in the collection of the División Entomología of the Museo de La Plata, Argentina (MLPA) and paratypes, if available, are also deposited in the CNCI, BMNH and the US National Museum of Natural History, Washington, DC, USA (USNM).

Results

Key to Patagonian species of *Stilobezzia* (Acanthohelea) (exclusive for the edwardsi group)

1. Male 2
– Female 18
2. Tarsomere 1 of hind leg with stout basal spine 3
– Tarsomere 1 of hind leg without stout basal spine 7
3. Femora and tibiae with contrasting light and dark bands 4
– Femora and tibiae nearly uniformly brown, without contrasting light and dark bands 5
4. Legs pale yellowish, hind leg darker; hind femur with broad mesal brown band, distal half of hind tibia dark brown; forecoxa pale, mid and hind coxae dark brown; hind claw enlarged, similar to female *S. (A.) bicinctipes* Ingram & Macfie
– Legs yellowish brown, hind femur dark brown except basal ring and distal 1/3 pale yellowish; coxae brown, hind coxa dark brown *S. (A.) ornatiscrus* Ingram & Macfie
5. Sternite 9 with greatly elongate, slender, moderately sclerotized posteromedian projection *S. (A.) longisternalis* Cazorla & Spinelli
– Sternite 9 without posteromedian projection, or if present, it is short, broad and hyaline 6
6. Tarsomere 1 of hind leg with ventral row of short spines; gonostylus shorter than gonocoxite, heavily sclerotized, stout, curved, tapering distally to pointed tip; secondary sexual dimorphism absent *S. (A.) monomorphica* Cazorla & Spinelli sp. nov.
– Tarsomere 1 of hind leg without ventral row of short spines; gonostylus as long as gonocoxite, nearly straight, curved distally, tip pointed; secondary sexual dimorphism evident *S. (A.) varia* Ingram & Macfie
7. Genitalia with small, triangular sclerite ventral to proximal 1/3 of parameres 8
– Genitalia without triangular sclerite ventral to proximal 1/3 of parameres 12
8. Posterior margin of tergite 9 with mesal, rounded, hyaline protuberance 9
– Posterior margin of tergite 9 without mesal protuberance 10
9. Sternite 9 4.3× broader than long, with deep, concave posteromedian excavation; inner margin of gonocoxite with small anteromesal pointed tubercle; gonostylus slightly shorter than gonocoxite *S. (A.) megatheca* Cazorla & Spinelli sp. nov.
– Sternite 9 6× broader than long, with broad, V-shaped posteromedian excavation; inner margin of gonocoxite without anteromesal tubercle; gonostylus slightly longer than gonocoxite *S. (A.) estepae* Cazorla & Spinelli sp. nov.
10. Paramere stem moderately sclerotized, slender, rod-like with bulbous tip; aedeagal sclerite slender, sinuous 11
– Paramere stem pale, lightly sclerotized, stout, straight, broadening distally with spoon-shaped tip; aedeagal sclerite with basal 2/3 slender, curved, distal 1/3

- swollen with pointed, mesally directed tip
 *S. (A.) spinosa* Cazorla & Spinelli sp. nov.
11. Tergite 9 extending to apex of gonocoxites, posterior margin nearly straight;
 genitalia massive, broader than abdominal segment 8; dark brown species
 *S. (A.) rava* Ingram & Macfie
 – Tergite 9 extending 0.72 of gonocoxite length; genitalia not massive, narrower
 than abdominal segment 8; yellowish brown species
 *S. (A.) succinea* Ingram & Macfie
12. Aedeagal sclerite with distolateral process; sternite 9 without posteromedian
 projection 13
 – Aedeagal sclerite without distolateral process; sternite 9 with or without poster-
 omedian projection 14
13. Aedeagal sclerite stout with short distolateral process, distal portion curved with
 basal tooth, tip pointed *S. (A.) tridentis* Cazorla & Spinelli sp. nov.
 – Aedeagal sclerite slender to mid-length, distal half broadening abruptly and
 mesally directed, with 3 subapical pointed divergent prongs
 *S. (A.) mapuche* Cazorla & Spinelli sp. nov.
14. Sternite 9 with short, broad, hyaline posteromedian projection; posterior margin
 of tergite 9 bilobate, with mesal notch *S. (A.) hirsuta* Ingram & Macfie
 – Sternite 9 without posteromedian projection; posterior margin of tergite without
 mesal notch 15
15. Thorax entirely dark brown *S. (A.) nigerrima* Ingram & Macfie
 – Thorax not entirely dark brown, humeral pits, prescutellar depression and/or
 scutellum paler brown 16
16. Scutum entirely dark brown; legs dark brown; gonostylus abruptly curved at
 distal 1/3 *S. (A.) curvistyla* Cazorla & Spinelli
 – Scutum dark brown except humeral pits pale brown; legs brown; gonostylus
 slightly curved 17
17. Aedeagal sclerite stout, tip pointed *S. (A.) patagonica* Ingram & Macfie
 – Aedeagal sclerite progressively broadening distally, tip with short mesal notch
 *S. (A.) pabloi* Cazorla & Spinelli sp. nov.
18. Tarsomere 1 of hind leg with stout basal spine 19
 – Tarsomere 1 of hind leg without stout basal spine 23
19. Femora and tibiae with contrasting light and dark bands 20
 – Femora and tibiae nearly uniformly brown, without contrasting light and dark
 bands 21
20. Legs yellowish, hind femur with mesal and apical dark brown bands, distal half of
 hind tibia dark brown with subapical yellowish brown ring; scutum dark brown
 with two dorsolateral pale yellowish bands; scutellum with 8–9 stout and 4
 thinner setae *S. (A.) bicinctipes* Ingram & Macfie
 – Legs pale brown, hind femur dark brown except basal ring, distal 1/3 pale; hind
 tibia dark brown; scutum dark yellowish brown; scutellum with 15 stout and 12
 thinner setae *S. (A.) ornatiscrus* Ingram & Macfie

21. Abdominal segment 8 heavily sclerotized
 *S. (A.) longisternalis* Cazorla & Spinelli
 – Abdominal segment 8 lightly sclerotized 22
22. Anterior margin of sternite 8 straight, lateral margins subparallel
 *S. (A.) varia* Ingram & Macfie
 – Anterior margin of sternite 8 convex, lateral margins slightly curved
 *S. (A.) monomorphica* Cazorla & Spinelli sp. nov.
23. Spermathecae elongate, retort- or flask-shaped 24
 – Spermathecae ovoid, globose or pyriform 25
24. Spermathecae retort-shaped, with the proximal portion broad, distal portion
 narrow; anterior margin of sternite 8 convex
 *S. (A.) patagonica* Ingram & Macfie
 – Spermathecae flask-shaped, tapered distally; anterior margin of sternite 8
 straight *S. (A.) megatheca* Cazorla & Spinelli sp. nov.
25. R-m crossvein slightly interrupted at mid portion
 *S. (A.) estepae* Cazorla & Spinelli sp. nov.
 – R-m crossvein entire, never interrupted 26
26. Thorax entirely dark brown *S. (A.) nigerrima* Ingram & Macfie
 – Thorax not entirely dark brown, humeral pits, prescutellar depression and/or
 scutellum paler 27
27. Posteromedian excavation of sternite 8 U-shaped
 *S. (A.) curvistyla* Cazorla & Spinelli
 – Posteromedian excavation of sternite 8 V-shaped 28
28. Abdominal pigmentation uniformly brown 30
 – Abdominal pigmentation not uniformly brown 29
29. Abdomen dark brown, segments 7–8 darker; sternite 8 large, with broad and deep
 posteromedian excavation; spermathecae globose
 *S. (A.) tridentis* Cazorla & Spinelli sp. nov.
 – Abdomen brown, segment 8 darker; sternite 8 shorter, posteromedian excava-
 tion narrow; spermathecae pyriform *S. (A.) rava* Ingram & Macfie
30. Anterior margin of sternite 8 slightly concave; spermathecae lightly sclerotized
 with short, straight necks, largest 7.8 by 6.5 μm
 *(A.) spinosa* Cazorla & Spinelli sp. nov.
 – Anterior margin of sternite 8 straight; spermathecae heavily sclerotized with
 very short necks, largest 12.9 by 10.0 μm 31
31. Yellowish brown species, scutum with mesal portion paler; body covered with
 medium-sized, thin setae; apex of hind tibia dark brown
 *S. (A.) succinea* Ingram & Macfie
 – Dark brown species, scutum dark brown except humeral pits, lateral margins,
 two sublateral longitudinal bands and prescutellar depression yellowish; body
 densely covered with long, coarse setae; apex of hind tibia slightly darker
 *S. (A.) hirsuta* Ingram & Macfie

Stilobezzia (Acanthohelea) bicinctipes Ingram and Macfie, 1931
(Figures 1, 16)

Stilobezzia bicinctipes Ingram and Macfie, 1931: 195 (female, Chile)

Stilobezzia (Neostilobezzia) bicinctipes: Das Gupta and Wirth, 1968: 138 (in list);
Wirth, 1974: 43 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) bicinctipes: Borkent and Wirth, 1997: 107 (in World
catalogue); Borkent and Spinelli, 2000: 52 (in catalogue of southern USA species);
Borkent and Spinelli, 2007, 85 (in Neotropical synopsis); Borkent, 2014: 133 (in
online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* in which both sexes have a conspicuous mid brown band on the hind femur, the forecoxa is pale and the mid and hind coxae are dark brown. Males hind tarsal claw enlarged, similar to female and parameres' stem subtriangular. Females abdominal sternite 8 broader than long, anterior margin straight, lateral margins slightly divergent, with a deep, V-shaped posteromedian excavation.

Male. Head (Figure 1A). Dark brown. Antennal flagellum brown; plume dark brown, dense; antennal ratio 0.95–1.02 (0.99, $n = 3$). Palpus brown; segment 3 slightly longer than 5; palpal ratio 2.90–3.20 (3.00, $n = 3$).

Thorax. Scutum dark brown, humeral pits yellowish; scutellum yellowish with 6 large, 2 thinner setae; postscutellum, pleura dark brown. Legs pale yellowish, hind leg darker; forecoxa pale, mid, hind coxae dark brown; hind femur with broad mesal brown band, distal half of hind tibia dark brown; hind tibial comb with 8 spines; tarsomere 1 of hind leg with stout basal spine; hind claw enlarged, similar to female; prothoracic TR 2.16–2.25 (2.22, $n = 3$); mesothoracic TR 2.48–2.61 (2.54, $n = 3$); metathoracic TR 2.40–2.65 (2.53, $n = 3$). Wing (Figure 1B) length 1.50–1.52 (1.51, $n = 3$) mm, width 0.48–0.52 (0.50, $n = 3$) mm, costal ratio 0.70–0.76 (0.73, $n = 3$); membrane slightly infuscated; second radial cell 3.00–3.50 (3.3, $n = 3$) × longer than first; cubital fork originating slightly distal to level of base of r-m cross vein; macrotrichia on costa, R₁, R₂, M₁, marginal, sparse on cells r₃, m₁, m₂. Halter pale.

Abdomen. Dark brown. Genitalia (Figure 1C): tergite 9 extending 0.77 of gonocoxite length, posterior margin rounded; sternite 9 four times broader than long, with shallow posteromedian excavation; sternite 10 spiculate, wide, produced beyond base of cerci; cerci slender, divergent. Gonocoxite 1.8× longer than greatest breadth, broadest proximally; inner margin with mesal pointed tubercle; gonostylus slightly shorter than gonocoxite, nearly straight, tip bluntly rounded. Parameres subparallel, basal apodemes slender; stem subtriangular, wide proximally, narrowing progressively to pointed tip. Aedeagus as long as broad, composed of two slightly curved sclerites, closely approximated subapically, with recurved tips.

Female. Similar to male, but larger with the following notable sexual differences:

Head (Figure 1D). Antennal ratio 1.31–1.49 (1.48, $n = 9$); palpal ratio 3.33–4.16 (3.82, $n = 12$). Mandible with 6–7 coarse teeth.

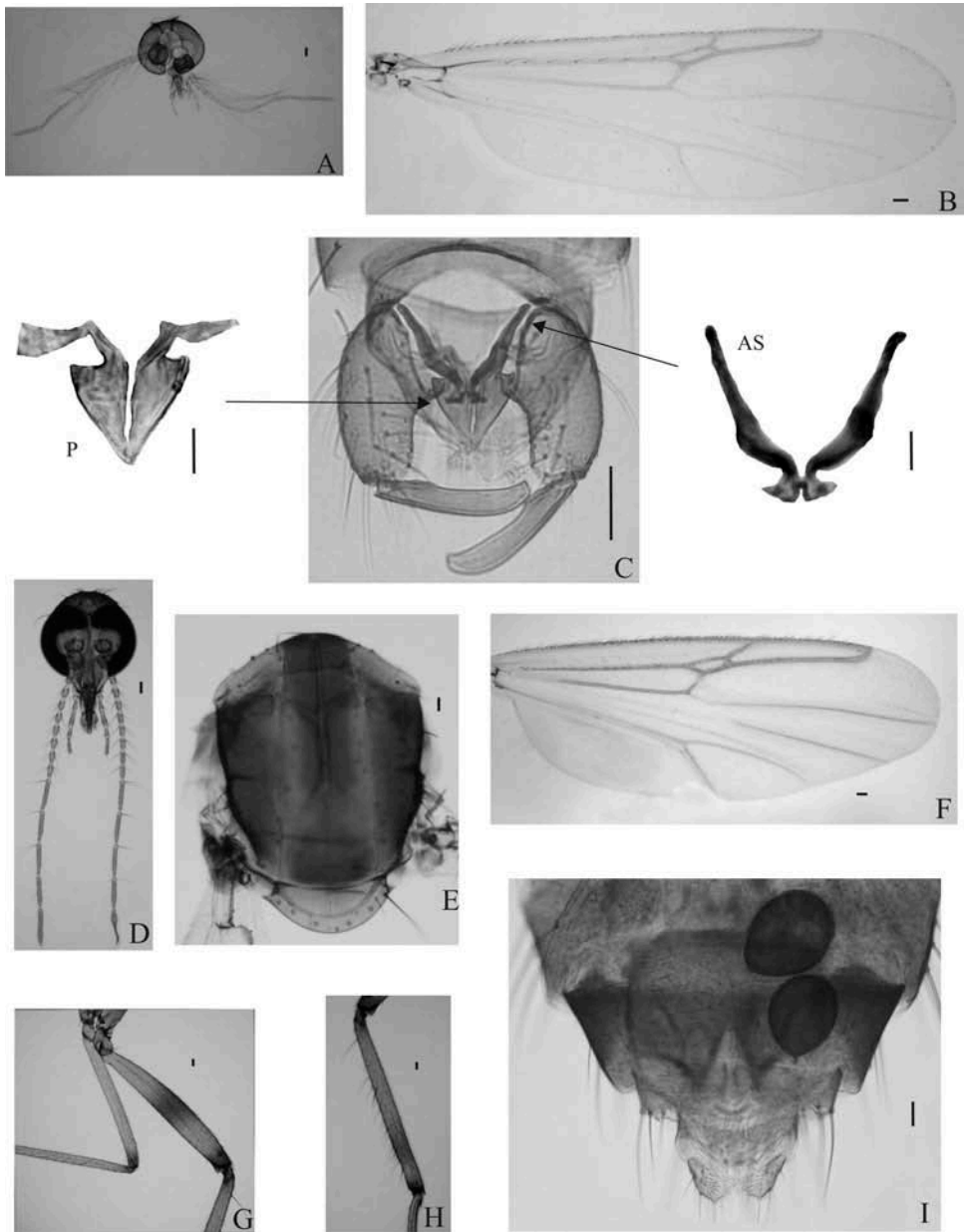


Figure 1. *Stilobezzia (A.) bicinctipes* Ingram and Macfie: (A–C) male; (A) head; (B) wing; (C) genitalia (ventral view), aedeagus removed and parameres removed. (D–I) female; (D) head; (E) scutum and scutellum (dorsal view); (F) wing; (G) mid and hind femora; (H) hind tibia and tarsomere 1; (I) genitalia. Scale bars 0.05 mm.

Thorax (Figure 1E). Scutum dark brown, two dorsolateral pale yellowish bands extending from yellowish humeral pits. Scutellum with 8–9 large, 4 thinner setae. Legs yellowish; femorotibial joints dark; hind femur (Figure 1G), with one mesal, one

apical dark brown bands, distal half of hind tibia (Figure 1H) dark brown with subapical yellowish brown ring; hind claws larger; prothoracic TR 1.75–1.94 (1.87, $n = 12$); mesothoracic TR 1.94–2.33 (2.08, $n = 12$); metathoracic TR 2.43–3.00 (2.70, $n = 12$). Wing (Figure 1F) length 2.08–2.88 (2.40, $n = 12$) mm, width 0.78–0.93 (0.83, $n = 12$) mm, costal ratio 0.79–0.83 (0.81, $n = 10$); second radial cell 3.75–5.62 (4.43, $n = 10$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, M₁, M₂, sparse on margin of cells r₃, m₁, few on basal margin of m₂.

Abdomen. Pale brown, with dense setae. Genitalia (Figure 1I): sternite 8 broader than long, anterior margin straight, lateral margins slightly divergent, nearly straight, posteromedian excavation deep, V-shaped; sternite 10 with 5 pairs of setae; cerci rounded. Two subspherical, heavily sclerotized spermathecae with slender, short necks, measuring 8.00–11.00 (9.40, $n = 11$) by 5.00–9.00 (7.90, $n = 11$) μm and 7.60–9.00 (8.90, $n = 11$) by 6.00–7.00 (6.70, $n = 11$) μm ; plus a small rudimentary, third spermatheca, not visible in Figure 1I.

Distribution

Argentina (Río Negro), Chile (Valdivia, Osorno, Llanquihue, Chiloé) (Figure 16).

Types

Holotype female, Chile, Llanquihue prov., Casa Pangué, 4–10 December 1926, P. and M. Edwards (BMNH).

Material examined

Argentina: Río Negro prov., Parque Nacional Nahuel Huapi, laguna Mercedes, 40° 52'43.4" S, 71°34'41" W, 899 m, 14 December 2007 to 3 January 2008, A. Garre – F. Montes de Oca, 3 females, Malaise trap; Estación Biológica Puerto Blest, 41°01'34.4" S, 71°48'55.7" W, 791 m, 6–13 January 2007, Garre and Montes de Oca, 3 females, at light.

Chile: Valdivia prov., Valdivia, 3 December 1984, J. A. Downes, 2 females, sweep net (JAD 1658/1/9,10) (CNCI); Fundo San Martín, 15 December 1984, J. A. Downes, 2 females, sweep net (JAD 1669/1/1; 1669/2/3) (CNCI); Isla Teja, 3 December 1984, J. A. Downes, 2 females, sweep net (JAD 1657/1/8, 13) (CNCI); same data except 13 December 1984, 1 female (1667/1/2) (CNCI); Parque Nacional Puyehue, 12 December 1984, J. A. Downes, 1 female, sweep net (JAD 1666/1/10) (CNCI); same data except 6/8 December 1994, J. A. Downes, 1 female, Malaise trap (JAD 1591/3/2); Osorno prov., margen S lago Ranco 180 m, 28 November 1992, G. Spinelli, 1 female, sweep net; Pucatrihue, 30 December 1992, G. Spinelli, 2 females, sweep net (USNM); Llanquihue prov., Las Cascadas, 13 km N Ensenada, 1–2 December 1994, L. Quate, 2 females (one in USNM); Yervas Buenas, 13 km N Ensenada 1–6 December 1994, L. Quate, 1 female, sweep net; road to Los Ulmos, 30 December 1984, J. A. Downes, 29 December 1984, 2 males, 2 females (JAD1685/2/5,3) (JAD1685/1/11,12) (CNCI); same data except 1 males, 2 females, sweep net (JAD 1686/2/28, 29, 30) (CNCI); Chiloé prov., Huillinco, 4 January 1984, J. A. Downes, 1 female, sweep net (JAD 1691/2/42) (CNCI).

Discussion

This species resembles *S. ornatricrus* which also has legs with dark brown bands and a basal spine on hind tarsomere 1. Females of *S. ornatricrus* can be distinguished from those of *S. bicinctipes* by the sternite 8 with a convex anterior margin and U-shaped posteromedian excavation, and the spermathecae lack necks. In addition, males of *S. ornatricrus* have parameres with a rod-shaped stem, that is tapered distally and apically curved, and aedeagal sclerites with basal portion curved laterad and apex curved mesad with a pointed tip.

Remarks

Some of the studied specimens have poorly developed dorsolateral pale yellowish bands of the scutum and the subapical yellowish brown ring of the hind leg.

This is the first description of the male of *Stilobezzia (A.) bicinctipes*.

Stilobezzia (Acanthohelea) curvistyla Cazorla and Spinelli, 2007
(Figure 15A, B)

Stilobezzia (Acanthohelea) curvistyla Cazorla and Spinelli, 2007: 182 (male, female, Argentina); Borkent, 2014: 134 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* in which the gonostylus is abruptly curved. Females scutellum with 6 large and 5 thinner setae, sternite 8 with lateral margins rounded and U-shaped posteromedian excavation.

Distribution

Argentina (Neuquen, Río Negro, Chubut), Chile (Valdivia, Llanquihue, Osorno) (Figure 16).

Types

Holotype male, Argentina, Chubut prov., Parque Nacional Los Alerces, margen E lago Futalaufquen, 20 January 1998, G. Spinelli; allotype female, Argentina, Neuquen prov., arroyo Quechuquina, 16 December 1994, G. Spinelli, sweep net (MLPA). Other paratypes: 11 males, 1 female, as follows: same data as holotype, 1 male; same data as allotype, 2 males; Neuquen prov., San Martín de los Andes, 23 April 1982, M. Gentili, 1 female, light trap; Río Negro prov., lago Gutiérrez, January 2003, J. Liotta, 1 male, light trap.

Chile: Llanquihue prov., Las Cascadas, 13 km N Ensenada, Valdivian rain forest, 1–2 December 1994, L. Quate, Malaise trap, 6 males (one in CNCI, one in BMNH); same data except Yerbas Buenas, 1–6 June 1994, 150 m, 1 male, light trap.

Other specimens examined

Argentina: Neuquen prov., Parque Nacional Nahuel Huapi, mallin La Heladera, 41° 00'6.4" S, 71°49'40.3" W, 878 m, 7 January to 4 February 2007, A. Garré – F. Montes de Oca, 4 males, Malaise trap; same data except 41°00'56" S, 71°49'45.4" W, 15 December 2006 to 7 January 2007, A. Garré, F. Montes de Oca – J. Massafarro, 1 male; laguna Mercedes, 40°52'43.4" S, 71°34'41" W, 899 m, 3–21 January 2008, A. Garré – F. Montes de Oca, 1 female, Malaise trap; Parque Nacional Nahuel Huapi, arroyo Blanco, 40°39'3.4" S, 71°24'45.8" W, 822 m, 12 December 2007 to 3 January 2008, A. Garré – F. Montes de Oca, 2 females, 1 male, Malaise trap; Río Negro prov., Parque Nacional Nahuel Huapi, Estación Biológica, 41°01'34.4" S, 71°48'55.7" W, 764 m, 15 January to 7 February 2007, A. Garré – F. Montes de Oca, 1 male, Malaise trap; Río Negro prov., Parque Nacional Nahuel Huapi, río Manso superior, 41°14'28.4" S, 71°44'12.6" W, 837 m, 7 February to 2 March 2007, A. Garré – F. Montes de Oca, 1 male, Malaise trap.

Chile: Valdivia prov., Fundo San Martín, 15 November 1984, J. A. Downes, 1 male, sweep net (JAD1669/2/2; 1670/2/4) (CNCI); Osorno prov., Petrohue, 10 December 1984, J. A. Downes, 1 male, sweep net (JAD1694/3/1) (CNCI); Ensenada, 11 December 1984, J. A. Downes, 2 males, sweep net (JAD1695/5/3,5) (CNCI); Parque Nacional Puyehue, 6/8 December 1994, L. Quate, 2 males, Malaise trap.

Remarks

This species was described and illustrated in detail by Cazorla and Spinelli (2007).

Stilobezzia (Acanthohelea) estepae Cazorla and Spinelli sp. nov.
(Figures 2, 20)

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with wings in which the r-m crossvein is interrupted at mid portion and the hind femur is dark brown with pale narrow base. Males tergite 9 with a distomesal, rounded and hyaline protuberance. Females scutellum pale brown with 8 large and 8 thinner setae and mandible with 6 large, coarse teeth.

Male. Head (Figure 2A). Dark brown. Antennal flagellum brown, plume brown, moderately developed; antennal ratio 0.95–1.11 (1.01, $n = 8$). Palpus brown, segment 3 as long as 5; palpal ratio 3.29–4.60 (3.39, $n = 8$).

Thorax (Figure 2B). Dark brown, humeral pits pale brown; scutellum pale brown with 8 stout, 6 thinner setae. Legs brown, hind leg darker, narrow base of hind femur dark brown with pale basal ring; hind tibia dark brown; hind tibial comb with 10 spines; prothoracic TR 1.80–2.07 (1.97, $n = 8$); mesothoracic TR 2.06–2.29 (2.20, $n = 8$); metathoracic TR 1.93–2.15 (2.01, $n = 8$). Wing (Figure 2C) length 1.86–2.05 (1.94, $n = 8$) mm; width 0.60–0.70 (0.65, $n = 8$) mm; costal ratio 0.65–0.73 (0.70, $n = 8$); membrane slightly infuscated, r-m crossvein interrupted at mid portion; second radial cell 4.00–2.40 (3.12, $n = 8$) × longer than first; cubital fork originating

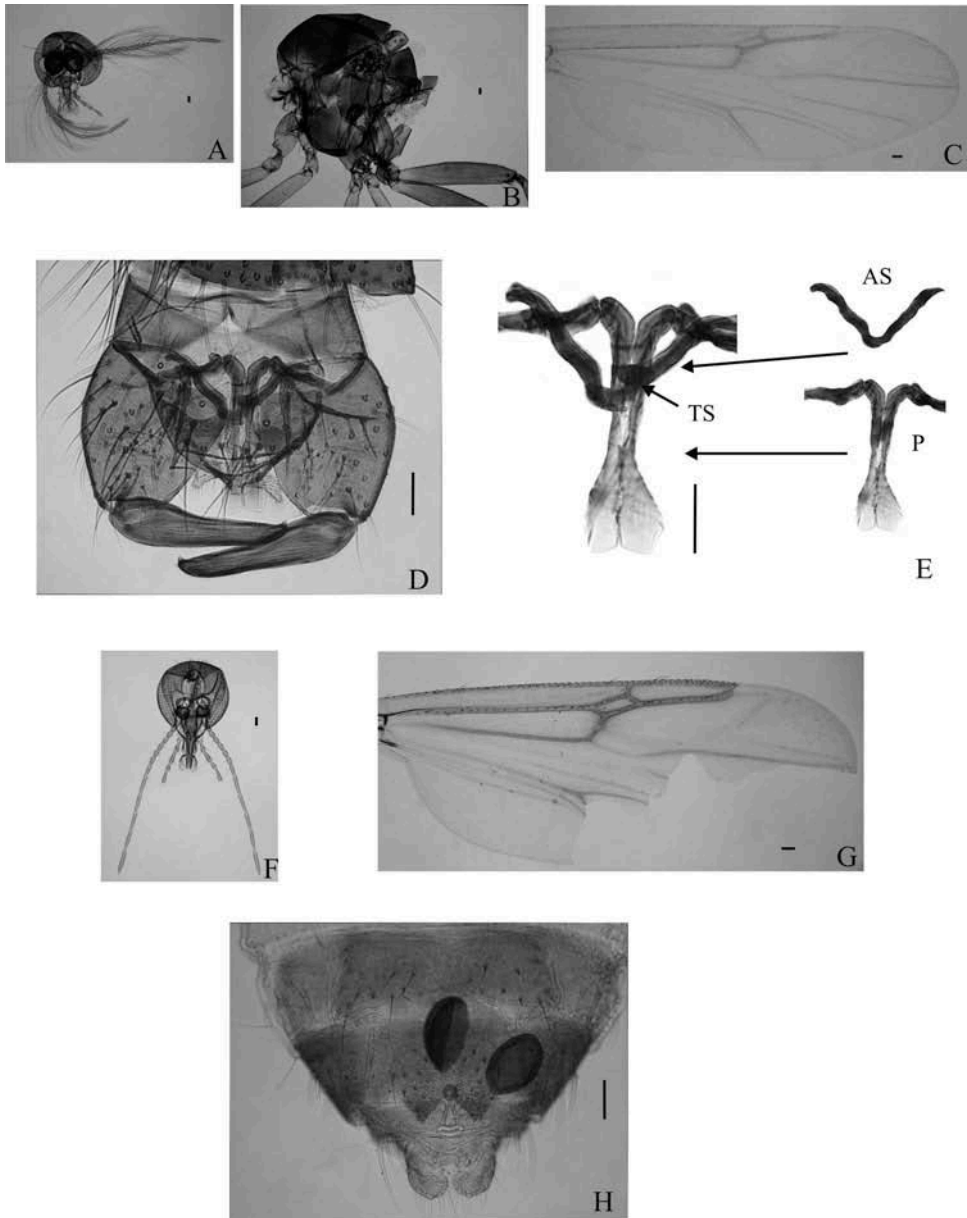


Figure 2. *Stilobezzia (A.) estepae* Cazorla and Spinelli sp. nov.: (A–E) male; (A) head; (B) thorax (lateral view); (C) wing; (D) genitalia (ventral view); (E) aedeagus and parameres removed. (F–H) female; (F) head; (G) wing; (H) genitalia. Scale bars 0.05 mm.

at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , distal margin of cell r_3 , sparse on distal margin of cell m_1 . Halter pale.

Abdomen. Dark brown. Genitalia (Figure 2D): tergite 9 extending 0.80 of gonocoxite length, narrowing distad; posterior margin rounded with small, rounded,

hyaline, apical protuberance; sternite 9 six times broader than long, with broad, V-shaped posteromedian excavation; sternite 10 stout, produced beyond base of cerci; cerci slender, tapering to tip, divergent. Gonocoxite stout, 1.37× longer than greatest breadth; gonostylus stout, nearly straight, narrowing slightly distally to pointed tip. Parameres subparallel, basal apodemes slightly curved; stem straight, proximal 2/3 slender, distal 1/3 oar-shaped. A small triangular sclerite located at proximal 1/3 of stem of parameres. Aedeagus 0.42× length of basal breadth, composed of two slender, sinuous sclerites, the tips of which are pointed, closely approximated and overlapping in some specimens.

Female. Similar to male, with the following notable sexual differences:

Head (Figure 2F). Antennal ratio 1.50; palpal ratio 3.14. Mandible with 6 coarse teeth.

Thorax. Scutellum with 8 large, 8 thinner setae. Tarsomere 1 of mid leg with basal stout spine; prothoracic TR 2.00; mesothoracic TR 2.14; metathoracic TR 2.07. Wing (Figure 2G) length 2.05 mm, width 0.84 mm, costal ratio 0.73; second radial cell 2.65× longer than first; macrotrichia on costa, R₁, R₂, R₃, M₁, M₂, abundant on distal 1/2 of cell r₃ (distal portion of membrane broken in the available specimen).

Abdomen. Dark brown. Genitalia (Figure 2H): sternite 8 with anterior margin convex, lateral margins convergent; posteromedian excavation V-shaped; sternite 10 with 4–5 pairs of setae; cerci elongated; two ovoid spermathecae, with narrow necks, measuring 13 by 8.10 μm and 9.20 by 6.30 μm; plus a small third rudimentary spermatheca.

Distribution

Argentina, only known from its type locality in Río Negro province (Figure 20).

Types

Holotype male, allotype female, Argentina, Río Negro prov., Paraje Chasicó, Vertiente, 41°08'28.0" S, 67°35'43.9" W, 961 m, 6 December 2006, G. Spinelli, CDC light trap (MLPA). Other paratypes: 8 males, as follows: 7 males, same data as holotype (one in CNCI, one in BMNH, one in USNM); 1 male, same data except sweep net.

Etymology

The name *estepae* refers to the fact that this is the only species of the subgenus inhabiting the Patagonian steppe.

Discussion

This species is somewhat similar to *S. (A.) megatheca*. However, females of that species differ by their greatly elongated, flask-shaped spermathecae, and males have an anteromesal pointed tubercle on the inner margin of gonocoxite and a gonostylus with dorsal subapical bulk.

Stilobezzia (Acanthohelea) hirsuta Ingram and Macfie, 1931
(Figures 3, 17)

Stilobezzia hirsuta Ingram and Macfie, 1931: 201 (female; Bariloche).

Stilobezzia (Neostilobezzia) hirsuta: Das Gupta and Wirth, 1968: 140 (in list); Wirth, 1974: 43 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) hirsuta: Spinelli and Wirth, 1993: 5 1 (in list; Argentina); Borkent and Wirth, 1997: 108 (in World catalogue); Borkent and Spinelli, 2000: 52 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 85 (in Neotropical synopsis); Borkent, 2014: 134 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* that is large (male wing length 2.75–3.03 mm; female wing length 2.38–2.80 mm), with the body completely covered with long, coarse setae and tarsomeres 1–2 of all legs bearing two apical spines. Males sternite 9 with a posteromedian hyaline projection and posterior margin of tergite 9 bilobate. Females scutellum with 10–12 large and 8–10 thinner setae.

Male (Figure 3A). Head. Dark brown. Antennal flagellum brown; plume dark brown, poorly developed; antennal ratio 1.10–1.16 (1.13, $n = 2$). Palpus dark brown; segment 3 cylindrical, slightly shorter than 1; palpal ratio 4.14–4.57 (4.35, $n = 3$).

Thorax (Figure 3C, D). Scutum dark brown except humeral pits, lateral margins, two sublateral longitudinal bands, prescutellar depression yellowish; scutellum yellowish with 28–30 large setae in two rows; postscutellum dark brown, narrow lateral margin yellowish; pleura yellowish brown, distal half of katepisternum dark brown, proximal half yellowish. Legs dark brown, with dense, coarse setae; apex of hind tibia slightly darker; hind femur, tibia greatly enlarged, femur swollen; tarsomeres 1–2 of all leg with two apical spines; tarsomere 1 of hind leg with ventral row of spines; hind tibial comb with 11 spines; prothoracic TR 1.84–2.05 (1.96, $n = 3$), mesothoracic TR 2.05–2.22 (2.12, $n = 3$), metathoracic TR 1.90–2.15 (2.03, $n = 3$). Wing (Figure 3B) length 2.75–3.03 (2.89, $n = 3$) mm, width 0.93–0.98 (0.95, $n = 3$) mm, costal ratio 0.75–0.79 (0.77, $n = 3$); membrane deeply infuscated; second radial cell 3.54–4.40 (4.00, $n = 3$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , M_1 , sparse on cells r_3 , m_1 . Halter pale.

Abdomen. Dark brown, with dense, large, setae. Genitalia (Figure 3E, F): tergite 9 extending slightly beyond apex of gonocoxite, posterior margin bilobate, each lobe with slender lateral membranous extension; sternite 9 1.47 \times broader than long, with posteromedian hyaline projection. Gonocoxite 1.30 \times longer than greatest breadth, inner margin with mesal pointed tubercle; gonostylus stout, heavily sclerotized, nearly straight, tip rounded. Parameres subparallel, basal apodemes slender; stem rod-shaped, apical 1/3 slightly broader, tip truncate. Aedeagus 0.50 \times length of basal breadth, composed of two convergent, slightly sclerotized sclerites, each slender, sinuous with distal portion curved, tip pointed.

Female. Similar to male, with the following notable differences:

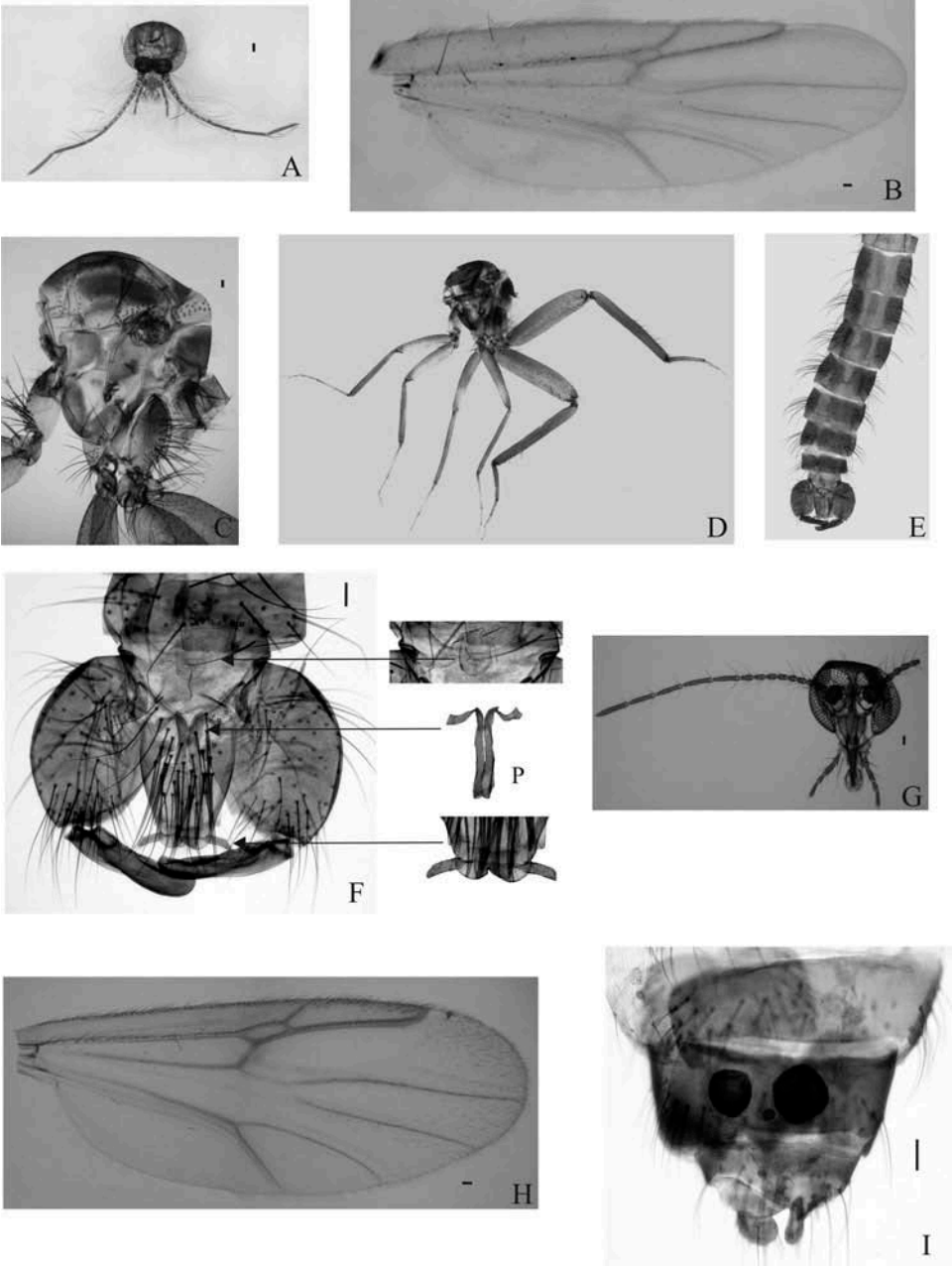


Figure 3. *Stilobezzia (A.) hirsuta* Ingram and Macfie: (A–F) male; (A) head; (B) wing; (C) thorax detail (lateral view); (D) thorax (lateral view); (E) abdomen; (F) genitalia (ventral view), detail of posteromedian projection of sternite 9, parameres removed and detail of posterior margin of tergite 9. (G–I) female; (G) head; (H) wing; (I) genitalia. Scale bars 0.05 mm.

Head (Figure 3G). Antennal flagellum dark brown, bases slightly paler; antennal ratio 1.48–1.64 (1.56, $n = 3$); palpal ratio 3.57–4.14 (3.85, $n = 3$). Mandible with 7–8 coarse teeth.

Thorax. Scutellum with 10–12 large, 8–10 thinner setae. Legs pale brown; tarsomere 1 of mid leg with basal spine; prothoracic TR 1.87–2.06 (1.92, $n = 3$), mesothoracic TR 1.94–2.06 (2.02, $n = 3$), metathoracic TR 1.94–2.21 (2.06, $n = 3$). Wing (Figure 3H) length 2.38–2.80 (2.60, $n = 3$) mm, width 0.93–1.07 (1.02, $n = 3$) mm, costal ratio 0.75–0.80 (0.78, $n = 3$); second radial cell 3.00–3.25 (3.12, $n = 3$) × longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , M_2 , Cua_2 , abundant on cells r_3 , m_1 .

Abdomen. Genitalia (Figure 3I) sternite 8 heavily sclerotized, anterior margin straight, lateral margins subparallel, posteromedian excavation shallow, V-shaped; sternite 10 with 5 pairs of setae; cerci rounded; two globular spermathecae with very short, narrow necks, measuring 9.60–11.40 (10.80, $n = 3$) by 8.10–11.40 (9.70, $n = 3$) μm and 8.50–9.60 (9.20, $n = 3$) by 7.00–9.20 (7.90, $n = 3$) μm ; plus a small third rudimentary spermatheca.

Distribution

Argentina (Río Negro, Tierra del Fuego) (Figure 17).

Types

Holotype male, allotype female, Argentina, Río Negro prov., Bariloche, 1 December 1926, P. and M. Edwards (BMNH).

Other specimens examined

Argentina, Tierra del Fuego prov., Parque Nacional Tierra del Fuego, 7–9 December 2005, G. Spinelli, 2 males, 3 females, Malaise trap.; Río Negro prov., Parque Nacional Nahuel Huapi, lago Cántaros, 41°00'39.3" S, 71°49'6.6" W, 895 m, 13 January 2007, A. Garré – F. Montes de Oca, 1 male, sweep net.

Discussion

This species greatly resembles *S. rava*. However, males of *S. rava* differ by the tergite 9 that does not extend beyond the apex of the gonocoxites and its posterior margin is nearly straight. Females differ by the divergent lateral margins of the sternite 8 and by the pyriform spermathecae.

Remarks

Several males have a paler gonostylus than the holotype.

Stilobezzia (Acanthohelea) longisternalis Cazorla and Spinelli, 2012
(Figure 15C)

Stilobezzia (Acanthohelea) longisternalis Cazorla and Spinelli, 2012b: 187 (male, female; Argentina); Borkent, 2014: 135 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* in which males have the sternite 9 with an elongate, slender posteromedian projection. Females scutum with 14 large and 13 thinner setae and the abdomen brown except the abdominal segment 8 heavily sclerotized.

Distribution

Argentina (Río Negro) (Figure 20).

Types

Holotype male, allotype female, Argentina, Río Negro prov., Parque Nacional Nahuel Huapi, arroyo Ñireco (Complejo Challhuaco), 41°11'51.9" S, 71°19'40" W, 962 m, 20 December 2006 to 23 January 2007, J. Massaferró – A. Garre – F. Montes de Oca, Malaise trap (MLPA). Other paratypes: 11 males, as follows: same data as holotype, 8 males; Parque Nacional Nahuel Huapi, mallín de los Patos, 41°15'48.6" S, 71°17'50.3" W, 1020 m; December 2006 to 23 January 2007, A. Garre – F. Montes de Oca, 3 males, Malaise trap.

Remarks

This species was described and illustrated in detail by Cazorla and Spinelli (2012b).

***Stilobezzia (Acanthohelea) mapuche*, Cazorla and Spinelli sp. nov.**
(Figures 4, 18)

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with gonostylus greatly curved subbasally over 90°, aedeagal sclerites heavily sclerotized, slender to mid length and the distal half broadening abruptly and mesally directed with subapical pointed divergent prongs. Female unknown.

Male. Head (Figure 4A). Dark brown. Antennal flagellum brown, plume dark brown, dense; flagellomeres 1–10 with pale ring above the insertions of the plume setae; antennal ratio 1.51–1.75 (1.58, $n = 5$). Palpus brown; segment 3 as long as 5; palpal ratio 3.00–3.50 (3.20, $n = 6$).

Thorax. Scutum uniformly dark brown; scutellum pale with 6 large setae; post-scutellum dark brown. Legs brown, hind leg slightly darker than mid and forelegs; hind tibial comb with 8 spines; prothoracic TR 1.70–1.87 (1.79, $n = 8$); mesothoracic TR 1.91–2.10 (2.02, $n = 8$); metathoracic TR 1.72–2.00 (1.86, $n = 8$). Wing (Figure 4B) length 1.39–1.66 (1.50, $n = 10$) mm, width 0.49–0.58 (0.54, $n = 10$), costal ratio 0.68–0.73 (0.71, $n = 10$); membrane slightly infuscated; second radial cell 2.41–3.36

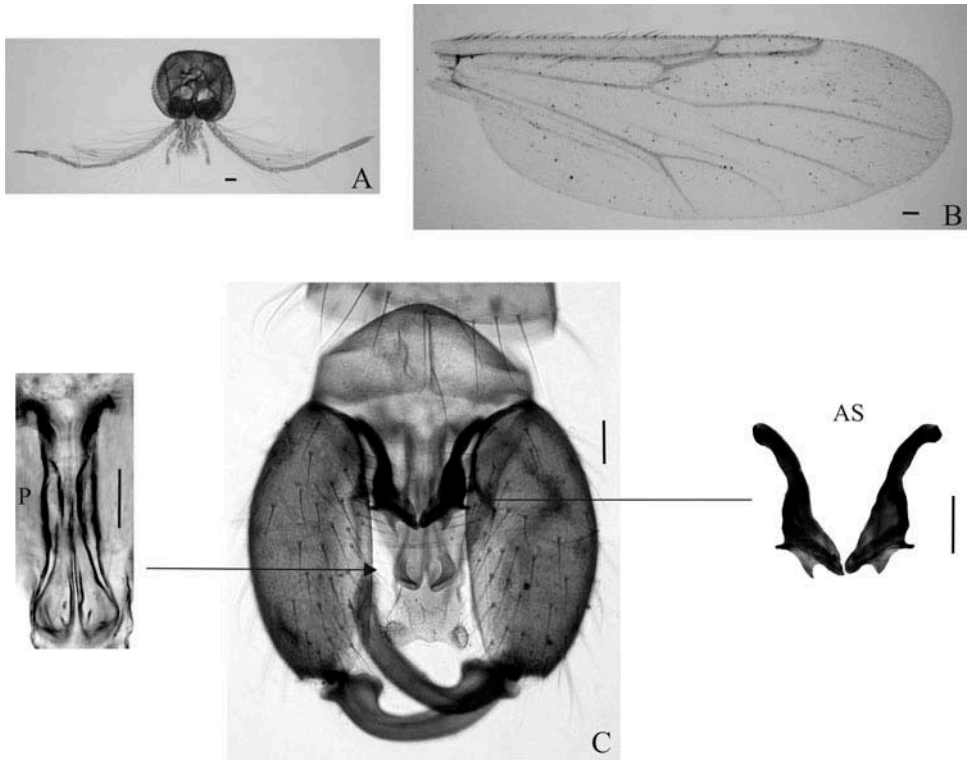


Figure 4. *Stilobezzia (A.) mapuche* Cazorla and Spinelli sp. nov., male: (A) head; (B) wing; (C) genitalia (ventral view), aedeagus and parameres removed. Scale bars 0.05 mm.

(2.78, $n = 8$) \times longer than first; cubital fork originating slightly distal to level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , M_2 , Cua_2 , sparse on distal 1/3 of cells r_3 , m_1 , m_2 . Halter pale brown.

Abdomen. Dark brown. Genitalia (Figure 4C): tergite 9 triangular, tapering abruptly distally, extending 0.80 length of gonocoxites, posterior margin rounded; sternite 9 2.45 \times broader than long, posterior margin straight; sternite 10 triangular, margins wrinkled, produced beyond base of cerci; cerci moderately slender, broadly divergent. Gonocoxite 2.05 \times longer than greatest breadth; gonostylus 0.72 \times length of gonocoxite, base stout, greatly curved subbasally over 90 $^\circ$, tip pointed. Parameres subparallel; basal apodemes slender, stem stout, tip bulbous. Aedeagus 0.77 \times length of basal breadth, composed of two convergent sclerites, each with stem slightly curved, heavily sclerotized, slender to mid length, distal half broadening abruptly, directed mesally with subapical pointed divergent prongs arising from common base, proximal prong directed laterad, distal one directed distad.

Female. unknown.

Distribution

Argentina (Neuquen, Río Negro), Chile (Santiago) (Figure 18).

Types

Holotype male, Argentina, Río Negro prov., Parque Nacional Nahuel Huapi, río Manso superior, 41°14'28.4" S, 71°44'12.6" W, 837 m, 7 February to 2 March 2007, A. Garré- F. Montes de Oca, Malaise trap (MLPA). Paratypes: 15 males, as follows: same data as holotype, 2 males (one in CNCI, one in USNM); same data except 41°14'814" S, 71°46'58.5" W, 845 m, 2 males; laguna Los Clavos, 41°04'48.6" S, 71°49'33.9" W, 1194 m, 5 February to 3 March 2007, A. Garré – F. Montes de Oca, 3 males (one in BMNH), Malaise trap; Parque Nacional Nahuel Huapi, laguna Mercedes, 40°52'43.4" S, 71°34'41" W, 899 m, 3–21 January 2008, A. Garré – F. Montes de Oca, 1 male, Malaise trap; Neuquen prov., Parque Nacional Nahuel Huapi, mallin La Heladera, 41°00'6.4" S, 71°49'40.3" W, 878 m, 7 January to 4 February 2007, A. Garré – F. Montes de Oca, 6 males, Malaise trap; Chile. Santiago prov., Quebrada de La Plata, Maipú 33°30' S, 70°55' W, 26 April 1966, M. E. Irwin, 1 male, Malaise trap.

Etymology

The name *mapuche* refers to Mapuche Indians, early inhabitants of southern and central Chile and north-western Argentinean Patagonia.

Discussion

This species is somewhat similar to *S. (A.) pabloi*. The latter species is clearly distinguishable by the aedeagal sclerites with sclerotized tip with a small mesal notch.

***Stilobezzia (Acanthohelea) megatheca* Cazorla and Spinelli sp. nov.**
(Figures 5, 17)

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* in which males have the posterior margin of tergite 9 with a small, rounded, hyaline projection. Females have two large, greatly elongated flask-shaped spermathecae and sternite 8 with a U-shaped posteromedian excavation.

Male. Head (Figure 5A). Dark brown. Antennal flagellum dark brown; plume dark brown, poorly developed; antennal ratio 1.50–1.91 (1.69, $n = 13$). Palpus brown; segment 3 as long as 5; palpal ratio 3.16–3.80 (3.41, $n = 24$).

Thorax (Figure 5C). Scutum dark brown, humeral pits pale yellowish; scutellum pale yellowish with 6 large setae; postscutellum dark brown. Legs uniformly brown; hind tibial comb with 7 spines; prothoracic TR 1.73–1.92 (1.84, $n = 25$); mesothoracic TR 2.00–2.33 (2.13, $n = 23$); metathoracic TR 1.79–1.92 (1.87, $n = 26$). Wing (Figure 5B) length 1.64–2.03 (1.70, $n = 26$) mm, width 0.58–0.67 (0.62, $n = 26$) mm, costal ratio 0.68–0.74 (0.72, $n = 10$); membrane slightly infuscated; second radial cell 2.78–3.83 (3.11, $n = 13$) × longer than first; cubital fork originating slightly distal to base of r-m cross vein; macrotrichia on costa, R₁, R₃, M₁, M₂, wing margin, sparse on cells r₃, m₁. Halter pale.

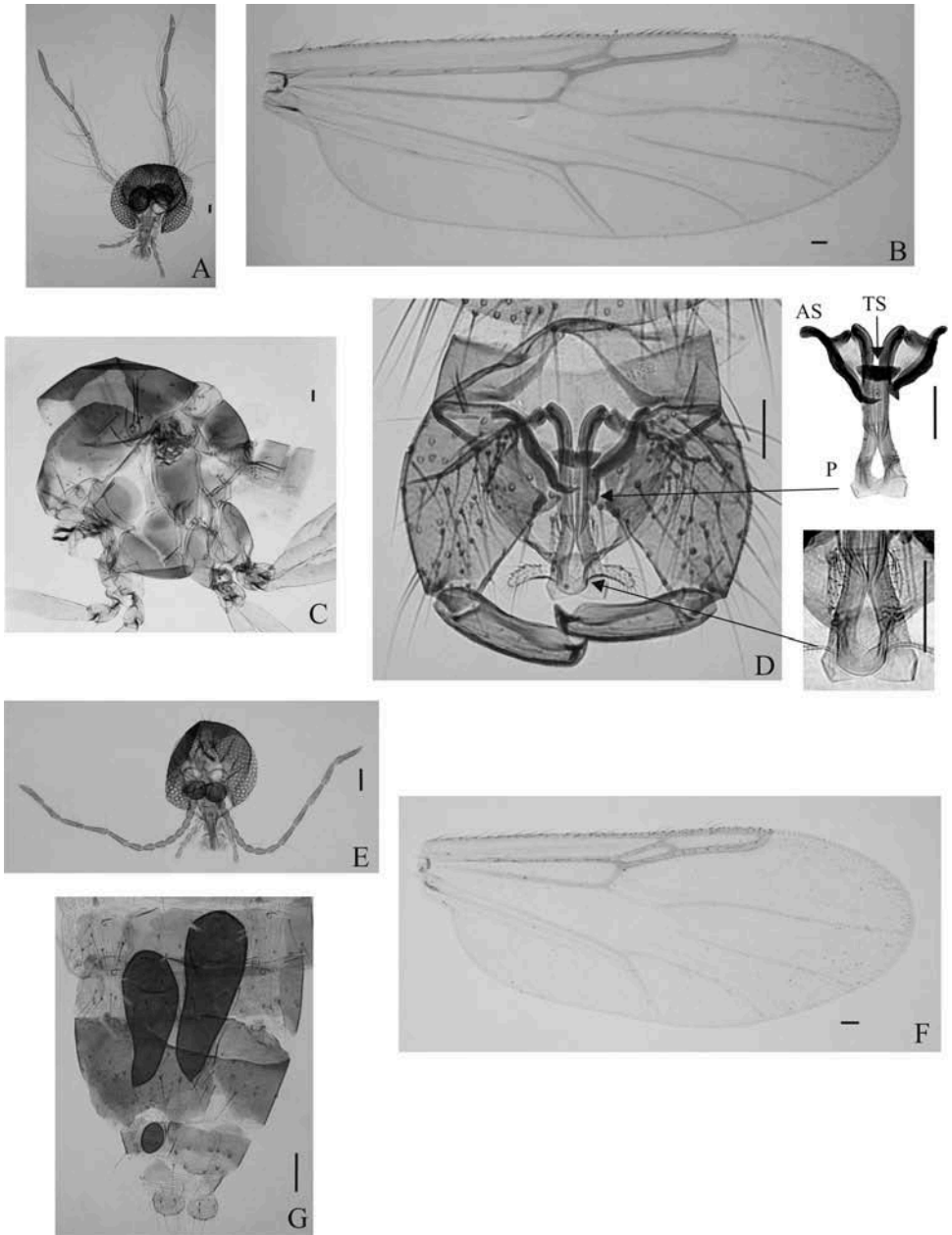


Figure 5. *Stilobezzia (A.) megatheca* Cazorla and Spinelli sp. nov.: (A–D) male; (A) head; (B) wing; (C) thorax (lateral view); (D) genitalia (ventral view), aedeagus and parameres removed, and detail of posteromedian projection of tergite 9. (E–G) female; (E) head; (F) wing; (G) genitalia. Scale bars 0.05 mm.

Abdomen. Dark brown. Genitalia (Figure 5D): tergite 9 extending 0.92 of gonocoxite length, posterior margin rounded with small, hyaline, rounded projection; sternite 9 4.3× broader than long, with broad, deep, posteromedian excavation;

sternite 10 narrow, spiculate, extending to base of cerci; cerci slender, divergent. Gonocoxite 1.27× longer than greatest breadth, inner margin with anteromesal pointed tubercle; gonostylus slightly shorter than gonocoxite, stout, nearly straight, with dorsal subapical bulk; tip heavily sclerotized, beak-like, sharply pointed, tip pointed, heavily sclerotized, directed anteriorly. Parameres contiguous anteriorly, slightly divergent distally, basal apodemes slightly curved; each with stem rod-shaped, tip bulbous. A small triangular sclerite located just anterior to base of parameres. Aedeagus 0.66× length of basal breadth, composed of two slender, sinuous sclerites, each with proximal portion curved laterad, tips pointed, separated.

Female. Smaller, similar to male, with the following notable differences:

Head (Figure 5E). Dark brown. Antennal flagellum brown; antennal ratio 1.33–1.51 (1.39, $n = 8$); palpal ratio 2.75–3.95 (2.96, $n = 10$). Mandible with 7 coarse teeth.

Thorax. Scutellum with 5 large, 3 thinner setae. Legs prothoracic TR 1.73–1.90 (1.81, $n = 9$); mesothoracic TR 2.08–2.30 (2.16, $n = 9$); metathoracic TR 2.00–2.30 (2.17, $n = 8$). Wing (Figure 5F) length 1.34–1.68 (1.51, $n = 10$) mm, width 0.60 (0.55–0.66, $n = 10$) mm; costal ratio 0.66–0.73 (0.70, $n = 9$); membrane slightly infuscated; second radial cell 2.12–2.85 (2.5, $n = 10$) × longer than first; macrotrichia on costa, R_1 , R_2 , M_1 , M_2 , CuA_2 , abundant on distal 1/3 of cells r_3 , m_1 , sparse on cell m_2 .

Abdomen (Figure 5G). Anterior margin of sternite 8 straight, lateral margins subparallel; posteromedian excavation U-shaped, shallow; sternite 10 with 4–5 pairs of setae; cerci rounded. Two large, greatly elongated, flask-shaped spermathecae with short necks, measuring 22.30–26.10 (24.40, $n = 10$) by 3.70–9.20 (7.20, $n = 10$) μm and 18.90–23.70 (21.90, $n = 10$) by 5.50–7.70 (6.60, $n = 10$) μm ; plus a third small, ovoid spermathecae measuring 3.60–6.20 (4.80, $n = 10$) μm .

Distribution

Argentina (Neuquen, Río Negro, Chubut), Chile (Valdivia, Osorno, Llanquihue, Chiloé) (Figure 17)

Types

Holotype male, allotype female, Argentina, Neuquen prov., Villa La Angostura, 11–15 January 2004, G. Spinelli, light trap (MLPA). Other paratypes: 39 males, 24 females, as follows: Argentina, Neuquen prov., lago Aluminé, 22 December 1996 to 3 January 1997, 1 male, D. Podestá, Malaise trap; cerro Chapelco, sobre lago Lacar, 27 November 1984, J. A. Downes, 5 males, sweep net (JAD 1653/1/6,18, 20; 1653/2/17,19) (CNCI); lago Lolog, 24 November 1984, J. A. Downes, 2 males, sweep net (JAD 1651/3/13,14,28) (CNCI); Río Negro prov., El Bolsón, 29 December 1999, G. Spinelli, 1 male, light trap; río Villegas, 57 km S Bariloche, 8–3 December 1994, L. Quate, 1 male, Malaise trap; lago Gutiérrez, January 2003, J. Liotta, 9 males, light trap; lago Gutiérrez, 20 January 2006, Grogan and Spinelli, 1 male, sweep net; arroyo Los Notros, 20 km O Bariloche, 26–28 November 1994, L. Quate, 4 males, Malaise trap; Parque Nacional Nahuel Huapi, arroyo Ñireco (Complejo Challhuaco) 41°11' 51.9" S, 71°19'40.5" W, 962 m, 23 January to 18 February 2007, Garré and Montes de Oca, 1 male, Malaise trap; Chubut prov., Parque Nacional Los Alerces, margen E lago Futalaufquen, 20 January 1988, G. Spinelli, 2 males, 1 female, sweep net; Parque

Nacional Los Alerces, 9–12 December 1994, L. Quate, 5 males, Malaise trap; Parque Nacional Los Alerces, arroyo s/n 2 February 2005, M. Donato, 1 male, sweep net.

Chile, Valdivia prov., Fundo San Martín, 15 November 1984, J. A. Downes, sweep net, 2 females (JAD1669/1/5; 1670/3/6) (CNCI); Osorno prov., Pucatrihue, 30 December 1992, G. Spinelli, 1 male, 1 female, sweep net (USNM); same data except 1 December 1992, 1 female; Llanquihue prov., Yervas Buenas, 13 km N Ensenada, 1–6 December 1994, L. Quate, 2 males, light trap; 3 km N Ensenada, 1–2 December 1994, L. Quate, 1 male, 5 females, Malaise trap; same data except 4 December 1994, 1 female; road to Los Ulmos, 29 December 1984, J. A. Downes, 5 females, sweep net (JAD 1685/2/12,13,14,37,38) (CNCI); Ensenada, 11 December 1984, J. A. Downes, 2 males, sweep net (JAD1695/1/4; 1695/5/2) (CNCI); Chiloé prov., Ancud, 1 January 1985, J. A. Downes, 1 female, sweep net (JAD 1688/3/15) (CNCI); Huillinco, 2 January 1985, J. A. Downes, 3 females, sweep net (JAD 1689/2/3,4,5) (CNCI); same data except 3 January 1985, J. A. Downes, 1 female, (JAD 1690/4/48) (CNCI); same data except 4 January 1985, 3 females, (JAD 1691/2/44) (CNCI).

Etymology

The name *megatheca* refers to the unique, conspicuous, greatly elongated flask-shaped spermathecae.

Discussion

This species is somewhat similar to *S. (A.) estepae*. Characters for distinguishing both species are in the discussion section of that species.

***Stilobezzia (Acanthohelea) monomorphica* Cazorla and Spinelli sp. nov.** (Figures 6, 17)

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* without normal secondary sexual dimorphism, and both sexes have a basal spine on tarsomere 1 of the hind leg. Males with gonostylus stout proximally, distal 2/3 curved, apical 1/3 abruptly tapered, tip slender and sharply pointed. Females scutum dark brown except humeral pits and mesal region yellowish, and small, greatly unequal-sized and globular spermathecae.

Male. Head. Dark brown. Antennal flagellum (Figure 6A) dark brown female-like, without a plume; antennal ratio 1.40–1.54 (150, $n = 4$). Palpus dark brown; segment 3 subequal to 5; palpal ratio 3.33–4.20 (3.84, $n = 4$). Mandible with 6 coarse teeth.

Thorax (Figure 6C). Scutum dark brown except humeral areas, lateral margins, prescutellar depression pale yellowish; scutellum pale yellowish with 15 large, 6–7 thinner setae; postscutellum dark brown; pleura light brown, antepisternum partially yellowish. Legs brown, with dense setae, hind leg stout, slightly darker; hind tibia with dorsal row of long setae; tarsomere 1 of hind leg with basal stout spine, tarsomeres 1–2 with two distal stout spines; tarsomere 5 as long as 3; hind tibial comb with 9 spines;

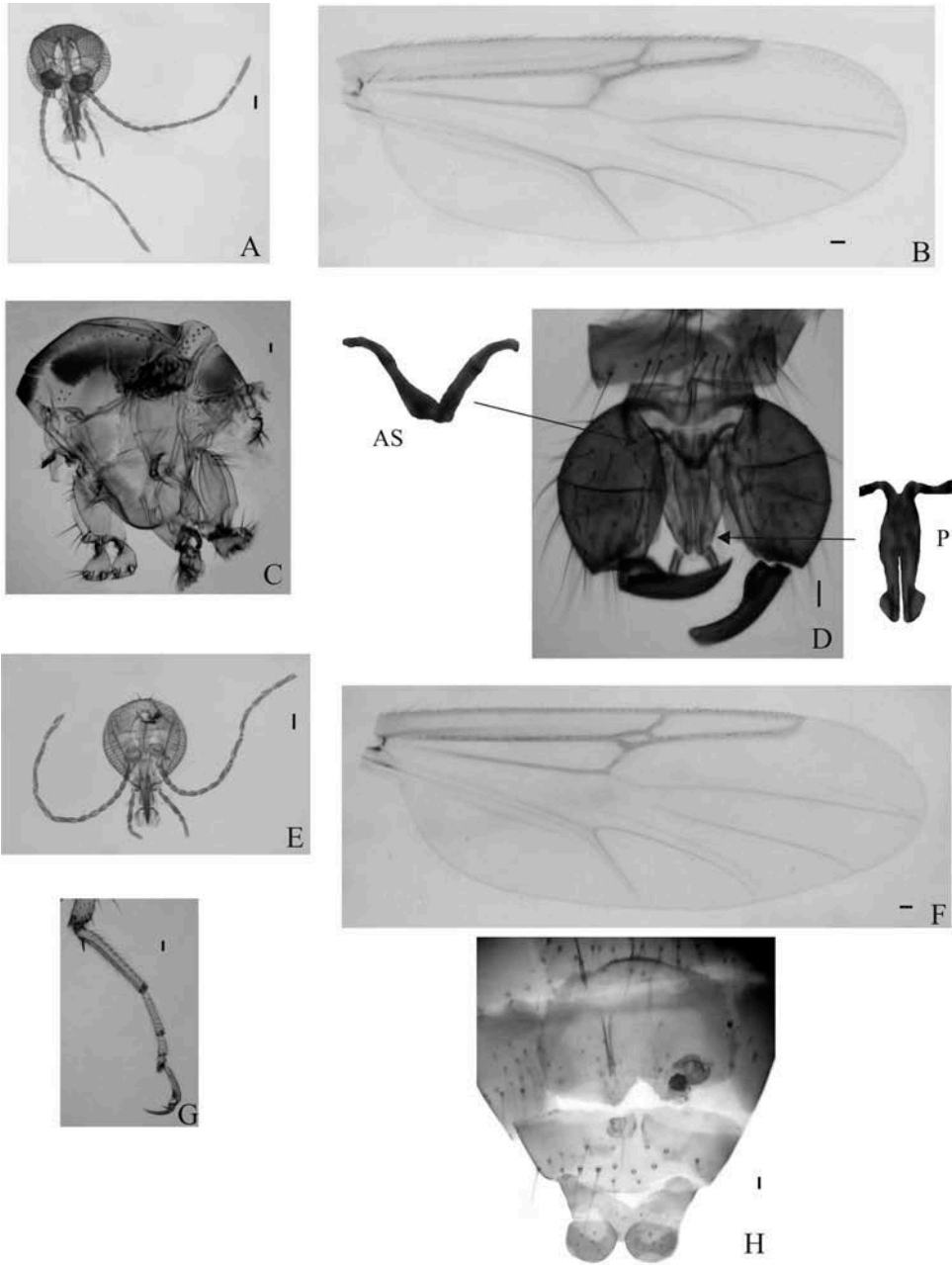


Figure 6. *Stilobezzia (A.) monomorphica* Cazorla and Spinelli sp. nov.: (A–D) male; (A) head; (B) wing; (C) thorax (lateral view); (D) genitalia (ventral view), aedeagus and parameres removed. (E–G) female; (E) head; (F) wing; (G) hind tarsomeres; (H) genitalia (from paratype). Scale bars 0.05 mm.

prothoracic TR 2.00–2.07 (2.01, $n = 4$), mesothoracic TR 2.07–2.25 (2.15, $n = 4$), metathoracic TR 2.08–2.42 (2.18, $n = 4$). Wing (Figure 6B) length 1.96–2.19 (2.08, $n = 4$) mm, width 0.74–0.84 (0.79, $n = 4$) mm, costal ratio 0.72–0.75 (0.74, $n = 6$); membrane slightly infuscated; second radial cell 3.00–5.20 (3.40, $n = 4$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , sparse on distal half of cell r_3 . Halter pale brown.

Abdomen. Dark brown, with dense setae. Genitalia (Figure 6D): tergite 9 short, extending 0.80 of gonocoxite length, tapering gradually distally; sternite 9 4.30 \times broader than long; sternite 10 spiculate, produced slightly beyond base of cerci; cerci narrowly separated proximally, elongated, slender, apices divergent. Gonocoxite stout, 1.65 \times longer than greatest breadth; gonostylus 0.90 \times shorter than gonocoxite, heavily sclerotized, stout proximally, distal 2/3 curved, apical 1/3 abruptly tapered, tip, slender, sharply pointed. Parameres subparallel, basal apodemes slender, slightly curved; stem stout on proximal 1/2, distal halves rod like, apices swollen, blade-shaped. Aedeagus 0.68 \times length of basal breadth, composed of two nearly straight sclerites, each with basal portion recurved 60 $^\circ$, distal portion slightly broader, tip pointed, directed mesad.

Female. Similar to male but larger, with the following notable sexual differences:

Head (Figure 6E). Antennal ratio 1.35–1.63 (1.44, $n = 4$). Palpal ratio 3.86–4.09 (3.96, $n = 4$).

Thorax. Scutum dark brown, humeral pits, mesal area yellowish. Scutellum with 12 large, 6–8 thinner setae; tarsi of foreleg, mid leg pale, tarsomeres 1–3 of mid leg with two distal spines; tarsomere 1 of hind leg (Figure 6G) with two ventral row of setae; prothoracic TR 1.88–2.00 (1.93, $n = 4$), mesothoracic 2.04–2.15 (2.11, $n = 4$), metathoracic TR 1.88–2.38 (2.15, $n = 4$). Wing (Figure 6F) length 2.02–2.54 (2.19, $n = 4$) mm, width 0.80–0.92 (0.85, $n = 4$) mm, costal ratio 0.74–0.76 (0.75, $n = 4$); membrane slightly infuscated; second radial cell 3.87–4.87 (4.15, $n = 4$) \times longer than first; cubital fork originating slightly distal to level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 and M_2 , abundant on distal 1/3 of cell r_3 , sparse on m_1 . Halter pale.

Abdomen. Dark brown, with dense setae. Genitalia (Figure 6H): anterior margin of sternite 8 convex, lateral margins slightly concave, posteromedian excavation shallow, V-shaped; sternite 10 with 5 pairs of setae, cerci short. Two globose, greatly unequal-sized spermathecae with nearly imperceptible necks, measuring 10.20–11.10 (10.70, $n = 2$) by 7.80–8.50 (8.10, $n = 2$) μm and 8.40–8.50 (8.40, $n = 2$) by 6.80–7.40 (7.10, $n = 2$) μm ; plus a small third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro) (Figure 17).

Types

Holotype male, allotype female, Argentina, Neuquen prov., Laguna Epulafquen, 21–23 February 2001, G. Spinelli, Malaise trap (MLPA). Other paratypes: 5 males (one in CNCI, one in BMNH), 3 females (one in CNCI, one in BMNH), as follows: Argentina, Río Negro prov., Parque Nacional Nahuel Huapi, laguna los Clavos, 41 $^\circ$

04°48.6" S, 71°49'33.9" W, 1194 m, 5 February to 3 March 2007, A. Garré – F. Montes de Oca, Malaise trap.

Etymology

The specific name *monomorphica* refers to the lack of secondary sexual dimorphism in males of this species.

Discussion

This is the only species of *Stilobezzia* in the subgenus *Acanthohelea* without obvious male secondary sexual characters. The male genitalia of this new species greatly resembles those of *S. (A.) varia*, but males of that species differ by their broader sternite 9, with a broad, shallow posteromedian excavation, a pale and slender gonostylus and a gonocoxite with a short, mesal tubercle.

***Stilobezzia (Acanthohelea) nigerrima* Ingram and Macfie, 1931** (Figure 15D)

Stilobezzia nigerrima Ingram and Macfie, 1931: 196 (female; Argentina).

Stilobezzia (Neostilobezzia) nigerrima: Das Gupta and Wirth, 1968:141 (in list); Wirth, 1974: 43 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) nigerrima: Spinelli and Wirth, 1993: 51 (in list; Argentina); Borkent and Wirth, 1997: 233 (in World catalogue); Borkent and Spinelli, 2000:52 (in catalogue of species of southern USA); Cazorla and Spinelli, 2007: 181 (male; Chile); Borkent and Spinelli, 2007: 85 (in Neotropical synopsis); Borkent, 2014: 135 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with the thorax entirely dark brown, legs dark brown except coxae brown, trochanters and base of mid and hind femora slightly paler. Males sternite 9 with rounded, narrow, deep posteromedian excavation. Females anterior margin of sternite 8 convex with a U-shaped posteromedian excavation.

Distribution

Argentina (Río Negro), Chile (Malleco, Valdivia, Llanquihue, Chiloé) (Figure 19).

Types

Holotype female, 1 female paratype, Argentina, Prov. Río Negro, Bariloche, 1 December 1926, F. and M. Edwards (BMNH).

Other specimens examined

Chile, Malleco prov., Parque Nacional Nahuelbuta, 26 December 1984, J. A. Downes, 2 females, sweep net (JAD 1682/2/7,101) (CNCI); Valdivia prov., Isla Teja, 28 December 1984, J. A. Downes, 1 male, sweep net (JAD1684/1/2) (CNCI); same data except Osorno around Los Ulmos, 29 December 1984, 1 female (JAD 1687/3/1) (CNCI); Puringe Pobre, 8 January 1985, J. A. Downes, 2 females, sweep net (JAD 1692/1/24,25) (CNCI); Llanquihue prov., road to Los Ulmos, 29 December 1984, J. A. Downes, 1 female, sweep net (JAD 1685/1/5) (CNCI); Chiloé prov., Huillinco, 3 January 1985, J. A. Downes, 3 females, 2 males, sweep net (JAD 1690/3/6,8,9,20,21) (CNCI); same data except 4 January 1985, 3 females (JAD 1691/2/45,57,56) (CNCI).

Remarks

This species was redescribed and illustrated in detail by Cazorla and Spinelli (2007).

***Stilobezzia (Acanthohelea) ornaticrus* Ingram and Macfie, 1931**
(Figures 7, 19)

Stilobezzia ornaticrus Ingram and Macfie, 1931: 194 (male; Chile).

Stilobezzia (Neostilobezzia) ornaticrus: Das Gupta and Wirth, 1968: 141 (in list); Wirth, 1974: 43 (in catalogue of New World species south of USA)

Stilobezzia (Acanthohelea) ornaticrus: Borkent and Wirth, 1997: 236 (in World catalogue); Borkent and Spinelli, 2000: 53 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 85 (in Neotropical synopsis); Borkent, 2014: 135 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with yellowish brown legs, except hind femur dark brown with basal ring and distal 1/3 pale, scutellum yellowish with more than 25 large and 12 thinner setae. Males parameres rod-shaped, tapering distally to pointed, curved tip. Females sternite 8 rounded with U-shaped posteromedian excavation and spermathecae without neck.

Male. Head. Dark brown. Antennal flagellum dark, plume dense.

Thorax. Legs yellowish brown, hind femur dark brown except basal ring and distal 1/3 pale yellowish; coxae brown, hind coxa dark brown. Genitalia (Figure 7B): with dense, long setae, tergite 9 extending 0.80 of gonocoxite length, posterior margin rounded; sternite 9 3.40× broader than long, without posteromedian excavation; cerci not visible in the studied specimen. Gonocoxite stout, 0.68× length than greatest breadth, with basal portion broad; gonostylus shorter than gonocoxite, stout, nearly straight, pointed tip. Parameres subparallel, stem rod-shaped, tapering distally to pointed, curved tip. Aedeagus 0.63× length of basal breadth, composed of two slender sclerites, each with proximal portion curved laterad, tip pointed, curved mesad.

Female. Similar to male, with the following notable sexual differences:

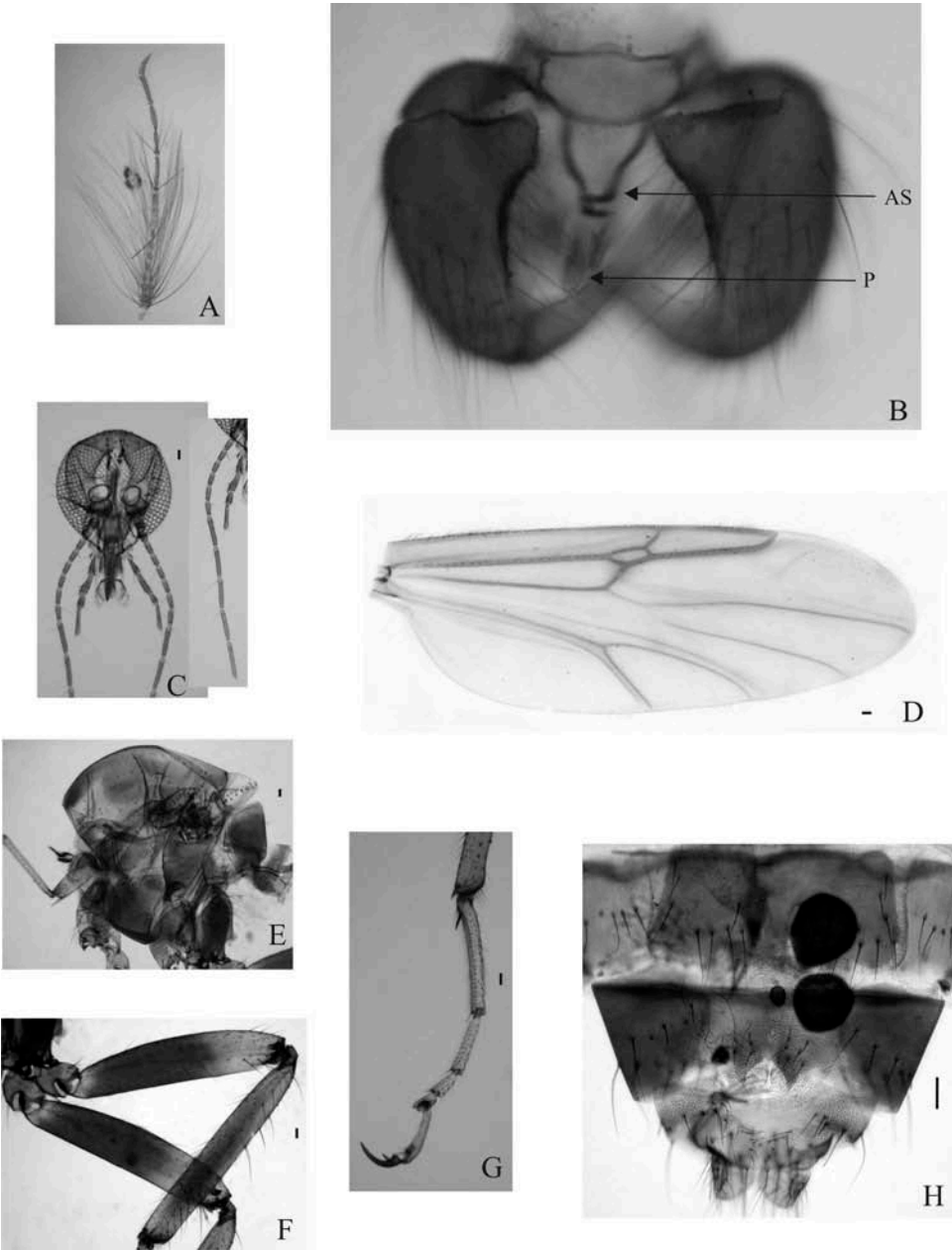


Figure 7. *Stilobezzia* (*A.*) *ornaticrus* Ingram and Macfie: (A–B) holotype male; (A) antennal flagellum; (B) genitalia (ventral view). (C–H) female; (C) head with detail of complete antennal flagellum; (D) wing; (E) thorax (lateral view); (F) hind femur and tibia; (G) hind tarsomeres; (H) genitalia. Scale bars 0.05 mm.

Head (Figure 7C). Dark brown. Antennal flagellum with flagellomeres dark brown except basal portion paler; antennal ratio 1.42–1.75 (1.59, $n = 2$). Palpus dark brown, segment 3 stout, as long as 5; palpal ratio 3.90–4.25 (4.07, $n = 2$). Mandible with 5/12 coarse teeth.

Thorax (Figure 7E). Scutum dark brown, humeral pits yellowish; scutellum yellowish with 15 large, 12 thinner setae; postscutellum dark brown; pleura dark brown. Legs pale brown, with dense setae; coxae dark brown, hind femur (Figure 7F) dark brown except narrow basal ring, distal 1/3 pale; hind tibia dark brown; hind tibial comb with 8 spines; tarsomere 1 of mid leg with 1 basal, 2–3 distal spines (Figure 7G); tarsomere 1 of hind leg with stout basal spine; prothoracic TR 2.00–2.06 (2.03, $n = 2$); mesothoracic TR 2.16–2.35 (2.26, $n = 2$); metathoracic TR 2.00–2.10 (2.05, $n = 2$). Wing (Figure 7D) length 3.02–3.10 (3.06, $n = 2$) mm, width 1.10–1.16 (1.13, $n = 2$) mm, costal ratio 0.74–0.77 (0.75, $n = 2$); membrane slightly infuscated, anterior veins dark brown; second radial cell 3.16–4.30 (4.03, $n = 2$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , abundant on distal 1/3 of cell r_3 and m_1 , sparse on cell m_2 . Halter whitish.

Abdomen. Dark brown, with dense setae. Genitalia (Figure 7H): sternite 8 rounded; posteromedian excavation U-shaped; sternite 10 with 8 pairs of setae; cerci short; two ovoid spermathecae without necks, measuring 12.80–15.20 (14.00, $n = 2$) by 10.40–11.80 (11.1, $n = 2$) μm and 10.00–12.50 (11.20, $n = 2$) by 10.00–10.70 (10.30, $n = 2$) μm ; plus a small third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro), Chile (Llanquihue) (Figure 19).

Type

Holotype male, Chile, Prov. Llanquihue, Ensenada, 14–15 December 1926, F. and M. Edwards (BMNH).

Other specimens examined

Argentina: Neuquen prov., Villa La Angostura, 11–15 January 2004, G. Spinelli, 1 female, sweep net; Río Negro prov., Challhuaco, 41°15'30" S, 71°17'06" W, 1326 m, 24 October to 28 February 2007, L. Hernández – F. Montes de Oca, 1 female, Malaise trap.

Discussion

This species is similar to *S. (A.) bicinctipes* by virtue of the leg coloration. Characters for distinguishing both species are in the key and in the discussion section of that species.

Remarks

This short description of the male of *S. (A.) ornatiscrus* was made based on photographs from holotype deposited in BMNH. Measurements are not available.

This is the first description of the female of *S. (A.) ornatiscrus*.

Stilobezzia (Acanthohelea) pabloi Cazorla and Spinelli sp. nov.
(Figures 8, 21)

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with stout aedeagal sclerites, broadening distally with small mesal notch. Female unknown.

Male. Head (Figure 8A). Dark brown. Antennal flagellum brown, flagellomeres 1–10 with pale ring above the plume; plume brown, poorly developed; antennal ratio 1.56–1.65 (1.60, $n = 2$). Palpus brown; segment 3 slightly shorter than 5; palpal ratio 3.75–4.00 (3.87, $n = 2$).

Thorax (Figure 8C). Scutum dark brown, humeral pits pale brown; scutellum pale brown with 6 large setae; postscutellum dark brown; pleura dark brown. Legs brown, hind leg slightly darker; prothoracic TR 1.80–2.11 (2.00, $n = 2$); mesothoracic TR 2.05–2.10 (2.07, $n = 2$); metathoracic TR 2.10–2.22 (2.16, $n = 2$). Wing

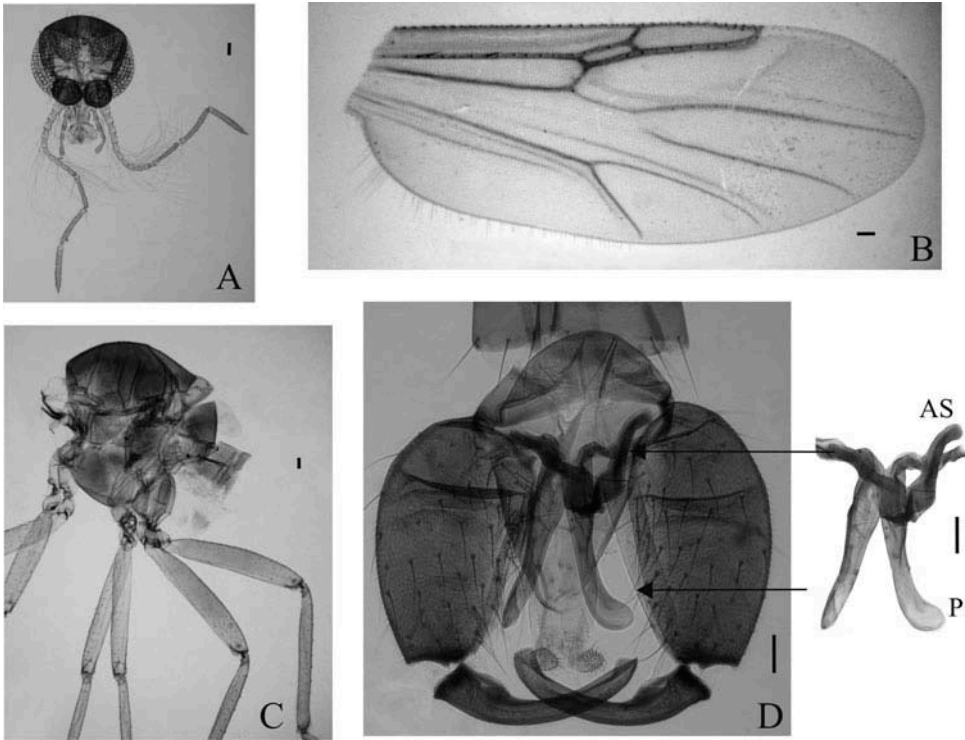


Figure 8. *Stilobezzia (A.) pabloi* Cazorla and Spinelli sp. nov., male: (A) head; (B) wing; (C) thorax (lateral view); (D) genitalia (ventral view), aedeagus and parameres removed. Scale bars 0.05 mm.

(Figure 8B) length 1.58–2.10 (1.84, $n = 2$) mm, width 0.60 mm ($n = 2$), costal ratio 0.72–0.74 (0.73, $n = 2$); membrane slightly infuscated; second radial cell 2.16× longer than first; cubital fork originating distal to base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, sparse on distal margin of r₃, abundant on apex of m₁. Halter pale brown.

Abdomen. Dark brown. Genitalia (Figure 8D): tergite 9 extending 0.70 of gonocoxites length, slender, triangular, posterior margin blunt; sternite 9 short, distal margin apparently without posteromedian excavation; sternite 10 spiculate, not produced beyond base of cerci; cerci directed laterad. Gonocoxite stout, 1.80× longer than greatest breadth; gonostylus curved, base stout, slightly narrowing to pointed tip. Parameres divergent; basal apodemes curved; stems contiguous proximally, then slightly divergent, swollen at mid portion, tip ladle-shaped. Aedeagus 0.65× length of basal breadth, composed of two sinuous sclerites, each progressively broadening distally, tip sclerotized with small mesal notch.

Female. unknown.

Distribution

Argentina (Neuquen) (Figure 21).

Types

Holotype male, Argentina, Neuquen, Laguna Epulafquen, 21–23 February 2001, G. Spinelli, Malaise trap (MLPA). Paratype, 1 male, same data as holotype.

Etymology

This species is named after Dr Pablo Marino, colleague and friend of the Museo de La Plata.

Discussion

This species is similar to *S. (A.) mapuche*. The latter species differs by the gonostylus greatly curved subbasally over 90° and the aedeagal sclerites with subapical pointed divergent prongs arising from a common base, the proximal one directed laterad and the distal one directed distad.

Stilobezzia (Acanthohelea) patagonica Ingram and Macfie, 1931 (Figures 9, 18)

Stilobezzia patagonica Ingram and Macfie, 1931: 196 (female, male; Argentina).

Stilobezzia (Neostilobezzia) patagonica: Das Gupta and Wirth, 1968: 141 (in list)

Wirth, 1974: 43 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) patagonica: Spinelli and Wirth, 1993: 51 (in list;

Argentina); Borkent and Wirth, 1997: 109 (in World catalogue); Borkent and

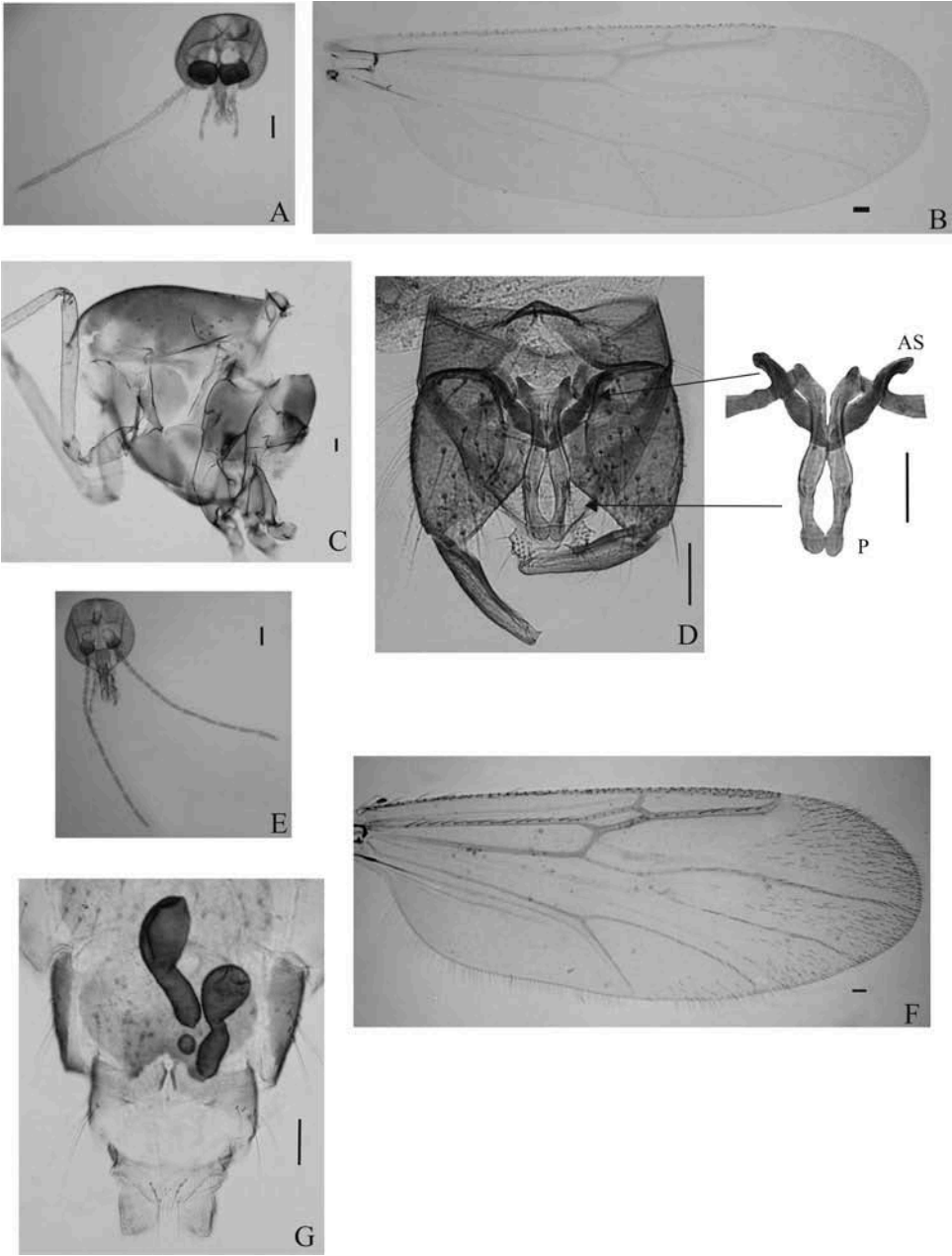


Figure 9. *Stilobezzia (A.) patagonica* Ingram and Macfie: (A–D) male; (A) head; (B) wing; (C) thorax (lateral view); (D) genitalia (ventral view), aedeagus and parameres removed. (E–G) female; (E) head; (F) wing; (G) genitalia. Scale bars 0.05 mm.

Spinelli, 2000: 53 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 85 (in Neotropical synopsis); Borkent, 2014: 135 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia* (*Acanthohelea*) in which males have the scutellum pale with 5–6 large setae and the postscutellum dark brown. Females with elongated, retort-shaped spermathecae, with proximal portion wide, ovoid and distal portion narrow.

Male. Head (Figure 9A). Dark brown. Antennal flagellum brown, plume brown, poorly developed; antennal ratio 1.20–1.36 (1.27, $n = 8$). Palpus brown; segment 3 as long as 5; palpal ratio 2.60–3.80 (3.34, $n = 11$).

Thorax (Figure 9C). Scutum dark brown, humeral pits pale, prescutellar depression paler in some specimens; scutellum pale with 5–6 large setae; postscutellum dark brown; pleura dark brown. Legs brown; tarsomere 1 of hind leg with two ventral rows of setae; hind tibial comb with 7 spines; prothoracic TR 1.61–1.71 (1.68, $n = 13$); mesothoracic TR 1.92–2.16 (2.03, $n = 13$); metathoracic 1.67–1.92 (1.75, $n = 14$). Wing (Figure 9B) length 1.22–1.77 (1.64, $n = 14$) mm, width 0.45–0.64 (0.57, $n = 14$) mm, costal ratio 0.68–0.73 (0.70, $n = 10$); membrane slightly infuscated; second radial cell 1.90–2.62 (2.13, $n = 10$) \times longer than first; cubital fork originating distal to level of base of r-m cross vein; macrotrichia on costa, R₁; abundant on distal margin of cell r₃, m₁, sparse on m₂. Halter whitish.

Abdomen. Brown. Genitalia (Figure 9D): tergite 9 extending to apex of gonocoxites, narrowing progressively distad, posterior margin rounded; sternite 9 7.50 \times broader than long, posteromedian excavation deep, broad; sternite 10 wide, narrowing to base of cerci; cerci stout, subparallel. Gonocoxite 1.60 \times longer than greatest breadth; gonostylus 1.25 \times shorter than gonocoxite, nearly straight, blunt tip. Parameres subparallel; basal apodemes curved, stems slender proximally, swollen at mid portion posteromedian process rod like, tip spoon-shaped. Aedeagus 0.60 \times length of basal breadth, composed of two sinuous sclerites, each swollen at mid portion, tip pointed.

Female. Similar to male, with the following notable differences:

Head (Figure 9E). Antennal ratio 1.00–1.20 (1.09, $n = 17$); palpal ratio 3.00–3.80 (3.48, $n = 18$). Mandible with 7 coarse teeth.

Thorax. Scutellum with 6–7 large setae; hind tibial comb with 8–9 spines; prothoracic TR 1.77–1.91 (1.84, $n = 17$), mesothoracic TR 2.15–2.36 (2.22, $n = 17$), metathoracic TR 1.80–2.09 (1.93, $n = 17$). Wing (Figure 9F) length 1.65–2.24 (1.89, $n = 18$) mm, width 0.64–0.85 (0.73, $n = 18$) mm, costal ratio 0.70–0.75 (0.73, $n = 8$); second radial cell 2.10–3.40 (2.80, $n = 18$) \times longer than first; cubital fork originating at same level of base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, M₁, M₂, CuA₂, CuP, abundant on cell r₃, m₁, m₂, sparse on cua₁. Halter whitish.

Abdomen. Brown. Genitalia (Figure 9G) anterior margin of sternite 8 convex, lateral margins subparallel; posteromedian excavation U-shaped; sternite 10 with 4 pairs of setae; two elongated, retort-shaped spermathecae, with proximal portion wide, ovoid, distal portion narrow, necks nearly imperceptible, measuring 14.40–20.40 (16.60, $n = 18$) by 5.10–7.00 (6.00, $n = 18$) μ m and 11.40–17.5 (14.5, $n = 18$) by 3.30–5.50 (5.30, $n = 18$) μ m; plus a small third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro), Chile (Ñuble, Valdivia) (Figure 18).

Types

Holotype male, allotype female, Argentina, Río Negro prov., Bariloche, 28 November to 1 December 1926, P. and M. Edwards (BMNH).

Other specimens examined

Argentina: Neuquen prov., 10 km N San Martín de Los Andes, 24 November 1984, G. Spinelli, 1 female, sweep net; Villa La Angostura, 11/15 January 2004, G. Spinelli, 1 male, 1 female, light trap; Quila Quina, 17 November 1994, G. Spinelli, 3 males, 1 female, sweep net; arroyo Quechuquina, 16 November 1994, G. Spinelli, 1 male, sweep net; lago Lolog, 24 November 1984, J. A. Downes, 2 males, 1 female, sweep net (JAD 1651/3/11,12,15) (CNCI); Cerro Chapelco, sobre lago Lacar, 27 November 1984, J. A. Downes, 3 males, sweep net (JAD 1653/1/?,17,20) (CNCI); Río Negro prov., 6 km O extremo S lago Mascardi, 28 November 1984, G. Spinelli, 1 female, sweep net; lago Mascardi, 28 November 1984, J. A. Downes, 1 female, sweep net (JAD 1655/1/7) (CNCI); lago Gutiérrez, January 2003, J. Liotta, 1 male, light trap; lago Steffen, 29/30 November 1999, P. Marino – G. Spinelli, 2 males, 1 female, sweep net.

Chile: Ñuble prov., Alto Tregualemu, S E Chovellen, 500 m, 24 January 1979, D. Davis – M. Davis – B. Akerbergs, 2 females; Recinto 800 m, 22 January 1979, D. Davis – M. Davis – B. Akerbergs, 2 females; Valdivia prov., Isla Teja, 1 December 1984, J. A. Downes, 1 female, sweep net (JAD 1657/1/10) (CNCI); same data except 3 December 1984, 1 male, 1 female JAD 1658/1/11,12) (CNCI); Isla Teja, campo de la Universidad, 12 December 1984, J. A. Downes, 2 females, 2 males, sweep net (JAD 1666/1/11,12,13,14) (CNCI); same data except 13 December 1984, 2 males, 2 females, (JAD 1667/1/4,5,6,7) (CNCI).

Discussion

The females of *Stilobezzia patagonica* resemble *S. megatheca* by the elongated spermathecae, but *S. megatheca* has a flask-shaped spermathecae and the anterior margin of sternite 8 straight. Males are similar to *S. estepae* sp. n., but the latter species can be distinguished by the presence of a small, triangular sclerite located at proximal 1/3 of distal stem of parameres and the gonostylus stout with pointed tip.

In some of the examined males, the posteromedian processes of parameres look like articulated to mid portion of stem.

***Stilobezzia (Acanthohelea) rava* Ingram and Macfie, 1931**
(Figures 10, 18)

Stilobezzia rava Ingram and Macfie, 1931: 203 (female, male; Argentina).

Stilobezzia (Neostilobezzia) rava: Das Gupta and Wirth, ver 1968: 142 (in list); Wirth, 1974: 43 (in catalogue of New World species south of USA).

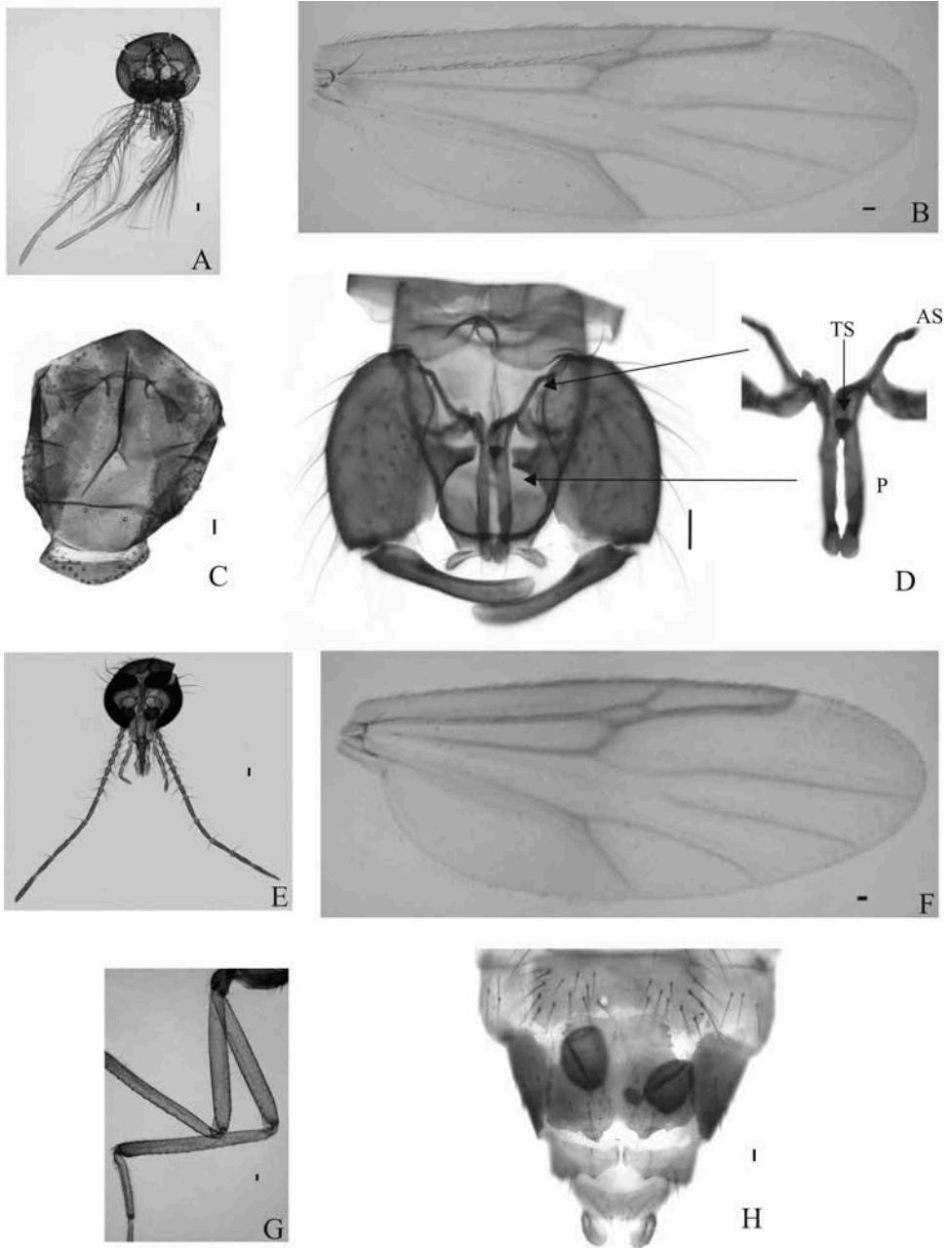


Figure 10. *Stilobezzia (A.) rava* Ingram and Macfie: (A–D) male; (A) head; (B) wing; (C) scutum and scutellum (dorsal view); (D) genitalia (ventral view), aedeagus and parameres removed. (E–H) female; (E) head; (F) wing; (G) hind leg; (H) genitalia. Scale bars 0.05 mm.

Stilobezzia (Acanthohelea) rava: Borkent and Wirth, 1997: 109 (in World catalogue); Borkent and Spinelli, 2000: 53 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 86 (in Neotropical synopsis); Borkent, 2014: 136 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* large and dark, in which males have scutum dark brown to blackish except the humeral pits pale brown and scutellum pale brown with 13–18 long, large setae and 8–10 thinner, short setae. Females scutum dark brown to yellowish brown except humeral pits and posteromesal portion yellowish, and pyriform spermathecae with hyaline punctuations.

Male. Head (Figure 10A). Dark brown. Antennal flagellum dark brown, flagellomeres 1–10 with mesal pale ring; plume dark brown, dense; antennal ratio 1.63–1.78 (1.70, $n = 10$). Palpus dark brown, segment 3 slightly longer than 5; palpal ratio 3.50–4.33 (3.88, $n = 10$).

Thorax (Figure 10C). Scutum dark brown to blackish, humeral pits pale brown; scutellum pale brown with 13–18 long, large, 8–10 thinner, short setae; postscutellum dark brown to blackish. Legs with dense setae, yellowish brown; coxae dark brown; hind femur, apex of hind tibia darker, stouter; tibia with 3–4 apical spines; hind tibial comb with 8 spines; prothoracic TR 1.74–2.08 (1.82, $n = 10$), mesothoracic TR 1.90–2.33 (2.12, $n = 10$), metathoracic TR 1.75–2.30 (1.87, $n = 10$). Wing (Figure 10B) length 2.33–2.75 (2.52, $n = 10$) mm, width 0.75–0.93 (0.85, $n = 10$) mm, costal ratio 0.72–0.77 (0.74, $n = 10$); membrane slightly infuscated; second radial cell 2.86–3.72 (3.30, $n = 10$) \times longer than first; cubital fork originating at level to base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, M₁, marginal on cell r₃, sparse on apex of cell m₁. Halter pale.

Abdomen. Dark brown; genitalia (Figure 10D): massive, as broad as abdominal segment 8, dark brown, with dense setae; tergite 9 extending to apex of gonocoxites, posterior margin nearly straight with membranous posterolateral extension; sternite 9 4.00 \times broader than long, with narrow, shallow posteromedian excavation; sternite 10 elongated, produced beyond base of cerci; cerci slender, divergent. Gonocoxite stout, 1.50 \times longer than greatest breadth, inner margin with mesal pointed tubercle; gonostylus slightly shorter than gonocoxite, nearly straight, tip rounded. Parameres subparallel, slightly sclerotized, basal apodemes slender; stem rod-like, tip spoon-shaped. A small triangular sclerite located at proximal 1/3 of stem of parameres. Aedeagus 0.60 \times length of basal breadth, composed of two slender, sinuous sclerites, each with basal portion curved, slightly broadening to tip.

Female. Similar to male, with the following notable differences:

Head (Figure 10E). Antennal flagellum dark brown, base of flagellomeres slightly paler; antennal ratio 1.40–1.75 (1.56, $n = 8$); palpal ratio 3.43–4.18 (3.76, $n = 10$). Mandible with 7 coarse teeth.

Thorax. Scutum dark brown to yellowish brown, humeral pits, posteromesal portion yellowish; scutellum pale brown with 9–14 large, 8–12 thinner setae; postscutellum dark brown; pleura dark brown except katapisternum pale brown. Legs yellowish brown, with dense setae, distal 1/2 of hind femur, apex of hind tibia darker

(Figure 10G); hind tibia with dorsal row of long, dark setae; hind tibial comb with 9 spines; prothoracic TR 1.69–2.17 (1.99, $n = 10$); mesothoracic TR 1.94–2.22 (2.15, $n = 10$); metathoracic TR 1.88–2.30 (2.00, $n = 10$). Wing (Figure 10F) length 2.28–2.92 (2.51, $n = 10$) mm, width 0.98 (0.89–1.13, $n = 10$) mm, costal ratio 0.74–0.81 (0.77, $n = 10$); second radial cell 2.77–4.18 (3.42, $n = 10$) × longer than first; membrane infuscated; cubital fork originating slightly distal to base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, M₁, M₂, abundant on distal 1/2 of cell r₃, 1/3 of cell m₁, sparse on cell m₂.

Abdomen. Brown, segment 8 darker. Genitalia (Figure 10H) anterior margin of sternite 8 straight, sclerotized, lateral margins divergent, posteromedian excavation V-shaped, sternite 10 with 5 pairs of setae; cerci short, rounded; two pyriform spermathecae with hyaline punctuations and short, very slender necks, measuring 10.00–12.90 (11.00, $n = 8$) by 5.90–9.60 (9.60, $n = 8$) μm and 8.00–11.00 (9.82, $n = 8$) by 7.00–9.60 (7.83, $n = 8$) μm, plus a rudimentary third spermatheca.

Distribution

Argentina (Neuquen, Río Negro, Tierra del Fuego), Chile (Llanquihue, Magallanes) (Figure 18).

Types

Holotype male, Chile, Llanquihue prov., Casa Pangué, 4–10 December 1926, P. and M. Edwards; allotype female, same data as holotype except 20–22 November 1926; 1 paratype male, same data as allotype (BMNH).

Other specimens examined

Argentina: Neuquen prov., Parque Nacional Nahuel Huapi, mallin La Heladera, 41° 00'56" S, 71°49'45.4" W, 878 m, 15 December 2006 to 7 January 2007, A. Garré – F. Montes de Oca – J. Massaferró, 2 males, Malaise trap; Río Negro prov., Estación Biológica Puerto Blest, 6–15 January 2007, 1 male, light trap; Tierra del Fuego prov., Parque Nacional Tierra del Fuego, 7–9 December 2005, G. Spinelli, 3 males, 3 females, Malaise trap; Paso Garibaldi, 2 March 1993, G. Spinelli, 1 male, sweep net; Bahía Lapataia, 24–28 February 1997, P. Posadas, 1 female, Malaise trap; 7–9 December 2005, G. Spinelli, 1 female, Malaise trap.

Chile: Magallanes prov., isla Deceit, 19–27 November 1982, D. Lanfranco, 13 males, 8 females, Malaise trap; Bahía Scourfield, 17–25 February 1980, D. Lanfranco, 9 females, Malaise trap; Punta Arenas, 23 November 1961, T. Cekalovic, 1 male, sweep net.

Discussion

This species is somewhat similar to *S. succinea*. However, *S. succinea* differs by the general coloration yellowish brown. Males have smaller antennal ratio, the wing is shorter and the genitalia is less massive, not as broad as abdominal segment 8. The female sternite 10 bears 5–6 pairs of setae and the spermathecae are different, one globose, the other ovoid.

Stilobezzia (Acanthohelea) spinosa Cazorla and Spinelli sp. nov.
(Figures 11, 21)

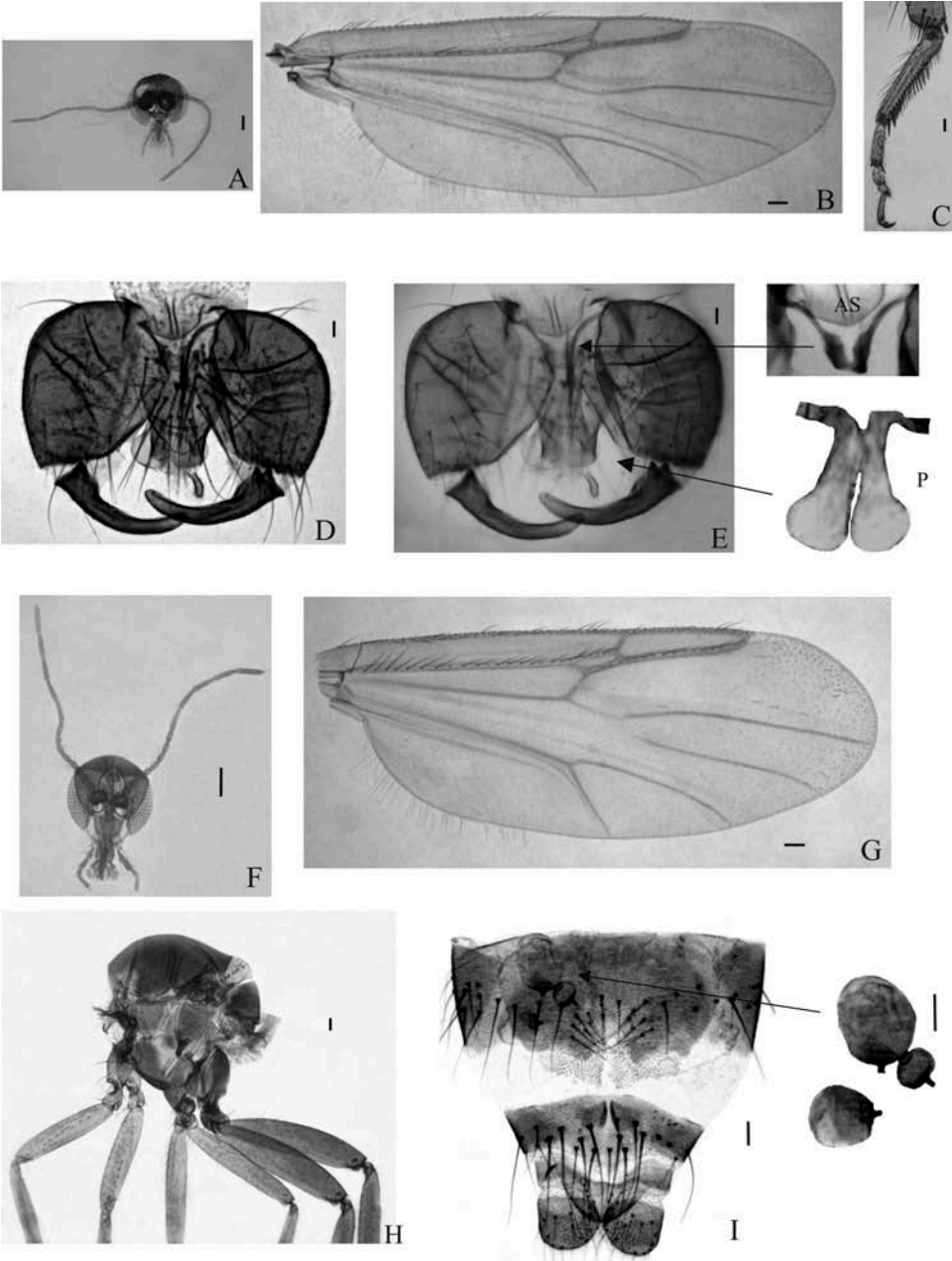


Figure 11. *Stilobezzia (A.) spinosa* Cazorla and Spinelli sp. nov.: (A–E) male; (A) head (from paratype); (B) wing; (C) hind tarsomeres; (D) genitalia (dorsal view); (E) genitalia (ventral view), aedeagus and parameres removed. (F–I) female; (F) head; (G) wing; (H) thorax (lateral view); (I) genitalia with detail of spermathecae. Scale bars 0.05 mm.

Diagnosis

The only Patagonian species of *Stilobezzia* (*Acanthohelea*) in which males have three distal, elongated spines on hind tibia and first tarsomere of hind leg with a row of spines. Females spermathecae ovoid and hyaline with sclerotized, short necks.

Male. Head (Figure 11A). Dark brown. Antennal flagellum brown; plume dark brown, poorly developed; antennal ratio 1.02–1.09 (1.05, $n = 5$). Palpus brown; segment 3 slightly longer than 5; palpal ratio 3.71–4.29 (3.20, $n = 10$).

Thorax. Scutum dark brown, humeral pits yellowish; scutellum yellowish with 11 large setae; postscutellum dark brown. Legs brown, with dense dark setae, hind leg stouter; hind tibia with three distal, elongated spines; tarsomere 1 of hind leg with row of spines (Figure 11C); hind tibial comb with 7–8 spines; prothoracic TR 1.85–2.00 (1.95, $n = 10$); mesothoracic TR 1.85–2.00 (2.06, $n = 9$); metathoracic TR 2.16–2.40 (2.25, $n = 10$). Wing (Figure 11B) length 1.70–1.94 (1.81, $n = 10$) mm, width 0.57–0.67 (0.62, $n = 10$) mm, costal ratio 0.69–0.71 (0.70, $n = 10$); membrane slightly infuscated; second radial cell 2.62–3.50 (3.30, $n = 10$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , M_2 , sparse on cell r_3 . Halter pale.

Abdomen. Brown, with dense setae. Genitalia (Figures 11D, E) dark brown; tergite 9 extending 0.86 \times of gonocoxites length, posterior margin rounded; sternite 9 hyaline, spiculate, posterior margin convex; sternite 10 spiculate, produced beyond base of cerci; cerci slender, divergent. Gonocoxite very stout, 1.28 \times longer than greatest breadth, gonostylus slightly shorter than gonocoxite, curved, basal portion stout, narrowing to rounded tip. Parameres subparallel (Figure 11E), apodemes slender; stem short, stout, broadening distally, tip ladle-shaped. A small triangular sclerite located at proximal 1/3 of stem of parameres. Aedeagus 0.8 \times length of basal breadth, composed of two sclerites with basal 2/3 very slender, curved, distal 1/3 swollen with mesally directed pointed tip.

Female. Similar to male, with the following notable differences:

Head (Figure 11F) dark brown. Antennal flagellum dark brown; antennal ratio 1.19–1.41 (1.33, $n = 7$). Palpal ratio 3.00–3.33 (3.19, $n = 7$). Mandible with 7 coarse teeth.

Thorax (Figure 11H). Scutellum with 11 stout, 8 thinner setae; hind tibial comb with 7 spines; claws stout, shorter than tarsomeres 5; hind tibial comb with 9–10 spines; prothoracic TR 2.00–2.20 (2.10, $n = 7$); mesothoracic TR 2.00–2.17 (2.10, $n = 7$); metathoracic TR 2.36–2.50 (2.49, $n = 7$). Wing (Figure 11G) length 1.88–1.94 (1.91, $n = 7$) mm, width 0.73–0.76 (0.75, $n = 7$) mm, costal ratio 0.71–0.75 (0.74, $n = 7$), second radial cell 3.11–3.85 (3.52, $n = 5$) \times longer than first; cubital fork originating slightly distal to level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , M_2 , Cua_1 , abundant on cells r_3 , m_1 , sparse on cell cua_1 .

Abdomen. Genitalia (Figure 11I): anterior margin of sternite 8 slightly concave; posteromedian excavation V-shaped; sternite 10 with 6–7 pairs of setae; cerci conspicuous, rounded; two ovoid, hyaline spermathecae with sclerotized, short necks, measuring 7.40–8.50 (7.80, $n = 7$) by 5.50–7.40 (6.50, $n = 7$) μm and 5.90–8.50 (6.40, $n = 7$) by 4.40–5.90 (5.30, $n = 7$) μm ; plus a third rudimentary spermatheca.

Distribution

Argentina (Río Negro) (Figure 21).

Types

Holotype male, allotype female, Argentina, Río Negro, Parque Nacional Nahuel Huapi, Puerto Blest, mallin La Heladera, 41°00'56" S, 71°49'45.4" W, 878 m, 7 January to 4 February 2007, A. Garré – F. Montes de Oca – J. Massafarro, Malaise trap (MLPA). Other paratypes: 9 males, 6 females, as follows: same data as holotype, 5 males; Argentina, Río Negro prov., Parque Nacional Nahuel Huapi, arroyo Nireco (Complejo Challhuaco), 41°11'51.9" S, 71°19'40" W, 962 m, 20 December 2006 to 23 January 2007, J. Massafarro – A. Garre – F. Montes de Oca, 2 females, 2 males Malaise trap; Parque Nacional Nahuel Huapi, Puerto Blest, mallin La Heladera, 41°00'56" S, 71°49'45.4" W, 878 m, 15 December 2006 to 7 January 2007, A. Garré – F. Montes de Oca – J. Massafarro, 2 males, 4 females, Malaise trap.

Etymology

The name *spinosa* refers to the spinose first tarsomere of hind leg.

Discussion

This species strongly resembles *S. (A.) succinea*. The latter species can be distinguished by the general coloration yellowish brown, the apex of hind tibia darker, the inner margin of gonocoxite with a pointed tubercle and the sclerotized spermathecae.

***Stilobezzia (Acanthohelea) succinea* Ingram and Macfie, 1931**
(Figures 12, 20)

Stilobezzia succinea Ingram and Macfie, 1931: 200 (female, male; Argentina)

Stilobezzia (Neostilobezzia) succinea: Das Gupta and Wirth, 1968:142 (in list); Wirth, 1974: 43 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) succinea: Spinelli and Wirth, 1993: 51 (in list; Argentina); Borkent and Wirth, 1997: 233 (in World catalogue); Spinelli and Grogan, 1999: 709 (in list; Tierra del Fuego); Borkent and Spinelli, 2000: 53 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 86 (in Neotropical synopsis); Borkent, 2014: 136 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* in which both sexes have the scutum yellowish brown except humeral pits and mesal region anterior to pre-scutellar depression that are yellowish; legs are yellowish brown except the apex of hind tibia darker; males hind leg stouter, hind tibia with 2–3 apical stout spines and tergite 9 with a posterolateral membranous extension.

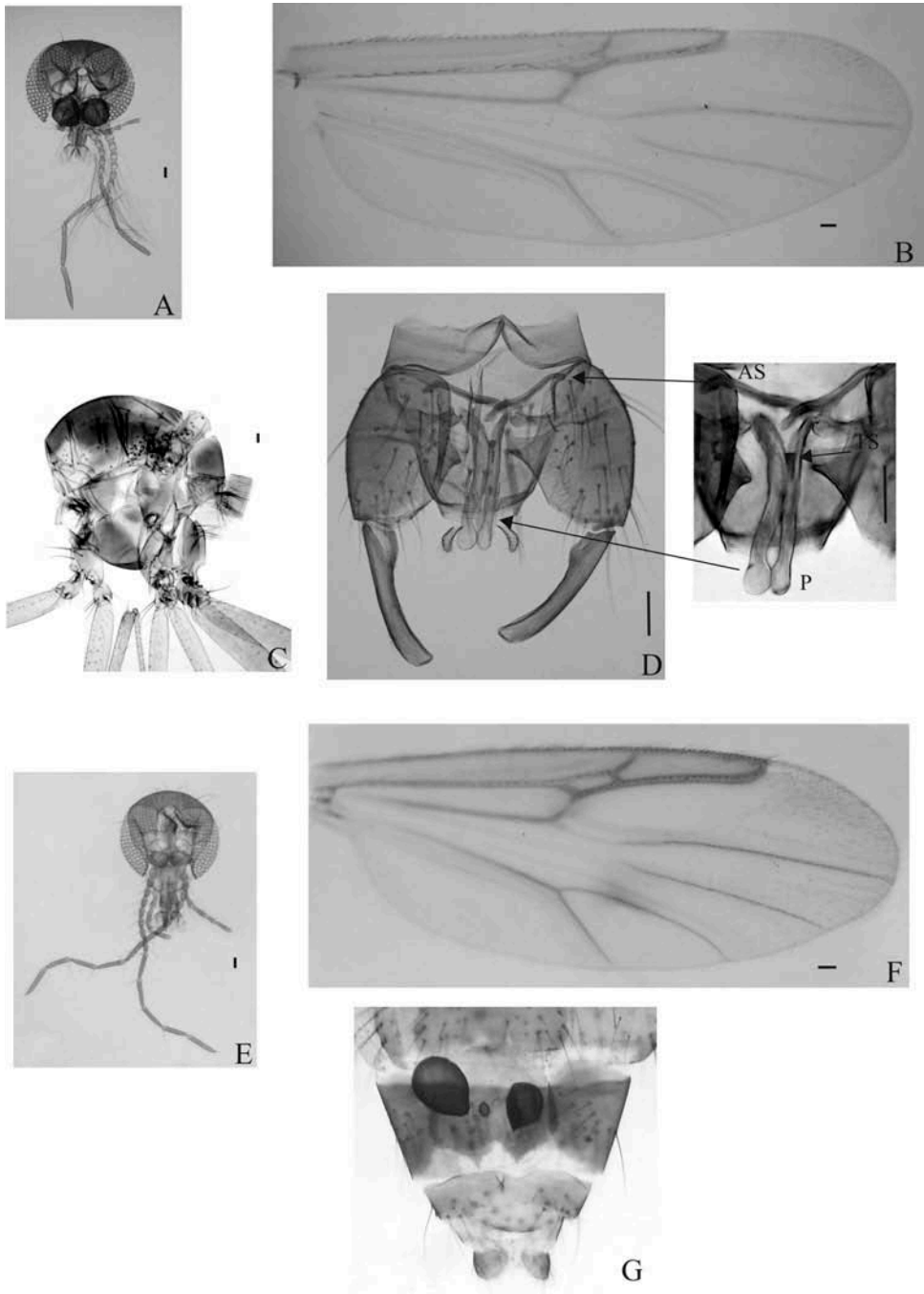


Figure 12. *Stilobezzia (A.) succinea* Ingram and Macfie: (A–D) male; (A) head; (B) wing; (C) thorax (lateral view); (D) genitalia (ventral view), aedeagus and parameres removed. (E–G) female; (E) head; (F) wing; (G) genitalia. Scale bars 0.05 mm.

Male. Head (Figure 12A). Dark brown. Antennal flagellum dark brown, plume dark brown, dense; antennal ratio 1.50–1.52 (1.51, $n = 2$). Palpus dark brown; segment 3 slightly longer than 5; palpal ratio 3.16–4.20 (3.87, $n = 5$).

Thorax (Figure 12C). Scutum yellowish brown except humeral pits, mesal region anterior to prescutellar depression yellowish; scutellum yellowish with 7–14 large, 10 thinner setae; postscutellum dark brown; pleura dark brown, katapisternum slightly paler mesally. Legs yellowish brown, with dense setae; hind leg stouter; apex of hind tibia darker with 2–3 distal stout spines; mid leg with 2 apical spines; hind tibial comb with 8 spines; prothoracic TR 1.78–2.00 (1.91, $n = 5$), mesothoracic TR 1.87–2.20 (2.09, $n = 5$), metathoracic TR 1.77–1.87 (1.83, $n = 5$). Wing (Figure 12B) length 1.96–2.70 (2.21, $n = 5$) mm, width 0.74–0.93 (0.78, $n = 5$) mm, costal ratio 0.70–0.73 (0.72, $n = 5$); membrane slightly infuscated; second radial cell 2.73–4.14 (3.50, $n = 5$) \times longer than first; cubital fork originating distal to level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , distal margin of cell r_3 , sparse on cell m_1 . Halter pale.

Abdomen. Yellowish brown, with dense setae. Genitalia (Figure 12D): yellowish brown; tergite 9 extending 0.72 of gonocoxite length, posterior margin rounded with posterolateral membranous extension; sternite 9 6.60 \times broader than long, with narrow, shallow posteromedian excavation; sternite 10 narrow, produced beyond base of cerci; cerci slender, divergent. Gonocoxite stout, 1.34 \times longer than greatest breadth, inner margin with pointed tubercle, directed mesad; gonostylus slightly shorter than gonocoxite, nearly straight, tip blunt. Parameres subparallel, sclerotized; apodemes slender, rounded; stem rod like, with bulbous tip. A small triangular sclerite located at proximal 1/3 of stem of parameres. Aedeagus 0.66 \times length of basal breadth, composed of two slender, sinuous sclerites, each with apex pointed.

Female. Similar to male, with the following notable sexual differences:

Head (Figure 12E). Yellowish brown. Antennal flagellum dark brown; antennal ratio 1.34–1.50 (1.41, $n = 5$). Palpus dark brown; palpal ratio 3.43–4.50 (4.01, $n = 6$). Mandible with 7–8 coarse teeth.

Thorax. General coloration paler; scutellum with 9–11 large, 8–9 thinner setae; hind tibial comb with 7–9 spines; prothoracic TR 1.92–2.08 (2.00, $n = 9$), mesothoracic TR 2.10–2.23 (2.16, $n = 9$), metathoracic TR 1.78–2.00 (1.93, $n = 9$). Wing (Figure 12F) length 1.91–2.66 (2.40, $n = 9$) mm, width 0.81–1.02 (0.92, $n = 9$), costal ratio 0.73–0.80 (0.76, $n = 9$); second radial cell 3.22–5.00 (3.80, $n = 11$) \times longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_3 , M_1 , M_2 , CuA_2 , abundant on distal 1/4 of cells r_3 , m_1 , sparse on distal margin of cells m_2 , cu_{a1} . Halter whitish.

Abdomen. Yellowish brown, with dense setae. Genitalia (Figure 12G): anterior margin of sternite 8 straight, sclerotized, lateral margins subparallel, posteromedian excavation V-shaped; sternite 10 with 5–6 pairs of setae; cerci rounded, elongated; two globose spermathecae with slender necks, only basal portion sclerotized, measuring 10.30–12.90 (11.30, $n = 6$) by 9.20–10.70 (9.80, $n = 6$) μm and 9.20–11.10 (10.00, $n = 6$) \times 6.60–9.20 (8.10, $n = 6$) μm ; plus a third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro) (Figure 20).

Types

Holotype male, allotype female, 1 paratype male: Argentina, Río Negro prov., Bariloche, 22 November to 1 December 1926, F. and M. Edwards (BMNH).

Other specimens examined

Argentina: Neuquen prov., Parque Nacional Nahuel Huapi, Puerto Blest, mallin La Heladera, 41°00'56" S, 71°49'45.4" W, 878 m, 15 December 2006 to 7 January 2007, A. Garré – F. Montes de Oca – J. Massaferrero, 5 females, Malaise trap; same data except 2 males, 3 females, sweep net; Río Negro prov., Parque Nacional Nahuel Huapi, arroyo Ñireco (Complejo Challhuaco) 41°11'51.9" S, 71°19'40" W, 962 m, 20 December 2006 to 23 January 2007, A. Garré – F. Montes de Oca, 1 male, 6 females, Malaise trap; same data except sweep net, 2 males, 1 female; Parque Nacional Nahuel Huapi, mallin de Los Patos, 41°15'48.6" S, 71°17'50.3" W, 1020 m, 20 December 2006 to 3 January 2007, A. Garré – F. Montes de Oca, 4 males, 6 females, Malaise trap; lago Cántaros 41°00'34" S, 71°49'19.7" W, 873 m, 11 January 2007, A. Garré – F. Montes de Oca, 1 male, sweep net; Parque Nacional Nahuel Huapi, laguna los Clavos, 41°04'48.6" S, 71°49'33.9" W, 1194 m, 5 February to 3 March 2007, A. Garré – F. Montes de Oca, 5 males, 7 females, Malaise trap.

Discussion

Stilobezzia (*A.*) *succinea* is somewhat similar to *S.* (*A.*) *spinosa*. Characters for distinguishing both species are in the key and in the discussion section of that species.

***Stilobezzia* (*Acanthohelea*) *tridentis*, Cazorla and Spinelli sp. nov.
(Figures 13, 19)**

Diagnosis

The only Patagonian species of *Stilobezzia* (*Acanthohelea*) in which males have aedeagal sclerites with a short distolateral process and distal portion curved with a basal tooth and tip pointed. Females sternite 8 large and globose, and spermathecae sclerotized with hyaline punctuations.

Male. Head (Figure 13A). Dark brown. Antennal flagellum dark brown; plume dark brown, well developed; antennal ratio 1.12–1.22 (1.18, $n = 3$). Palpus dark brown; segment 3 slightly shorter than 5; palpal ratio 2.66–3.60 (3.14, $n = 5$).

Thorax (Figure 13B). Scutum dark brown; scutellum pale brown with 7–8 large setae; postscutellum dark brown. Legs stout, dark brown, hind leg darker; hind tibial comb with 9 spines; prothoracic TR 1.70–1.90 (1.83, $n = 5$); mesothoracic TR 2.09–2.36 (2.20, $n = 5$); metathoracic TR 2.00–2.28 (2.14, $n = 5$). Wing (Figure 13C) length 1.45–1.92 (1.78, $n = 5$) mm, width 0.52–0.69 (0.64, $n = 5$) mm, costal ratio 0.70–0.75 (0.73, $n = 6$); membrane slightly infuscated; second radial cell 2.18–2.88 (2.56, $n = 6$) × longer than first; cubital fork originating distal to base of r-m cross vein; macrotrichia on costa, R₁, R₂, R₃, M₁, M₂, sparse on cells r₃, m₁. Halter whitish.

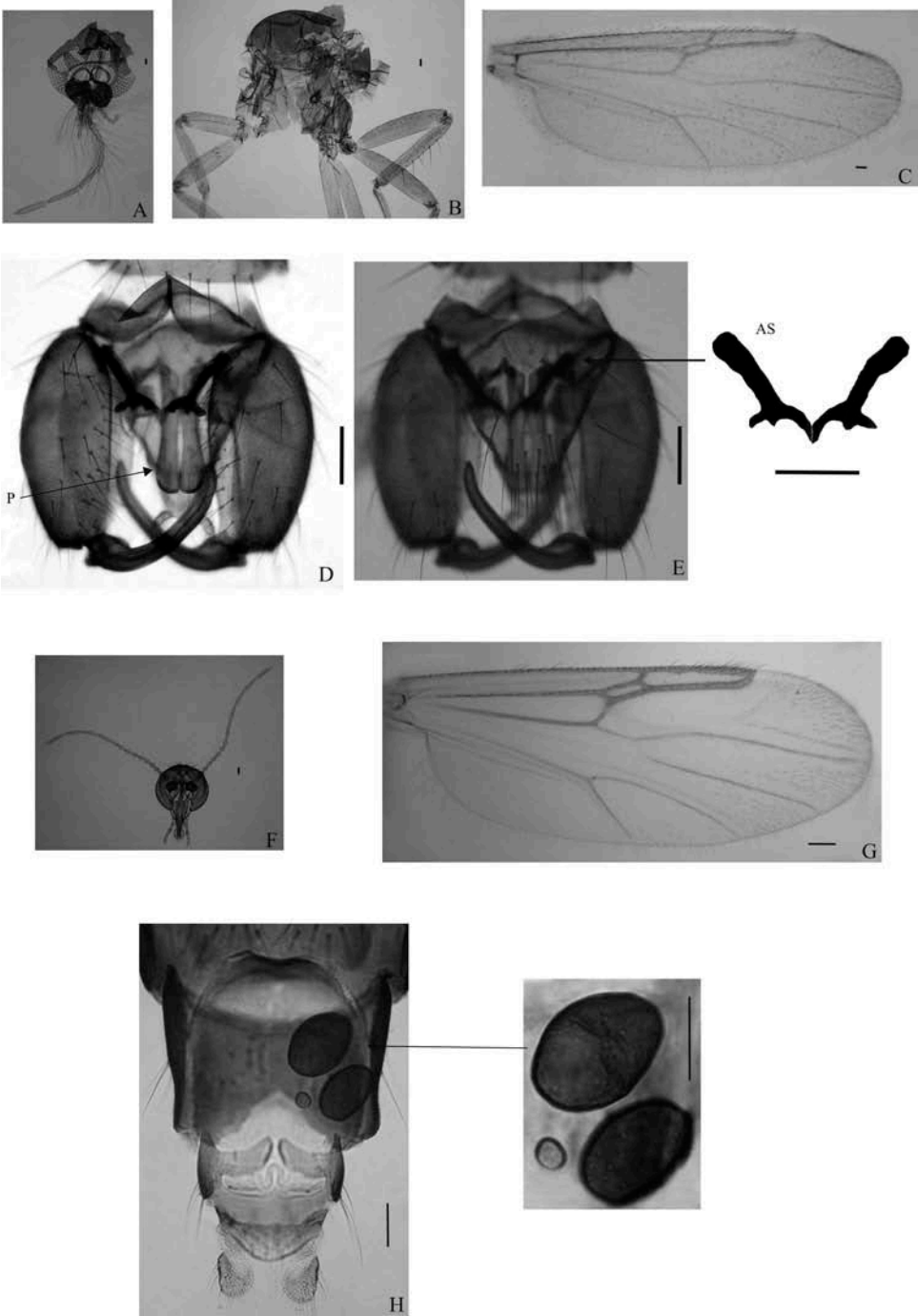


Figure 13. *Stilobezzia (A.) tridentis* Cazorla and Spinelli sp. nov.: (A–E) male; (A) head; (B) thorax (lateral view); (C) wing; (D) genitalia (ventral view); (E) genitalia (dorsal view), aedeagus removed. (F–H) female; (F) head; (G) wing; (H) genitalia with detail of spermathecae. Scale bars 0.05 mm.

Abdomen. Dark brown. Genitalia (Figures 13D, E): tergite 9 extending 0.91 of gonocoxite length, narrowing distad, posterior margin rounded with small pointed projection; sternite 9 3.90× broader than long; sternite 10, narrowing distad, extending slightly beyond apex of cerci; cerci slender, divergent. Gonocoxite stout, two times longer than greatest breadth, inner margin with anteromesal blunt tubercle, gonostylus 1.33× shorter than gonocoxite, slightly curved, basal 1/4 wide, narrowing to pointed tip. Parameres slightly sclerotized, subparallel; stem stout, rounded tip. Aedeagus 1.20× longer than basal breadth; composed of two heavily sclerotized sclerites, each with anterior portion stout, straight, with short distolateral process; distal portion curved with basal tooth, tip pointed.

Female. Head (Figure 13F). Antennal ratio 1.34–1.69 (1.55, $n = 8$); palpal ratio 3.00–3.10 (3.05, $n = 8$). Mandible with 7 coarse teeth.

Thorax. Scutum dark brown, humeral pits pale brown; scutellum pale brown with 7–8 large, 2 thinner setae; prothoracic TR 1.75–2.00 (1.87, $n = 8$); mesothoracic TR 2.08–2.36 (2.21, $n = 8$); metathoracic TR. 1.91–2.25 (2.12, $n = 8$). Wing (Figure 13G) length 1.76–1.86 (1.82, $n = 8$) mm, width 0.70–0.76 (0.73, $n = 8$) mm, costal ratio 0.71–0.77 (0.75, $n = 10$); membrane slightly infuscated; second radial cell 2.70–3.57 (3.06, $n = 7$) × longer than first; cubital fork originating at level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , M_2 y CuA_2 , abundant on distal half of cells r_3 , m_1 , sparse on cells m_2 , cua_1 .

Abdomen. Dark brown, segments 7–8 slightly darker. Genitalia (Figure 13H): sternite 8 large, anterior margin convex, lateral margins subparallel, posteromedian excavation deep, V-shaped; sternite 10 with 4–5 pairs of setae, cerci short, rounded; two globose, heavily sclerotized spermathecae with hyaline punctuations with nearly imperceptible necks, measuring 7.40–9.20 (8.40, $n = 5$) by 5.50–7.70 (6.40, $n = 5$) μm and 4.80–7.40 (6.20, $n = 5$) by 3.70–5.70 (4.70, $n = 5$) μm ; plus a third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro); Chile (Malleco, Chiloé) (Figure 19).

Types

Holotype male, allotype female, Chile, Malleco prov., Cordillera de Las Raíces, 40 km E de Curacautín, 1650 m, 5 February 1979, D. and M. Davies – B. Akerbergs (MLPA). Other paratypes: 7 males, 14 females, as follows: Argentina, Neuquen prov., Parque Nacional Nahuel Huapi, lago Espejo, 40°38'49.3" S, 71°42'12.7" W, 903 m, 23 February to 5 March 2008, A. Garré – F. Montes de Oca, 2 males, 2 females, Malaise trap; Río Negro prov., Parque Nacional Nahuel Huapi, río Manso superior, 41°14'8.1" S, 71°46'58.5" W, 845 m, 7 February to 2 March 2007, A. Garré – F. Montes de Oca, 7 females (one in BMNH, one in USNM), 2 males (one in BMNH, one in USNM), Malaise trap; same data except 41°14'28.4" S, 71°44'12.6" W, 837 m, 1 female, 2 males; same data except La Cantera, 41°21'16" S, 71°42'27.3" W, 764 m, 15 January to 7 February 2007, A. Garré – F. Montes de Oca, 2 males, Malaise trap; Parque Nacional Nahuel Huapi, laguna Mercedes, 40°52'43.4" S, 71°34'41" W, 899 m, 3–21 January 2008, A. Garré – F. Montes de Oca, 1 female,

Malaise trap; Chile, Chiloé prov., Huillinco, 4 December 1984, J. A. Downes, 3 females, sweep net (JAD 1722/1/22; 1690/4/43; 1691/2/58) (CNCI).

Etymology

The name *tridentis* refers the particular shape of the aedeagal sclerites.

Discussion

This species is similar to *S. (A.) nigerrima*. However, *S. nigerrima* differs by the thorax uniformly dark brown, the sternite 8 of females with V-shaped posteromedian excavation and the slender aedeagal sclerites, which are nearly straight with recurved basal arms and truncate tip.

Stilobezzia (Acanthohelea) varia Ingram and Macfie, 1931 (Figures 14, 22)

Stilobezzia varia Ingram and Macfie, 1931: 191 (male, female; Chile)

Stilobezzia (Neostilobezzia) varia: Das Gupta and Wirth, 1968: 143 (in list); Wirth, 1974: 44 (in catalogue of New World species south of USA).

Stilobezzia (Acanthohelea) varia: Spinelli and Wirth, 1993: 51 (in list; Argentina); Borkent and Wirth, 1997: 109 (in World catalogue); Spinelli and Grogan, 1999: 709 (distribution); Borkent and Spinelli, 2000: 53 (in catalogue of species of southern USA); Borkent and Spinelli, 2007: 86 (in Neotropical synopsis); Borkent, 2014: 136 (in online World catalogue).

Diagnosis

The only Patagonian species of *Stilobezzia (Acanthohelea)* with size and coloration highly variable; pleura is dark brown and legs are yellowish brown to dark brown, with dark, stout hairs; tarsomere 1 of hind leg with stout basal spine. Males gonostylus as long as gonocoxite, nearly straight but curving to pointed tip and parameres with stem rod-shaped, slightly divergent distally, with bulbous tip. Females sternite 8 with anterior margin straight, lateral margins subparallel and posteromedian excavation V-shaped.

Male. Head (Figure 14). Dark brown. Antennal flagellum dark brown, plume dark brown, dense; antennal ratio 1.47–1.70 (1.62, $n = 15$). Palpus brown, segment 3 as long as 5; palpal ratio 3.57–4.40 (3.87, $n = 18$).

Thorax. Scutum dark brown to black, except humeral pits, two lateral bands and prescutellar depression yellowish brown; scutellum yellowish brown with 12–18 large, 6–10 thinner setae; postscutellum dark brown. Pleura dark brown, katapisternum partially paler. Legs yellowish brown to dark brown, with dense setae; coxae brown, hind coxa darker, distal half of hind femur darker; tarsomere 1 of mid leg, hind leg with basal stout spine; hind tibial comb with 10 spines; prothoracic TR 1.61–1.81 (1.71, $n = 16$), mesothoracic TR 1.74–2.00 (1.89, $n = 16$), metathoracic TR 1.63–1.86 (1.73, $n = 16$). Wing (Figure 14B) length 2.28–2.84 (1.55, $n = 19$) mm, width 0.74–0.89 (0.82, $n = 19$) mm, costal ratio 0.68–0.77 (0.73, $n = 10$); membrane infuscated;

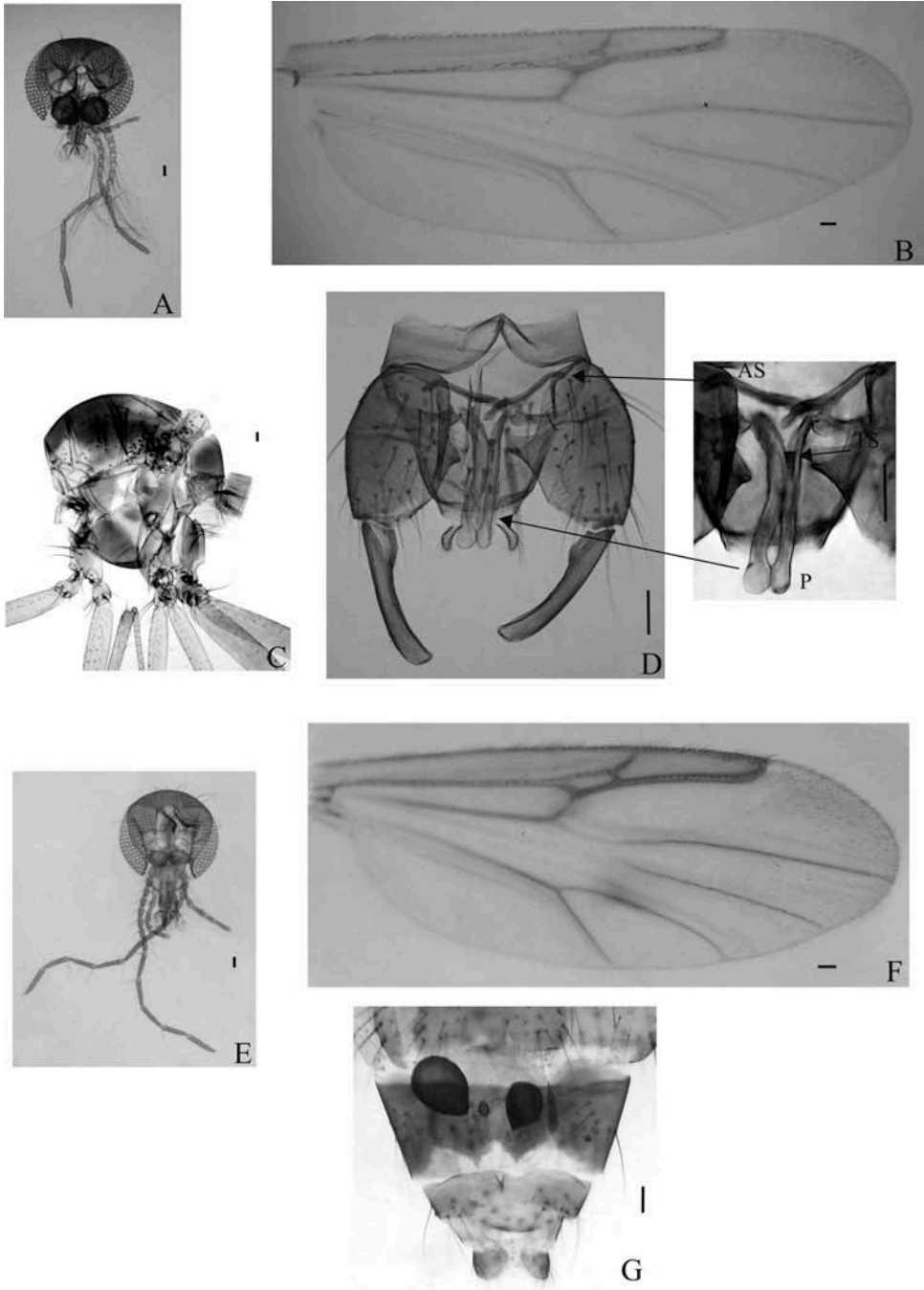


Figure 14. *Stilobezzia (A.) varia* Ingram and Macfie: (A–D) male; (A) head; (B) wing; (C) genitalia (ventral view); (D) aedeagus and parameres removed. (E–G) female; (E) head; (F) wing; (G) genitalia. Scale bars 0.05 mm.

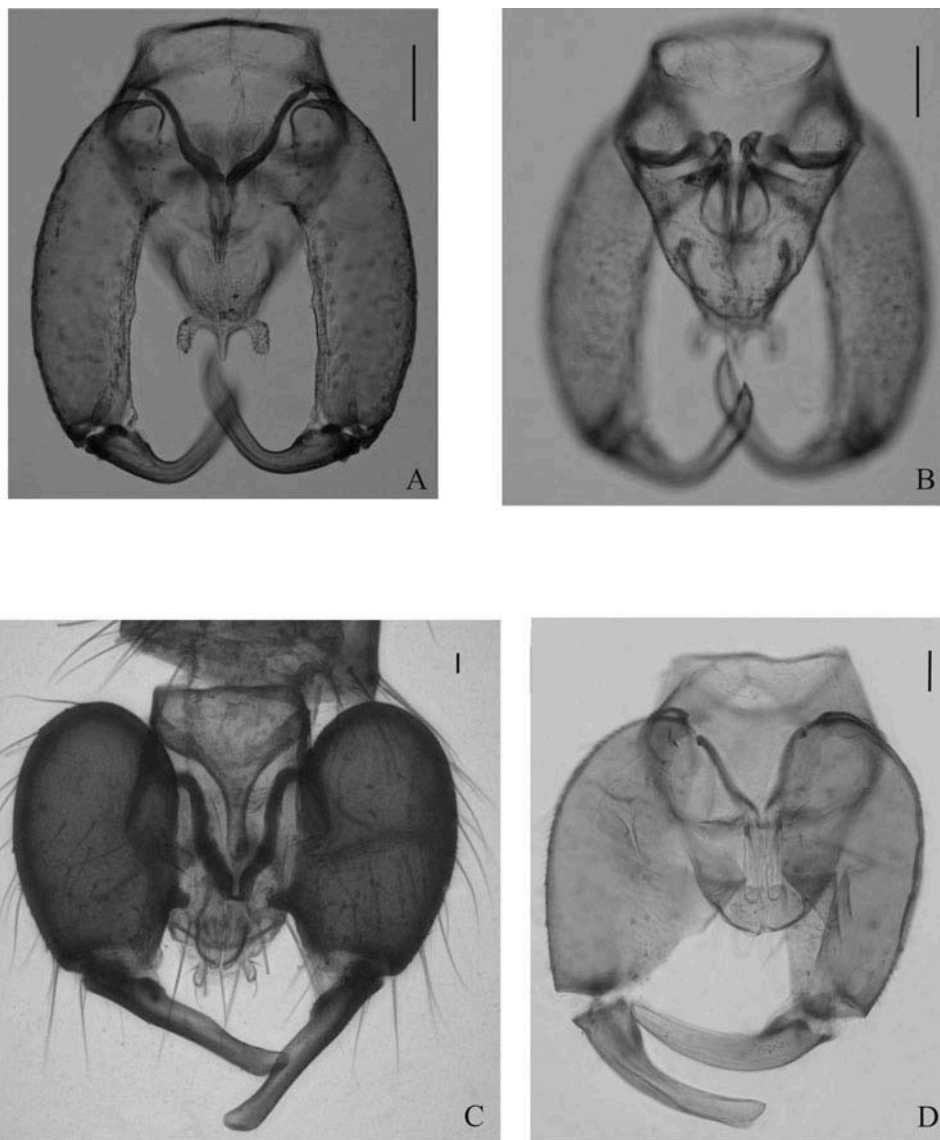


Figure 15. Male genitalia: (A) *Stilobezzia (A.) curvistyla* Cazorla and Spinelli (ventral view); (B) *Stilobezzia (A.) curvistyla* (dorsal view); (C) *Stilobezzia (A.) longisternalis* Cazorla and Spinelli (ventral view); (D) *Stilobezzia (A.) nigerrima* Ingram and Macfie (ventral view).

second radial cell 3.00–5.33 (4.28, $n = 16$) \times longer than first; cubital fork originating slightly distad to level of base of r-m cross vein; macrotrichia on costa, R_1 , R_2 , R_3 , M_1 , distal margin of cell r_3 , sparse on cell m_1 . Halter pale.

Abdomen. Dark brown. Genitalia (Figures 14C, D): tergite 9 extending 0.80 of gonocoxites length, posterior margin rounded; sternite 9 8.45 \times broader than long, with posteromedian excavation broad, shallow; sternite 10 wide, stout, produced beyond base of cerci; cerci elongated, divergent. Gonocoxite stout, 1.3 \times longer than

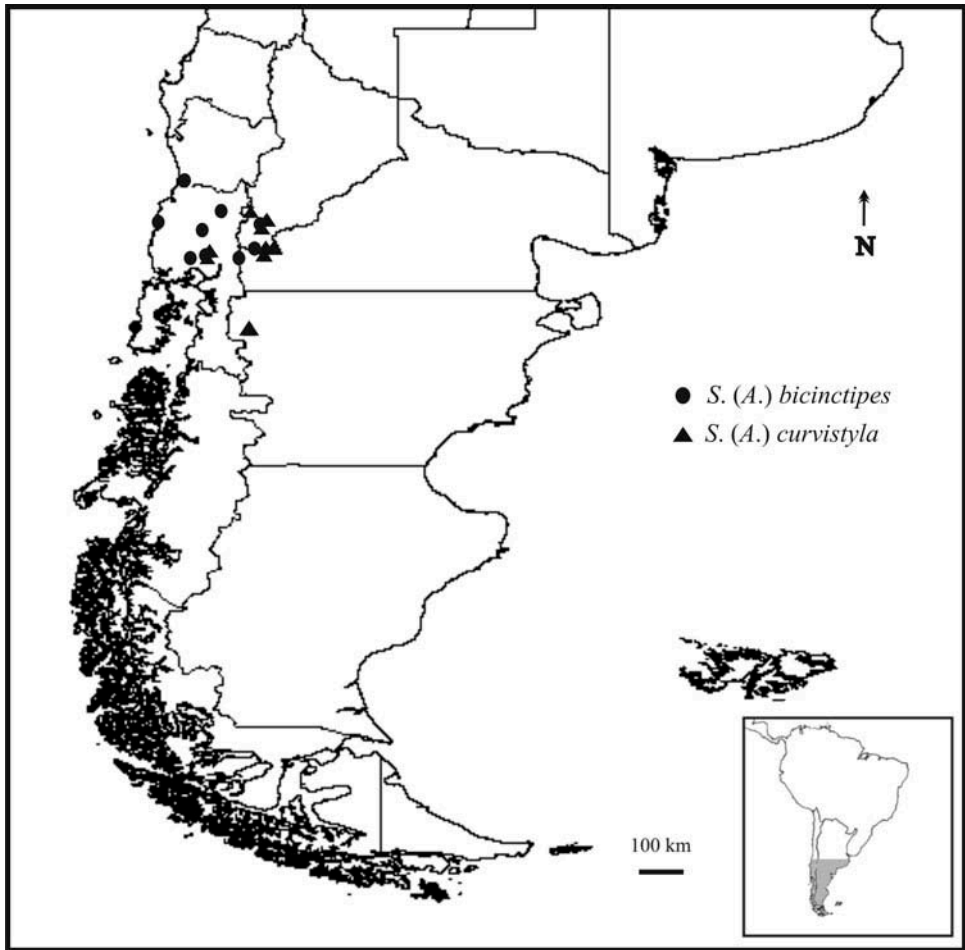


Figure 16. Distribution of *Stilobezzia (A.) bicinctipes* and *Stilobezzia (A.) curvistyla*.

greatest breadth, inner margin with short, mesal tubercle directed mesad; gonostylus as long as gonocoxite, nearly straight, curving to pointed tip. Parameres subparallel (Figure 14D), basal apodemes sclerotized; stem rod-shaped, slightly divergent distally, bulbous tip. Aedeagus 0.76 length of basal breadth, composed of two sinuous sclerites, each with mesal 1/3 broad, narrowing to apex.

Female. Similar to male, with the following notable sexual differences:

Head (Figure 14E). Antennal ratio 1.50–1.87 (1.57, $n = 18$); palpal ratio 2.86–3.86 (3.41, $n = 18$). Mandible with 7 coarse teeth.

Thorax. Scutellum with 10–14 large, 6–10 thinner setae. Hind tibial comb with 8–9 spines; prothoracic TR 1.64–1.93 (1.78, $n = 19$), mesothoracic TR 1.88–2.19, (2.02, $n = 19$), metathoracic TR 1.70–2.00 (1.88, $n = 20$). Wing (Figure 14F) length 2.05–2.66 (2.45, $n = 22$) mm, width 0.79–0.91 (0.93, $n = 22$) mm, costal ratio 0.69–0.80 (0.76, $n = 10$); second radial cell 2.64–5.71 (3.97, $n = 22$) X longer

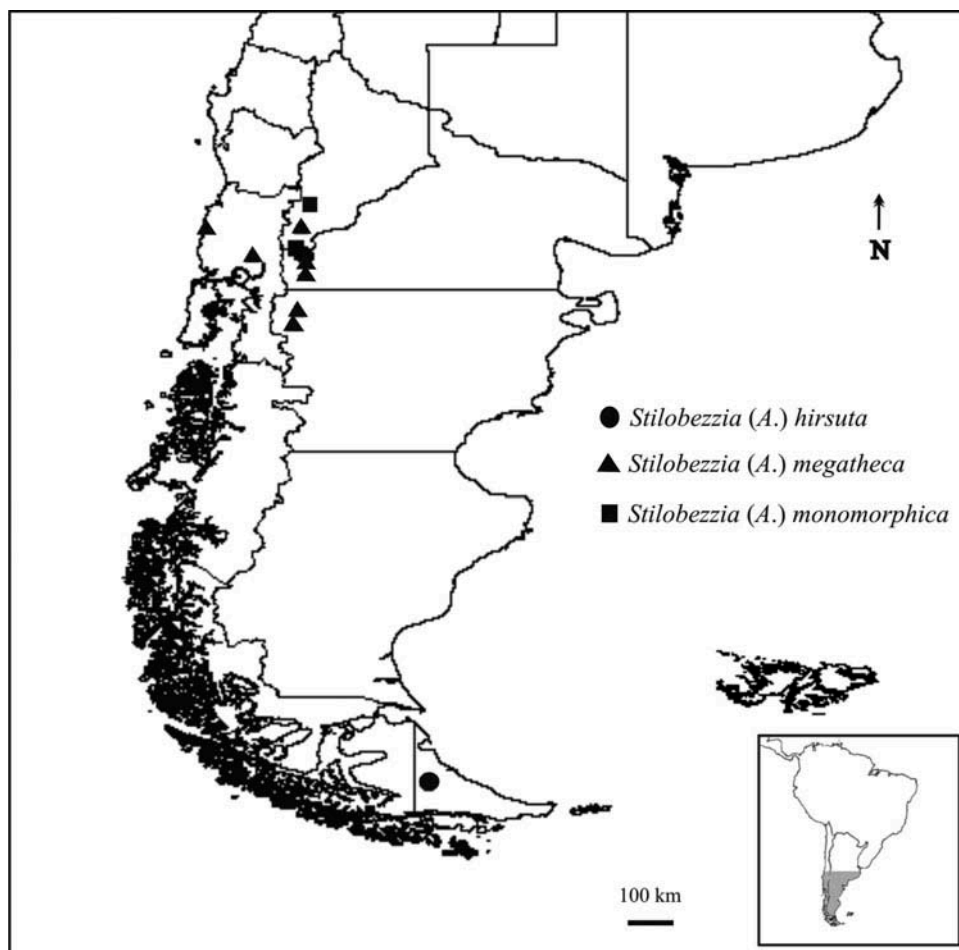


Figure 17. Distribution of *Stilobezzia (A.) hirsuta*, *Stilobezzia (A.) megatheca* and *Stilobezzia (A.) monomorphica*.

than first; cubital fork originating at level of base of r-m; macrotrichia on costa, R₁, R₃, M₁, M₂ y CuA₂, abundant on distal 1/4 of cell r₃ and apex of cell m₁, sparse on cell m₂. Halter pale.

Abdomen. Yellowish brown to dark brown, with dense setae. Genitalia (Figure 14G): anterior margin of sternite 8 straight, lateral margins subparallel; posteromedian excavation V-shaped; sternite 10 with 5 pairs of setae; cerci short; two ovoid spermathecae with short necks, measuring 8.10–14.40 (10.20, $n = 21$) by 5.90–10.30 (8.30, $n = 21$) μm and 7.0–11.40 (8.40, $n = 21$) by 5.90–10.00 (7.50, $n = 21$) μm ; plus a third rudimentary spermatheca.

Distribution

Argentina (Neuquen, Río Negro, Chubut, Santa Cruz, Tierra del Fuego); Chile (Malleco, Cautin, Valdivia, Osorno, Llanquihue, Chiloé, Magallanes) (Figure 22).

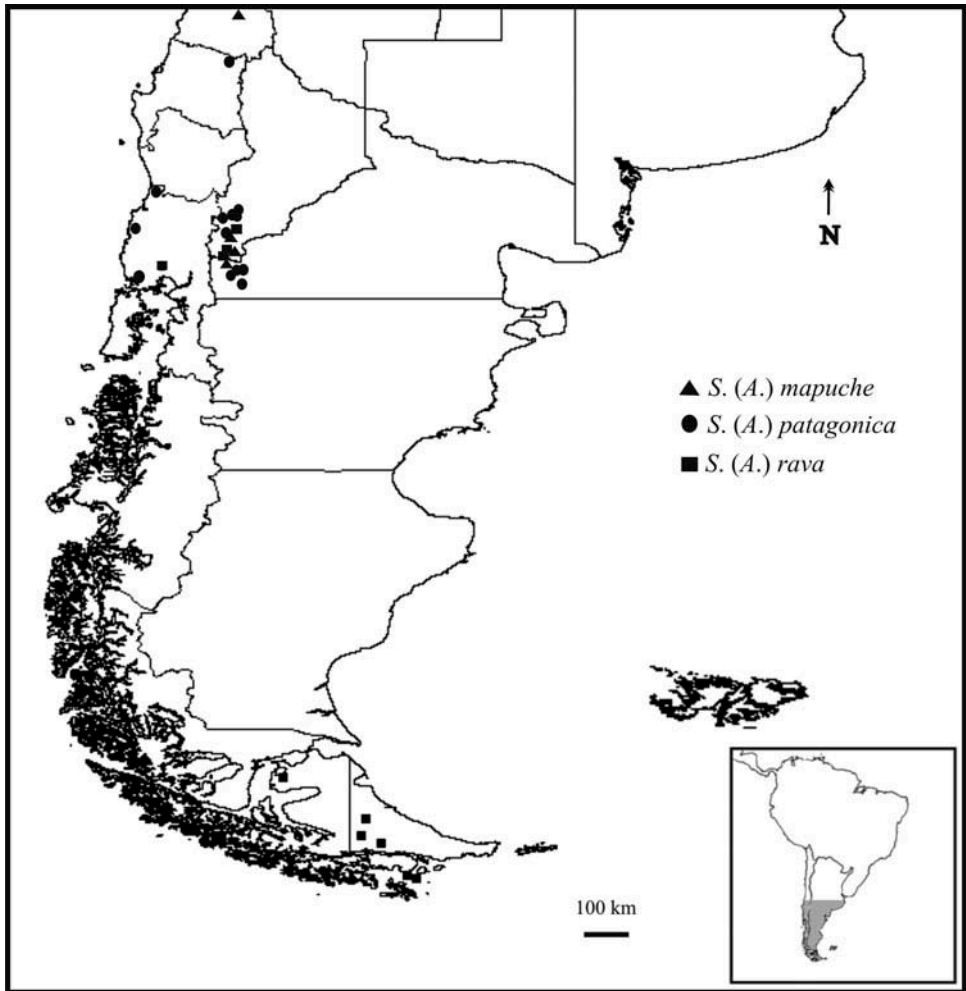


Figure 18. Distribution of *Stilobezzia* (A.) *mapuche*, *Stilobezzia* (A.) *patagonica* and *Stilobezzia* (A.) *rava*.

Types

Holotype male, Chile, Chiloé prov., Ancud, 17–19 December 1926, P. and M. Edwards; Other paratypes: same data as holotype, 1 male, 1 female; Llanquihue prov., Puerto Varas, 16 December 1926, P. and M. Edwards, 1 female; Río Negro prov., Bariloche, 1 December 1926, P. and M. Edwards, 1 female (BMNH).

Other specimens examined

Argentina, Neuquen prov., Parque Nacional Lanín, arroyo Quechuquina and lago Lacar, 18 January 2006, W. Grogan – G. Spinelli, 1 male, sweep net; lago Paimún, 10 February 1989, G. Spinelli, 2 males, 1 female, sweep net; lago Queñi, 28 January 1988, G. Spinelli, 1 male, sweep net; same data except 6–8

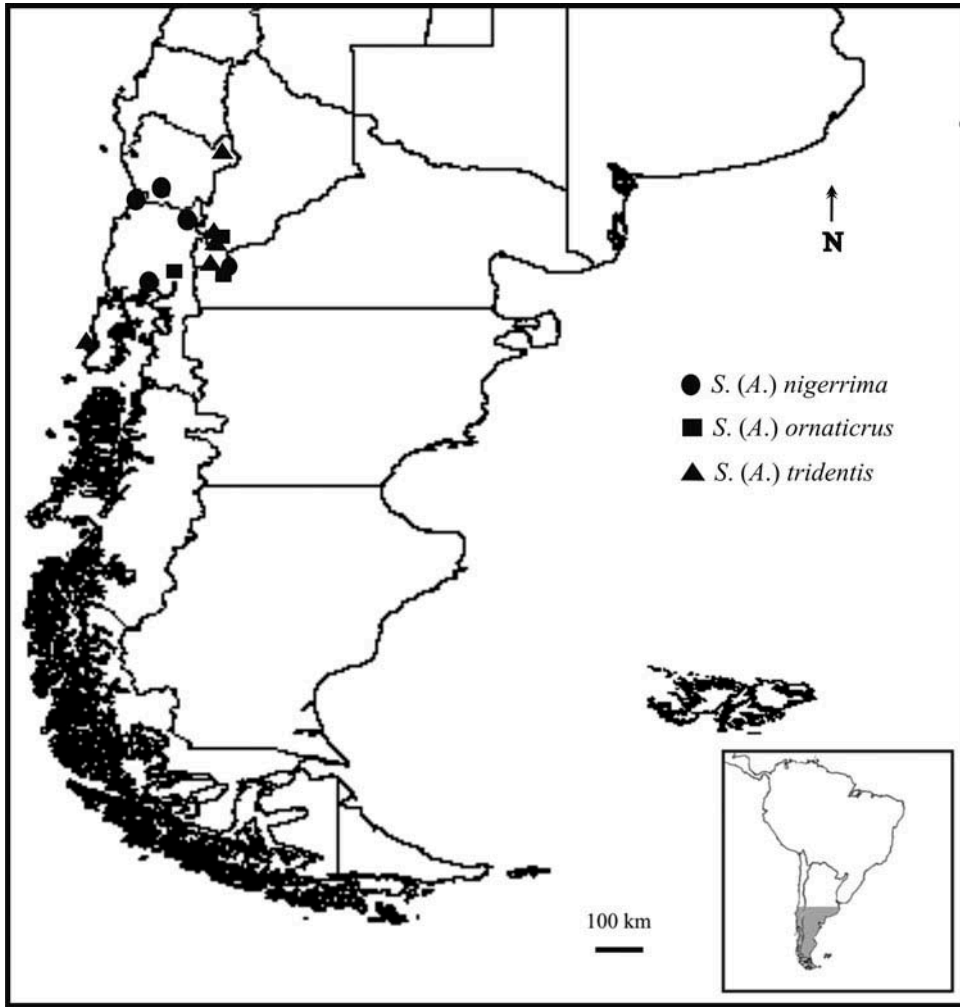


Figure 19. Distribution of *Stilobezzia* (A.) *nigerrima*, *Stilobezzia* (A.) *ornatricrus* and *Stilobezzia* (A.) *tridentis*.

February 1999, P. Marino, 1 female, Malaise trap; lago Huechulafquen, 2 March 1998, G. Spinelli, 2 females, CDC light trap; lago Tromen, 7 February 1986, G. Spinelli, 1 female, sweep net; San Martín de los Andes, 23 April 1982, M. Gentile, 1 female, light trap; Villa La Angostura, 11–15 January 2004, G. Spinelli, 3 males, light trap; Río Negro prov., río Manso, 1 February 1986, G. Spinelli, 2 females, sweep net; Parque Nacional Nahuel Huapi, río Guillermo, 20 January 2006 W. Grogan – G. Spinelli, 1 male, sweep net; Parque Nacional Nahuel Huapi, Puerto Blest, 9 December 1992, G. Spinelli, 1 male, sweep net; same data except 41°01' 34.4" S, 71°48'55.7" W, 791 m, 13–16 December 2007, A. Garre – F. Montes de Oca, 1 male, at light; arroyo Challhuaco, 26 January 1988, G. Spinelli, 1 female, sweep net; lago Gutiérrez, January 2003, J. Liotta, 1 female, 1 male, light trap;

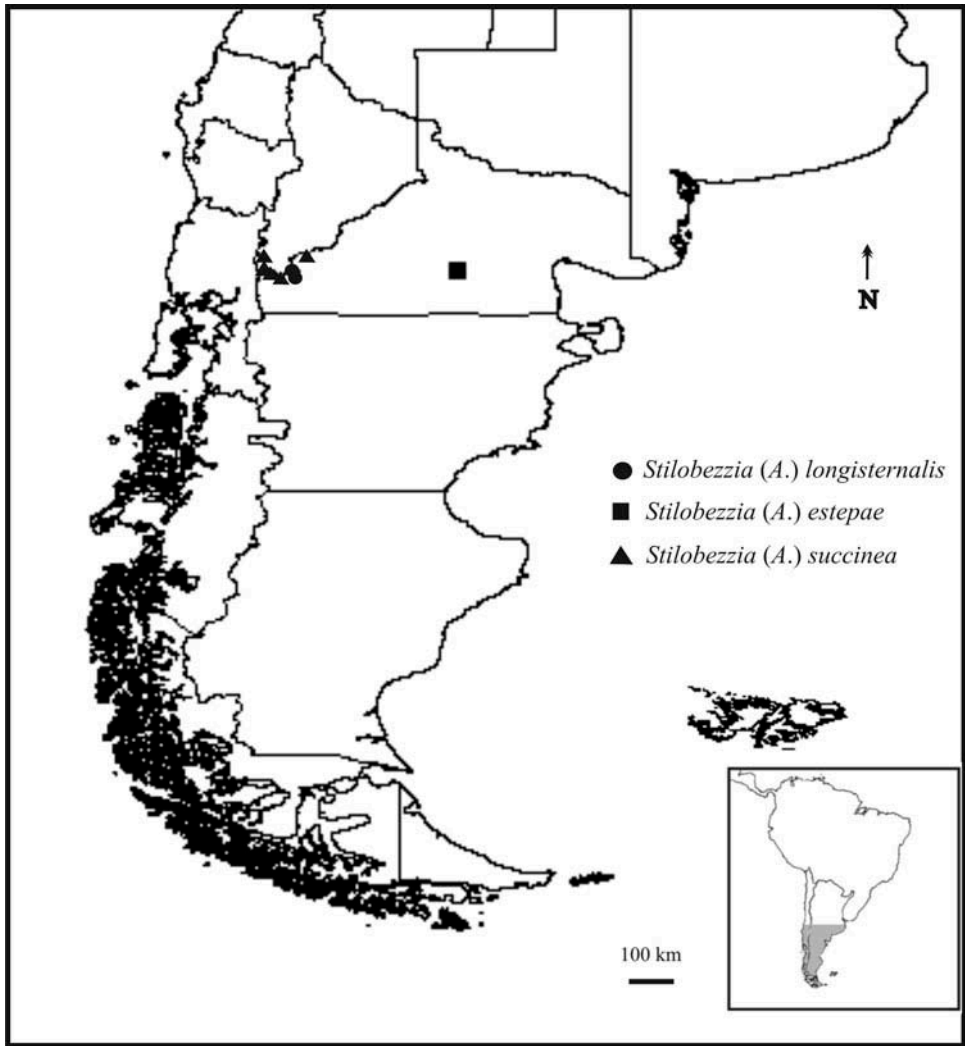


Figure 20. Distribution of *Stilobezzia* (A.) *longisternalis*, *Stilobezzia* (A.) *estepae* and *Stilobezzia* (A.) *succinea*.

Parque Nacional Nahuel Huapi, cerro Tronador, 25 January 1988, G. Spinelli, 2 males, sweep net; Parque Nacional Nahuel Huapi, río Manso Superior, 41°14' 28.4" S, 71°44'12.6" W, 837 m, 15 January 2007, A. Garré – F. Montes de Oca, 13 females, sweep net; Parque Nacional Nahuel Huapi, arroyo Llum 41°16'13.3" S, 71°30'56.7" W, 857 m, 18 December 2006 to 4 January 2007, A. Garré – F. Montes de Oca, 1 male, 1 female, Malaise trap; Parque Nacional Nahuel Huapi, mallin La Cortadera, 41°05'13" S, 71°48'26" W, 769 m, 8 January to 3 February 2007, A. Garre – F. Montes de Oca, 1 male, 2 females, Malaise trap; Parque Nacional Nahuel Huapi, Manso Medio, La Cantera, 41°21'16" S, 71°42'27.3" W, 764 m, 15 January to 7 February 2007, A. Garré – F. Montes de Oca, 1 female,

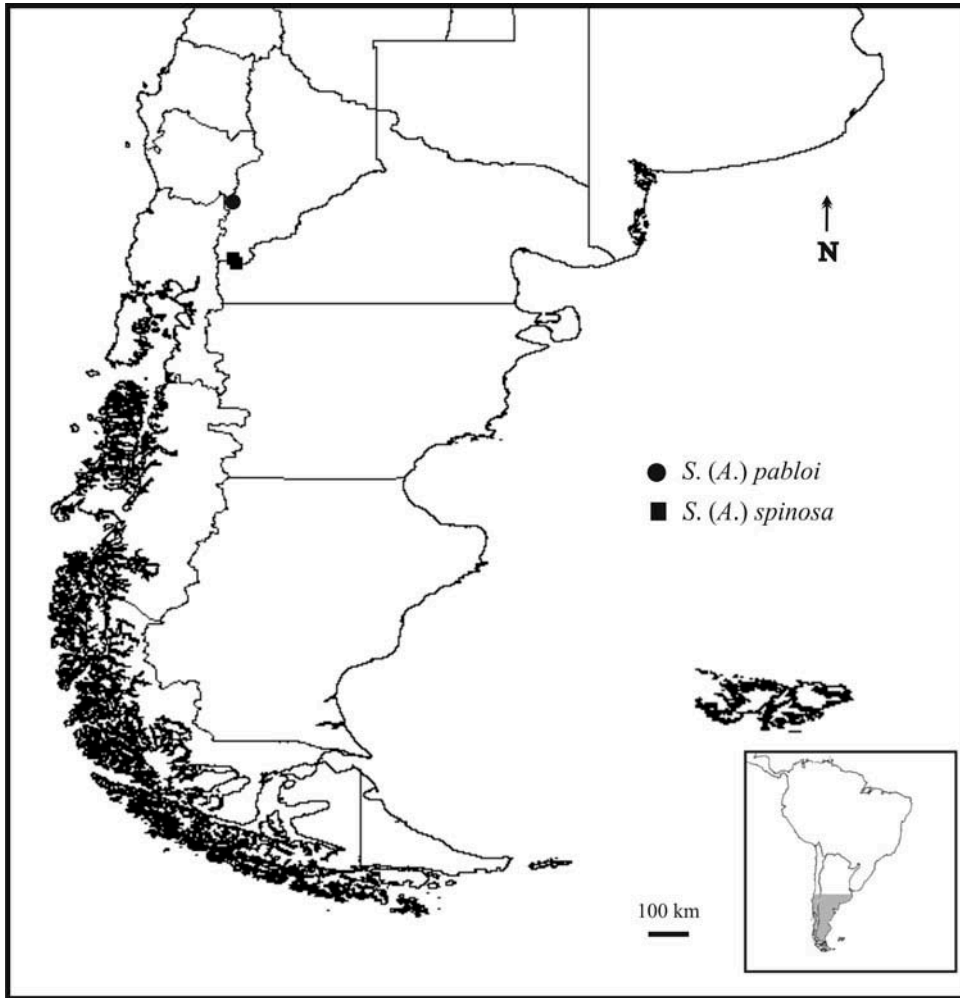


Figure 21. Distribution of *Stilobezzia (A.) pabloi* and *Stilobezzia (A.) spinosa*.

Malaise trap; Parque Nacional Nahuel Huapi, arroyo Grande, 41°02'21.6" S, 71° 48'27" W, 763 m, 4–25 February 2007, A. Garre – F. Montes de Oca, 1 female, Malaise trap; Parque Nacional Nahuel Huapi, arroyo Ñireco (Complejo Challhuaco) 41°11'51.9" S, 71°19'40.5" W, 962 m, 20 December 2006 to 23 January 2007, Garré – Montes de Oca, 3 males, 5 females, Malaise trap; Parque Nacional Nahuel Huapi, mallin La Heladera, 41°00'6.4" S, 71°49'40.3" W, 878 m, 7 January to 4 February 2007, A. Garré – F. Montes de Oca, 1 male, 1 female Malaise trap (USNM); Chubut prov., Parque Nacional Los Alerces, margen E lago Futalaufquen, 20 January 1988, G. Spinelli, 2 males, 1 female, sweep net; same data except El Alerzal, 20 January 1988, G. Spinelli, 1 male; cerro Galera, 2–4 December 2002, G. Spinelli, 1 male, Malaise trap; Santa Cruz prov., Los Glaciares, lago Roca, 10 January 1988, G. Spinelli, 1 female, 1 male, sweep net;

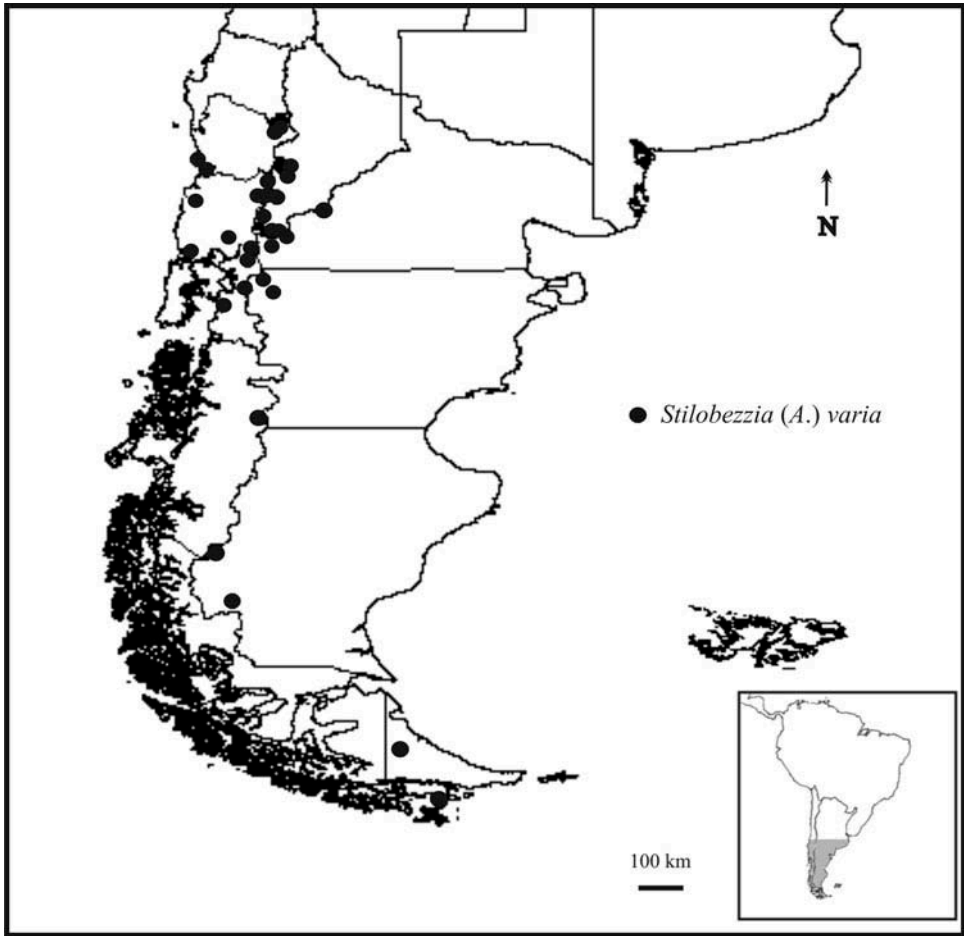


Figure 22. Distribution of *Stilobezzia (A.) varia*.

lago del Desierto, 11 December 1996, 1 female, 4 males, sweep net; lago San Martín, estancia La Maipú, laguna Talca, 8 December 2002, G. Spinelli, 1 male, sweep net; Tierra del Fuego prov., Parque Nacional Tierra del Fuego, 7–9 December 2005, G. Spinelli, 19 males, 12 females, Malaise trap; 6 December 2005, G. Spinelli, 1 female, sweep net; camino a Lapataia, 1 March 1993, G. Spinelli, 1 female, sweep net.

Chile: Malleco prov., Termas de río Blanco, 1080 m, 22 January 1964, M. Irwin – L. Stange, 1 female, 1 male, sweep net; Cordillera de Las Raíces, 40 km E Curacautín, 1450 m, 5 February 1979, D. Davis – M. Davis – B. Akerbergs, 1 female, sweep net; Parque Nacional Conguillo, 21 December 1984, J. A. Downes, 1 male, 1 female (JAD1658/1/7,8) (CNCI); same data except 22 December 1984, 1 male, 1 female; Cautin prov., 12 km N Loncoche, 280 m., 10 November 1966, E. Schlinger, sweep net; Valdivia prov., Isla Teja, 3 December 1984, J. A. Downes, 1 male, 1 female, sweep net (JAD1658/1/7,8) (CNCI); same data except 1 December 1984, 2 males, 2 females (JAD 1657/1/6,7,9,12) (CNCI); same data except

University farm, 12 December 1984, 3 males, 2 females (JAD 1666/1/1,2,3,4,5) (CNCD); same data except 13 December 1984, 1 female (JAD 1667/1/1) (CNCD); Osorno prov., Pucatrihue, Puente Hermoso, 29 January 1978, P. J. Spangler, 1 female, sweep net; Llanquihue prov., Fundo San Martín, 15 December 1984, J. A. Downes, 1 male, sweep net (JAD 1669/2/4) (CNCD); Chiloé prov., Ancud, 1 January 1985, J. A. Downes, 1 female, sweep net (JAD 1688/3/12) (CNCD); Huillinco, 2 January 1985, J. A. Downes, 1 male, sweep net (JAD 1689/2/2) (CNCD); Magallanes prov., Bahía Scourfield, 17–25 February 1980, D. Lanfranco, 2 males, 3 females, Malaise trap.

Discussion

The variability observed between specimens of *Stilobezzia* (*A.*) *varia* from different localities with respect to coloration, size and pilosity is notorious and unique among the species of the subgenus *Acanthohelea*.

This species is very similar to *S. pabloi*. Characters for distinguishing both species are in the key and in the discussion section of that species.

Acknowledgements

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