

A new genus of jumping spiders (Araneae: Salticidae: Dendryphantini), with description of a new species and reassignment of *Stenodeza foestiva* Mello-Leitão, 1944

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Abstract. A new genus of Salticidae (Dendryphantini), *Candiaella* **gen. nov.**, is proposed to accommodate two South American species. The genus includes *Candiaella foestiva* (Mello-Leitão, 1944) **comb. nov.** (transferred from *Stenodeza* Simon, 1900) and *Candiaella fasciata* **sp. nov.**, both from Argentina. *Candiaella* **gen. nov.** is distinguished from *S. acuminata* Simon, 1900 (the type species of *Stenodeza*) by a consistent suite of somatic and genitalic characters. Most notably, females of the new genus possess long, narrow, and parallel copulatory ducts that run medially toward the spermathecae, whereas *S. acuminata* exhibits short, strongly curved ducts. Additional differences in body shape, ocular arrangement, and leg armature — specifically the 2-2-2 ventral spination on tibia I in *Candiaella* compared to 2-2-2-2 in *Stenodeza* — further support the exclusion of these species from *Stenodeza* and from other genera within Dendryphantini. This study provides a formal diagnosis of the new genus, a redescription of *C. foestiva* **comb. nov.**, and the description of *C. fasciata* **sp. nov.** from the grasslands of Argentina.

Keywords. Argentina, *Candiaella*, grassland, new combination, taxonomy

The genus *Stenodeza* Simon, 1900 was originally described based on the type species *S. acuminata* Simon, 1900, a small salticid spider from the Amazonian region. *Stenodeza acuminata* was described based on a subadult female, and males of the type species remain unknown, which has historically limited the diagnosis of the genus. Since its description, two additional species have been assigned to the genus, with limited justification and scarce comparative analyses (Mello-Leitão 1917, 1944; Galiano 1963). Among them, *S. foestiva* Mello-Leitão, 1944 has long appeared anomalous due to marked differences in both somatic and genital morphology.

Recent examination of topotypic material, including newly collected specimens from central and northeastern Argentina, reveals that *S. foestiva* and an undescribed species share a distinct suite of diagnostic characters that are incompatible with placement in *Stenodeza*. Both species occur across the same broad grassland ecoregions, from the Pampas of Buenos Aires Province to the Southern Cone Mesopotamian Savanna of Misiones (Olson et al. 2001), with additional records towards the south of the country. Although sympatric at the ecoregional scale, the two species appear to be ecologically segregated by habitat type: *S. foestiva* inhabits predominantly dry grasslands, whereas the new species is associated with humid or seasonally flooded grasslands.

Here, we propose a new genus *Candiaella* **gen. nov.**, to accommodate what are currently two species. We provide a redescription and transfer of *C. foestiva* (Mello-Leitão 1944) **comb. nov.**, and formally describe the new species. These findings highlight the underexplored diversity of salticid spiders in South American grasslands, much as recent taxonomic work has highlighted the under explored diversity of jumping spiders in neighbouring regions (e.g. Rubio et al. 2025).

Materials and Methods

The material examined was collected by one or more of the authors (except for lots MACN-Ar 8874, 48125 and MLP 16295), with some specimens representing type material. The description format and measurements follow those of Galiano (1963), with morphological terminology and interpretation of structures as in Edwards (2015) and Ramírez (2014). Female genitalia were dissected as described by Levi (1965). Internal structures were examined after digestion in a ~15% NaOH solution and cleared in clove oil, employing a protocol recently utilised for other Argentine salticid descriptions (Rubio et al. 2025), where samples are heated using a small electric heater for anti-mosquito tablets (following Ramírez 2014).

Temporary slide preparations were observed and photographed using a Leica DM500 compound microscope and Leica M60 and Nikon stereomicroscopes. Structures were sketched from incident light photographs using a Wacom digitizer tablet with GIMP software. Measurements were taken with an ocular micrometer and are given in millimeters. Live photographs were obtained using a Nikon D3200 digital camera with a Nikkor 55 mm lens and a Raynox 250 magnifier. Plates were edited and composed in CorelDraw.

Specimens are deposited in the spider collections of the Grupo de Investigación de Salticidas de Argentina (GISA), the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN-Ar), and the Museo de La Plata (MLP). Morphology acronyms: ALE = anterior lateral eye, AME = anterior medial eye, CD = copulatory duct, CO = copulatory opening, PLE = posterior lateral eye, PME = posterior medial eye, RTA = retrolateral tibial apophysis.

Results

Family Salticidae Blackwall, 1841
Tribe Dendryphantini Menge, 1879

Candiaella **gen. nov.**

Type species: Candiaella foestiva (Mello-Leitão, 1944) **comb. nov.** (here designated), examined under *Stenodeza foestiva* (MLP 16295).

Remarks: The type specimen of the genus *Stenodeza* (*S. acuminata*) was re-described by María E. Galiano in 1963; her description on page 451 is clear and concise. Later, Galiano reviewed and identified an adult female specimen deposited at MACN (MACN-Ar 8874), which she labeled as *S. acuminata* and placed in the collection alongside the type specimens, designating it as material for comparative purposes. We have examined this material and confirmed that Galiano's 1963 description is accurate, as is her identification of the specimen MACN-Ar 8874 (Figure 9). The comparison with *Stenodeza* presented in our diagnosis is

strictly based on this adult female material (MACN-Ar 8874) identified by Galiano, which allows for a reliable differentiation of genitalic characters (Figure 9; see also Metzner 2026, Fig. D-50740). Nevertheless, although the original description is based on a subadult female, the entirety of available morphology of *S. acuminata* is sufficient to exclude the species here assigned to *Candiaella* gen. nov. This conclusion is further supported by direct comparison with the type species of other potentially related genera within Dendryphantini (JEMB's doctoral thesis).

Diagnosis: Males and females of *Candiaella* **gen. nov.** differ from *Stenodeza* by the following combination of characters: In females, the copulatory ducts are long, narrow, and nearly parallel, running medially from the copulatory openings to the spermathecae. In *S. acuminata*, the ducts are short, thick, and curve laterally. The epigynal openings are more widely spaced in *S. acuminata*, and the overall shape of the epigynum is ovoid, whereas in *Candiaella* **gen. nov.** it is narrower and longer, with a characteristic median depression (Figures 2C–D, 5E–F). The cephalothorax is lower and more flattened; the posterior eyes are set farther back, and the ocular area is proportionally larger (Figure 1). Leg armature also differs markedly: tibiae I have 2-2-2 (3-3) ventral spines in the new genus, versus 2-2-2-2 (4-4) in *S. acuminata* (Figure 9A–B). This somatic character is observable independently of adult genital maturity, providing a robust diagnostic separator even for subadult specimens. The abdominal pattern contrasts strongly: *S. acuminata* exhibits broad perpendicular silvery bands of scales and a more compact habitus, while members of *Candiaella* **gen. nov.** have an elongate body with longitudinal or oblique bands or scattered spots (Figure 1), likely an adaptation to camouflage in grassland habitats. The new genus differs from other morphologically similar genera within Dendryphantini; compared to *Empanda* Simon, 1903, *Candiaella* **gen. nov.** is differentiated by its more robust chelicerae equipped with prominent teeth, specifically a large retromarginal tooth (see this emphatic character in the Figures 3E–F and 6E–F) and a more cylindrical abdomen, having an inverted color pattern (middle longitudinal stripe darker than the sides). In females, the copulatory ducts are notably narrower and run nearly parallel to each other medially, whereas *Empanda* exhibits significant differences in the genital copulatory opening structures and overall palpal morphology (reverse-oriented embolus, and bulb with a basal tegular lobe) (Peckham & Peckham 1885; Pickard-Cambridge 1901). Compared to *Semorina* Simon, 1901, the new genus is separated by its larger body size and the complete absence of myrmecomorphy. While *Semorina* possesses a carapace and abdomen specifically modified for ant-mimicry, *Candiaella* **gen. nov.** maintains an elongated, somewhat flat habitus with a distinct eye arrangement where the ocular area is proportionally larger. In males, the palp features a simple, claw-shaped retrolateral tibial apophysis while in *Semorina* it has two points (Galiano 1963). Compared to the typical morphology of *Dendryphantes* C. L. Koch, 1837, *Candiaella* **gen. nov.** presents an elongate, somewhat flat body with a flatter carapace (contrasting with the typical convex profile of *Dendryphantes*) where the thoracic slope is located far posterior to the fovea; in addition, it is differentiated from *Dendryphantes* by the absence of a dagger-like conductor on the male palp, which is connected to or associated with the embolus, usually forming a right angle (Žabka 1997; Maddison 1996: 337, Figs. 103–108), the absence of a median field in a wide epigynal plate, and by possessing shorter copulatory ducts with fewer turns that are directed in parallel and together from the copulatory openings toward the spermathecae.

Note that the genera *Itata* G. W. Peckham & E. G. Peckham, 1894 and *Marpissa* C. L. Koch, 1846 are excluded from this comparative diagnosis because their genital morphologies are significantly different.

Etymology: The genus name *Candiaella* is dedicated to the first author's maternal family, particularly Pascual, Elsa, Mirta, and Silvia Candia, whose love and dedication inspired the exploration of Argentina's biodiversity.

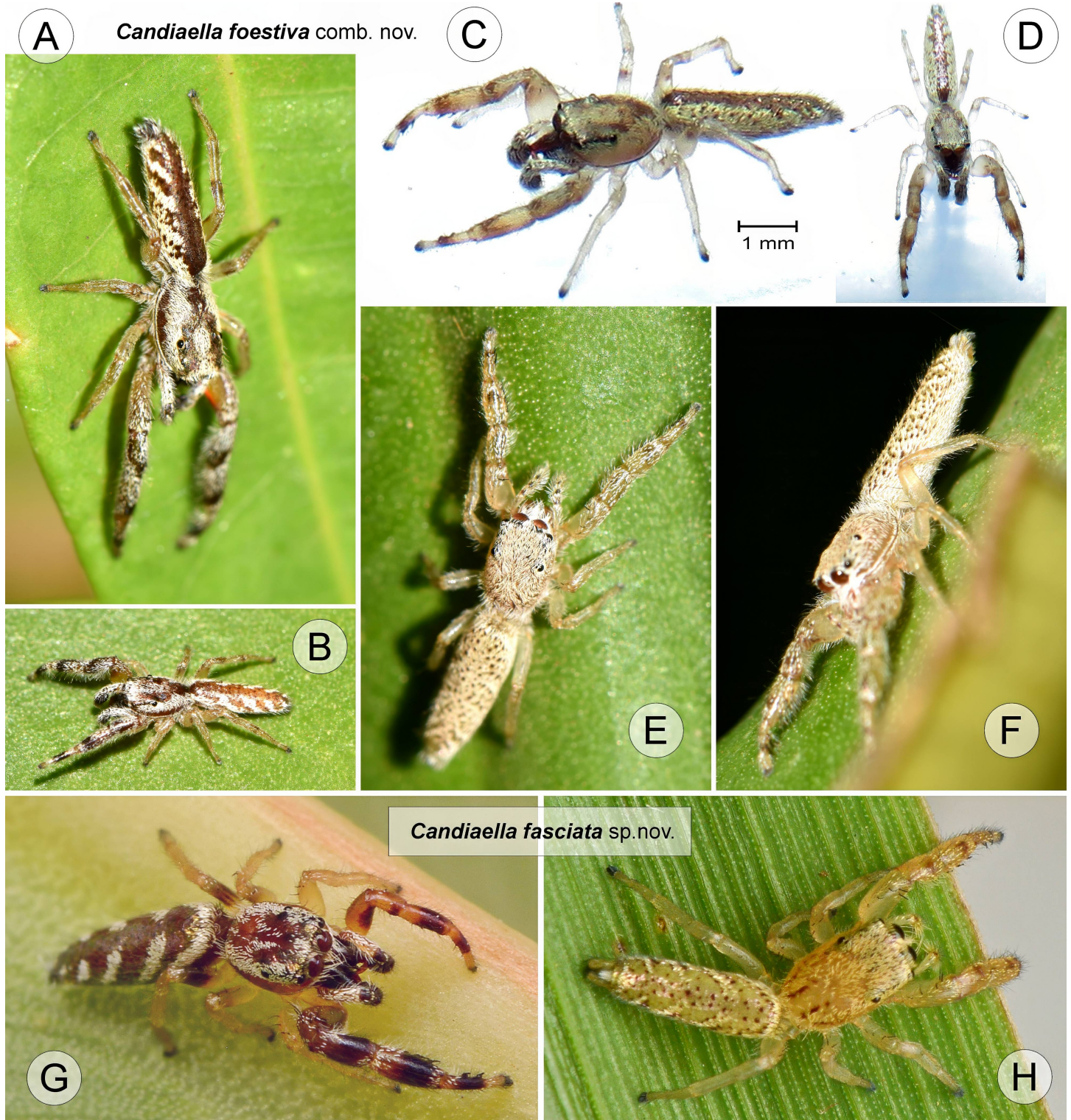


Figure 1. Live specimens. **A–F**, *Candiaella foestiva* (Mello-Leitão, 1944) **comb. nov.** **A, B**, Males from Reserva Natural Urutaú (GISA 1586, 1576). **C, D**, Male from Reserva Municipal San Vicente (GISA 1914). **E, F**, Female, same lot as A (GISA 1586). **G, H**, *Candiaella fasciata* **sp. nov.** from Santa Cecilia. **G**, Male (GISA 1842). **H**, Female (GISA 2016).

Description of the genus: Medium-sized dendryphantine spiders, between 4.5–6.2 mm; elongated and somewhat flat bodies. First pair of long, strong legs, strong chelicerae in males. Carapace beige, light brown to reddish brown, darker toward the borders, covered with very small translucent scales and sparse black hairs around the posterior eyes; two dark spots in the center of the cephalic region. Carapace flat, thoracic slope far posterior to the fovea. Clypeus very low, with white hairs. Chelicera brown to dark

brown, not vertical, somewhat projected forward, with one tooth on the promargin and a large retromarginal tooth, which may be accompanied by two smaller accessory teeth. Labium and endites brown, sternum lighter. Palp yellow, darker on the tibia and tarsus. Leg I stout, especially femur, patella and tibia. Legs light brown almost without spots on legs II-IV, covered with small black hairs; leg I with scattered dark spots. Leg macrosetae: femur I d 1-1-1-p2, II d 1-1-p2, III d 1-1-r1, IV d 1-1-1 or 1-1-r1; tibia I v 2-2-2, II v r1-r1; metatarsus I v 2-2, II v 1-2(p1); III, IV v 1di or 2di, p 1di. Abdomen elongated, somewhat cylindrical, with sparse black, erect hairs; coloration pale yellow to reddish mahogany, with numerous small dark spots evenly distributed, may have three or four chevrons of white hairs extending to the margins; venter pale yellow or light brown. Palp with typical dendryphantine bulb, longer than wide, tegulum without lobes; cymbium with numerous hairs scattered dorsally, lighter and shorter at the apex; simple RTA, claw-shaped; embolus sclerotized, slightly flattened in some species, with the tip directed prolaterally. Epigyne plate small, sclerotized; it may have a small, weak atrium anteriorly, connected to two copulatory openings (COs); a small posterior coupling pocket inverted U-shaped. Copulatory ducts starting in the COs that enter laterally towards the middle and directed posteriorly; spermathecae small, not spherical, located posteriorly.

Included species

Candiaella foestiva (Mello-Leitão, 1944) **comb. nov.**

Type material examined: Holotype male and paratype female of *Stenodeza foestiva* Mello-Leitão, 1944, deposited in the Museo de La Plata (MLP 16295), examined.

Diagnosis: The male of *Candiaella foestiva* can be easily distinguished from that of *C. fasciata* **sp. nov.** by having a longer, thinner, and less flattened embolus (Figures 2A-B); the female is also easily distinguished by having the copulatory opening anteriorly directed like a pair of slots, the copulatory ducts are slightly longer than in *C. fasciata* **sp. nov.**, and the coupling pocket is more pronounced (Figures 2C-D). In live males, *C. foestiva* differs from *C. fasciata* **sp. nov.** by having a discontinuous white anterior dorsal band on the abdomen, and by having a dark tuning fork-shaped mark on the carapace (Figures 1A-D).

Description: Male from Buenos Aires (GISA 1914) (Figures 1C-D, 2A, 3). Total length: 4.90. Carapace length 2.05, width 1.30, height 0.75. Length of the dorsal eye field 0.90. Width of the anterior eye row 1.03, posterior 1.05. Carapace low, beige to light brown, covered with very small translucent scales, whitish and longer at the edges, and some sparse black hairs (Figures 3A-B). Thoracic slope, fovea and clypeus as generic description. Chelicera brown, somewhat projected forward, with one tooth on the promargin and a large retromarginal tooth accompanied by two smaller teeth on each side. Labium, endites, sternum, palps and legs as described for the genus. Femur I 1.21×0.65, II 0.90×0.35, III 0.90, IV 1.05. Patella I 0.90, II 0.45, III 0.45, IV 0.60. Tibia I 1.18×0.41, II 0.60, III 0.50, IV 0.80. Metatarsus I 0.70, II 0.35, III 0.47, IV 0.70. Tarsus I 0.40, II 0.30, III 0.40, IV 0.40. Abdomen length 2.85, width: 1.05. Abdomen as in generic description, pale yellow in this species, with numerous small dark spots evenly distributed, venter pale yellow. Spinnerets pale yellow. Palp as described for the genus, embolus sclerotized, flattened, relatively thin and long, curved to the prolateral side.

Female from Buenos Aires (GISA 1900) (Figures 2D, 4). Total length 6.05. Carapace length 2.20, width 1.40, height: 0.72. Length of the dorsal eye field 1.05. Width of the anterior eye row 1.16, posterior 1.17. Carapace low, beige to light brown with darker thoracic markings, covered with very small translucent scales, whitish and longer at the edges (Figures 4A-B). Thoracic slope, fovea and clypeus as generic description. Chelicera light brown, with one tooth on promargin and one tooth on retromargin. Labium,

endites, sternum, palps and legs beige to light brown. Femur I 1.15×0.69, II 0.90×0.40, III 0.90, IV 1.10. Patella I 0.70, II 0.52, III 0.45, IV 0.53. Tibia I 0.99×0.47, II 0.50, III 0.50, IV 0.78. Metatarsus I 0.70, II 0.41, III 0.50, IV 0.60. Tarsus I 0.40, II 0.33, III 0.40, IV 0.40. Abdomen length 3.60, width 1.47. Abdomen as described for the genus, pale yellow in this species, with numerous small dark spots evenly distributed, venter pale yellow. Spinnerets pale yellow. Epigyne: a small, sclerotized plate (Figure 2C); two copulatory openings (COs) open anteriorly like two slots; a small posterior coupling pocket inverted U-shaped. Copulatory ducts starting anteriorly in the COs and directed posteriorly; spermathecae small, not spherical, located posteriorly. Accessory glands and fertilization ducts visible (Figure 2D).

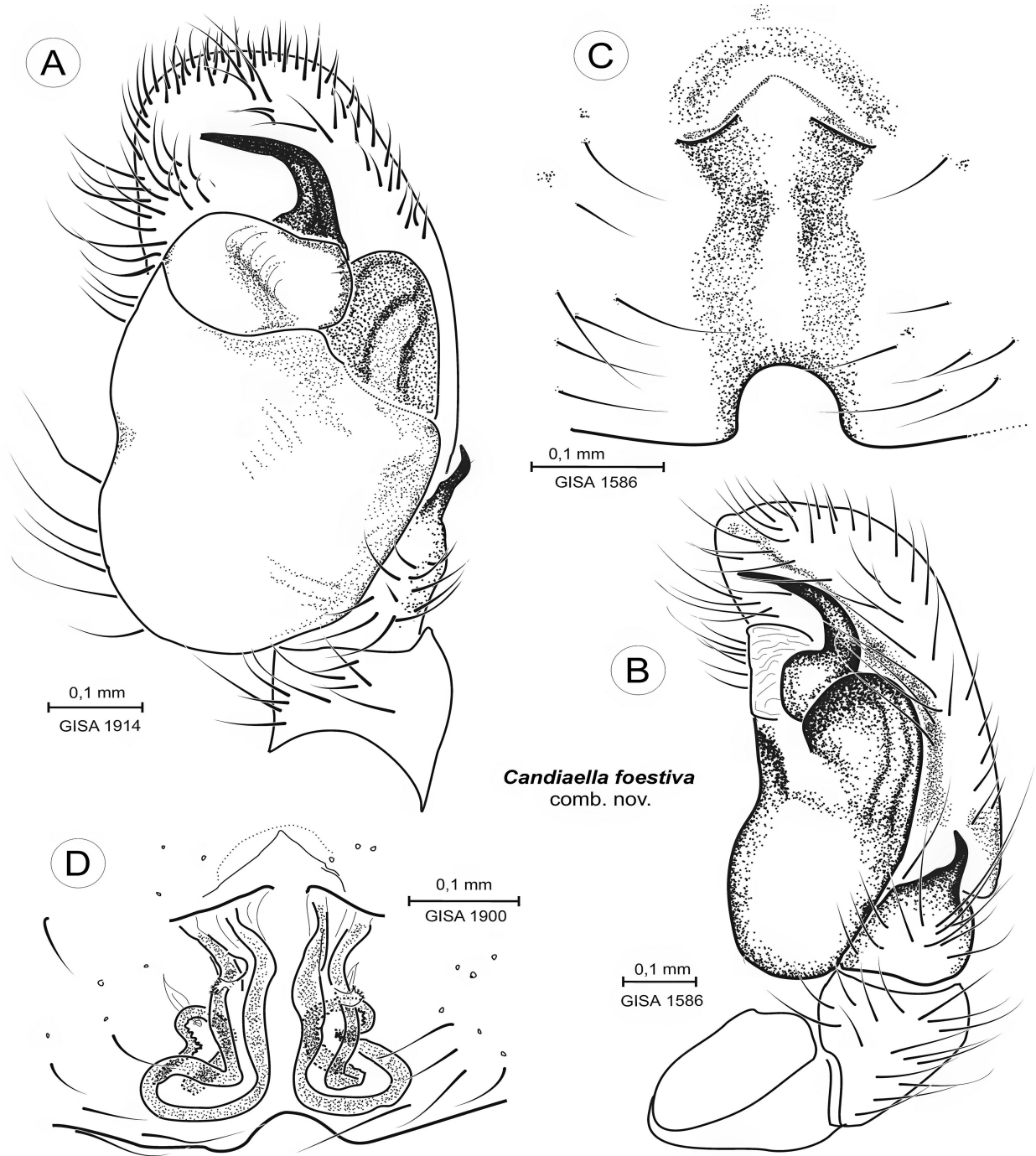


Figure 2. *Candiaella foestiva* (Mello-Leitão, 1944) **comb. nov.** **A,** Left palp male, ventral view (GISA 1914). **B,** Left palp male, retrolateral view (GISA 1586). **C,** Female epigyne, ventral view (GISA 1586). **D,** Female cleared epigyne, same view (GISA 1900).

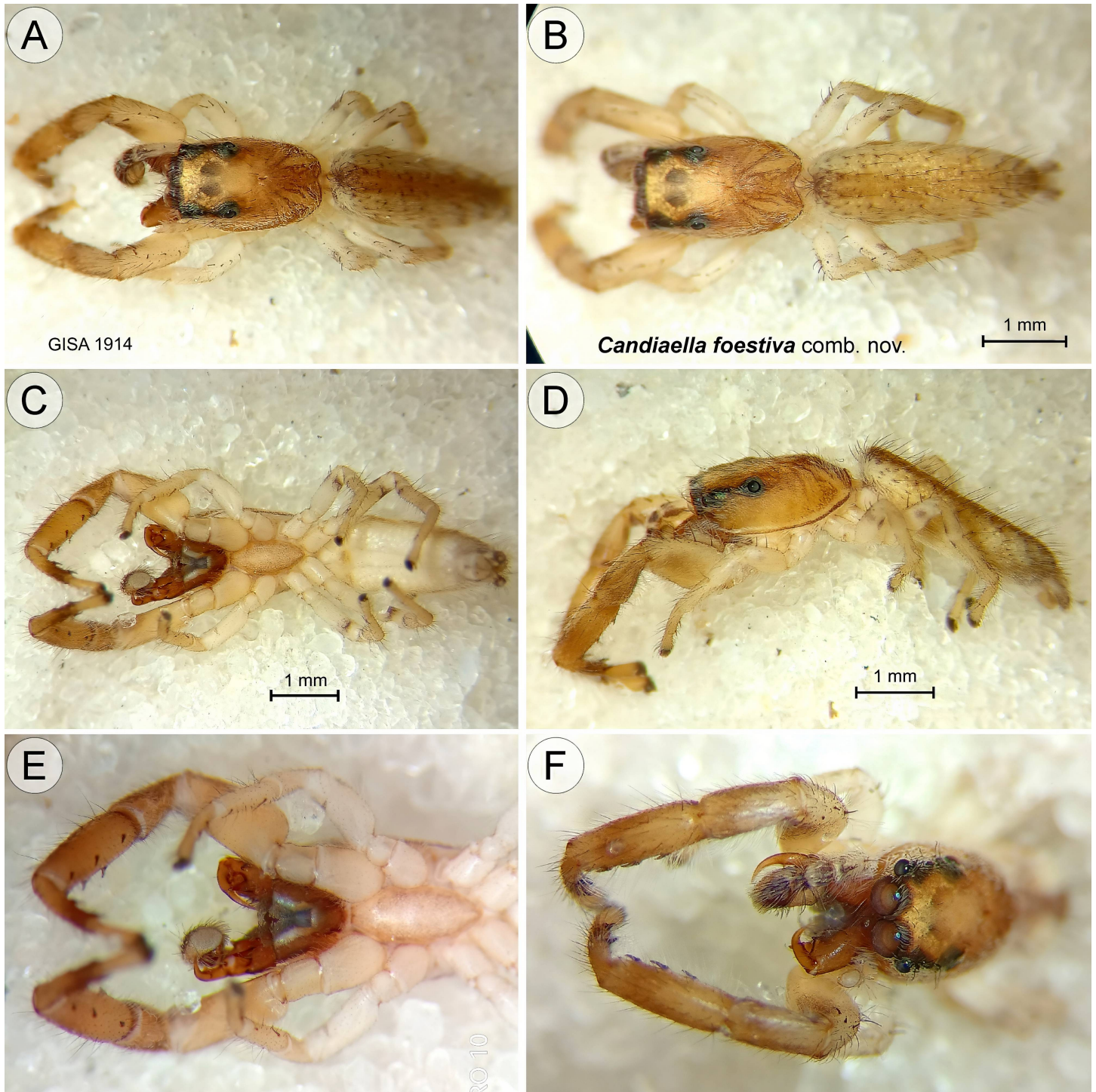


Figure 3. *Candiaella foestiva* (Mello-Leitão, 1944) **comb. nov.**, male (GISA 1914). **A-B**, Habitus, dorsal view. **C**, Same, ventral. **D**, Same, lateral. **E**, Chelicerae, detail in ventral view. **F**, Habitus, front dorsal view, detail.

Variation: some males are larger (total length 5.70, carapace length 2.20, width 1.58, abdomen length 3.22, width 1.21), more sclerotized and robust, with dark brown spinnerets and overall darker body coloration (e.g. GISA 1586).

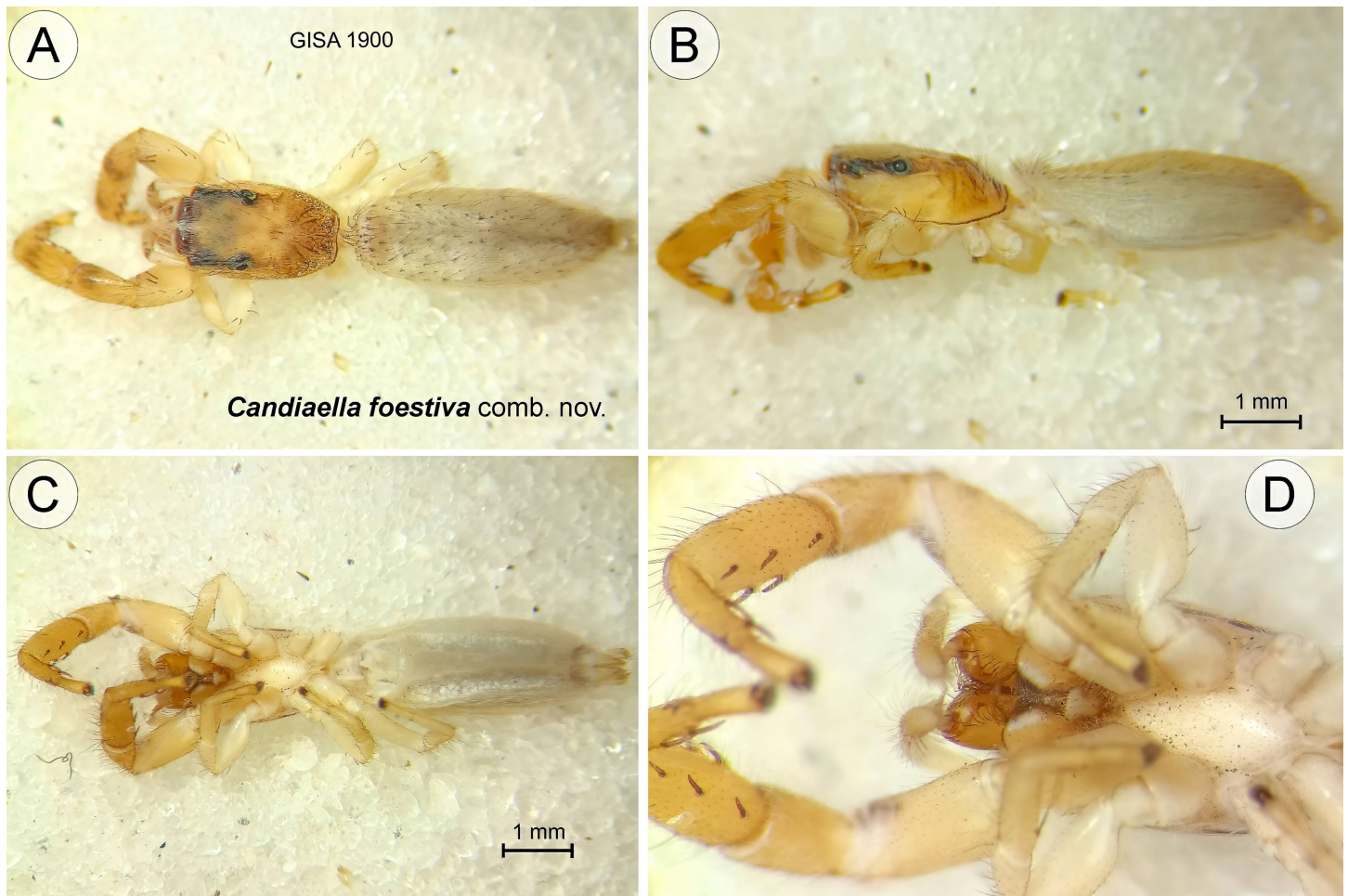


Figure 4. *Candiaella foestiva* (Mello-Leitão, 1944) **comb. nov.**, female (GISA 1900). **A**, Habitus, dorsal view. **B**, Same, lateral. **C**, Same, ventral. **D**, Chelicerae, detail in ventral view.

Natural history: *Candiaella foestiva* occurs in dry grasslands of the Pampas ecoregion in Buenos Aires Province and in the Southern Cone Mesopotamian Savanna of southern Misiones, Argentina. In Buenos Aires, specimens were collected on leaves of Pampas grass (Poaceae: *Cortaderia selloana*), where individuals were observed actively moving along the narrow, elongated blades. In Misiones, specimens were found in dry open grasslands dominated by tall native grasses, although the specific host plants were not recorded. The slender and elongate body form of *C. foestiva* is consistent with an adaptation to life on grass leaves, allowing individuals to move swiftly and remain concealed among the foliage. These habitats are characterized by open vegetation exposed to wind and direct sunlight.

Material examined: 2♀, ARGENTINA: Misiones, Candelaria, Reserva Natural Urutaú (S27.48024°, W55.79254°), 5 Feb 2021, leg. Rubio G., Baigorria J. & Stolar C. (GISA 1562); 1♂, same data (GISA 1576); 1♂, 1♀, same data (GISA 1586); 1♂, Buenos Aires, Reserva Provincial Santa Catalina (S34.77130°, W58.45375°), 27 Feb 2021, leg. De Magistris A. (GISA 1891); 1♀, same locality, 10 Jun 2021, same col. (GISA 1900); 1♀, same locality, 16 Feb 2021, same col. (GISA 1928); 1♂, Reserva Municipal Laguna San Vicente (S35.01099°, W58.42276°), 27 Oct 2022, same col. (GISA 1914).

Candiaella fasciata **sp. nov.**

Type material: Holotype ♂ (GISA 1842), ARGENTINA: Misiones, Candelaria, Santa Cecilia, S27.45888°, W55.71425°, December 2022, beating, J. E. Baigorria leg. Paratype ♀ (GISA 2016), same data, 19 March 2023.

Diagnosis: Male of *Candiaella fasciata* **sp. nov.** can be easily distinguished from that of *C. foestiva* by having a shorter, thicker, and less flattened embolus (Figures 5A, 5D, 8B-C). The female is also easily distinguished by having the copulatory opening laterally directed, copulatory ducts that are slightly shorter than in *C. foestiva*, and a coupling pocket that is less pronounced (Figures 5E-F, 8A). In live males, *C. fasciata* **sp. nov.** differs from *C. foestiva* by having a continuous white anterior dorsal band on the abdomen, and by lacking the dark tuning fork-shaped mark on the carapace. In both sexes, the white tiger-striped pattern is conspicuous (Figures 1G-H).

Etymology: The specific epithet *fasciata* (Latin for "banded") refers to the distinct oblique white bands on the abdomen of both sexes.

Description: Male from Misiones (holotype) (Figures 1G, 5A-B, 6). Total length 4.80. Carapace length 2.00, width 1.29, height 0.65. Length of the dorsal eye field 0.90. Width of the anterior eye row 1.00, posterior 1.08. Carapace low, brownish mahogany, darker at the edges, covered with very small whitish translucent scales, and some sparse black hairs (Figure 6A). Thoracic slope, fovea and clypeus as generic description. Chelicera dark brown, with one tooth on the promargin and a large retromarginal tooth. Labium, endites, sternum, palps and legs as described for the genus. Femur IV with a dark brown transverse stripe. The left leg I was regenerated. Femur I 1.20×0.65, II 0.80×0.32, III 0.70, IV 1.00. Patella I 0.83, II 0.51, III 0.40, IV 0.51. Tibia I 1.00×0.45, II 0.60, III 0.45, IV 0.80. Metatarsus I 0.60, II 0.31, III 0.41, IV 0.60. Tarsus I 0.40, II 0.31, III 0.31, IV 0.40. Abdomen length 2.90, width 0.99. Abdomen as in generic description, reddish mahogany in this species, with numerous small dark spots evenly distributed, venter light brown. Spinnerets pale yellow and grayish brown (posterior lateral). Palp as described for the genus, embolus sclerotized, flattened, relatively wide and short, curved to the prolateral side.

Female from Misiones (paratype) (Figures 1H, 5F, 7). Total length 5.41. Carapace length 2.00, width 1.25, height 0.77. Length of the dorsal eye field 0.90. Width of the anterior eye row 1.05, posterior 1.10. Carapace low, light brown, yellowish, with two darker thoracic markings, covered with small, sparse dark hairs (Figure 7A). Thoracic slope, fovea and clypeus as in generic description. Chelicera beige, vertical, with one tooth on promargin and one tooth on retromargin. Labium, endites, sternum, palps and legs pale yellow to beige. Femur I 1.00×0.63, II 0.72×0.35, III 0.70, IV 1.00. Patella I 0.70, II 0.52, III 0.45, IV 0.50. Tibia I 0.90×0.41, II 0.40, III 0.45, IV 0.70. Metatarsus I 0.55, II 0.40, III 0.42, IV 0.60. Tarsus I 0.40, II 0.32, III 0.30, IV 0.40. Abdomen length 3.40, width 1.28. Abdomen as described for the genus, pale yellow in this species, with numerous small dark spots evenly distributed, venter pale yellow. Spinnerets pale yellow. Epigyne small plate, sclerotized, with two copulatory openings (COs) that open laterally, and a small posterior coupling pocket inverted U-shaped. Copulatory ducts start anteriorly in the COs and are directed posteriorly; spermathecae small, not spherical, located posteriorly. Accessory glands visible (Figure 5F).

Variation and remark: Two specimens have variations that are considered intraspecific here (MACN-Ar 28593, 48125); however, they could be interpreted as interspecific differences in the future if additional material becomes available: palp with a swelling at the base of the embolus, like a hump (Figure 8B), more closed copulatory openings, forming a more perfect semicircle (Figure 8A).

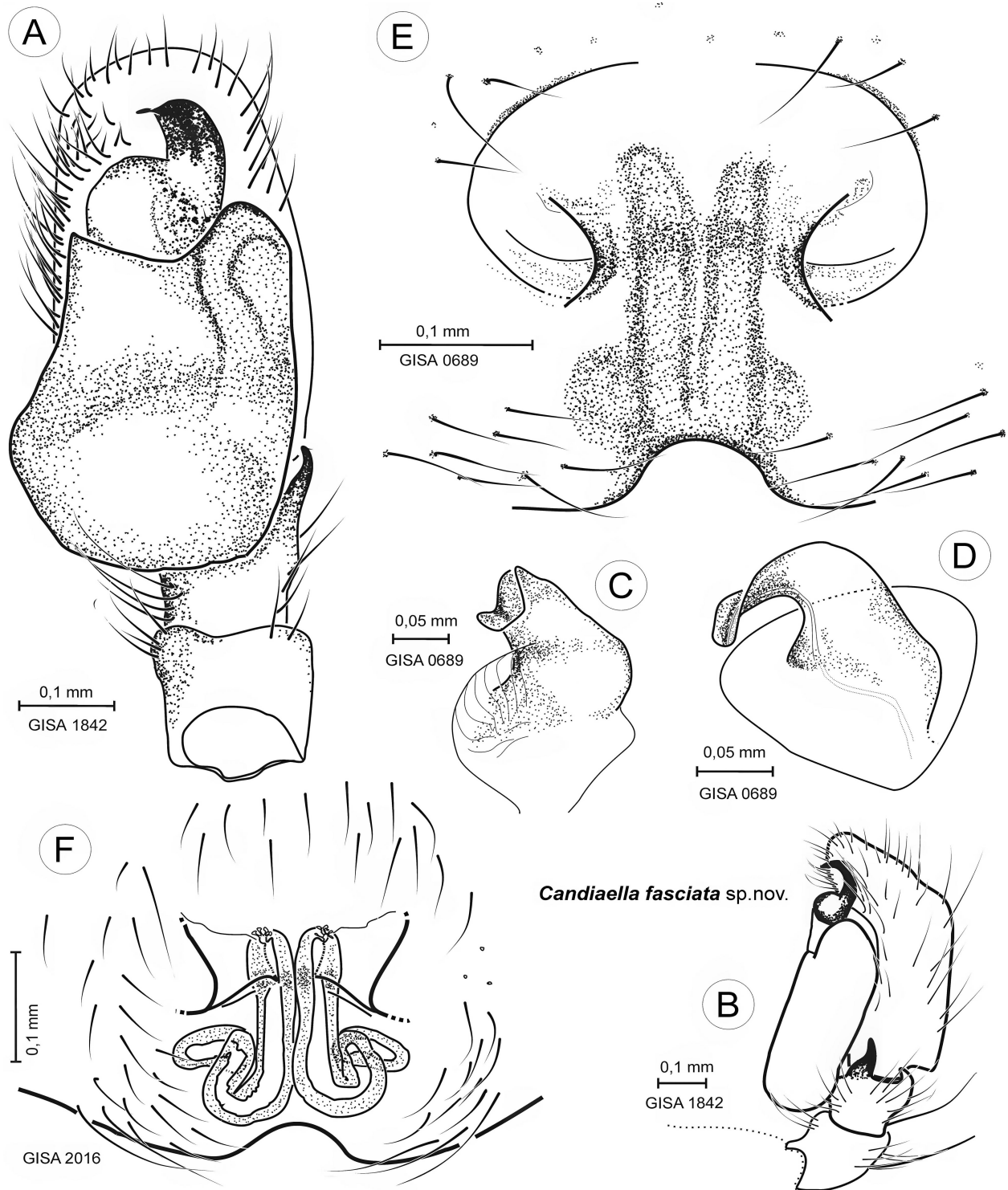


Figure 5. *Candiaella fasciata* sp. nov. **A**, Left palp male, ventral view (holotype). **B**, Same, retrolateral view. **C**, detail of embolus (GISA 0689) in ventral view. **D**, Same, retrolateral view. **E**, Female epigyne, ventral view (GISA 0689). **F**, Female cleared epigyne, same view (paratype).

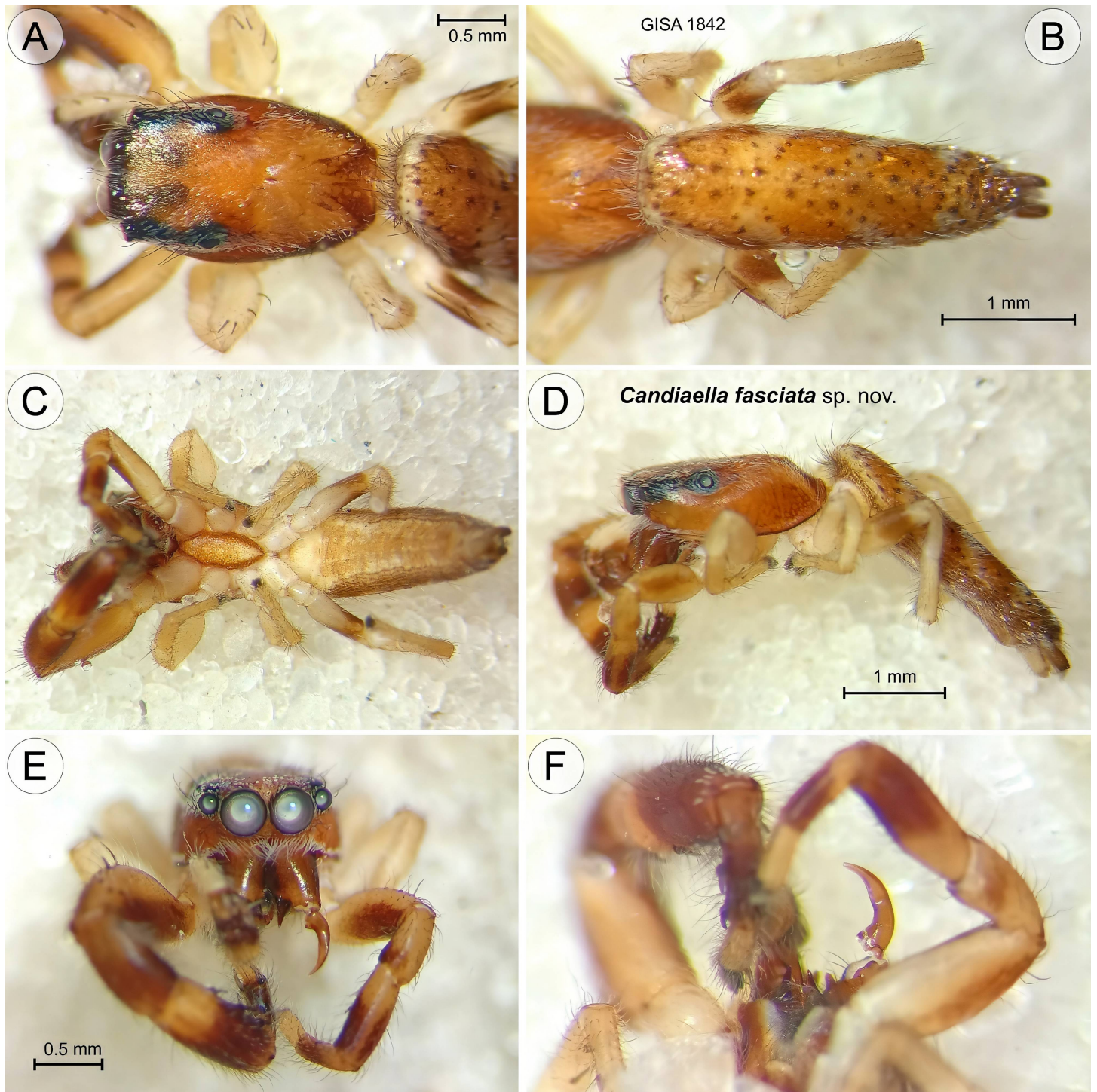


Figure 6. *Candiaella fasciata* sp. nov., male (holotype). **A-B**, Habitus, dorsal view. **C**, Same, ventral. **D**, Same, lateral. **E**, Frontal habitus. **F**, Chelicerae, detail in ventral view.

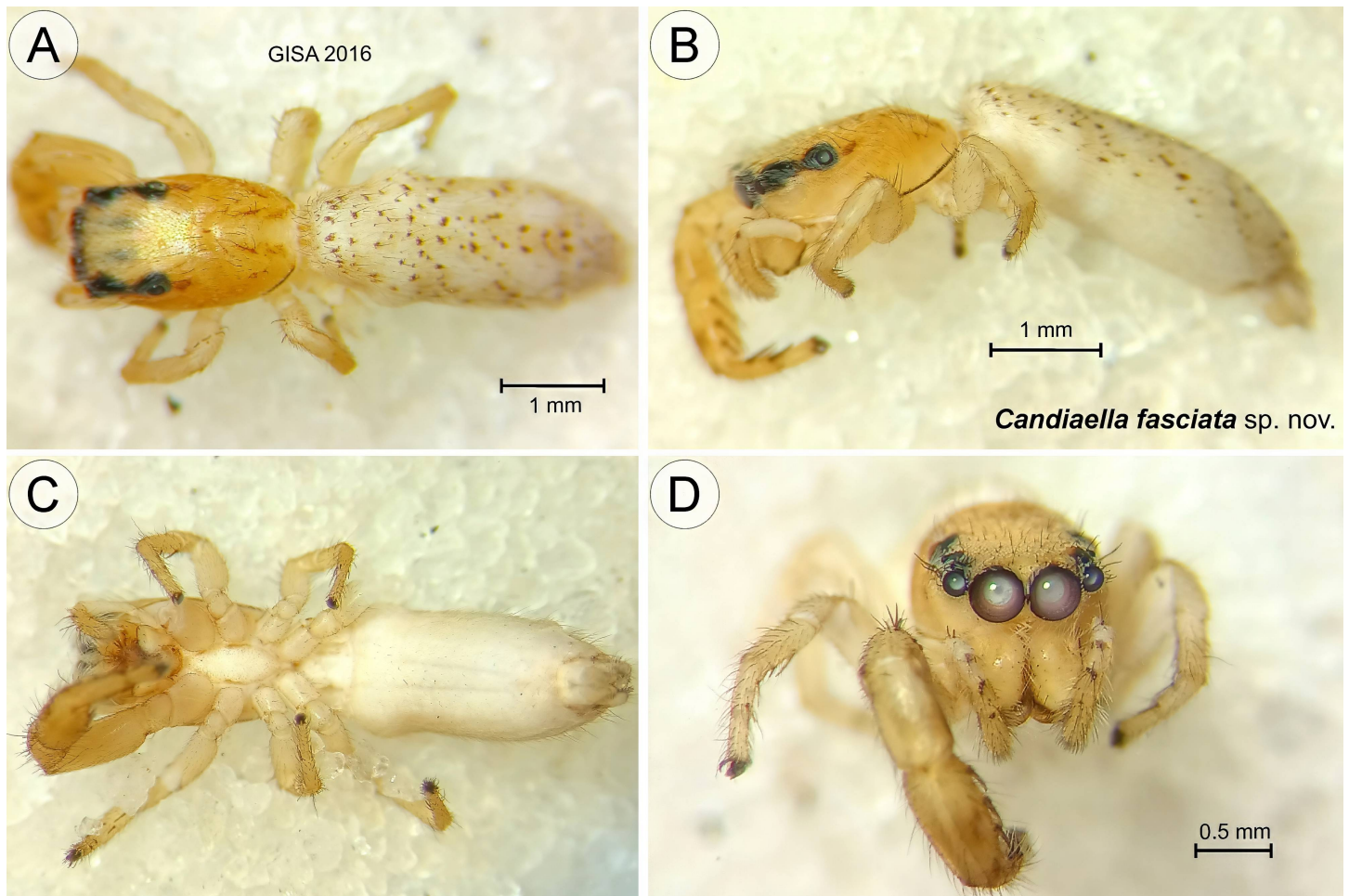


Figure 7. *Candiaella fasciata* **sp. nov.**, female (paratype). **A**, Habitus, dorsal view. **B**, Same, lateral. **C**, Same, ventral. **D**, Frontal habitus.

Natural history: *Candiaella fasciata* **sp. nov.** inhabits humid and seasonally flooded grasslands in northeastern and central Argentina, including southern Misiones, northern Corrientes, Entre Ríos, and Santa Fe Provinces, within the Southern Cone Mesopotamian Savanna and adjacent wet grasslands associated with the Iberá wetlands. All examined specimens were collected in wet grasslands, often near marshes or seasonally inundated areas, on grassy vegetation, although the specific host plants were not identified. As in *C. foestiva*, the species exhibits an elongate body form, which may represent a shared morphological trait within the genus associated with life on grass blades.

Other material examined: 1♂, 1♀, ARGENTINA: Corrientes, Reserva Natural Iberá, Carlos Pellegrini (S28.54542°, W57.19821°), 20 Dec 2004, leg. Rubio G. (GISA 0689); 1♀, Reserva Natural Iberá, San Miguel, San Juan Poriahú (S27.69854°, W57.20944°), 28 Nov 2013, leg. Avalos G. (GISA 0792, gdr4196); 1♂, Santa Fe, General Obligado, Berna, arroyo Palmar (S29.28622°, W59.85483°), 5 Jun 2011, leg. Rubio G., Piacentini L. & Izquierdo M. (MACN-Ar 28593); 1♀, Entre Ríos, Uruguay, Gualeguaychú, río Gualeguaychú cruce c/ R14, 29 km N de Gualeguaychú (S32.75303°, W58.48709°), 20 May 2014, leg. Ramírez, Piacentini, Ceccarelli, Magalhaes & Barone (MACN-Ar 48125).

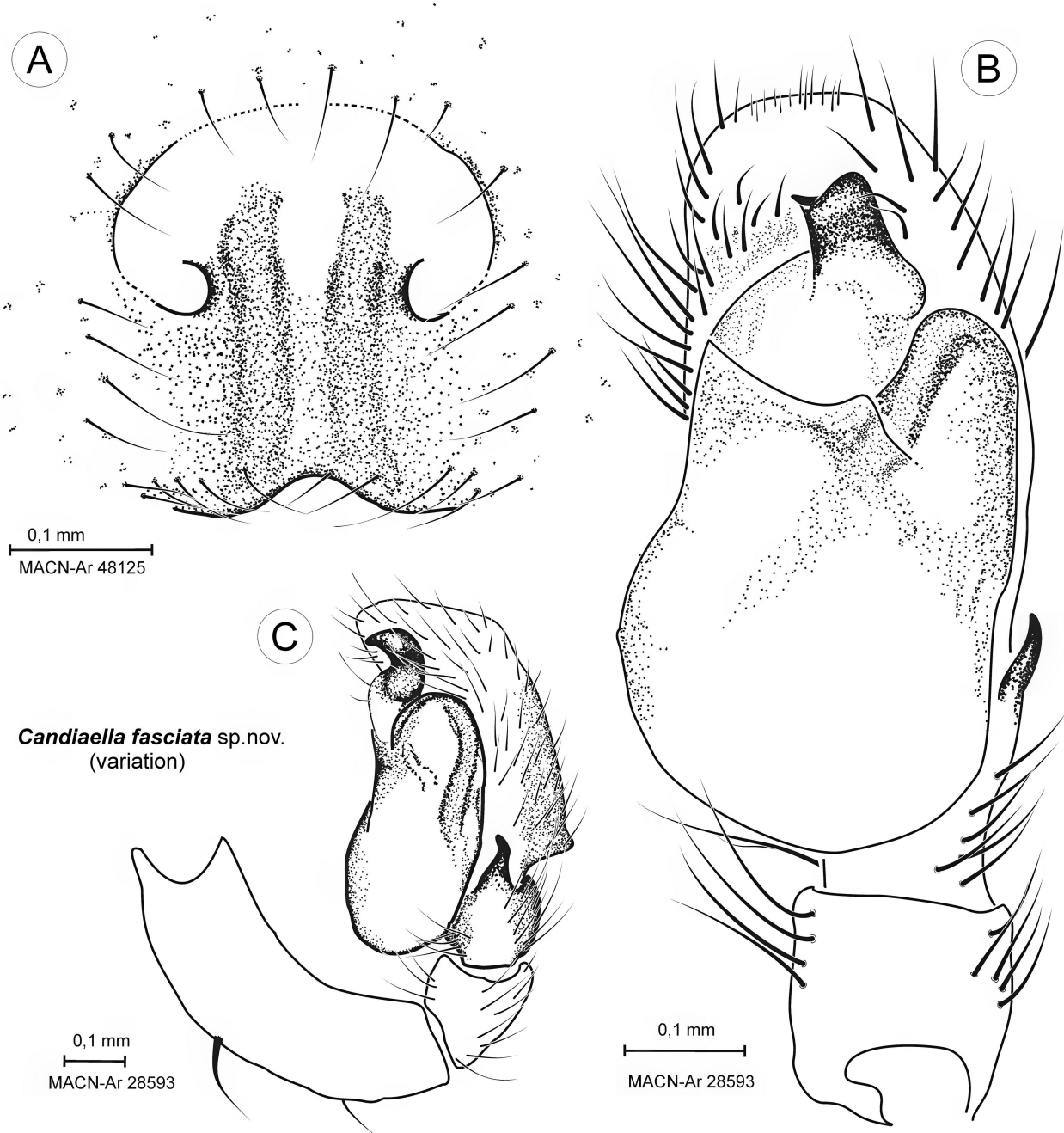


Figure 8. *Candiaella fasciata* **sp. nov.**, variation. **A**, Female epigyne, ventral view (MACN-Ar 48125). **B**, Left palp male, ventral view (MACN-Ar 28593). **C**, Same, retrolateral view.

Discussion

The establishment of *Candiaella* **gen. nov.** underscores the importance of detailed morphological analysis in the systematics of Neotropical Salticidae. The newly described species and the reassigned *C. foestiva* share a distinctive suite of characters that separates them from the Amazonian *S. acuminata* and reflects adaptations to open grassland environments.

The recognition of *Candiaella* **gen. nov.** is based upon a consistent combination of somatic and genital characters revealed through direct comparison with type species of potentially related genera within Dendryphantini. While the reader may notice that the holotype of *Stenodeza acuminata* is a subadult, our diagnosis is not based solely on this juvenile specimen. It relies on the redescription by María Elena Galiano (1963) and our own examination of adult comparative material (MACN-Ar 8874; Figure 9) identified by her. This material provides a reliable basis for differentiating genitalic characters, such as the long, parallel copulatory ducts in *Candiaella* **gen. nov.** versus the short, curved ducts in *Stenodeza*. Furthermore, the distinction is supported by somatic traits observable independently of maturity, notably the tibial spination pattern (2-2-2 vs 2-2-2-2), which serves as a robust diagnostic separator even for subadults.



Figure 9. Female *Stenodeza acuminata* Simon, 1900 identified by Galiano (MACN-Ar 8874). **A**, Habitus in dorsal view. **B**, same, ventral view. **C**, Female epigyne, external ventral view. **D**, Chelicerae in ventral view.

Regarding broader affinities, examination of these taxa confirms that the Argentine species treated here share a unique configuration of genital structures and somatic traits not present in *Stenodeza*, *Empanda*, or *Semorina*. Although some Neotropical species have historically been assigned to *Dendryphantes*, the type species of that genus is Palaearctic, and several South American species currently placed there likely represent multiple unrelated lineages (review in progress). The species treated here clearly differ from the type species of *Dendryphantes* and are therefore not assignable to that genus. Comparisons with genera such as *Itata* and *Marpissa* further confirm the uniqueness of *Candiaella* **gen. nov.**, as their genital morphologies are significantly different. While molecular data will undoubtedly provide further phylogenetic insights, the substantial morphological evidence documented here—differentiating the related dendryphantines—justifies the recognition of a separate genus.

The elongate body shape and parallel copulatory ducts are likely adaptations to life among grasses; specifically, the internal lengthening and alignment of the ducts correlate with the overall elongation of the body and epigynal plate, facilitating a streamlined morphology essential for crypsis and movement on narrow leaf blades. Similar grass-associated morphologies occur in other salticid lineages but are not indicative of close relationships, suggesting convergent adaptation to grassland habitats. *Candiaella* **gen. nov.** thus, appears to represent a distinct grass-associated lineage within Dendryphantini.

The placement of *Stenodeza fallax* Mello-Leitão, 1917 remains uncertain due to the loss of its type specimen in the fire of the National Museum of Rio de Janeiro (Silva Moreira et al. 2010); however, based on Mello-Leitão's original description, it may be synonymous with *Naubolus posticatus* Simon, 1901.

Our findings highlight the underexplored diversity of South American grassland spiders and reinforce the need for further taxonomic and ecological studies in these environments.

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References

- C. L. Koch 1837.** Übersicht des Arachnidensystems. Heft 1. C. H. Zeh'sche Buchhandlung, Nürnberg, 39 pp., pl. 1–6. doi: 10.5962/bhl.title.39561
- Edwards 2015.** G. B. Edwards. 2 Nov 2015. Freyinae, a major new subfamily of Neotropical jumping spiders (Araneae: Salticidae). *Zootaxa* 4036 (1): 1–87. doi: 10.11646/zootaxa.4036.1.1.
- Galiano 1963.** María Elena Galiano. 15 Apr 1963. Las especies americanas de arañas de la familia Salticidae descritas por Eugène Simon. Redescripciones basadas en los ejemplares típicos. *Physis, Revista de la Sociedad Argentina de Ciencias Naturales (C)* 23 (68): 273–470.
- Levi 1965.** Herbert W. Levi. Techniques for the study of spider genitalia. *Psyche* 72: 152–158.
- Maddison 1996.** Wayne P. Maddison. *Pelegrina* Franganillo and other jumping spiders formerly placed in the genus *Metaphidippus* (Araneae: Salticidae). *Bulletin of the Museum of Comparative Zoology* 154: 215–368.
- Mello-Leitão 1917.** Dr. Mello-Leitão. Dec 2017. Aranhas novas ou pouco conhecidas de Thomisidas e Salticidas brasileiras. *Archivos da Escola Superior de Agricultura e Medicina Veterinária, Rio de Janeiro* 1: 117–153.

- Mello-Leitão 1944.** Cândido de Mello-Leitão. Arañas de la provincia de Buenos Aires. Revista del Museo de La Plata (N.S., Zool.) 3: 311–393.
- Metzner 2026.** Dr. Heiko Metzner. Jumping spiders (Arachnida: Araneae: Salticidae) of the world. Accessed 29 June 2026. Online at <https://www.jumping-spiders.com>
- Olson et al. 2001.** David M. Olson, Eric Dinerstein, Eric D. Wikramanayake, Neil D. Burgess, George V. N. Powell, Emma C. Underwood, Jennifer A. D'Amico, Illanga Itoua, Holly E. Strand, John C. Morrison, Colby J. Loucks, Thomas F. Allnutt, Taylor H. Ricketts, Yumiko Kura, John F. Lamoreux, Wesley W. Wettengel, Prashant Hedao, Kenneth R. Kassem. Nov 2001. Terrestrial ecoregions of the world: A new map of life on Earth. BioScience 51: 933–938.
- Peckham & Peckham 1885.** G. W. and E. G. Peckham. Dec 1885. On some new genera and species of Attidae from the eastern part of Guatemala. Proceedings of the Natural History Society of Wisconsin 1885: 62–86.
- Pickard-Cambridge 1901.** Frederick O. Pickard-Cambridge. 1897-1905. Arachnida. Araneidea and Opiliones. Vol. II. In: Biologia Centrali-Americana. Taylor and Francis, London 193–312. doi: 10.5962/bhl.title.730
- Ramírez 2014.** Martín J. Ramírez. 27 Jun 2014. The morphology and phylogeny of dionychan spiders (Araneae: Araneomorphae). Bulletin of the American Museum of Natural History 390: 1–374.
- Rubio et al. 2025.** G. D. Rubio, M. S. Almada, J. E. M. Baigorria. 2025. A new species of the genus *Jollas* Simon, 1901 (Araneae: Salticidae) from Argentina. Far Eastern Entomologist 535: 1–8. doi: 10.25221/fee.535.1
- Silva Moreira et al. 2010.** Thiago da Silva Moreira, Renner L. C. Baptista, Adriano B. Kury, Alessandro P. L. Giupponi, Erica H. Buckup, Antonio D. Brescovit. 31 Aug 2010. Annotated check list of Arachnida type specimens deposited in the Museu Nacional, Rio de Janeiro. II–Araneae. Zootaxa 2588: 1–91. doi: 10.11646/zootaxa.2588.1.1
- Simon 1900.** Eugène Simon. Études arachnologiques. 30e Mémoire. XLVII. Descriptions d'espèces nouvelles de la famille des Attidae. Annales de la Société Entomologique de France 69: 27–61.
- Simon 1901.** Eugène Simon. Histoire naturelle des araignées. Deuxième édition, tome second. Roret, Paris, 381–668. doi: 10.5962/bhl.title.51973.
- Simon 1903.** Eugène Simon. Histoire naturelle des araignées. Deuxième édition, tome second. Roret, Paris, 669–1080. doi: 10.5962/bhl.title.51973.
- Żabka 1997.** Marek Żabka. Salticidae: Pająki skaczące (Arachnida: Araneae). Fauna Polski 19: 1–188.