

# Revision of the Neotropical spider genus *Berlandiella* (Araneae, Philodromidae)

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**ABSTRACT.** The spider genus *Berlandiella* Mello-Leitão, 1929 is revised and the three known species, *Berlandiella insignis* Mello-Leitão, 1929 (Rio de Janeiro), *B. magna* Mello-Leitão, 1929 (Pernambuco, Minas Gerais, Rio Grande do Sul), and *B. polyacantha* Mello-Leitão, 1929 (Rio de Janeiro, São Paulo), are redescribed and illustrated. Lectotypes for *Berlandiella insignis*, *B. magna* and *B. polyacantha* are designated. Descriptions and illustrations of three new species are presented: *B. robertae* sp. nov. (Brazil and Argentina), *B. meridionalis* sp. nov. (Brazil) and *B. querencia* sp. nov. (Brazil). The geographical distribution of the representatives of the genus is presented.

**KEYWORDS.** New species, morphology, systematics.

**RESUMO.** Revisão do gênero neotropical de aranhas *Berlandiella* (Araneae, Philodromidae). O gênero *Berlandiella* Mello-Leitão, 1929 é revisado e as três espécies conhecidas, *Berlandiella insignis* Mello-Leitão, 1929 (Rio de Janeiro), *B. magna* Mello-Leitão, 1929 (Pernambuco, Minas Gerais, Rio Grande do Sul) e *B. polyacantha* Mello-Leitão, 1929 (Rio de Janeiro, São Paulo) são redescritas e ilustradas. Lectótipos para *Berlandiella insignis*, *B. magna* e *B. polyacantha* foram designados. Descrições e ilustrações de três espécies novas são apresentadas: *B. robertae* sp. nov. (Brasil e Argentina), *B. meridionalis* sp. nov. (Brasil) e *B. querencia* sp. nov. (Brasil). É apresentado um mapa com a distribuição geográfica do gênero.

**PALAVRAS-CHAVE.** Espécies novas, morfologia, sistemática.

Philodromidae Thorell, 1870 comprises 536 species distributed in 29 genera (PLATNICK, 2011) from which 17 genera are found in the Neotropical region: *Apollophanes* O. P.-Cambridge, 1898, *Bacillocnemis* Mello-Leitão, 1938 (monotypic, Argentina), *Berlandiella* Mello-Leitão, 1929, *Cleocnemis* Simon, 1886, *Ebo* Keyserling, 1884, *Eminella* Özdikmen, 2007, *Fageia* Mello-Leitão, 1929, *Gephyrellula* Strand, 1932, *Gephyrina* Simon, 1895, *Metacleocnemis* Mello-Leitão, 1929, *Paracleocnemis* Schiapelli & Gerschman, 1942, *Petricus* Simon, 1886, *Philodromops* Mello-Leitão, 1943, *Philodromus* Walckenaer, 1826, *Procleocnemis* Mello-Leitão, 1929, *Thanatus* C. L. Koch, 1837 and *Tibellus* Simon, 1875.

Philodromidae is generally accepted today as a member of Dionycha and this position has been corroborated by a recent study of molecular phylogeny by BENJAMIN *et al.* (2008), which indicated that philodromids may fall at the root of Dionycha. While the family status of Philodromidae have not been thoroughly investigated within a modern phylogenetic framework (MUSTER, 2009).

Since this is the first taxonomic revision of a Philodromidae genus, despite the occurrence of several other ones, with several known species throughout the Neotropical genera, still there are very few papers regarding its taxonomic placement and ecology.

The genus *Berlandiella* was proposed by MELLO-LEITÃO (1929) and includes three species: *Berlandiella insignis* (type species), *B. magna* and *B. polyacantha* (PLATNICK, 2011). Since the original description, no other study was carried out with the representatives of this genus. The spiders of this genus resemble the ones of

*Cleocnemis* Simon, 1886 and *Paracleocnemis* Schiapelli & Gerschman, 1942 by the general body aspect, but can be distinguished by the absence of scopulae on the tarsi and metatarsi.

Concerning the natural history of the representatives of this genus, little is known, but they are usually collected with beating tray on bushes and in the lower vegetation in well preserved forests in Brazil. In Rio Grande do Sul, they were collected especially in the highland forests, with an average of 900 meters of altitude (field observations).

In this work we redescribe the three known species, *B. insignis*, *B. magna* and *B. polyacantha* and describe three new taxa from Brazil and Argentina. Illustrations of the species are also given.

## MATERIAL AND METHODS

The material examined belongs to the following collections: IBSP, Instituto Butantan, São Paulo, Brazil (A. D. Brescovit); MCN, Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brazil (E. H. Buckup); MCTP, Museu de Ciências e Tecnologia da Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil (A. A. Lise); MNHN, Museum National d'Histoire Naturelle, Paris, France (C. Rollard); MPEG, Museu Paraense Emílio Goeldi, Belém, Brazil (A. B. Bonaldo) and UBTU, Universidade Estadual Paulista, Botucatu, Brazil (I. M. P. Rinaldi). All measurements are in millimeters. To study the internal structure of the epigynum, the soft tissues were removed by a combination of dissection with a small surgical blade and immersion in trypsin

for 24 hours at 25°C. Illustrations were made using a stereomicroscope equipped with camera lucida. The scanning electron micrographs (SEM) were made at Centro de Microscopia e Microanálises (CEMM) of Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS). The description format follows LISE (2005). Nomenclature of male and female genitalia is modified from MUSTER (2009). Abbreviations related to eye measurements: PLE, diameter of posterior lateral eye; PME, diameter of posterior median eye; ALE, diameter of anterior lateral eye; AME, diameter of anterior median eye; MOQ, median ocular quadrangle; PLE-PME, interdistance between posterior lateral eye and posterior median eye; PME-PME, interdistance between posterior median eyes; ALE-AME, interdistance between anterior lateral eye and anterior median eye; AME-AME, interdistances between anterior median eyes.

### *Berlandiella* Mello-Leitão, 1929

*Berlandiella* MELLO-LEITÃO, 1929:107, 122, 260, 264, 265; ROEWER, 1955:767; BONNET, 1955:877; PLATNICK, 2011.

Type species. *Berlandiella insignis* Mello-Leitão, 1929, by original designation.

Diagnosis. The representatives of this genus are similar to the representatives of *Cleocnemis* Simon, 1886 and *Paracleocnemis* Schiapelli & Gerschman, 1942 by the general body aspect but differ from them by the absence of scopulae on the tarsi and metatarsi and from all other Philodromidae by the combination of the following characters: carapace slightly higher than in *Philodromus* (*Rhysodromus*) (MUSTER, 2009, fig. 10), labium wider than long not reaching the middle of the endites, slightly parallel, apically rounded, excavated on the margins, on the point of articulation with the palpus (Figs 3, 5). Legs relatively shorter than the ones of the other genera densely covered with bristles (Figs 2, 8, 26, 52, 77, 100). Metatarsi and tarsi not scopulated (Figs 44, 75). Tarsi with dense claw tufts of spatulate setae (Fig. 76).

Description. Female total length from 4.11 to 5.50, males from 3.57 to 3.85. Carapace high, convex, slightly longer than wide, cephalic region narrow (Figs 2, 8, 26, 52, 77, 100). Tegument with feathery setae and almost vertical macrosetae, directed forward (Fig. 42). Laterals with a large brown band at each side separated by a wide central yellow longitudinal band. Chelicerae covered with bristles, promargin of the fang furrow with two teeth, the apical one largest. Clypeus vertical, slightly lower than the height of the length of the MOQ, with marginal and anterior bristles (Figs 4, 10, 33, 54, 79, 102). Labium wider than long not reaching the middle of the endites (Figs 5, 11, 28, 55, 80, 103). Endites slightly parallel, apex rounded excavated on the retrolateral margin, on the insertion of the palpus (Figs 5, 11, 28, 55, 80, 103). Sternum cordiform, covered with bristles, with many small purplish-brown spots forming one band

at each side, central region usually yellow. Eye rows recurved, the anterior more recurved and the posterior wider (Figs 4, 10, 33, 54, 79, 102). Anterior lateral eyes of same diameter as the anterior median ones, these closer to each other than to the laterals. Posterior median eyes smaller than the posterior lateral ones, closer to each other than to the laterals. Medial ocular quadrangle (MOQ) slightly longer than wide, narrower in front. Legs relatively shorter than the ones of the representatives of other genera of Philodromidae (Figs 2, 8, 26, 52, 77, 100). All leg segments with many spine-like bristles. Tibia and metatarsus with paired macrosetae on the ventral face, more numerous on the tibiae, metatarsi shorter than tibiae. Metatarsi and tarsi without scopula (Figs 44, 75). Tarsus with a dense claw tufts, claws with few strong and short teeth (Fig. 76). Tarsal organ salient, surface normally with circular striated and elliptical openings (Fig. 45). Trichobothria projected, with a very conspicuous hood encircling almost 180° of the margin of the bothrium (Figs 43, 72-74), surface striate, opening elliptical (Fig. 74). Abdomen longer than wide, slightly widened on the posterior third, covered by feathery decumbent setae and strong spiniform curved bristles, disposed on longitudinal lines, pointing backward (Figs 2, 8, 26, 52, 77, 100). Cymbium of male palpus covered with bristles; tegulum swollen; embolus short and curved, wider on the base, emerging from the apex of the tegulum (Figs 17, 35, 62, 81). Tibia with a prominent retrolateral tibial apophysis (RTA) (Figs 23, 48-51, 69, 70, 93-96). Female epigynum weakly demarked (Figs 24, 40, 97, 98). Spermathecae bulky, normally kidney shaped or elliptical, with glandular head (GH) (Figs 25, 41, 99, 107).

Distribution. Southern South America (Argentina, Brazil) (Fig. 1).

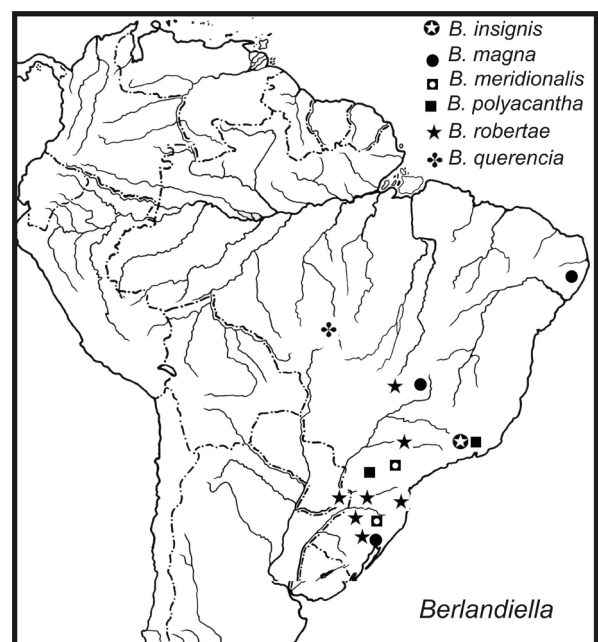
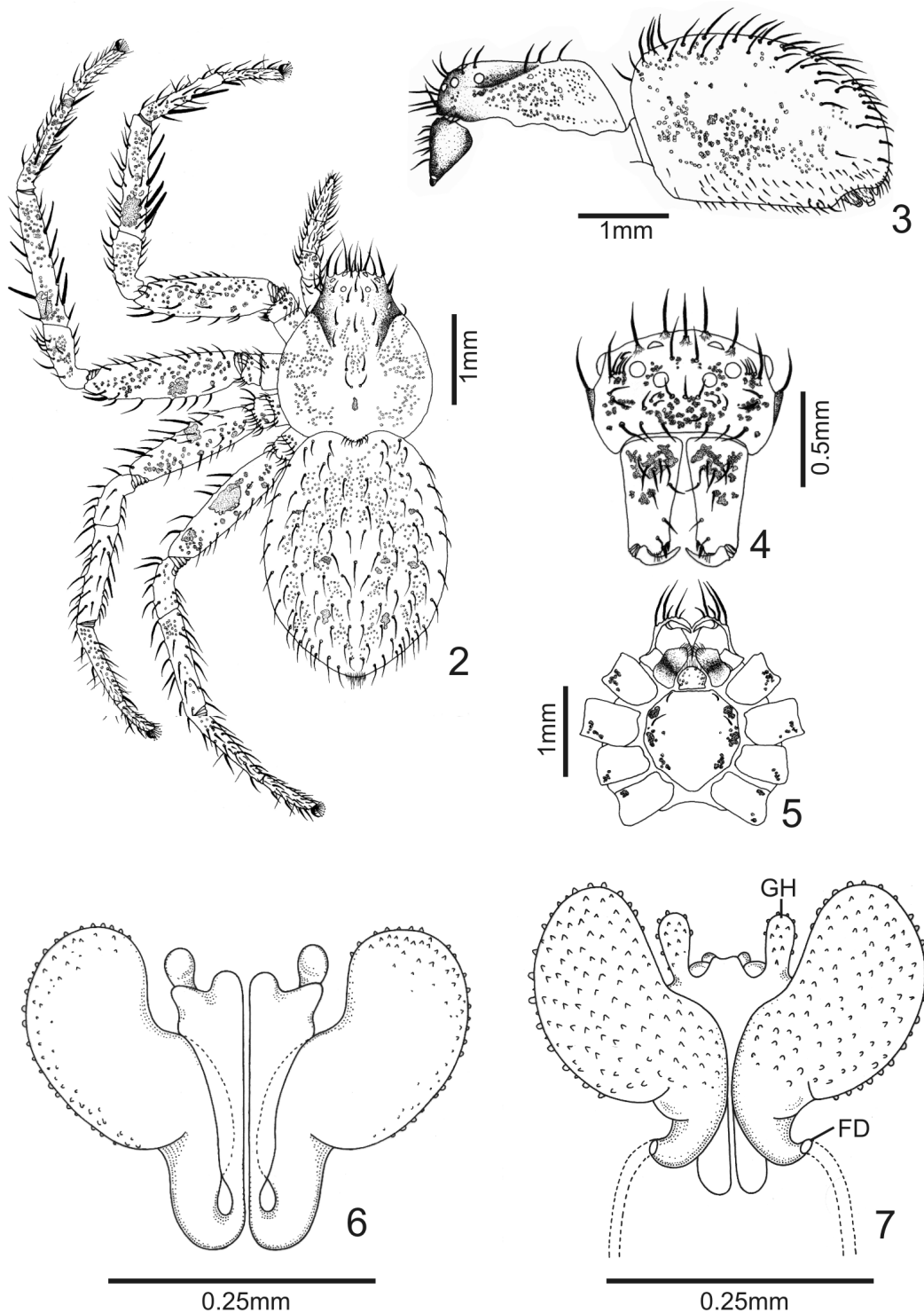


Fig. 1. Distribution of species of *Berlandiella* Mello-Leitão, 1929.



Figs. 2-7. *Berlandiella insignis* Mello-Leitão, 1929. Female habitus: 2, dorsal; 3, lateral; 4, frontal; 5, ventral. Epigynum: 6 ventral, 7, dorsal (FD, fertilization duct; GH, glandular head).

***Berlandiella insignis* Mello-Leitão, 1929**

(Figs 1-7)

*Berlandiella insignis* MELLO-LEITÃO, 1929:123; ROEWER, 1955:767; BONNET, 1955:877; PLATNICK, 2011.

Type material. Lectotype (present designation) female from Teresópolis, Rio de Janeiro, Brazil (MNHN 17298); two female paralectotypes (MNHN 17298) (examined).

Note. In the original description of the genus, MELLO-LEITÃO (1929) described the male of *B. insignis*, but this material was not found together with the females, in the same vial and so, could not be examined and should be considered as lost.

Diagnosis. The female of *B. insignis* can be distinguished from the other females of the genus by the general shape of the carapace and by the small pointed projections on the surface of the spermathecae (Figs 6, 7).

**Description.** Female (lectotype). Total length 4.50. Carapace scarcely longer than wide, wider on the level of legs III; with a wide median yellow band stippled with some small black spots (Figs 2, 3). On each side of this yellow median band there is a wide area irregularly sprinkled with dense black spots (Figs 2, 3). Cephalic region narrower, 1.85 long, 1.62 wide, 1.12 high (Fig. 2). Tegument with large strong curved bristles. Chelicerae 0.62 long, 0.30 wide with two teeth on the anterior margin of the fang furrow, the apical one largest; yellow with anterior face stippled with dark brown spots (Fig. 4). Labium (Fig. 5) yellow, 0.22 long, 0.32 wide, darker than endites and sternum. Endites light yellow with some black dots on the ectal margin, diagonally excavated (Fig. 5), 0.42 long, 0.25 wide. Sternum (Fig. 5) light yellow with some black spots, 0.95 long, 0.87 wide. Clypeus vertical with many strong bristles on the anterior face and on the margin, 0.20 high. Eye diameters and eye interdistances: AME 0.07, ALE 0.07, PME 0.07, PLE 0.10, AME–AME 0.15, AME–ALE 0.05, PME–PME 0.20, PME–PLE 0.22. MOQ 0.27 long, dorsal view, 0.30 long, frontal view, anterior width 0.30, posterior 0.35. Legs I and II yellow, densely dotted in black, leg III with the apex of femur, patella and tibia with a concentration of dark spots thus appearing almost black. Leg formula II-I-IV-III. Leg measurements: I. femur 1.50; patella 0.75; tibia 1.37; metatarsus 1.07; tarsus 0.70; total 5.40; II. 1.87; 0.82; 1.55; 1.10; 0.75; 6.09; III. 1.50; 0.67; 1.17; 0.90; 0.57; 4.82; IV. 1.55; 0.67; 1.25; 1.07; 0.62; 5.17. Tibiae I and II with 2.2.2.2 ventral macrosetae, metatarsus with 2.2.2. Palpus yellow sprinkled with dark brown, bristly. Abdomen oval, wider in the posterior third, with soft tegument densely bristled, with curved bristles arranged in longitudinal lines and pointed backward, 2.50 long, 1.87 wide, 1.40 high (Figs 2, 3). Dorsum grayish, densely dotted with black and some small white dots. Venter grayish dotted in black, the dots are less conspicuous than on the dorsum. Epigynum with an excavation on the middle field, copulatory openings conspicuous (Fig. 6).

**Variation.** Three females: total length 4.10–4.62. Carapace length 1.62–1.85, width 2.27–2.57.

**Distribution.** Brazil (Rio de Janeiro) (Fig. 1).

### ***Berlandiella magna* Mello-Leitão, 1929**

(Figs 1, 8–25)

*Berlandiella magna* MELLO-LEITÃO, 1929:124; ROEWER, 1955:767; BONNET, 1955:877; PLATNICK, 2011.

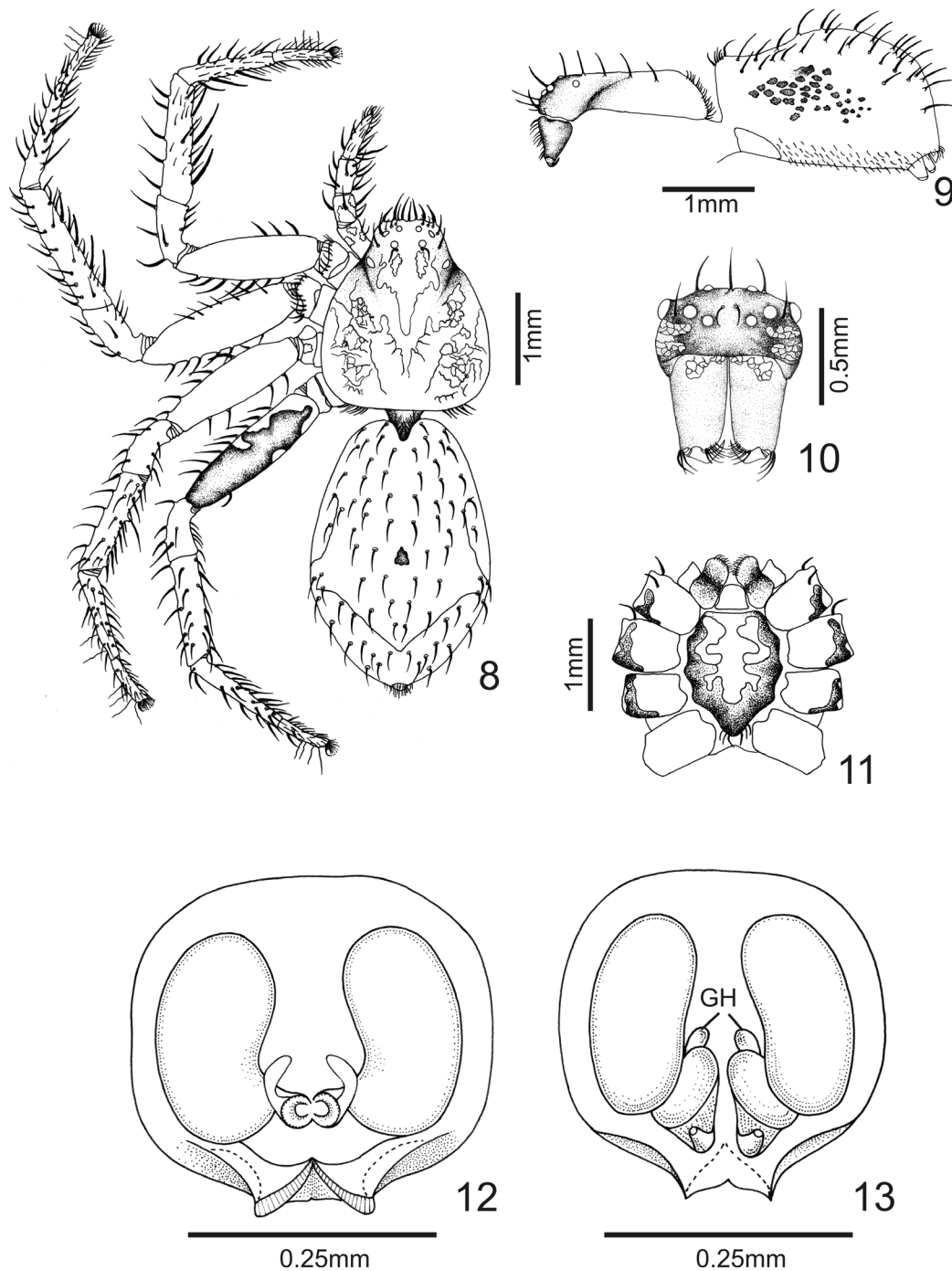
**Type material.** Lectotype (present designation) female from Comunati, Pernambuco, Brazil (MNHN 6916). Paralectotypes: one female and one male (MNHN 6916), same locality as the lectotype (examined).

**Diagnosis.** The females of *B. magna* (Figs 12, 13, 24, 25) can be distinguished from the females of the other species by the larger spermathecae and the lip shape of the posterior margin of the epigynum (Figs 12, 24). The male palpus (Figs 17–23) is similar to *B. polyacantha*

by the general shape of the retrolateral tibial apophysis (RTA), but can be distinguished by the rounded apex of RTA (Figs 20, 21, 23) and by the shorter embolus (Figs 19, 22).

**Description.** Female (lectotype). Total length 5.50. Carapace 2.00 long, 1.80 wide, 0.65 high, scarcely longer than wide (Figs 8, 9), wider on the level of legs III, narrowed in front, yellow with laterals and cephalic region marbled with brown. On the center of the carapace there is a V shape brown area that extends to the superior border of the posterior declivity. Chelicerae with two teeth on the anterior margin of the fang furrow, the apical one bigger, 0.75 long, 0.32 wide, anterior face dark brown with one circular yellow spot, reticulated with brown on the base. Labium (Fig. 11) brown, yellowish posteriorly (Fig. 11), 0.25 long, 0.30 wide. Endites (Fig. 11) light yellow with one brown spot on the level of the excavation (Fig. 11), 0.55 long, 0.25 wide. Sternum (Fig. 11) yellow bordered and suffused with brown, 1.10 long, 0.90 wide. Clypeus 0.20 high, vertical with many strong bristles. Eye diameters and eye interdistances: AME 0.07, ALE 0.07, PME 0.70, PLE 1.00, AME–AME 0.15, AME–ALE 0.05, PME–PME 0.20, PME–PLE 0.25. MOQ 0.27 long, anterior width 0.30, posterior 0.35. Legs I and II fulvous shaded with brown with a dorsal basal almost black spot (Fig. 8). Legs III and IV with the femora more spotted and the remaining articles, except the tarsi, darker. Leg formula II-I-III-IV. Leg measurements: I. femur 1.55; patella 0.65; tibia 1.37; metatarsus 1.05; tarsus 0.60; total 5.22; II. 1.75; 0.75; 1.55; 1.20; 0.62; 5.87; III. 1.55; 0.60; 1.15; 1.00; 0.55; 4.85; IV. 1.70; 0.62; 1.25; 1.05; 0.55; 5.17. Palpus brown, with some yellow spots. Tibiae I and II with 2.2.2.2 ventral macro setae, metatarsus with 2.2.2. Abdomen oval, wider on the posterior third, with soft tegument, densely bristled (Fig. 8). The bristles are curved and arranged in longitudinal lines. Dorsum brown, with a longitudinal median light area. Margins (Fig. 9) as dorsum with a median longitudinal grayish yellow band reticulated with white. Venter grayish shaded with brown with a median longitudinal brown stripe. Abdomen 3.37 long, 2.62 wide, 2.00 high. Tegument with large strong curved bristles. Spinnerets yellow. Epigynum with elliptical spermathecae (Figs 12, 13).

**Male (paralectotype).** Total length 3.57. Carapace (Figs 14, 15) 1.70 long, 1.60 wide, 0.87 high; fulvous with the radial furrows well demarcated by brown lines. Laterals reticulated with brown. Chelicerae as in the female; with two teeth on the anterior margin of the fang furrow, the apical one bigger, 0.50 long, 0.25 wide. Endites yellow, 0.42 long, 0.22 wide. Labium 0.20 long, 0.25 wide, light chestnut. Sternum (Fig. 16) light yellow with the laterals shaded with brown, 0.87 long, 0.80 wide. Clypeus 0.15 high, vertical with many strong bristles. Eye diameters and eye interdistances: AME 0.07, ALE 0.07, PME 0.07, PLE 0.10, AME–AME 0.12, AME–ALE 0.05, PME–PME 0.12, PME–PLE 0.25. MOQ 0.25 long, anterior width 0.27, posterior 0.30. Legs, as in the female, spotted with brown. Leg



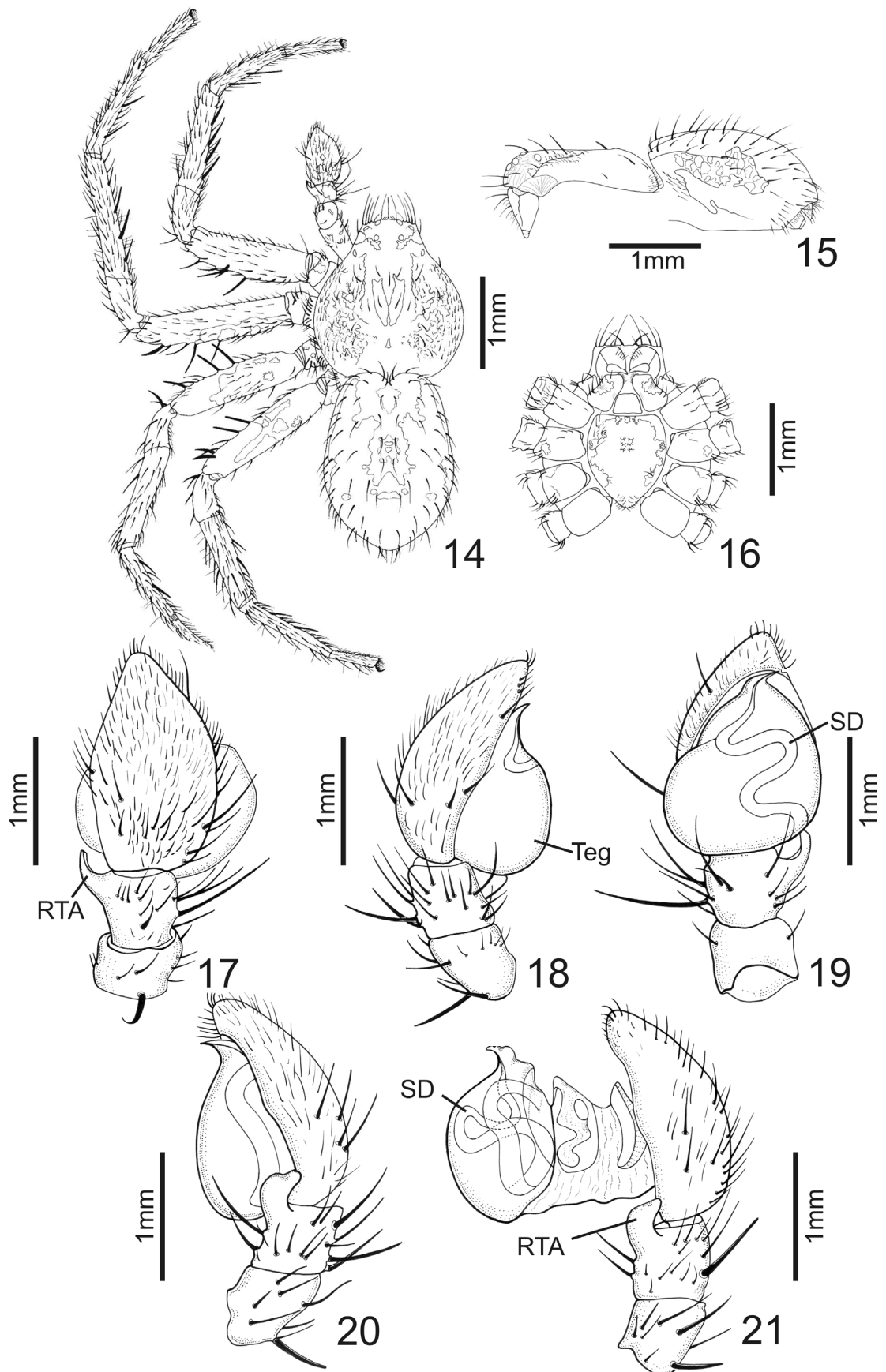
Figs. 8-13. *Berlandiella magna* Mello-Leitão, 1929. 8-11. Female habitus: 8, dorsal; 9, lateral; 10, frontal; 11, ventral. Epigynum: 12, ventral; 13, dorsal (GH, glandular head).

formula II-I-IV-III. Leg measurements: I. femur 1.62; patella 0.70; tibia 1.37; metatarsus 1.25; tarsus 0.62; total 5.57; II. 1.95; 0.75; 1.75; 1.57; 0.75; 6.77; III. 1.62; 0.62; 1.25; 1.25; 0.55; 5.30; IV. 1.62; 0.60; 1.25; 1.30; 0.55; 5.32. Tibiae of legs I and II with 2.2.2.2 ventral macro setae, metatarsus with 2.2.2. Pedipalp: femur 0.50 long, 0.22 wide; patella 0.25 long, 0.25 wide; tibia 0.20 long, 0.25 wide; cymbium 0.55 long, 0.37 wide. Tibia with one retrolateral tibial apophysis. Tegulum elliptic with an apical brown curved embolus wider on the basis. Abdomen grayish with a large medium dorsal V shaped

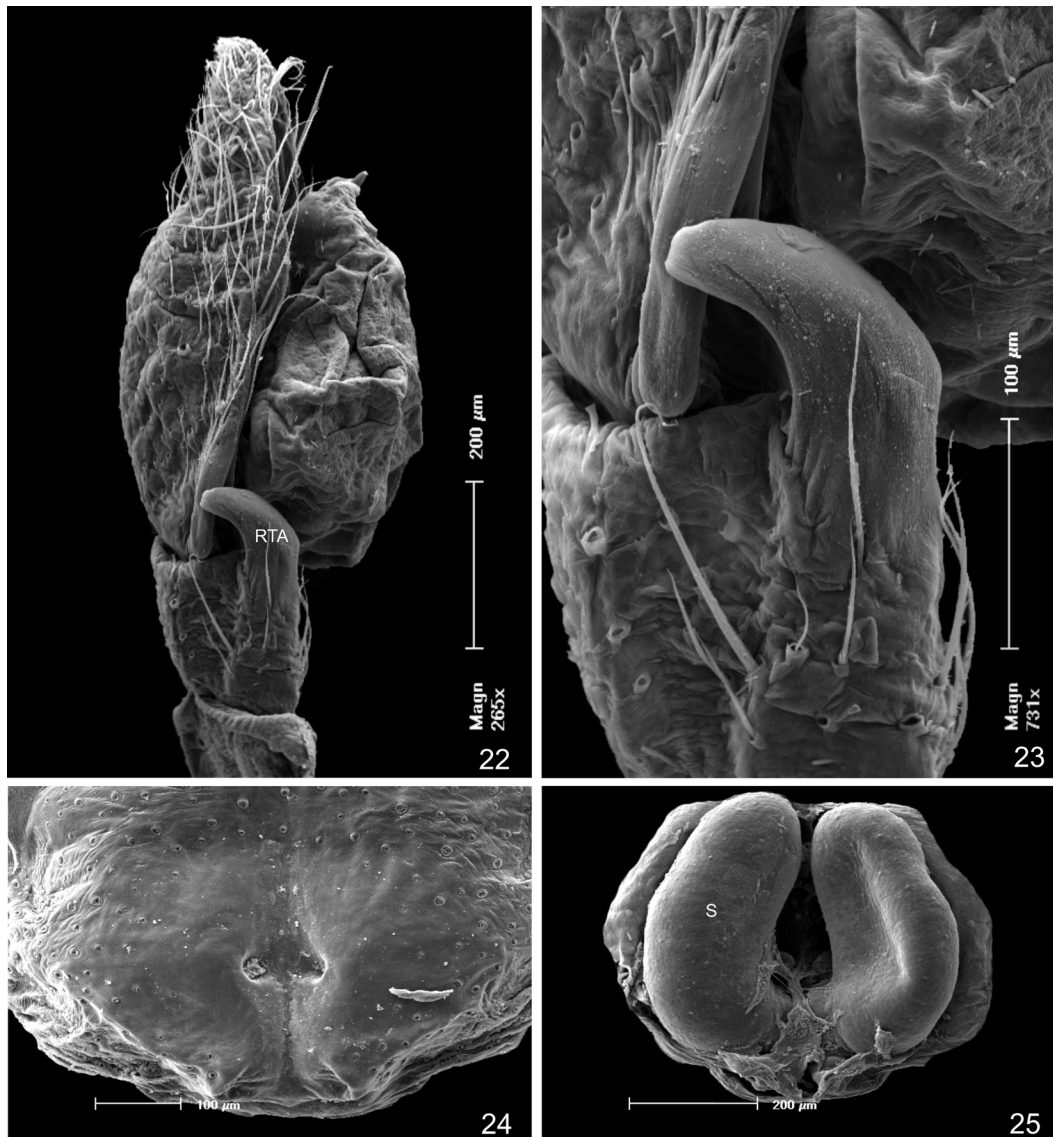
lighter area. Laterals longitudinally spotted with brown. Venter yellowish, longitudinally shaded with purple. Abdomen 1.87 long, 1.37 wide, 0.87 high. Palpus with prominent RTA and short embolus (Figs 17-23).

Distribution. Brazil (Pernambuco, Minas Gerais and Rio Grande do Sul) (Fig. 1).

Other material examined. BRAZIL, **Minas Gerais**: Alto Caparaó, Parque Nacional do Caparaó, ♀, 01-07.V.2002, Equipe Biota col. (IBSP 69800); ♀ (IBSP 69801); ♀ (IBSP 69802); ♀ (IBSP 69803); Catas Altas (RPPN Serra do Caraça), ♀, 24.IV-01.V.2002 (IBSP 69804); ♀ (IBSP 69805); ♀ (IBSP 69806); ♀ (IBSP 69807); 2♀ (IBSP



Figs. 14-21. *Berlandiella magna* Mello-Leitão, 1929. Male habitus: 14, dorsal; 15, lateral; 16, ventral. Male palpus: 17, dorsal; 18, prolateral; 19, ventral; 20, retrolateral; 21, expanded (RTA, retrolateral tibial apophysis; SD, spermathecal duct; Teg, tegulum).



Figs. 22-25. *Berlandiella magna* Mello-Leitão, 1929. Male palpus: 22, retrolateral; 23, detail of RTA. Epigynum: 24, ventral; 25 dorsal (RTA, retrolateral tibial apophysis; S, spermathecae).

69808); ♀ (IBSP 69809); **Rio Grande do Sul**: Canela, 2♀, 06.II.1970 (MCN 742); 2♀, 15.X.1965 (MCN 3941); 2♀, 21.IX.1974 (MCN 41670); ♂, 26.XII.1974 (MCN 2488); 02.XII.1973 (MCN 2198); 19.III.1976 (MCN 12199) all collected by A. A. Lise; São Francisco de Paula, ♀, 04.V.1974, A. A. Lise col. (MCN 12200); Sapiranga, 2♀, 29-30.X.2005, E. L. C. Silva (MCTP 17421).

### ***Berlandiella polyacantha* Mello-Leitão, 1929**

(Figs 1, 26-51)

*Berlandiella polyacantha* MELLO-LEITÃO, 1929:125. ROEWER, 1955:767; BONNET, 1955:877; PLATNICK, 2011.

Type material. Lectotype (present designation) female from Teresópolis, Rio de Janeiro, Brazil (MNHN 13783) (examined). Paralectotypes: four females and two males (MNHN 13783).

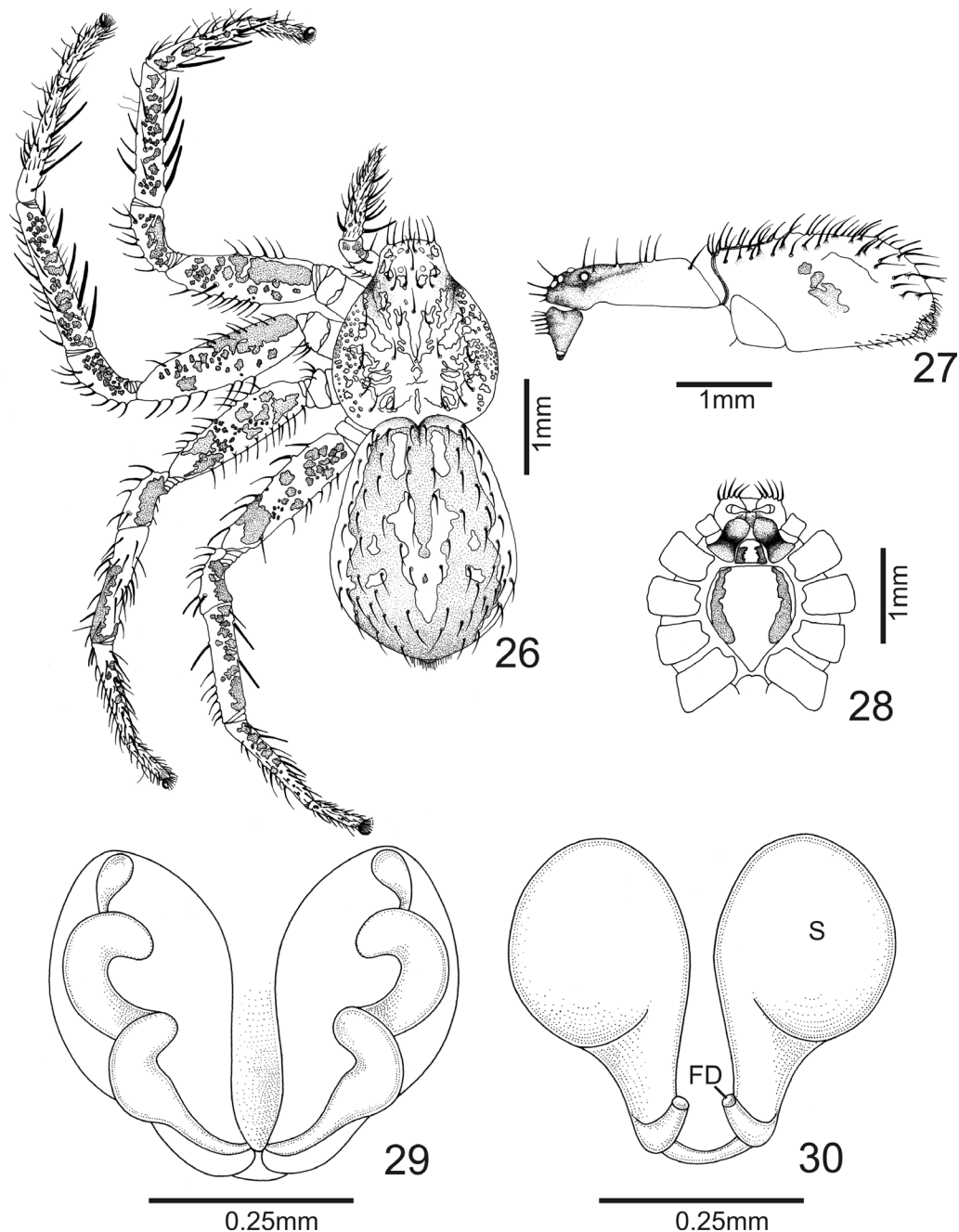
Diagnosis. The females of *B. polyacantha* can be distinguished by having a wider atrium and by the thick border of the posterior margin of the epigynum (Figs 29, 40) and by the absence of spermathecal organ (Fig. 41).

The males differing by the excavation on the mesal face of the RTA (Figs 48-51, 93-96).

Description. Female (lectotype). Total length 4.85. Carapace scarcely longer than wide, wider on the level of legs III, narrowed in front; with large strong curved bristles, 1.75 long, 1.67 wide, 1.00 high (Fig. 26). Carapace (Fig. 27) with a wide median yellow band suffused with brown. On each side of this yellow median band there is a wide brown irregularly interrupted area permitting to see the yellow color of the bottom. Radial furrows demarked by brown lines. Eyes surrounded with black. Chelicerae yellow with anterior face shaded with brown; two teeth on the anterior margin of the fang furrow, the apical one larger, 0.65 long, 0.30 wide. Clypeus 0.22 high, vertical with many strong bristles. Labium (Fig. 28) yellow shaded with brown, 0.22 long, 0.30 wide. Endites light yellow, diagonally excavated (Fig. 28), 0.42 long, 0.25 wide. Sternum (Fig. 28) light yellow with the lateral margins stippled with

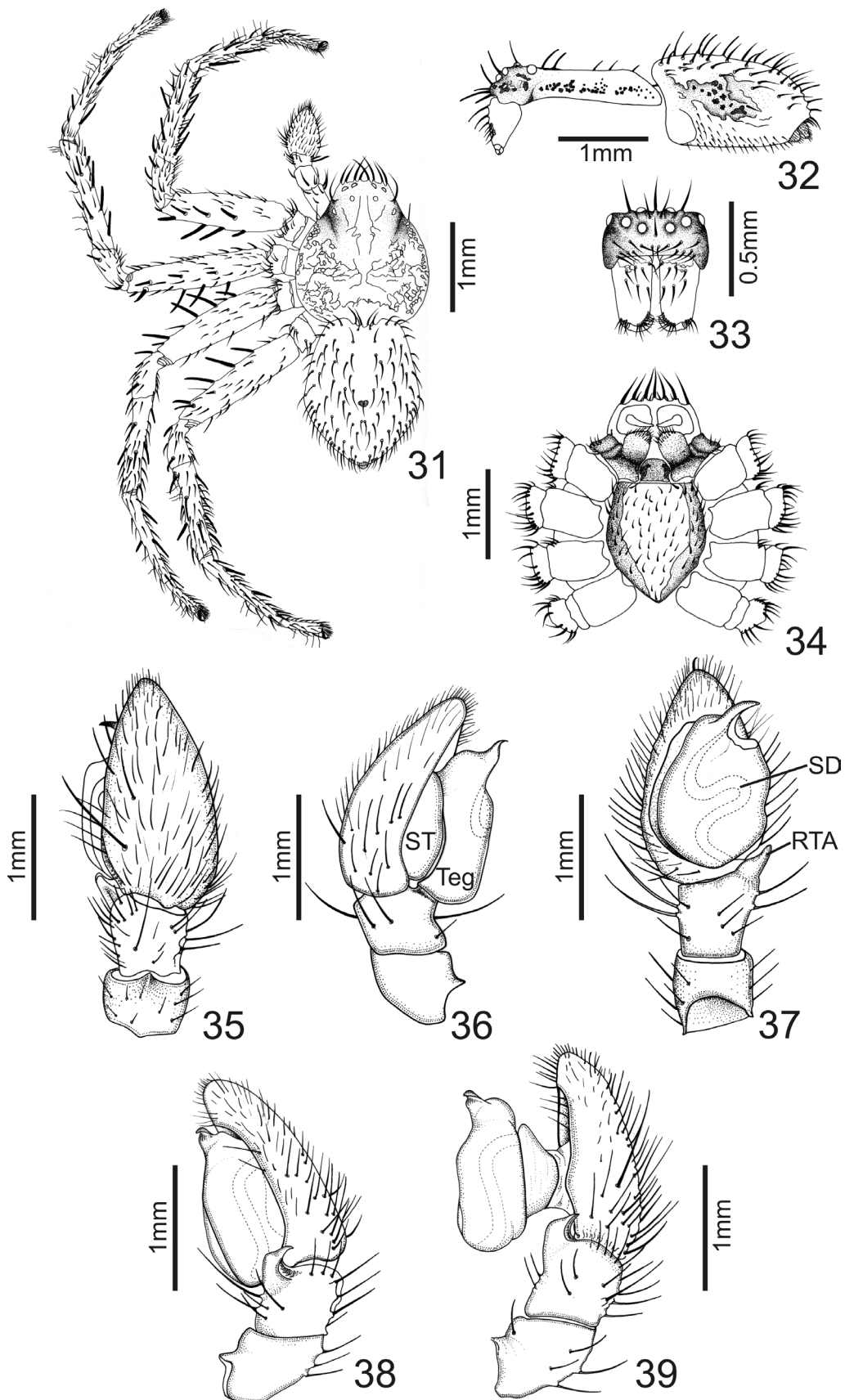
chestnut, 1.00 long, 0.82 wide. Eye diameters and eye interdistances: AME 0.07, ALE 0.07, PME 0.70, PLE 0.10, AME-AME 0.15, AME-ALE 0.05, PME-PME 0.20, PME-PLA 0.22. MOQ 0.25 long, anterior width 0.27, posterior 0.30. Legs I and II: coxae yellow. Femora (Fig. 26) yellow with almost circular brown spots irregularly distributed and on some areas shaded with brown. Patellae, tibiae and metatarsi yellow shaded with brown. Tarsi yellow. III with the two basal thirds similar to I and II, apical third brown. Patellae, tibiae and base of the metatarsi brownish. Tarsi light fulvous. IV: femora yellow with a brown apical band, remaining articles yellow. Tarsal claw conspicuous (Fig. 45). Trichobothria

prominent (Fig. 43). Tarsal organ conspicuous (Fig. 44). Pedipalpi yellow shaded with brown with many light curved brown macrosetae directed forwards. Leg formula II-IV-III-I. Leg measurements: I. femur 1.32; patella 0.67; tibia 1.15; metatarsus 1.00; tarsus 0.57; total 4.72; II. 1.62; 0.75; 1.42; 1.25; 0.62; 5.67; III. 1.50; 0.67; 1.17; 1.12; 0.55; 5.02; IV. 1.57; 0.62; 1.12; 1.17; 0.55; 5.05. All legs with strong bristles. Tibiae I and II with 2.2.2.2 ventral macrosetae, metatarsus with 2.2.2. Abdomen (Fig. 26) oval, wider on the posterior third, with soft tegument densely covered with curved bristles arranged in longitudinal lines, 2.22 long, 1.67 wide, 1.37 high. Dorsum chestnut brown, with a median

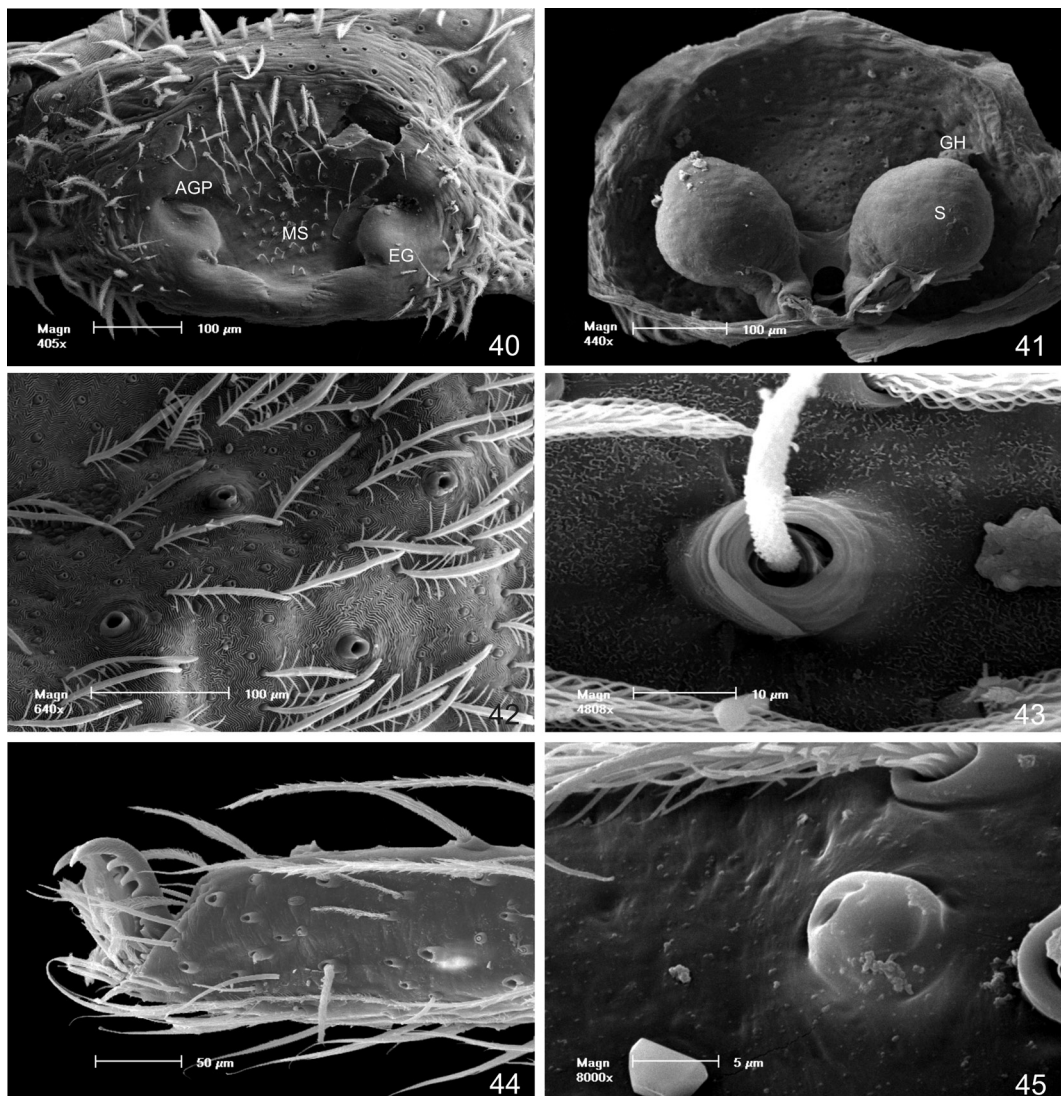


Figs. 26-30. *Berlandiella polyacantha* Mello-Leitão, 1929. Female habitus: 26, dorsal; 27, lateral; 28, ventral. Epigynum: 29, ventral; 30, dorsal (FD, fertilization duct; S, spermatheca).





Figs. 31-39. *Berlandiella polyacantha* Mello-Leitão, 1929, male. Habitus: 31, dorsal; 32, lateral; 33, frontal; 34, ventral. 35-39. Palpus: 35, dorsal; 36, prolateral; 37, ventral; 38, retrolateral; 39, expanded (RTA, retrolateral tibial apophysis; SD, spermatheca; ST, subtegulum; Teg, tegulum).



Figs. 40-45. *Berlandiella polyacantha* Mello-Leitão, 1929, female. Epigynum: 40, ventral, 41, dorsal; 42, feathered setae of tegument; 43, trichobothria of right leg I; 44, tarsal claw of right leg IV; 45, tarsal organ of right leg IV (AGP, anterior guide pocket; EG, epigynal grooves; GH, glandular head; MS, medium septum; S, spermathecae).

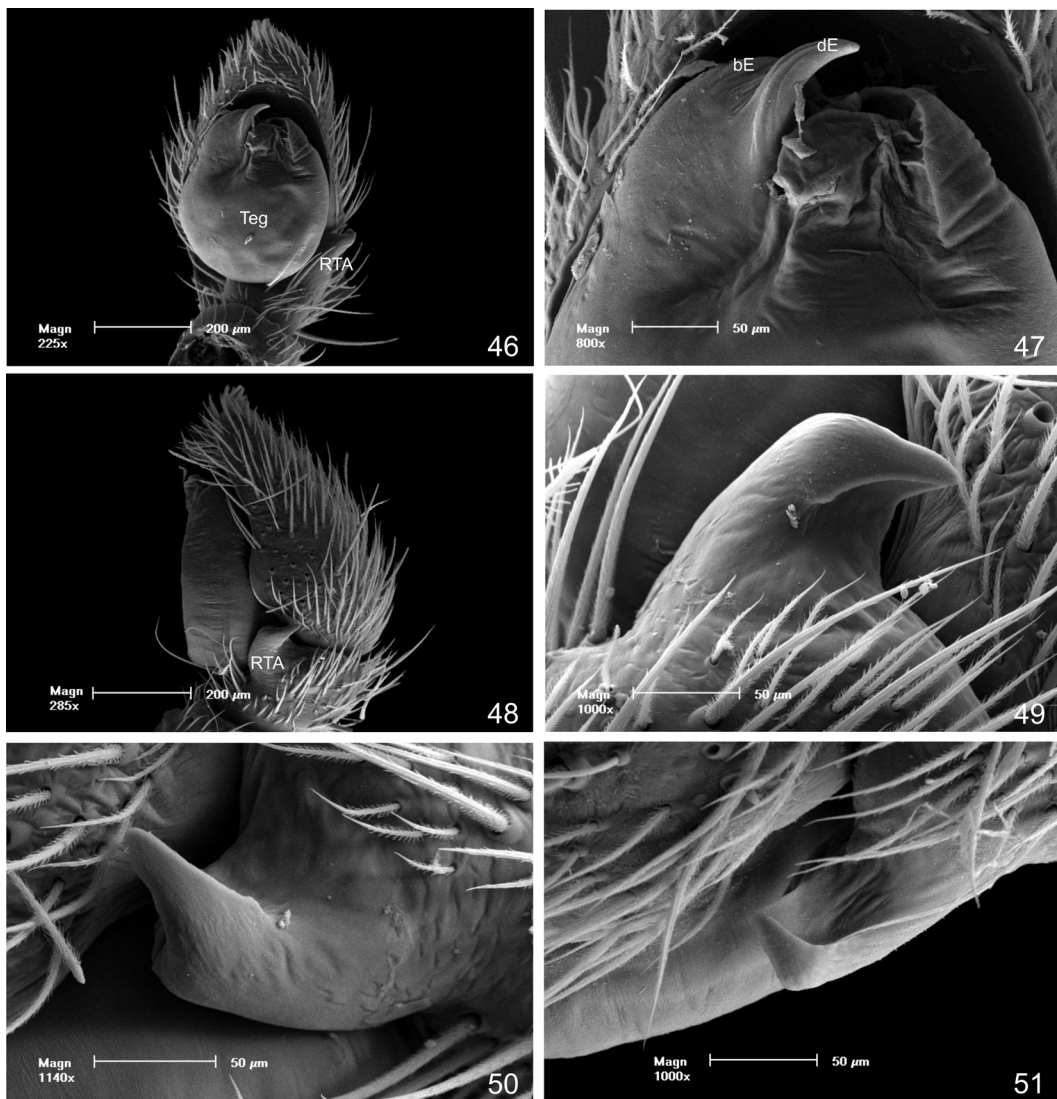
longitudinal area, of yellow bottom (Fig. 26). Margins (Fig. 27) as dorsum, with a median longitudinal yellow band. Venter yellow, reticulated with white.

Male (paralectotype). Total length 3.57. Carapace (Fig. 31) with large strong curved bristles, 1.67 long, 1.57 wide, 0.50 high; color as in the female. Chelicerae with two teeth on the anterior margin of the fang furrow, the apical one larger, 0.50 long, 0.30 wide (Figs 33, 34). Labium 0.22 long, 0.25 wide. Endites 0.42 long, 0.25 wide. Sternum 0.95 long, 0.80 wide. Clypeus 0.17 high, vertical with many strong bristles. Eye diameters and eye interdistances: AME 0.07, ALE 0.07, PME 0.07, PLE 0.10, AME-AME 0.12, AME-ALE 0.05, PME-PME 0.17, PME-PL 0.22. MOQ 0.25 long, anterior width 0.27, posterior 0.30. Leg formula II-IV-III-I. Leg measurements: I. femur 1.50; patella 0.62; tibia 1.12; metatarsus 1.10; tarsus 0.55; total 4.90; II. 1.75; 0.62; 1.32; 1.25; 0.65; 6.60; III. 1.52; 0.62; 1.15; 1.10; 0.55; 4.95; IV. 1.65; 0.55; 1.12; 1.20; 0.55; 5.07. Tibiae of legs

I and II with 2.2.2.2 ventral macrosetae, metatarsus with 2.2.2. Pedipalp: femur 0.45 long, 0.22 wide; patella 0.30 long, 0.25 wide; tibia 0.20 long, 0.22 wide; cymbium 0.65 long, 0.37 wide. Tibia with prominent retrolateral tibial apophysis (Figs 35-39, 46-51). Tegulum elliptic with an apical brown curved embolus of wide basis (Figs 35-38). Abdomen as in the female (Fig. 31).

Distribution. Brazil (Rio de Janeiro and São Paulo) (Fig. 1).

Other material examined. BRAZIL, Rio de Janeiro: Petrópolis (Fazenda Ranchinho da Roça), ♀, 15-16.VIII.2001, Equipe Biota col. (IBSP 69793); ♀ (IBSP 69794); ♀ (IBSP 69795); ♀ (IBSP 69796); ♀ (IBSP 69797); ♂ (IBSP 69810); ♀ (IBSP 69811); 2♀ (IBSP 69812); ♂ (IBSP 69813); ♂ (IBSP 69814); ♀ (IBSP 69815); 4♂, 6♀ (IBSP 69816); ♀ (IBSP 69817); ♀ (IBSP 69818); ♂ (IBSP 69819), ♂ (IBSP 69820); Parque Nacional da Serra dos Órgãos, ♀, 18-22.VIII.2001, Equipe Biota col. (IBSP 69799); Cachoeiras de Macacu, Reserva Ecológica de Guapiaçú, ♂, 08-12.XI.2001, Equipe Biota col. (IBSP 69821); ♀ (IBSP 69822); ♂ (IBSP 69823); ♀ (IBSP 69824); ♂ (IBSP 69825); ♀ (IBSP 69826); ♂ (IBSP 69827); ♀ (IBSP 69828); ♂ (IBSP 69829); São Paulo: Santo André, 3♀, 2♂, 14-16.XII.2003, C. B. Rheims & R. P. Indicatti col. (IBSP 52082).



Figs. 46-51. *Berlandiella polyacantha* Mello-Leitão, 1929, male palpus: 46, ventral; 47, detail of bulbus; 48, retrolateral; 49, dorsal; 50, ventral; 51, excavation of RTA (RTA, retrolateral tibial apophysis; Teg, tegulum).

***Berlandiella robertae* sp. nov.**

(Figs 1, 52-76)

Type material. Female holotype from Ilha do Arvoredo, Florianópolis, Santa Catarina, Brazil; 04.IV.1994, A. A. Lise *et al.* col. (MCTP 6387). Paratypes: Brazil, Rio Grande do Sul, female, 13-14. IX.1994 (MCTP 5148); male, 15-16.X.1993 (MCTP 4045), same locality and collector as holotype; Iraí, female, 18.XI.1975, A. A. Lise col. (MNHN 1984.8.8.2); Torres, male and female, 20.XI.1976, A. A. Lise col. (MNHN 3903); male (MCN 12208); female (MCN 4863), all of same collector.

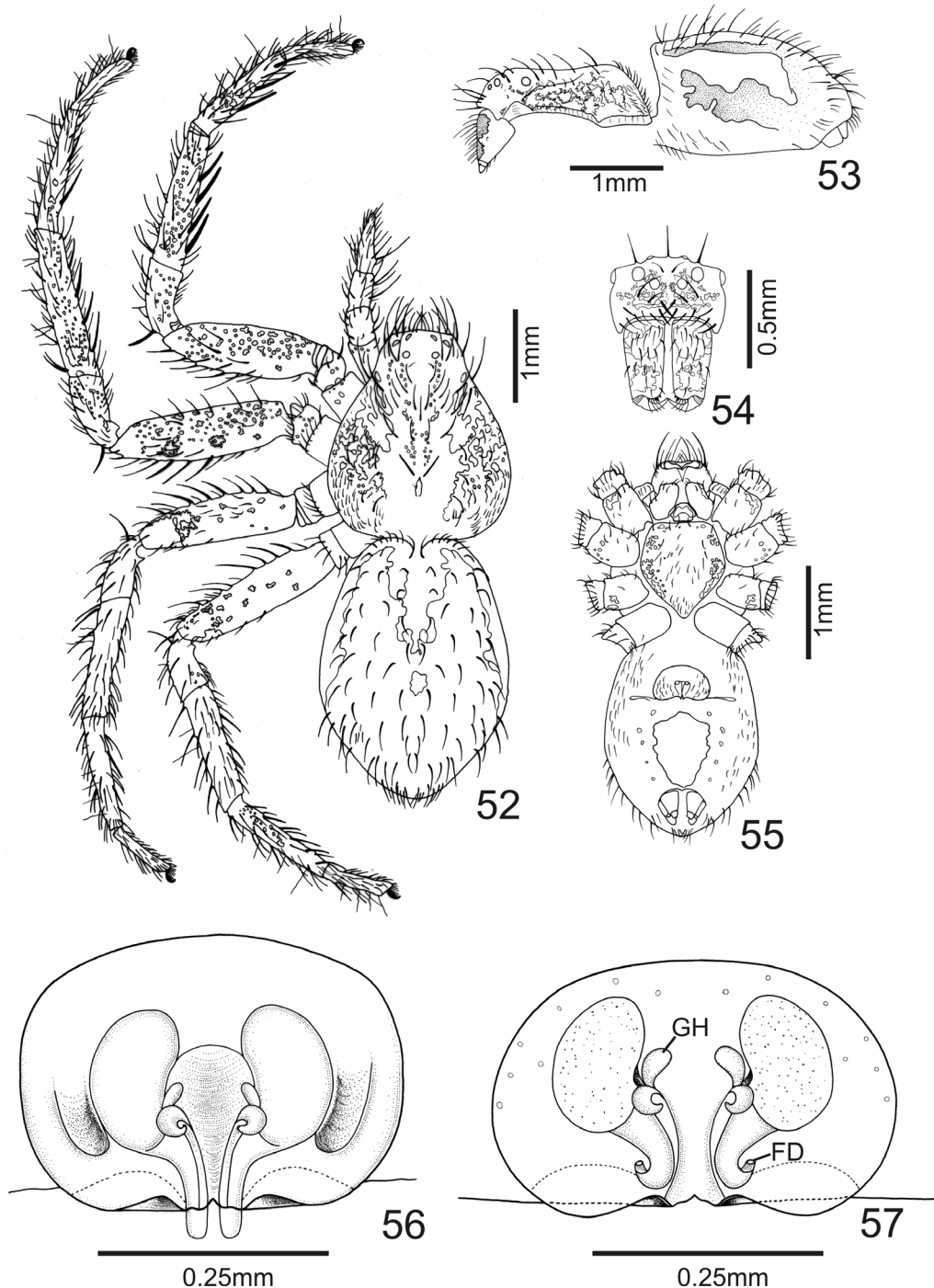
Etymology. The specific name honors the first author's daughter, Roberta Lise. Name in genitive case. Diagnosis. The females of *B. robertae* sp. nov. can be distinguished from the other known females of the genus by the wider epigynal plate (Fig. 56). The males can be easily distinguished from the ones of the remaining species by the shape of the retrolateral tibial apophysis

(RTA) that extends ventrally and presents a bifid, almost laminar, apex (Figs 65-70).

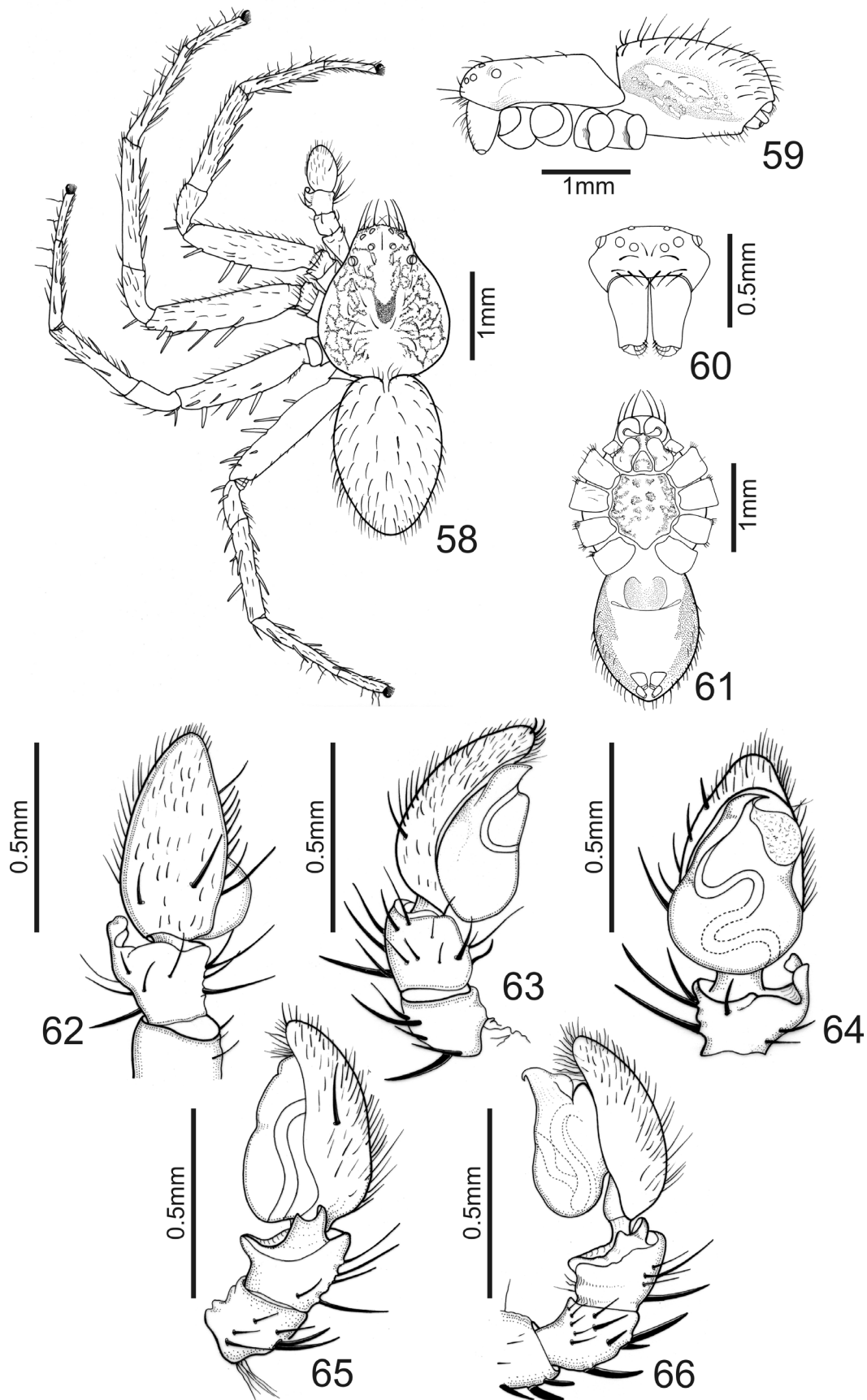
Description. Female (holotype). Total length 4.40. Carapace 2.00 long, 1.70 wide, 0.76 high, moderately convex with many spiniform chestnut bristles of variable length. Posterior border with many light yellow bristles; dorsum light yellow with one wide, lateral band, on each side, marbled with brown. Carapace (Fig. 52) covered with feathery hairs and strong curved chestnut bristles arranged in almost regular longitudinal lines, pointed backward (Fig. 71). Lateral and the posterior limits of the cephalic region (Fig. 53) marbled with brown (Fig. 53). Ocular area (Figs 52-54) also shaded with brown. Median ocular area yellowish. Chelicerae light fulvous, bearing brown lines in labyrinthine arrangement, 0.56 long, 0.34 wide with two teeth on the posterior margin of fang furrow and some strong bristles on the anterior face (Fig. 54). Labium (Fig. 55) yellow with brown contours, 0.26 long, 0.30 wide. Endites yellow, transversally excavated, 0.50 long, 0.24 wide, slightly convergent

(Fig. 55). Sternum yellow, bordered with brown, 1.25 long, 1.00 wide. Clypeus 0.20 high with bristles on the inferior margin and on the surface. Eye diameters and eyes interdistances: AME 0.08, ALE 0.10, PME 0.06, PLE 0.10, AME-AME 0.14, AME-ALE 0.06, PME-PME 0.22, PME-PLA 0.24, MOQ 0.22 long, dorsal view, 0.26 frontal view, 0.30 anterior wide, 0.36 posterior wide. Leg I and II yellow shaded and with brown dots. Leg III femur yellow with the apex brown. Patella, tibia and metatarsus brown, very dark almost black. Leg IV

as I and II. Leg formula I-IV-III-II. Leg measurements: I. femur 1.50; patella 0.70; tibia; 1.40; metatarsus 1.00; tarsus 0.70; total 5.30; II. 1.70; 0.80; 1.50; 1.16; 0.64; 4.52; III. 1.60; 0.68; 1.20; 1.06; 0.60; 5.14; IV. 1.60; 0.64; 1.24; 1.20; 0.60; 5.28. Tips of tarsi with spatulated setae (Fig. 76). Palpus yellow spotted with brown. Abdomen (Figs 52, 53), dorsum with a median longitudinal V shaped yellow stripe, reticulated with white, 3.40 long, 1.75 wide, 1.20 high. On each side of this stripe there is a wide dark brown stripe. Margins yellow reticulated



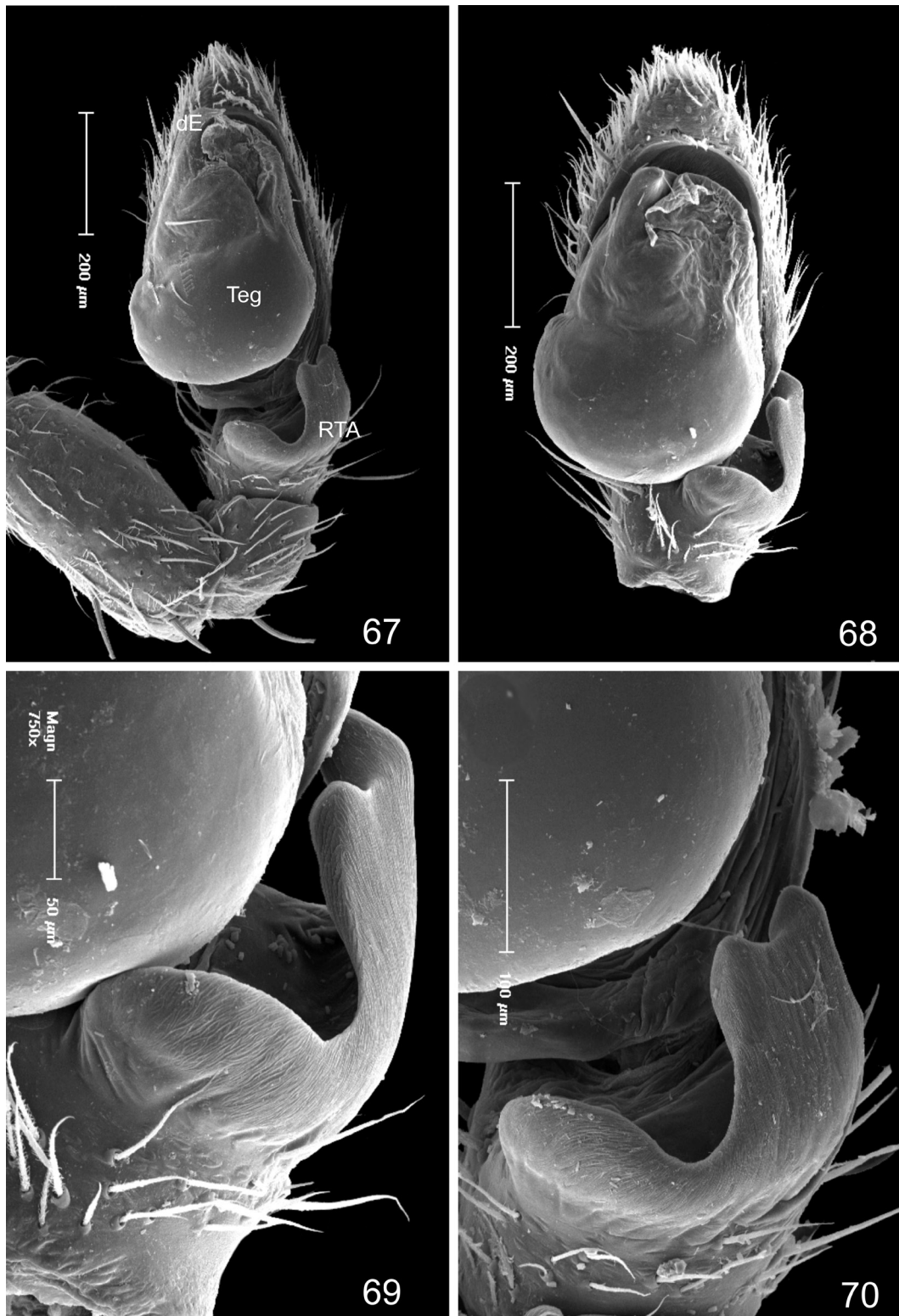
Figs. 52-57. *Berlandiella robertae* sp. nov. 52-55, female. Habitus: 52, dorsal; 53, lateral; 54, frontal; 55, ventral. Epigynum: 56, ventral; 57, dorsal (FD, fertilization duct; GH, glandular head).



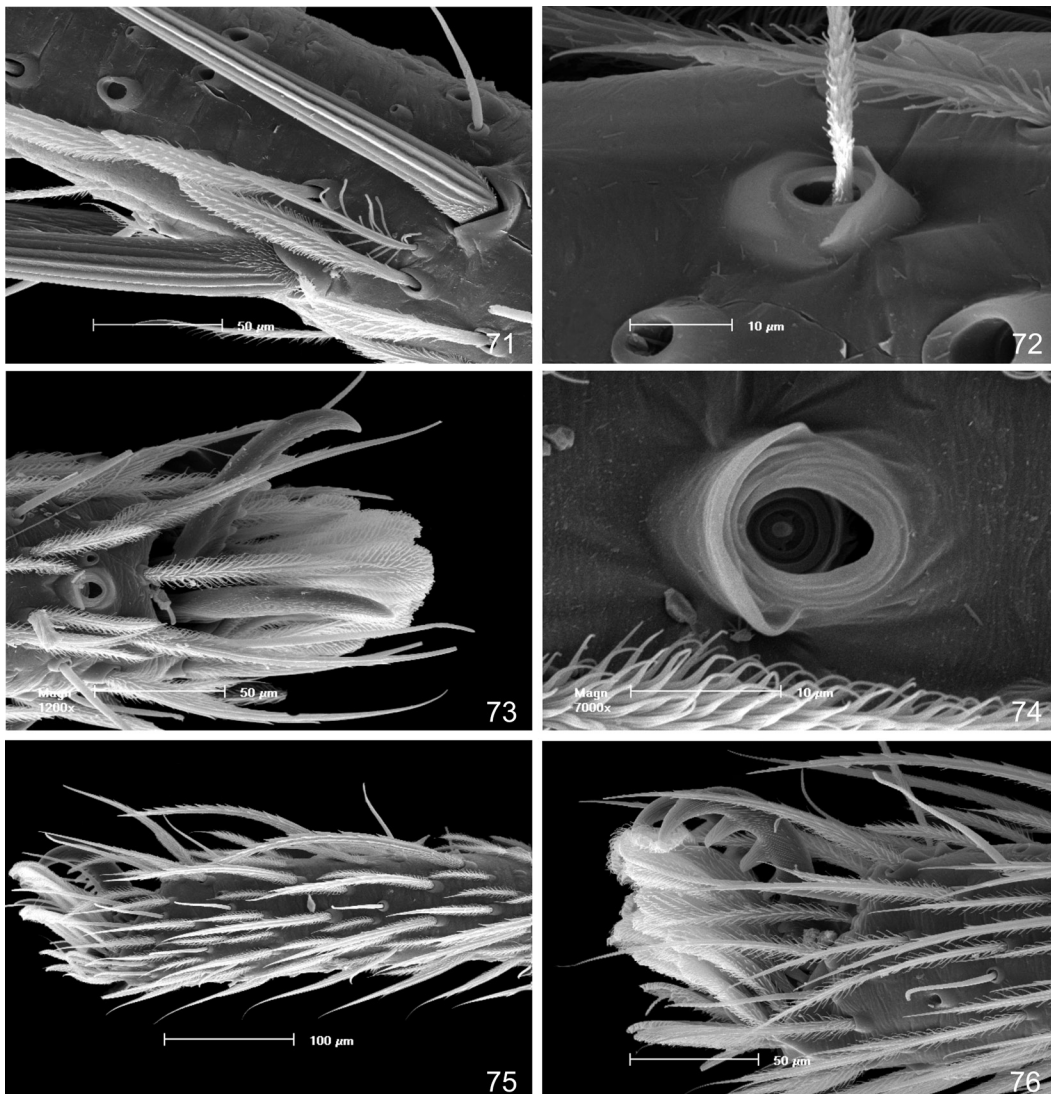
Figs. 58-66. *Berlandiella robertae* sp. nov., male. Habitus: 58, dorsal; 59, lateral; 60, frontal; 61, ventral. Palpus: 62, dorsal; 63, prolateral; 64, ventral; 65, retrolateral; 66, expanded.

with white, with brown spots next to the anterior ventral border. Venter yellow, reticulated with white. Spinnerets yellow. Anal tubercle light brown, covered with bristles. Epigynum presenting a wide light fulvous epigynal plate and copulatory openings (Fig. 56) circular, dark chestnut (Fig. 56).

Male (paratype, MCTP 5148). Total length 4.25. Carapace (Figs. 58, 59) 1.77 long, 1.71 wide, 0.80 high, convex, bristly, fulvous with a wide lateral band marbled with brown. Lateral and posterior limits of the cephalic region marbled with brown. Ocular area and clypeus (Fig. 60) also marbled with brown. Chelicerae



Figs. 67-70. *Berlandiella robertae* sp. nov., male palpus: 67, anterior; 68, 69, detail of base of RTA; 70, detail of apex of RTA (RTA, retrolateral tibial apophysis; Teg, tegulum).



Figs. 71-76. *Berlandiella robertae* sp. nov.: 71, detail of setae; 72, trichobothria of right leg I; 73, position of tarsal organ; 74, detail of bothrium; 75, tarsus of leg IV, general view; 76, detail of claw tufts.

fulvous marbled with brown, 0.60 long, 0.34 wide (Fig. 61). Labium (Fig. 61) yellow shadowed with brown on the contours, 0.28 long, 0.34 wide. Endites convergent with diagonal median excavation, yellow stained with brown on the excavation, 0.52 long, 0.20 wide. Sternum 1.10 long, 0.96 wide, cordiform with dull apex extending beyond coxae IV, light yellow bordered with brown, median portion with brown spots irregularly distributed. Clypeus 0.24 high with bristles on both, the inferior and the anterior margin. Eyes diameter and eyes interdistances: AME 0.08, ALE 0.10, PME 0.06, PLE 0.10, AME-AME 0.16, AME-ALE 0.06, OME-PME 0.24, PME-PLE 0.26, MOQ 0.22 long, dorsal view, 0.26 frontal view, 0.32 anterior wide, 0.36 posterior wide. Legs I, dorsum of femur fulvous with some brown shady. Coloration of the remaining articles as in femur. Tibia with a basal brown band. Leg formula II-IV-III-I. Leg measurements: I. femur 1.50; patella 0.74; tibia 1.40; metatarsus 1.14; tarsus 0.70; total 5.48; II. 1.80; 0.84; 1.70; 1.40; 0.82;

6.56; III. 1.70; 0.72; 1.34; 1.30; 0.64; 5.70; IV. 1.80; 0.70; 1.40; 1.30; 0.60; 5.80. Palpus fulvous, shadowed with brown; half apical portion of the cymbium light fulvous, basal brown. Spinnerets yellow. Abdomen oval, wider on the posterior third, with soft tegument densely bristly, excavated on the anterior margin (Fig. 58). Bristles curved and arranged in longitudinal lines, inclined backwards as in the female. Dorsum dark brown with a whitish-yellow "V" shaped band. Laterals (Fig. 59) witted-yellow on the upper portion, the remaining area with some dendritic brown spots. Venter (Fig. 61) whitish-yellow with some brown spots. Palpus (Figs 62-70) with a laminar retrolateral tibial apophysis (RTA) bilobed (Figs 65-70).

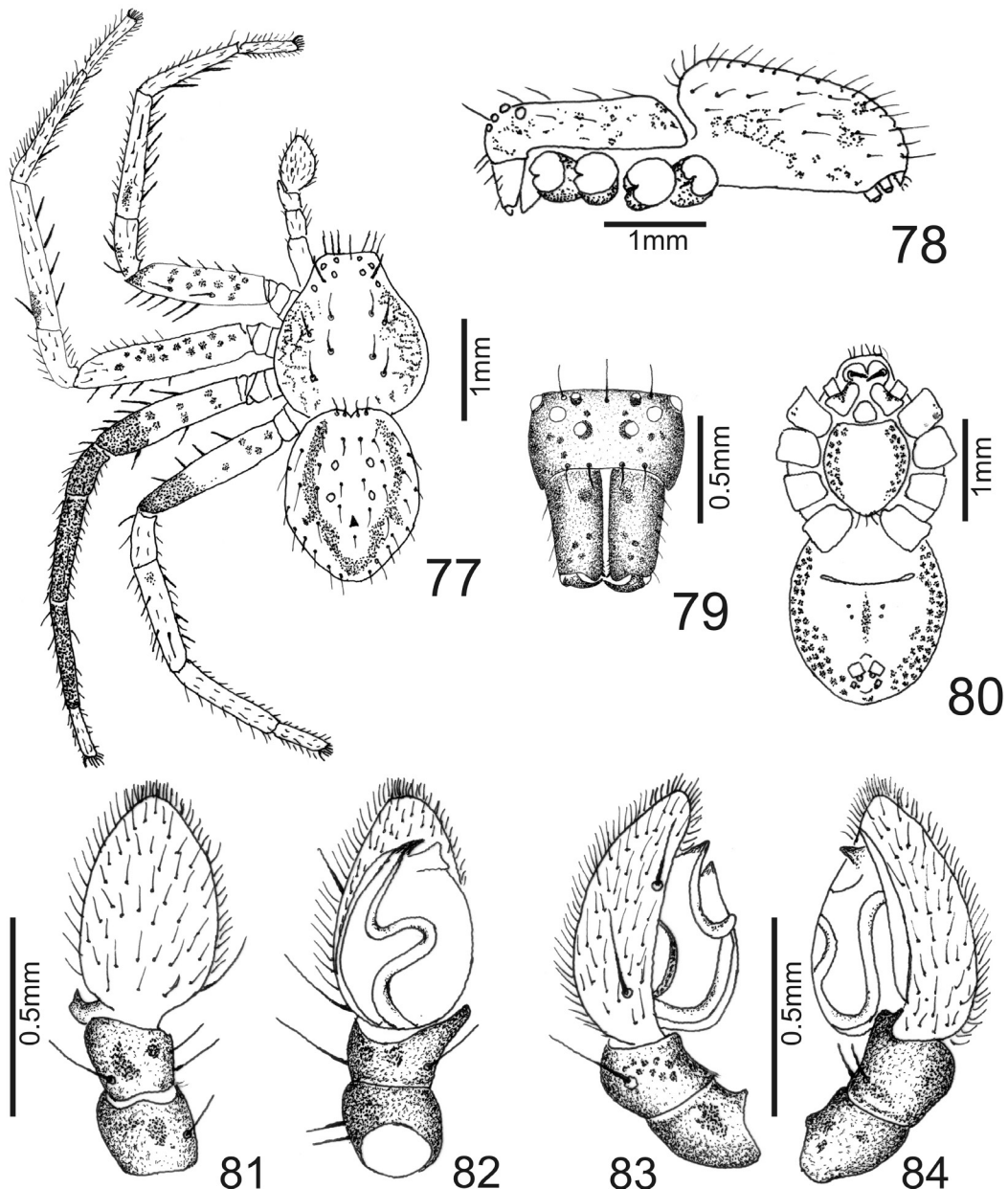
Variation. Male (n=13). Total length 3.60 (3.29-4.20). Carapace: length 1.73 (1.64-1.97), width 1.51 (1.38-1.74), height 0.65 (0.52-0.70). Abdomen: length 1.86 (1.71-2.04), width 1.33 (1.15-1.58), height 1.11 (0.92-1.32). Female (n=12). Total length 3.89 (3.05-4.30). Carapace: length 1.80 (1.60-1.97), width 1.59

(1.48–1.74), height 0.65 (0.50–0.82). Abdomen: length 2.30 (2.03–2.85), width 1.74 (1.54–2.00), height 1.23 (0.98–1.31).

Distribution. Brazil (Minas Gerais, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul) and Argentina (Misiones) (Fig. 1).

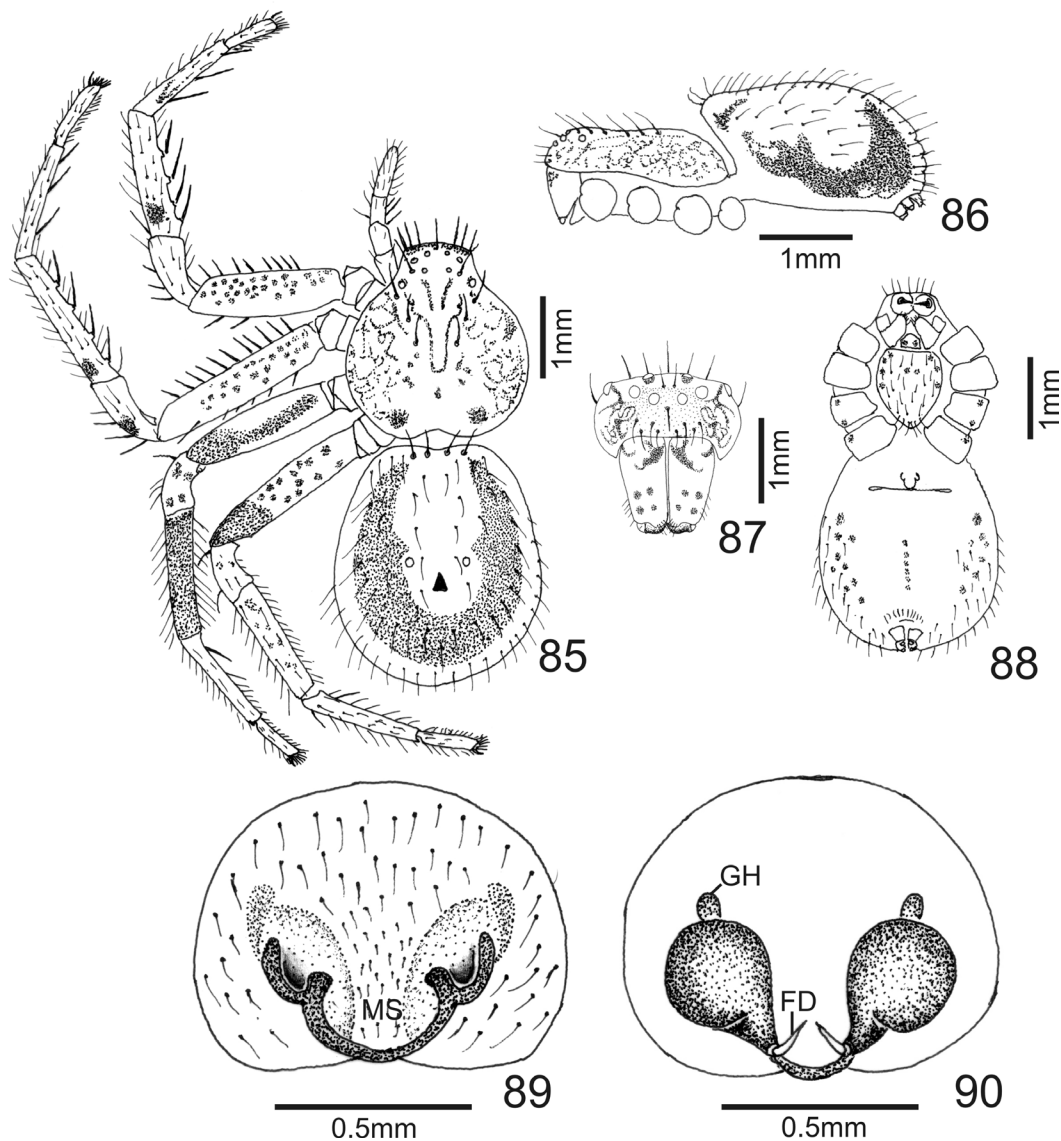
Other examined material. BRAZIL, **Minas Gerais**: Parque Nacional Itatiaia, Maromba, ♂, 18.XII.1991, R. I. C. Batista col. (IBSP 7742); **São Paulo**: Santo André, (Reserva Biológica do Alto da Serra do Piranapiacaba), ♂, 2♀, 14-16.XII.2003, C. A. Rheims & R. P. Indicatti col. (IBSP 52082); Jundiá (Serra do Japi), ♂, 19.XII.1998, A. J. Santos col. (IBSP 38789); ♂, 08-10.XII.1997, A. J. Santos col. (IBSP 38799); Mogi das Cruzes (Parque Natural Municipal da Serra do Itapety), ♀ VII.200, M. S. C. Morini col. (IBSP 55465); São Paulo, Parque da Providência, ♂, ♀, 12.XII.2000, F. S. Cunha (IBSP 26293); **Paraná**: Morretes (Serra da Graciosa), ♀, 09–20.I.1995, A. Braul col. (MCTP 7434); 3♀, 15-20.IX.1999,

Equipe Laboratório de Aracnologia col. (MCTP 7663); Jundiá do Sul, ♂, 01.XII.1986 (MCTP 19455); 3♂, 03.XI.1986 (MCTP 19458); ♂, 17.XI.1986 (MCTP 19460); ♂, 24.II.1986 (MCTP 19461); Antonina, ♂, 15.XII.1986 (MCTP 19456); ♂, ♀, 24.XI.1986 (MCTP 19457); ♂, 17.XI.1986 (MCTP 19459), all collected by Profaupar; **Santa Catarina**: Florianópolis (Ilha do Arvoredo), 4♂, ♀, 05-06.X.1995 (MCTP 7503); ♀, 13-14.X.1994 (MCTP 5149); 3♂, 15-16.X.1993 (MCTP 6596); ♂, 24.X.1997 (MCTP 10121); ♀, 24.X.1997 (MCTP 10122); 4♂, ♀, 05-06.X.1995 (MCTP 7503); ♀, 13-14.IX.1994 (MCTP 5149); ♀, 24.X.1997 (MCTP 10120); ♂, 24.X.1997 (MCTP 10121); ♀, 24.X.1997 (MCTP 10122); 2♂, 15-16.X.1993 (MCTP 65962), all collected by A. A. Lise; **Rio Grande do Sul**: Iraí, ♀, 18.XI.1975, A. A. Lise col. (MCTP 3406); Torres, ♀, 20.XI.1976, A. A. Lise col. (MCN 12210); ♀, 20.XI.1976, A. A. Lise col. (MCN 12207); ♀, 20.XI.1976, A. A. Lise col. (MCN 12209); Tenente Portela (Parque Estadual do Turvo) (atualmente no município de Derrubadas), ♀, 17.I.1985, A. A. Lise (MCN 13067); Terra de Areia, ♀, 27.XII.2001, E. L. C. Silva (MCTP 19473). ARGENTINA, **Misiones**: ♂, 23-26.X.1995, M. Ramírez (MACN 26009); ♂, 27-29.X.1995, M. Ramírez (MACN 26010).



Figs. 77-84. *Berlandiella meridionalis* sp. nov., male. Habitus: 77, dorsal; 78, lateral; 79, frontal; 80, ventral. Palpus: 81, dorsal; 82, ventral; 83, prolateral; 84, retrolateral.





Figs. 85-90. *Berlandiella meridionalis* sp. nov., female. Habitus: 85, dorsal; 86, lateral; 87, frontal; 88, ventral. Epigynum: 89, ventral; 90, dorsal (FD, fertilization duct; GH, glandular head; MS, medium septus).

***Berlandiella meridionalis* sp. nov.**

(Figs 1, 77-99)

Type material. Male holotype from Potreiro Velho, São Francisco de Paula, Rio Grande do Sul, Brazil; XI.2001, L. A. Bertocello col. (MCTP 19462). Paratypes: one female, same locality as holotype, 30.V-02.V.1996, A. A. Lise *et al.* col. (MCTP 9899); three males and thirteen females, same locality as holotype, 14-17.XII.1996, A. A. Lise *et al.* col. (MCTP 10959); male and female, Canela, Rio Grande do Sul, Brazil, 02.III.1976, A. A. Lise col. (MNHN 1984.8.8.1).

**Etymology.** The specific name means “from south”, referring to the type locality in Southern Brazil.

**Diagnosis.** The male and female of *B. meridionalis* sp. nov. (Figs 81-84, 89, 90) are similar to the ones of *B. polyacantha* (Figs 29, 30, 48-51). Despite similarities in the general shape of bulbus and RTA, males can be

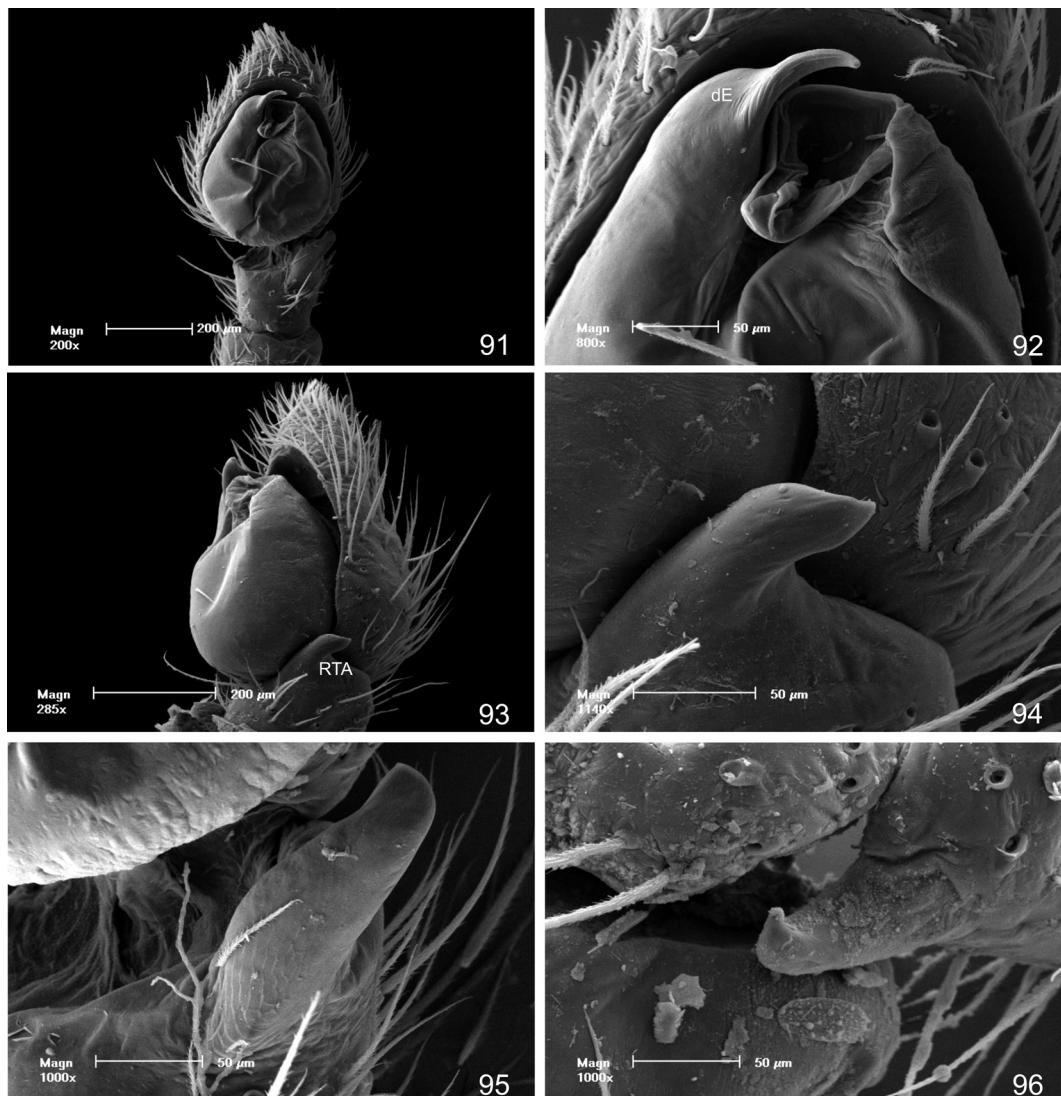
distinguished by the mesial face of the RTA being not excavated (Figs 48-51, 93-96). The females present a similar shape of the anterior portion of the epigynum, but can be distinguished by the turned edge of the posterior margin and the excavation in front of it (Figs 40, 97, 98) and by the conspicuous accessory spermathecae in ventral view (Fig. 99).

**Description.** Male (holotype). Total length 3.85. Carapace 1.87 long, 1.61 wide, 0.72 high, moderately convex, tegument smooth with some spiniform bristles, mainly on the cephalic region. Carapace (Fig. 77) color fulvous with a wide lateral band marbled with brown; lateral (Fig. 78) and posterior limits of the cephalic region marbled with brown (Fig. 78). Ocular area and clypeus (Fig. 79) brownish. Chelicerae fulvous marbled with brown, 0.60 long, 0.34 wide; with two teeth on the posterior margin of fang furrow and some strong bristles on the

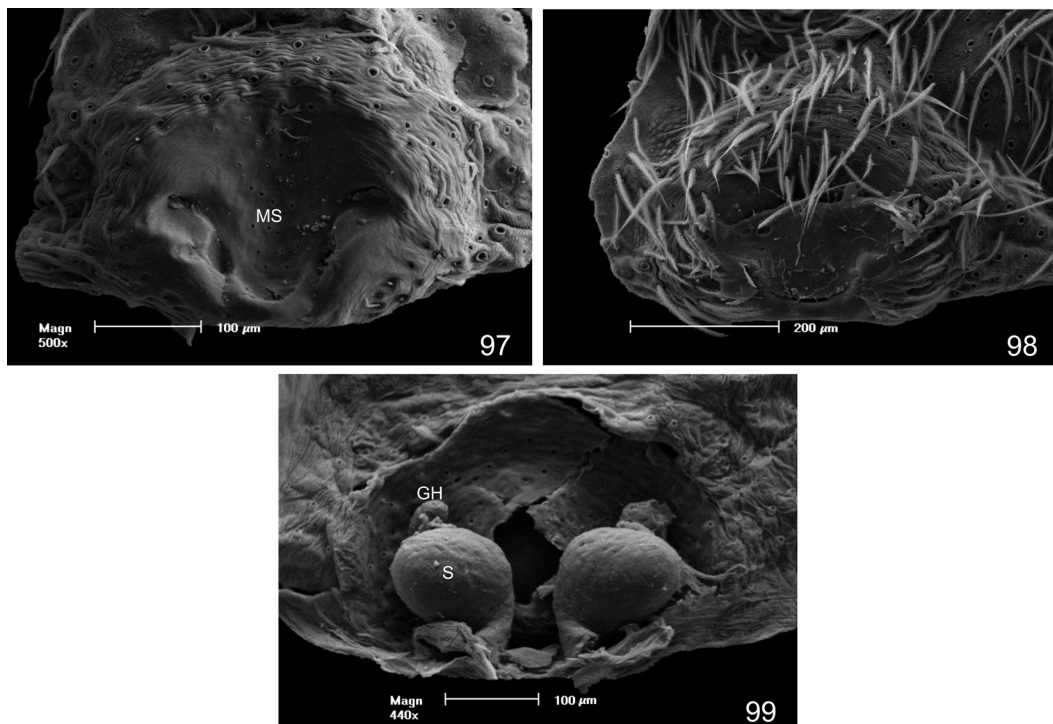
anterior face (Fig. 80). Labium (Fig. 80) yellowish, dark brown on the contours, 0.25 long, 0.34 wide. Endites (Fig. 80) convergent with diagonal median excavation, yellowish, 0.50 long, 0.18 wide. Sternum (Fig. 80) cordiform, light yellow bordered with brown, 1.08 long, 0.93 wide. Clypeus 0.26 high with bristles on the inferior margin and on the surface. Eye diameters and eyes interdistances: AME 0.09, ALE 0.11, PME 0.05, PLE 0.09, AME–AME 0.16, AME–ALE 0.06, PME–PME 0.25, PME–PLE 0.24, MOQ 0.20 long, dorsal view, 0.25 frontal view, 0.28 anterior wide, 0.34 posterior wide. Legs color: basal portion of dorsum of femur yellowish, bottom of distal half yellowish with parallel longitudinal brown bands; venter yellow with circular brown patches. Apical portion of legs III and IV with a dark brown band. Leg formula II-IV-III-I. Leg measurements: I. femur 1.50; patella 0.74; tibia 1.40; metatarsus 1.14; tarsus 0.70; total 5.48; II. 1.80; 0.84; 1.70; 1.40; 0.82; 6.56; III. 1.70; 0.72; 1.34; 1.30; 0.64; 5.70; IV. 1.80;

0.70; 1.40; 1.30; 0.60; 5.80. Abdomen: 2.107 long, 1.55 wide, 1.48 high. Abdomen (Fig. 77) wider on the level of the leg III, dorsum light brown, with a dark brown median triangular mark. Spinnerets yellow. Palpus (Figs 81–84, 91, 92) with retrolateral tibial apophysis excavated (Figs 93–96).

Female (Paratype, MCTP 9899). Total length 4.40. Carapace 2.00 long, 1.70 wide, 0.76 high, moderately convex with many spiniform chestnut bristles of variable length. Posterior border with many light yellow bristles (Figs 85, 86). Median ocular area yellow (Fig. 87). Eyes with black contours (Fig. 87). Chelicerae light fulvous; 0.54 long, 0.32 wide with two teeth on the posterior margin of fang furrow and some strong bristles on the anterior face (Fig. 88). Labium yellow with brown contours, 0.22 long, 0.26 wide. Endites 0.48 long, 0.24 wide, lightly convergent. Sternum yellow, as in male, 1.25 long, 1.00 wide. Clypeus 0.21 high with bristles on the inferior margin and on the surface. Eye diameters



Figs. 91-96. *Berlandiella meridionalis* sp. nov., male palpus: 91, ventral; 92, detail of embolus; 93, retrolateral. RTA: 94, apex; 95, base; 96, dorsum (RTA, retrolateral tibial apophysis).



Figs. 97-99. *Berlandiella meridionalis* sp. nov., female. Epigynum, ventral view: 97, without copulatory plug; 98, with copulatory plug; 99, dorsal view (GH, glandular head; MS, medium septus; S, spermathecae).

and eyes interdistances: AME 0.08, ALE 0.11, PME 0.05, PLE 0.11, AME-AME 0.12, AME-ALE 0.08, PME-PME 0.25, PME-PLP 0.26, MOQ 0.23 long, dorsal view, 0.23 frontal view, 0.28 anterior wide, 0.34 posterior wide. Leg I and II yellow shaded and dotted with brown. Leg III femur yellow with the apex brown. Patella, tibia and metatarsus brown, very dark almost black. Leg IV as I and II. Leg formula I-IV-III-II. Leg measurements: I. femur 1.50; patella 0.70; tibia 1.40; metatarsus 1.00; tarsus 0.70; total 5.30; II. 1.70; 0.80; 1.50; 1.16; 0.64; 4.52; III. 1.60; 0.68; 1.20; 1.06; 0.60; 5.14; IV. 1.60; 0.64; 1.24; 1.20; 0.60; 5.28. Palpus yellow spotted with brown. Abdomen, as in male, 3.40 long, 1.75 wide, 1.20 high (Fig. 85). Spinnerets yellow. Epigynum presenting a large light fulvous epigynal plate (Figs 89, 90, 97-99).

Note. Most of the females of *B. meridionalis* sp. nov. were found with copulatory plugs, suggesting that this is a strategy of the male trying to prevent other males from mating with that female (AUSTAD, 1984).

Distribution. Brazil (Paraná, Rio Grande do Sul) (Fig. 1).

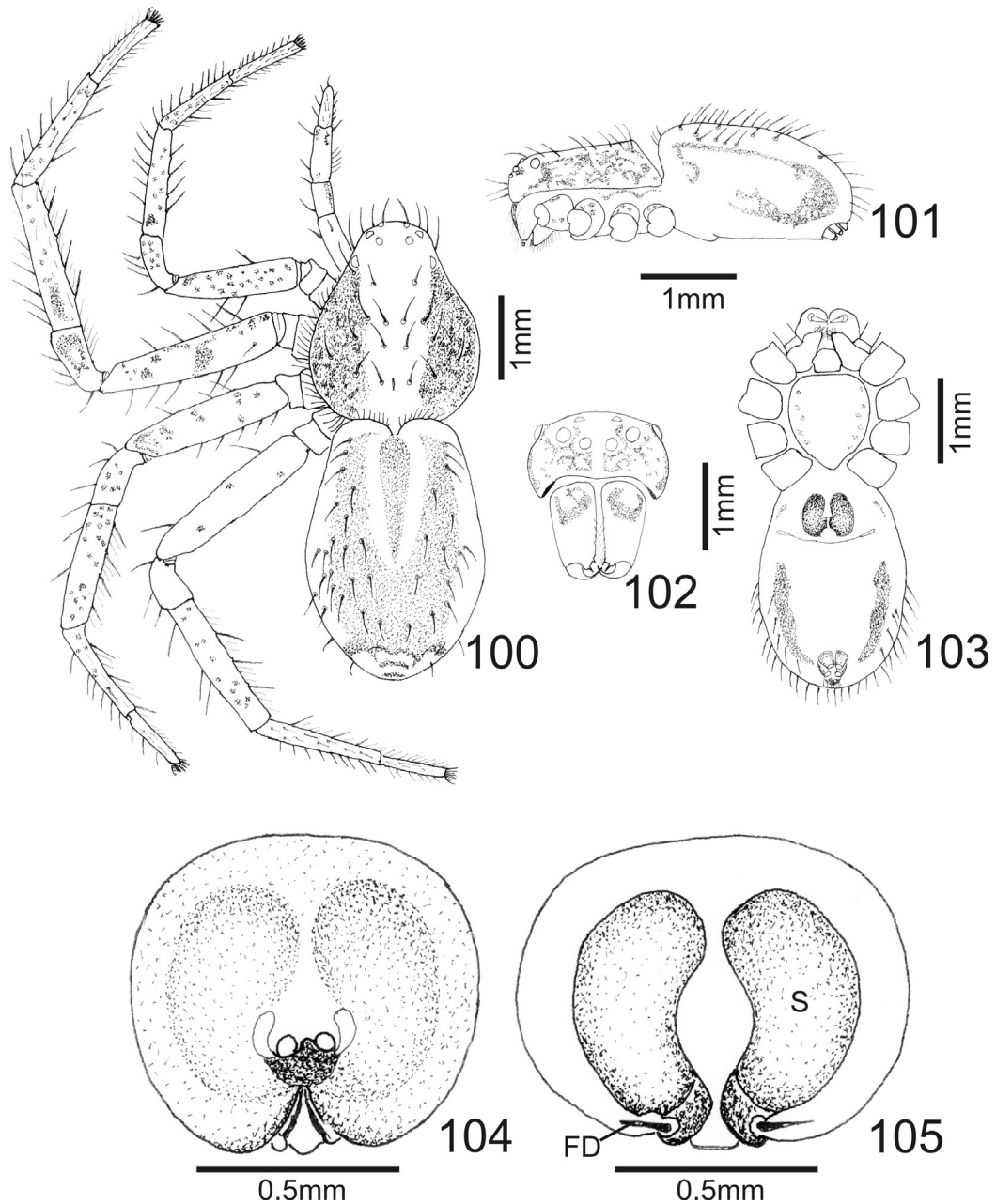
Other material examined. BRAZIL, **Paraná**: São José dos Pinhais, ♂, ♀ 13.I.1986, Profaupar col. (MCN 16983), 2♂, 10.XI.1986, Profaupar col. (MCTP 19443); 2♂, 09.XII.1986, Profaupar col. (MCTP 19445); 2♂, 24.XI.1986, Profaupar col. (MCTP 19446); ♂, 03.XI.1986, Profaupar col. (MCTP 19447); Curitiba, ♂, 02.XII.1978, A. Yamamoto col. (MCN 9157); ♂, 20.XII.1980, A. Yamamoto col. (MCN 9149); Antonina, ♂, 01.XII.1986, Profaupar col. (MCTP 19444); Vila Velha, ♂, 29.XII.1986, Profaupar col. (MCTP 19448); ♂, 29.XII.1986, Profaupar col. (MCTP 19448); ♀, 22.XII.1986, Profaupar col.

(MCTP 19449); ♂, 01.XII.1986, Profaupar col. (MCTP 19450). **Rio Grande do Sul**: São Francisco de Paula (Potreiro Velho), ♀, 12-14.XI.1998, A. A. Lise col. (MCTP 15617); 4♂, 30.V-02.VI.1996, A. A. Lise col. (MCTP 19475); ♂, 23.XI.1996, P. P. Marques col. (MCTP 13764); ♀, 05.VIII.1996, P. P. Marques col. (MCTP 13942); 2♂, X.2001, L. A. Bertonecello col. (MCTP 19463); ♂ (MCTP 19464); 3♂, 9♀, 05-08.XII.1996, A. A. Lise *et al.* col. (MCTP 13898); 3♀, 21-24.III.1995, A. A. Lise col. (MCTP 11990); ♂, 7♀, 12-14.XI.1998, A. A. Lise col. (MCTP 12719); ♂, 6♀, 05-08.XII.1996, A. A. Lise *et al.* col. (MCTP 14144); ♂, 12-14.XI.1998, A. A. Lise col. (MCTP 15616); ♀, 12-14.IX.1997, A. A. Lise *et al.* col. (MCTP 14413); ♂, 12-14.XI.1998, A. A. Lise col. (MCTP 15618); ♀, 14-15.II.1996, A. A. Lise *et al.* col. (MCTP 11914); ♀, III.2002, L. A. Bertonecello & A. A. Lise col. (MCTP 19474); ♂, ♀, 24.X.1996, R. Ott col. (MCTP 10664); ♂, ♀ (MCTP 10665); ♀, 05.VIII.1996, 7♂, 2♀, XII.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 19476); ♂, 3♀, 05-09.XII.1997, A. A. Lise col. (MCTP 15972); ♂, X.2001, L. A. Bertonecello col. (MCTP 19465); ♂, ♀, XII.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 19477); 5♀, 09.X.1994, A. Braul & R. Ott col. (MCTP 5483); ♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24715); ♀, XI.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24719); ♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24716); 2♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24718); 3♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24717); 2♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24714); 4♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24713); ♂, X.2001, L. A. Bertonecello & A. A. Lise col. (MCTP 24712); ♀, II.2002, L. A. Bertonecello & A. A. Lise col. (MCTP 2471); Cambará do Sul (Itaimbezinho), 11♂, 19♀, 06.I.1985, A. A. Lise col. (MCTP 18928); 2♀, 06.I.1985, A. A. Lise col. (MCTP 21419); 2♀, 16.VI.1983, A. A. Lise col. (MCTP 11715, 11719); Terra de Areia, ♂, 27.XII.2001, E. L. C. Silva col. (MCTP 19471); ♂, 04.XII.2002, E. L. C. Silva col. (MCTP 19472).

### *Berlandiella querencia* sp. nov.

(Figs 1, 100-111)

Type material. Female holotype from Mato Grosso, Querência, Fazenda Tanguro, 16.VI.2006, D. F. Candiani & N. F. Lo-Man-Hung col. (MPEG



Figs. 100-105. *Berlandiella querencia* sp. nov., female. Habitus: 100, dorsal; 101, lateral; 102, frontal; 103, ventral. Epigynum: 104, ventral; 105, dorsal (FD, fertilization duct; S, spermathecae).

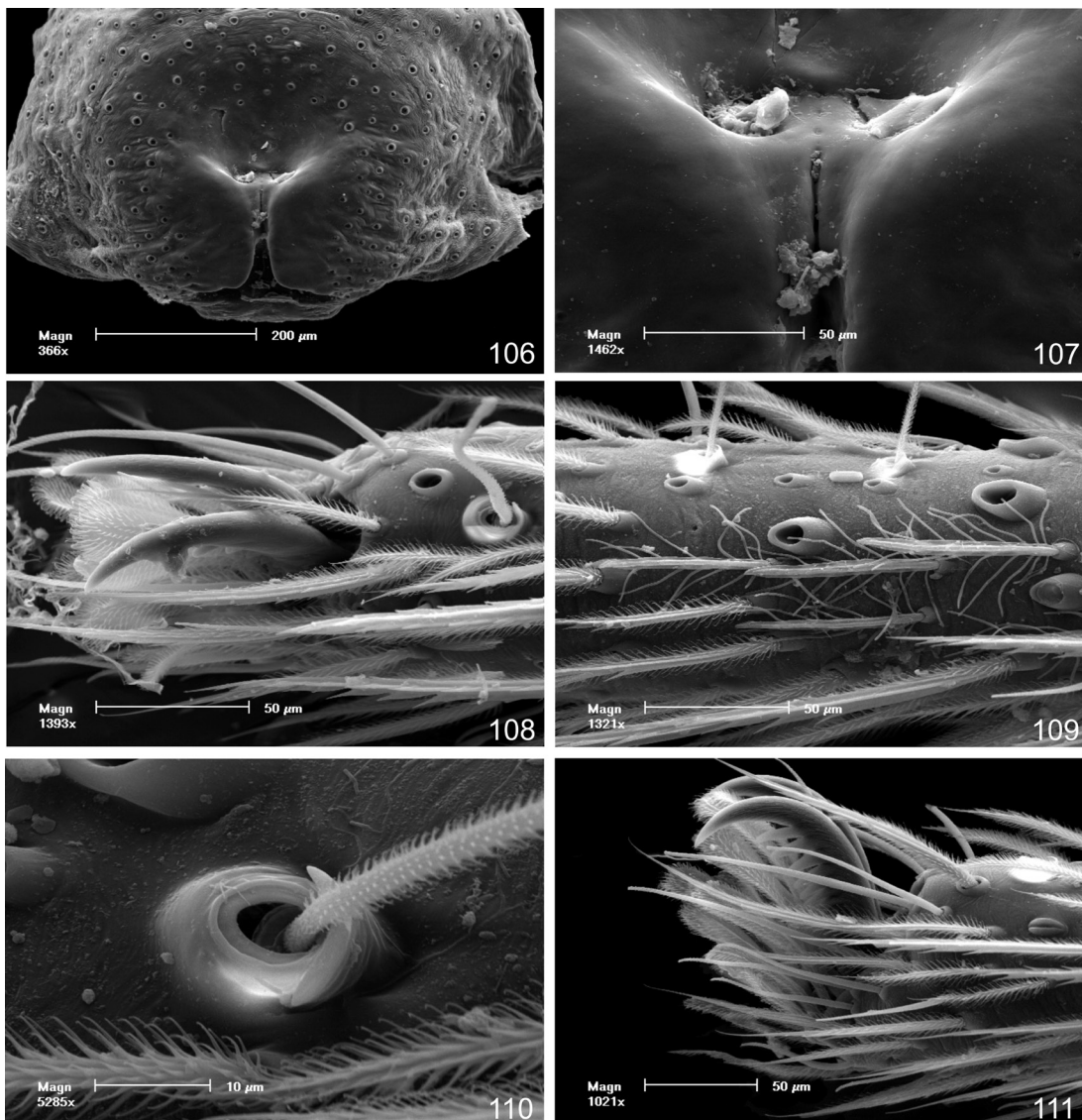
15571). Paratypes: two females, same locality and collectors as holotype (MPEG 15665, MCTP 27863); two females, same locality and collectors as holotype, 14.VI.2006 (MPEG 15572, MPEG 15573).

**Etymology.** The specific name refers to the type locality.

**Diagnosis.** The females of *B. querencia* sp. nov. are similar to the ones of *B. magna*, but can be distinguished by the general shape of the epigynum, the position of the copulatory openings and by the details of the posterior margin of epigynum (Figs 12, 13, 104-107).

**Description.** Female (holotype). Total length 3.40. Carapace 1.60 long, 1.40 wide, 0.50 high, wider

on the level of leg III, narrower in front. Tegument with long brown bristles directed forward. Carapace (Figs 100, 101) dorsum light yellow with a wide brown marbled band at each side. Ocular area (Fig. 102) shaded with brown. Eyes black. Chelicerae yellow with a big brown spot on its base, 0.44 long, 0.30 wide with two teeth on the promargin of the fang furrow, apical largest. Labium (Fig. 103) yellow with bristly apex, 0.22 long, 0.30 wide. Endites 0.40 long, 0.20 wide. Sternum (Fig. 103) yellow with some brown, almost circular spots on the lateral margin, 0.90 long, 0.40 wide. Clypeus 0.16 high, vertical with strong bristles on the inferior margin. Eye diameters and eye interdistances: AME 0.08, ALE 0.10, PME



Figs. 106-111. *Berlandiella querencia* sp. nov. Epigynum: 106, ventral; 107, detail of copulatory openings. 108, tarsus in dorsal view; 109, metatarsus in lateral view showing the feathery setae; 110, trichobothria of right leg II; 111, tarsal claw of right leg I.

0.06, PLE 0.10, AME-AME 0.10, AME-ALE 0.04, PME-PME 0.16, PME-PLE 0.20. MOQ 0.24 long, dorsal view, 0.22 frontal view, anterior width 0.28, posterior width 0.32. Legs yellow densely spotted with brown. Metatarsi and tarsi with conspicuous feathery setae (Fig. 109). Tarsal claw prominent (Fig. 111). Trichobothria projected, with a very conspicuous hood (Figs 108, 110). Leg formula II-IV-I-III. Leg measurements: I. femur 1.34; patella 0.60; tibia 1.04; metatarsus 0.90; tarsus 0.70; total 4.48; II. 1.40; 0.60; 1.30; 1.10; 0.66; 5.06; III. 1.30; 0.50; 1.00; 0.90; 0.52; 4.22; IV. 1.40; 0.50; 1.10; 1.18; 0.58; 4.76. Palpus yellow with some brown irregular spots, bristly. Tibiae I and II with 2.2.2.2 ventral macrosetae, metatarsus with 2.2.2. Abdomen oval (Fig. 100), wider on the posterior third, excavated on the anterior margin 3.84 long, 1.30 wide, 0.84 high. Tegument soft with many brown bristles arranged in longitudinal, almost parallel lines, curved backwards. Dorsum with

a longitudinal median brown band, pointed behind with a yellow band each side of it. In some specimens the median longitudinal band is not conspicuous. Margins (Fig. 101) yellow shaded with brown. Venter yellow spotted with brown. Epigynum dark brown with conspicuous copulatory openings (Figs 104, 106, 107), spermathecae presenting a kidney shape (Fig. 105).

Distribution. Brazil (Mato Grosso) (Fig. 1).

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