

## Twelve new Neotropical species of the spider genus *Cryptachaea* (Araneae: Theridiidae)

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**Abstract.** *Cryptachaea* Archer 1946 currently contains 75 species. The genus is considered related to *Achaeearanea* Strand 1929, *Hentziectypus* Archer 1946, and *Parasteatoda* Archer 1946 but differs from them in having a male palp with a short to medium embolus, which is not articulated and not supported on the back of the cymbium; the base is fused to the median apophysis, located in the hood of the cymbium. The *Cryptachaea* epigynum has uncoiled ducts leading to a pair of simple subcircular spermathecae. Twelve new species of *Cryptachaea* are here newly described from South America, seven from Brazil: *Cryptachaea cidae* new species from the state of Rio Grande do Sul; *C. alleluia* new species from Minas Gerais and Paraná; *C. spectabilis* new species from Paraná; *C. divisor* new species from the states of Amazonas, Acre, Rio de Janeiro, and Paraná; *C. floresta* new species from Amazonas; *C. ericae* new species and *C. propinqua* new species both from the state of Rio Grande do Sul. *Cryptachaea catita* new species occurs in Brazil and Argentina. Two new species are from Peru (*C. tambopata* new species and *C. paquisha* new species) and two are from Bolivia (*C. benivia* new species and *C. lavia* new species).

**Keywords:** Neotropical Region, Argentina, Bolivia, Brazil, Peru

*Cryptachaea* was first proposed by Archer (1946) as a subgenus of *Theridion* Walckenaer 1805, and was then elevated to genus level (Archer 1950) with *Theridion catapetraeum* Gertsch and Archer 1942 as the type species (= *Cryptachaea porteri* (Banks 1896)). Although Levi (1955) considered the name *Cryptachaea* as a junior synonym of *Achaeearanea* Strand 1929, recently Yoshida (2008) revalidated the genus. Currently, the genus contains 75 species, of which 57 occur in the tropics (World Spider Catalog 2014).

*Cryptachaea* is closely related to *Achaeearanea*, *Hentziectypus* Archer 1946 and *Parasteatoda* Archer 1946 but can be distinguished from these genera by its male palp with a short to medium embolus, which is not articulated and not supported on the back of the cymbium; the base is fused to the median apophysis lodged in the cymbial hood (Levi 1955; Agnarsson 2004; Yoshida 2008; Buckup et al. 2012). The epigynum of *Cryptachaea* has simple, uncoiled ducts leading to a pair of simple subcircular spermathecae and a slightly sclerotized plate. The species of *Cryptachaea* lack the theridiid regular apophysis, and as other members of the subfamily Theridiinae, also lack a colulus (Agnarsson 2004; Buckup et al. 2012). In this paper we describe and illustrate twelve new species of *Cryptachaea* from Peru, Bolivia, Argentina, and Brazil.

### METHODS

Genital terminology follows Levi & Levi (1962), Agnarsson (2004), and Agnarsson et al. (2007). The female genitalia were cleared in lactic acid 85% for an hour, in ambient temperature, allowing the visualization of the internal structures. The illustrations were made with a stereomicroscope with a camera lucida, and sometimes a microscope was used for better analysis of the ducts. The measurements are in millimeters (mm).

The individuals examined are deposited in the following institutions (curators in parentheses): IBSP, Instituto Butan-

tan, São Paulo (A.D. Brescovit); INPA, Instituto Nacional de Pesquisas Amazônicas, Manaus (C. Magalhães; A.L. Henriques); MCN, Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre (R. Ott); MUSM, Museu de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima (D. Silva); MLP, Museu de La Plata, La Plata (L.A. Pereira); MPEG, Museu Paraense Emílio Goeldi, Belém (A.B. Bonaldo); NMNH, National Museum of Natural History, Smithsonian Institution, Washington D. C. (J.A. Coddington).

Abbreviations used in figures and text are as follows: AME, anterior median eyes; PME, posterior median eyes; ALE, anterior lateral eyes; PLE, posterior lateral eyes.

### TAXONOMY

Family Theridiidae Sundevall 1833  
Subfamily Theridiinae Sundevall 1833  
Genus *Cryptachaea* Archer 1946  
*Cryptachaea cidae* new species

Figs. 1a–c, 3b

**Type material.**—Holotype: Male (MCN 24450), BRAZIL, Rio Grande do Sul, Cambará do Sul, Área de Preservação Ambiental Celulose Cambará, 26.xi.1993, L. Moura leg. Paratype: Female (MCN 28865), São Francisco de Paula, Barragem Passo do Inferno, 19.xi.1997, M.A.L. Marques leg.

**Etymology.**—The specific name honors the arachnologist Maria Aparecida L. Marques (MCN/FZBRS), nicknamed Cida, in recognition for her many contributions to this manuscript, including some illustrations. The species epithet is a genitive noun.

**Diagnosis.**—The male palpus of *Cryptachaea cidae* new species differs from the other species of the genus by the apex of the cymbium with a conspicuous retrolateral digiform prong (Fig. 1a). The females have a rounded epigynum, as *C. lisei* Buckup, Marques & Rodrigues 2010 (see Buckup et al. 2010, Fig. 11), but differ from this species by the position of



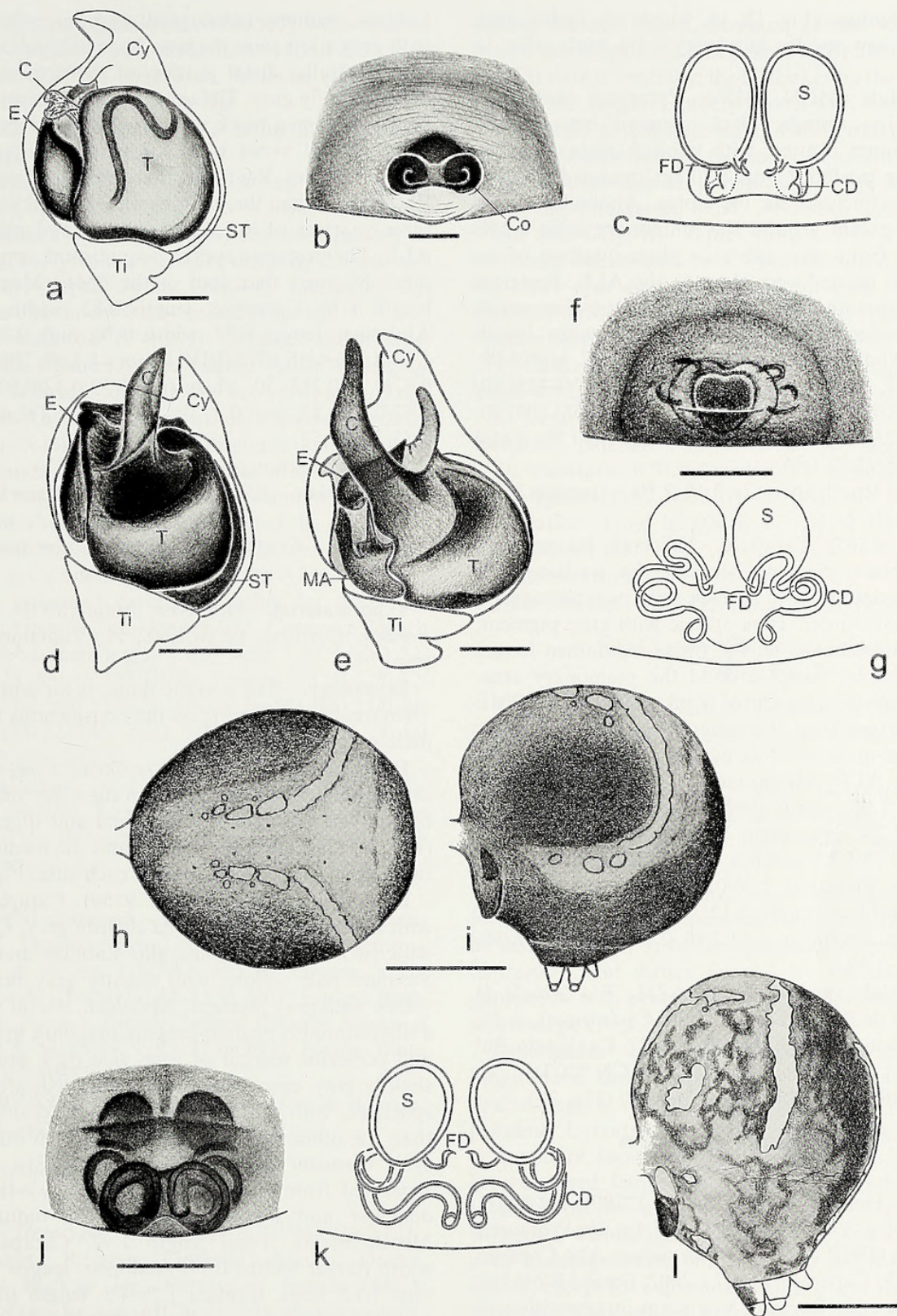


Figure 1a-l.—*Cryptachaea* new species. *Cryptachaea cidae* new species. a. male palpus, ventral; b. epigynum, ventral; c. epigynum, dorsal. *Cryptachaea alleluia* new species. d. male palpus, ventral. *Cryptachaea spectabilis* new species. e. male palpus, ventral. *Cryptachaea divisor* new species. f. epigynum, ventral; g. epigynum, dorsal; h. female habitus, dorsal; i. female habitus, lateral. *Cryptachaea floresta* new species. j. epigynum, ventral; k. epigynum, dorsal; l. female habitus, lateral. Scale bars: a–g, j, k = 0.1 mm; h, i, l = 0.5 mm (C, conductor; CD, copulatory ducts; Cy, cymbium; E, embolus; FD, fertilization ducts; MA, median apophysis; O, copulatory opening; S, spermathecae; ST, subtegulum; T, tegulum; Ti, tibia).



the copulatory openings (Fig. 1b, c), which are facing each other in *C. cidae* **new species** but away from each other in *C. lisei*.

**Description.**—Male (MCN 24450): Carapace, chelicerae, labium, and endites orange; black pigment between the median eyes. Sternum orange, with a black stain near the coxae I and in the posterior border. Legs orange with gray pigment, more conspicuous on the tibiae. Abdomen longer than high, black, except around the pulmonary area. AME largest, separated from each other by three-quarters of an eye's diameter and located very close to the ALE. Posterior eyes equidistant, separated from each other by the diameter of the PME. Measurements. Total length 2.47. Carapace: length 1.17, width 0.97. Abdomen: length 1.37, width 0.87, high 0.92. Legs formula 1423, length I/II/III/IV: femora 1.67/1.12/0.80/1.27; patellae 0.50/0.42/0.35/0.40; tibiae 1.30/0.75/0.50/0.80; metatarsi 1.55/0.92/0.65/0.87; tarsi 0.65/0.52/0.40/0.52. Total legs length 5.67/3.73/2.70/3.86.

**Variation:** Total length (n = 2) 2.44–2.50; carapace 1.15–1.18; femur I 1.62–1.72.

**Female** (MCN 28865): Carapace, chelicerae, labium, and endites orange; black pigment between the median eyes. Sternum yellowish-orange, with a black stain near the coxae I and in the posterior border. Legs orange with gray pigment, which are more conspicuous on the tibiae. Abdomen longer than high, dark brown except around the pulmonary area. Posterior eyes equidistant, separated from each other by PME diameter. AME larger than the other eyes, separated from each other by three-quarters of an eye's diameter and located very close to the ALE. Measurements. Total length 2.82. Carapace: length 1.06, width 0.92. Abdomen: length 1.70, width 1.22, high 1.25. Legs, formula 1423, length I/II/III/IV: femora 1.56/1.02/0.78/1.25; patellae 0.44/0.37/0.30/0.47; tibiae 1.12/0.68/0.51/0.85; metatarsi 1.36/0.81/0.51/0.91; tarsi 0.64/0.54/0.40/0.54. Total legs length: 5.12/3.42/2.50/4.02.

**Variation.**—Total length (n = 6) 2.80–2.91; carapace 1.04–1.08; femur I 1.56–1.62.

**Additional material examined.**—BRAZIL, *Rio Grande do Sul*: São Francisco de Paula (Fazenda Três Cachoeiras), ♂, 4♀, 05.xi.1998, A.B. Bonaldo leg. (MCN 30942); Caxias do Sul (Vila Oliva), ♀, 15.i.1974, F.R. Meyer leg. (MCN 2003).

**Distribution.**—BRAZIL (*Rio Grande do Sul*) (Fig. 3b).

#### *Cryptachaea alleluia* **new species**

Figs. 1d, 3a

**Type material.**—Holotype: Male (MCN 22700), BRAZIL, *Paraná*, Ponta Grossa (Vila Velha), 19.i.1987, Equipe Profaupar leg. Paratype: Male (IBSP 165997), *Minas Gerais*, Alto Caparaó (Parque Nacional do Caparaó), 01–07.v.2002, Equipe Biota leg.

**Etymology.**—The specific name is a noun in apposition of Hebrew origin (Hallelujah) that means “praise to God,” reflecting the accidental loss and subsequent recovery of the type specimen.

**Diagnosis.**—*Cryptachaea alleluia* **new species** (Fig. 1d) resembles *C. spectabilis* **new species** (Fig. 1e) by the prominent conductor, which can be distinguished in *C. alleluia* **new species** by its laminar shape and pointed distal end and by the shape of the palpal tibia (Fig. 1d).

**Description.**—Male (MCN 22700). Carapace yellow with gray pigment. Chelicerae dark yellow with gray pigment.

Labium, endites, coxae, and sternum pale yellow; sternum with gray spots near the legs. Legs pale yellow; leg I, partially gray ventrally; distal portion of the articles gray, with tarsi almost totally gray. Tibiae IV, with a conspicuous dark-ringed band. Abdomen black with a wide transversal and uncolored band (dorsal view) with stridulatory organs in the dorsal anterior border. Ventrally, there are two circular yellow stains. PME larger than the other eyes, separated from each other by three-quarters of an eye's diameter and placed close to the ALE. The posterior eyes are equidistant, separated from each other by more than half of the PME. Measurements. Total length 1.70. Carapace: length 0.82, width 0.70, high 0.87. Abdomen: length 0.87, width 0.70, high 0.87. Legs, formula 1,2=4,3, length I/II/III/IV: femora 1.12/0.75/0.57/0.80; patellae 0.37/0.32/0.25/0.30; tibiae 0.85/0.52/0.32/0.50; metatarsi 0.87/0.52/0.37/0.52; tarsi 0.47/0.42/0.35/0.40. Total legs length: 3.68/2.53/1.86/2.52.

**Female:** unknown.

**Distribution.**—BRAZIL (*Paraná* and *Minas Gerais*)—(Fig. 3a).

#### *Cryptachaea spectabilis* **new species**

Figs. 1e, 3a

**Type material.**—Holotype: Male (MCN 9159), BRAZIL, *Paraná*, Curitiba, 02.xii.1978, A. Yamamoto leg. (Malaise trap).

**Etymology.**—The specific name is an adjective that means “remarkable,” referring to the conspicuous conductor of the male palpus.

**Diagnosis.**—The male of *Cryptachaea spectabilis* **new species** can be easily distinguished from the other species of the genus by the very developed, sclerotized and digitiform conductor (Fig. 1e). The embolus is short and the median apophysis has two lateral projections, one on each side (Fig. 1e).

**Description.**—Male (MCN 9159). Carapace dark yellow, with median and lateral area slightly gray. Chelicerae yellow, with two teeth in promargin. Labium and endites yellow. Sternum pale yellow, with slightly gray borders. Legs pale yellow with gray pigment. Abdomen, dorsal view, yellow with a discontinuous median-longitudinal dark gray band; anterior and posterior margin of each side dark gray. Ventral view, slightly gray, except for two circular yellow marks. Abdomen spherical, with stridulatory organs anteriorly. AME smaller than the other eyes, separated from each other by almost an eye's diameter and placed very close to the ALE. PME separated from each other by about two-thirds of an eye's diameter and by approximately its radius to the ALE. Measurements. Total length 1.92. Carapace: length 0.85, width (larger width) 0.77. Abdomen length 1.02, width 0.87, high 1.12. Legs, formula 1,2=4,3, length I/II/III/IV: femora 1.25/0.85/0.65/0.92; patellae 0.40/0.35/0.25/0.32; tibiae 0.89/0.57/0.37/0.57; metatarsi 0.97/0.60/0.44/0.57; tarsi 0.55/0.44/0.37/0.42. Total legs length: 4.96/2.81/2.08/2.80.

**Female:** unknown.

**Distribution.**—BRAZIL (*Paraná*) (Fig. 3a).

#### *Cryptachaea divisor* **new species**

Figs. 1f–i, 3a

**Type material.**—Holotype: Female (IBSP 8966), BRAZIL, *Acre*, Parque Nacional da Serra do Divisor (Piroca), 9.xi.1996,



R.S. Vieira leg. Paratypes: female (MCN 48503), same data as holotype; female (IBSP 9156), (Pedernal), 13.xi.1996, R.S. Vieira leg.; female (INPA), Amazonas, Manaus (Igapó, rio Tarumã-Mirim), 08.ii.1988, H. Höfer leg.

**Etymology.**—The specific name is a noun in apposition taken from the type locality.

**Diagnosis.**—Females of *Cryptachaea divisor* new species resemble those of *C. dalana* (Buckup and Marques 1991) (see Buckup and Marques 1991, Figs. 4–6) by the color pattern of the abdomen (Fig. 1h, i) from which they differ by the unusual subtriangular, heart-shaped atrium (Fig. 1f). Internally, the copulatory duct is characteristically coiled (Fig. 1g).

**Description.**—*Female* (MCN 48503). Carapace brown with gray radial grooves. Chelicerae and endites yellow with gray pigment. Palpus, sternum, and labium brownish-gray. Legs brown and yellow. Abdomen spherical, dark brown, dorsally with a pair of narrow longitudinal and discontinuous, laterally diverging white bands (Fig. 1h, i); posterior area with sparse white dots and a vestigial median longitudinal white band; there are two small white marks on each side of the spinnerets. Venter dark gray. Eyes are subequal. AME separated from each other by an eye's diameter, close to the ALE. Posterior eyes equidistant, separated from each other by the PME diameter. Measurements. Total length 1.85. Carapace: length 0.74, width 0.59. Abdomen: length 1.25, width 1.20, high 1.32. Legs, formula 1423, length I/II/III/IV: femora 0.82/0.67/0.52/0.78; patellae 0.27/0.25/0.21/0.29; tibiae 0.55/0.39/0.25/0.44; metatarsi 0.59/0.42/0.32/0.46; tarsi 0.40/0.36/0.29/0.34. Total legs length: 2.63/2.09/1.59/2.31.

Variation: Total length ( $n = 6$ ) 1.76–2.03; carapace 0.67–0.74; femora I 0.74–0.94. Some females have the abdomen laterally black and the dorsum with depigmented bands. The trajectory of the genital ducts may vary in specimens.

Male: unknown.

**Additional material examined.**—BRAZIL, Amazonas: Manaus (Igapó, rio Tarumã-Mirim), ♀, 30.vii.1979 (canopy fogging.) J. Adis et al. leg. (INPA); Rio de Janeiro: Volta Redonda (Floresta da Cicuta), ♀, 11–18.vi.2001, Equipe Biota leg. (IBSP 85806); Paraná: Foz do Iguaçu (Parque Nacional do Iguaçu), 25°36'S, 54°25'W, ♀, 03–12.iii.2002, Equipe Biota leg. (MCN 48504); ♀ (IBSP 85805).

**Distribution.**—BRAZIL (Amazonas, Acre, Rio de Janeiro, and Paraná) (Fig. 3a).

*Cryptachaea floresta* new species

Figs. 1j–l, 3a

**Type material.**—*Holotype*: Female (MCN 21994), BRAZIL, Amazonas, Manaus, Reserva Florestal Adolfo Ducke, 18.xii.1987, E.H. Buckup leg. Paratypes: female (MCN 21995), as in holotype; female (MCN 21293), as in holotype, 15–23.viii.1991, A.D. Brescovit leg.; 3 females (MCTP 8774), as in holotype, 19–24.ii.1992, A.A. Lise & A.B. Bonaldo leg.

**Etymology.**—The specific name is a noun in apposition that refers to the forested area of the type locality.

**Diagnosis.**—Females of *Cryptachaea floresta* new species (Fig. 1l), resemble those of *Cryptachaea benivia* new species by the color pattern, but they differ by the projecting and transparent epigynum with long and wide ducts making two coils (Fig. 1j, k).

**Description.**—*Female* (MCN 21994). Carapace dark yellow with gray pigment. Chelicerae and labium yellow; endites pale

yellow, basally brown. Sternum yellow, with irregular light brown markings. Legs pale yellow with narrow dark bands; legs I and II darker ventrally; leg IV darker on the patella. Abdomen higher than longer. Dorsum brown with two wide paramedian white bands united anteriorly; a wide transversal white band limiting the anterior and the posterior area. Posterior area dark brown with a median-longitudinal white line that does not reach the transversal band. Abdomen laterally brown with white dots (Fig. 1l). Venter brown, with two circular white markings, one on each side. Eyes red ringed. AME larger than the other eyes and separated from each other by almost a diameter. AME close to the ALE. PME apart from each other by little more than a diameter and separated from PLE by half of PME diameter. Measurements. Total length 1.70. Carapace: length 0.72, width 0.57. Abdomen: length 1.05, width 1.10, high 1.32. Legs, formula 1423, length I/II/III/IV: femora 0.85/0.62/0.44/0.67; patellae 0.32/0.27/0.22/0.30; tibiae 0.55/0.37/0.22/0.40; metatarsi 0.57/0.40/0.30/0.47; tarsi 0.42/0.35/0.30/0.35. Total legs length: 2.71/2.01/1.48/2.19.

Variation: Total length ( $n = 6$ ) 1.62–1.87; carapace 0.67–0.77; femur I 0.85–0.92.

Male: unknown.

**Distribution.**—BRAZIL (Amazonas). (Fig. 3a)

*Cryptachaea ericae* sp. nov.

Figs. 2a–c, 3a

**Type material.**—*Holotype*: Female (MCN 9977), BRAZIL, Rio Grande do Sul, Espumoso, Salto do Jacuí, 14.i.1982, A.A. Lise leg.

**Etymology.**—The specific name honors the arachnologist Erica H. Buckup (MCN/FZBRS), in recognition for her many contributions to this manuscript. The species epithet is a genitive noun.

**Diagnosis.**—*Cryptachaea ericae* new species resembles *C. bonaldoi* Buckup, Marques and Rodrigues 2010 (see Buckup et al. 2010, Figs. 8, 9) by the epigynum with a well-demarcated depression, but differs from it by the transversal epigynal depression with projected posterior portion in the shape of a small scape (Fig. 2a, b).

**Description.**—*Female* (MCN 9977). Carapace yellow with a longitudinal band shaped as a “V,” lateral borders and the ocular region dark brown. Chelicerae yellow with gray pigment. Labium and endites pale yellow. Sternum yellow with a dark brown border (Fig. 2c). Legs pale yellow, dark brown ringed; femora with many small dark stains anteriorly. Dorsum of the abdomen with dark brown pigment but without a well-defined color pattern; posterior median hump with a depigmented line until the spinnerets. Venter dark brown, except for a depigmented ring near the spinnerets. Eyes subequal. AME separated from each other by almost an eye's diameter and separated from the ALE by a radius of the AME. Posterior eyes equidistant, separated by almost the diameter of the PME. Measurements. Total length 5.85. Carapace: length 2.00, width 1.85. Abdomen: length, 3.85, width 3.84, high 4.65. Legs, formula 1423, length I/II/III/IV: femora 3.84/2.50/1.79/3.00; patellae 0.89/0.85/0.75/0.89; tibiae 2.35/1.40/0.95/1.75; metatarsi 3.25/1.95/1.35/2.30; tarsi 1.25/0.95/0.80/1.05. Total legs length: 11.58/7.65/5.64/8.99.

Male: unknown.

**Distribution.**—Brazil (Rio Grande do Sul) (Fig. 3a).



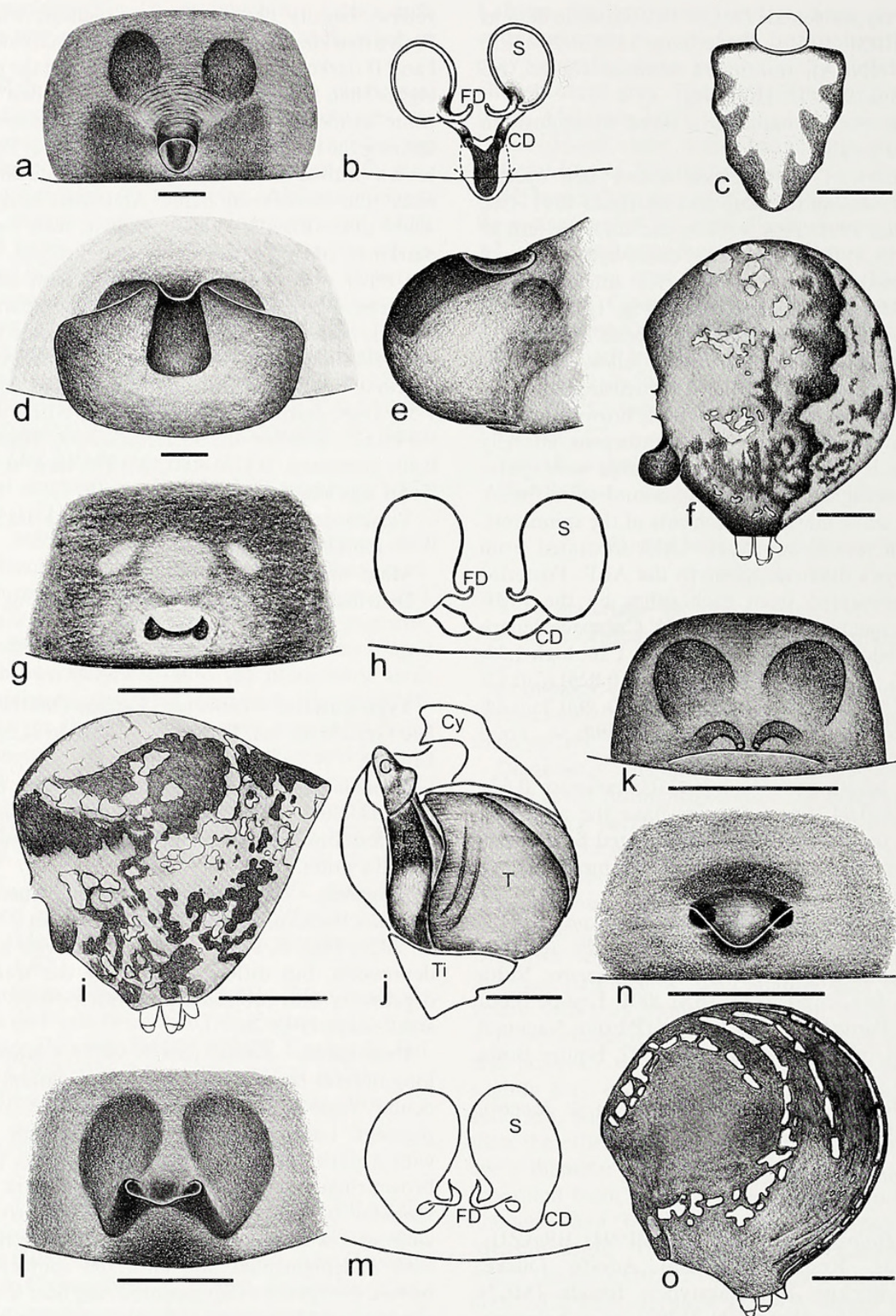


Figure 2a-o.—*Cryptachaea* new species. *Cryptachaea ericae* new species. a. epigynum, ventral; b. epigynum dorsal; c. female sternum. *Cryptachaea propinqua* new species. d. epigynum, ventral; e. epigynum, lateral; f. female habitus, lateral. *Cryptachaea catita* new species. g. epigynum, ventral; h. epigynum, lateral; i. female habitus, lateral. *Cryptachaea tambopata* new species. j. male palpus, ventral. *Cryptachaea paquisha* new species. k. epigynum, ventral. *Cryptachaea benivia* new species. l. epigynum, ventral; m. epigynum, dorsal. *Cryptachaea lavia* new species. n. epigynum, ventral; o. female habitus, lateral. Scale bars: a, b, d, e, g, h, j-n = 0.1 mm; o = 0.25 mm; c, f, i = 0.5 mm (C, conductor; CD, copulatory ducts; Cy, cymbium; E, embolus; FD, fertilization ducts; MA, median apophysis; S, spermathecae; T, tegulum; Ti, tibia).



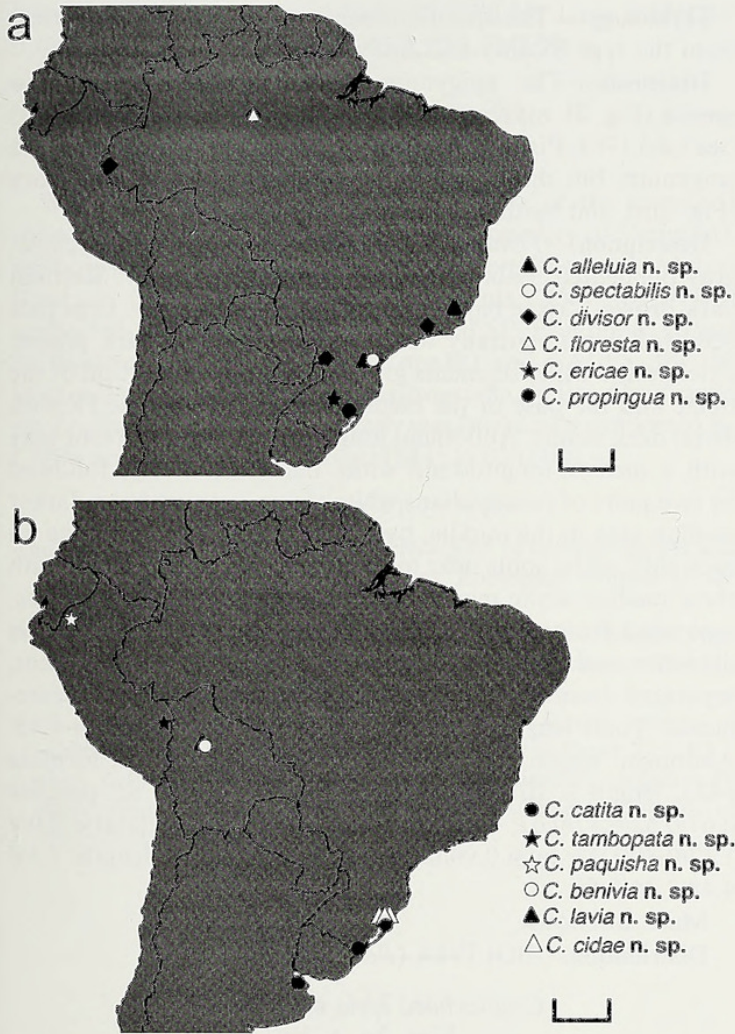


Figure 3a, b.—Distribution maps of *Cryptachaea* new species. Scale bars: 500 km.

*Cryptachaea propinqua* new species  
Figs. 2d–f, 3a

**Type material.**—*Holotype*: Female (MCN 313), BRAZIL, Rio Grande do Sul, Guaíba, 03.i.1974, A.A. Lise leg.

**Etymology.**—The specific name is a Latin adjective that means “similar.”

**Diagnosis.**—The female of *Cryptachaea propinqua* new species (Fig. 2e, f) resembles that of *C. gigantea* (Keyserling 1884) (see Levi 1963, Figs. 52–54) by the prominent and very sclerotized epigynum (Fig. 2e), but differs by the conspicuous longitudinal black stain in the epigynum close to the genital opening (Fig. 2d).

**Description.**—*Female* (MCN 313). Carapace dark brown (borders darker), with gray pigment and radial grooves. Chelicerae yellow, slightly gray. Labium and endites reddish-brown. Sternum reddish-brown (borders darker), except by a small central yellow marking. Legs pale yellow, ringed; coxae with dark brown apex. Abdomen higher than longer; dorsum yellow, with a group of white markings on each side (Fig. 2f); posterior area with white pigment, with a narrow dark brown band and a small irregular brown markings; laterally, on each side, two white stains. Venter yellowish-brown, laterally with two longitudinal paramedian white stains; spinnerets surrounded by dark brown pigment. AME smaller than the other

eyes. AME separated from each other by about a half of an eye's diameter and placed close to the ALE. Posterior eyes with the same size and equidistance, separated from each other for about three-quarters of the PME. Measurements. Total length 3.34. Carapace: length 1.17, width 1.05. Abdomen: length 2.37, width 2.12, high 2.75. Legs, formula 1423, length I/II/III/IV: femora 1.87/1.22/0.87/1.50; patellae 0.57/0.47/0.37/0.52; tibiae 1.30/0.77/0.47/0.87; metatarsi 1.62/0.92/0.65/1.07; tarsi 0.75/0.55/0.47/0.57. Total legs length: 6.11/3.93/2.83/4.53.

Male: unknown.

**Distribution.**—BRAZIL (Rio Grande do Sul) (Fig. 3a).

*Cryptachaea catita* new species  
Figs. 2g–i, 3b

**Type material.**—*Holotype*: Female (MCN 16162), BRAZIL, Rio Grande do Sul, Rio Grande, Estação Ecológica do Taim, 04.xii.1986, A.D. Brescovit leg. Paratypes: female (MCN 13995), Santa Vitória do Palmar, Estação Ecológica do Taim, 26.xi.1985, M.A.L. Marques leg.; female (MCTP 2208), Palmares do Sul, Praia do Quintão, 06.ix.1992, A.P. Petersen leg.; female (MLP 16283), ARGENTINA, La Plata, undated, R. Costa leg.

**Etymology.**—The specific name is a Latin adjective that means “graceful.”

**Diagnosis.**—The epigynum of *Cryptachaea catita* new species (Fig. 2g, h) resembles that of *C. passiva* (Keyserling 1891) (see Levi 1963, Figs. 26, 27) by the shape of the copulatory openings, but differs by the conspicuous median hump at the apex of the abdomen, which is absent in *C. catita* (Fig. 2i).

**Description.**—*Female* (Holotype). Carapace dark brown, with dark grooves and yellow stains and wide pale yellow bands extending laterally in the thoracic region. Labium and endites pale yellow. Chelicerae yellowish-gray. Sternum pale yellow, with light brown stains running laterally, and three small humps on each side. Legs pale yellow; all femora and tibiae anteriorly with dark bands; distal portion of the metatarsi ringed. Abdomen with a dorsal median hump. Dorsum with white and black pigment; lateral area black with yellow stains. Venter with black and yellow stains, and two paramedian white bands. Subequal eyes. AME separated from each other by about an eye's diameter and separated from the ALE by one-fifth of the AME diameter. Posterior eyes equidistant, separated from each other by about three-fourths of the PME. Measurements. Total length 2.47. Carapace: length 0.80, width 0.70. Abdomen: length, 1.60, width 1.17, high 1.52. Legs, formula 1423, length I/II/III/IV: femora 1.22/0.80/0.62/1.00; patellae 0.37/0.32/0.27/0.35; tibiae 0.75/0.50/0.35/0.57; metatarsi 0.85/0.55/0.40/0.62; tarsi 0.47/0.35/0.32/0.40. Total legs length: 3.66/2.52/1.96/2.94.

Variation: ( $n = 4$ ) Carapace length, 0.80–0.97; femur I, 1.22–1.47. Sternum may have a brown border.

Male: unknown.

**Distribution.**—BRAZIL (Rio Grande do Sul) and ARGENTINA (La Plata) (Fig. 3b).

*Cryptachaea tambopata* new species  
Figs. 2j, 3b

**Type material.**—*Holotype*: male (MUSM), PERU, Madre de Dios, Zona Reservada Tambopata, 23.vii.1987, D. Silva leg.

**Etymology.**—The specific name is a noun in apposition taken from the type locality.



**Diagnosis.**—The male palpus of *Cryptachaea tambopata* new species resembles to those of *C. pura* (O. P.-Cambridge 1894) (see Levi 1959, Fig. 44), but differs from that species by the apex of the cymbium with one obtused tip and one acuted tip. The conductor is small with an obtuse apex (Fig. 2j).

**Description.**—*Male* (Holotype). Carapace yellowish-gray, darker in the median-longitudinal area. Chelicerae with gray pigment and two teeth in the promargin. Labium (fused to the sternum), endites and sternum whitish; sternum with brown borders. Legs whitish with dark bands in the middle of the distal portion of the segments; anterior femora ventrally gray. Abdomen dorsum yellow, black stained, with yellow areas and some white pigment; posterior area with a median-longitudinal white line. Venter darker, with two small white stains, one on each side, between the epigastric furrow and the spinnerets. Subequal eyes. AME separated from each other by a half an eye's diameter and close to the ALE; PME separated from each other by a radius and from the PLE by one-quarter of a diameter. Measurements. Total length 1.60. Carapace: length 0.75, width 0.67. Abdomen: length 0.82, width 0.70, high 0.95. Legs, formula 1423, length I/II/III/IV: femora 1.05/0.67/0.47/0.77; patellae 0.32/0.27/0.22/0.27; tibiae 0.65/0.42/0.30/0.45; metatarsi 0.67/0.45/0.32/0.50; tarsi 0.50/0.37/0.27/0.37. Total legs length: 3.19/2.18/1.58/2.36.

Female: unknown.

**Distribution.**—PERU (*Madre de Dios*) (Fig. 3b).

*Cryptachaea paquisha* new species

Figs. 2k, 3b

**Type material.**—*Holotype*: female (MUSM), PERU, Amazonas, alto río Comaina "Falso Paquisha," Puesto de vigilancia 22, 850–1150 m, 21.x–3.xi.1987, D. Silva leg.

**Etymology.**—The specific name is a noun in apposition taken from the type locality.

**Diagnosis.**—Female of *Cryptachaea paquisha* new species differs from the other species by the epigynum protruding moderately with curved ducts, visible by transparency (Fig. 2k).

**Description.**—*Female* (Holotype). Carapace, labium, endites, chelicerae, and sternum yellow with gray pigment. Legs dark yellow, except femora I pale yellow with distal part gray, ventrally; other segments with dark bands. Abdomen dorsum yellow, with some areas light brown; two white stains on each side, and brown between. Venter dark, with two paramedian white stains between the epigastric furrow and spinnerets. Spinnerets surrounded by a black ring. AME bigger than the other eyes, separated from each other by an eye's radius and close to the ALE. PME separated from each other by an eye's diameter and separated from the PLE by two-thirds of the PME diameter. Measurements. Total length 2.07. Carapace: length 0.85, width 0.72. Abdomen: length 1.20, width 1.05, high 1.30. Legs, formula 1423, length I/II/III/IV: femora 1.07/0.75/0.52/0.90; patellae 0.40/0.35/0.27/0.35; tibiae 0.67/0.42/0.25/0.52; metatarsi 0.72/0.47/0.32/0.55; tarsi 0.47/0.40/0.32/0.42. Total legs length: 3.33/2.39/1.68/2.74.

Male: unknown.

**Distribution.**—PERU (*Amazonas*) (Fig. 3b).

*Cryptachaea benivia* new species

Figs. 2l, m, 3b

**Type material.**—*Holotype*: Female (USNM), BOLIVIA, Beni, Estación Biologica del Beni, 08–14.ix.1987, S. Larcher & J. Coddington leg.

**Etymology.**—The specific name is a combination of letters from the type locality and Bolivia.

**Diagnosis.**—The epigynum of *Cryptachaea benivia* new species (Fig. 2l, m) resembles that of *C. banosensis* (Levi 1963) (see Levi 1963, Figs. 60, 61) by the shape of the depression of the epigynum, but differs from it by the internal duct trajectory (Fig. 2m), and by the lack of the large black dots.

**Description.**—*Female* (Holotype). Carapace dark yellow, gray pigmented. Labium and endites yellowish-gray. Sternum dark brown. Coxae pale yellow, except coxae I gray. Legs pale yellow; femora ventrally with the distal portion dark yellow; patellae and other segments gray dorsally; distal portion of the tibiae and the base of the metatarsi dark gray; tibiae IV with distal dark bands. Abdomen, longer than higher; dorsum gray with a median-longitudinal white band, anteriorly, followed by two pairs of paramedians white stains, surrounded a darker median area in the middle; two transversal white lines, one on each side; white spots near to the spinnerets. Venter black with three median white marks. Subequal eyes. AME largest eyes, separated from each other by almost three-quarters of eye diameter and close to the ALE. Posterior eyes equidistant, separated from each other by the PME diameter. Measurements. Total length 3.05. Carapace: length 1.42, width 1.15. Abdomen: length 2.00, width 1.85, high 1.57. Legs, formula 1423, length I/II/III/IV: femora 2.25/1.37/1.00/1.82; patellae 0.67/0.52/0.47/0.62; tibiae 1.57/0.77/0.55/1.00; metatarsi 2.00/1.17/0.80/1.42; tarsi 0.90/0.65/0.52/0.70. Total leg length: 7.39/4.48/3.34/5.56.

Male: unknown.

**Distribution.**—BOLIVIA (*Beni*) (Fig. 3b).

*Cryptachaea lavia* new species

Figs. 2n, o, 3b

**Type material.**—*Holotype*: Female (MCN 24687), BOLIVIA, Beni, Estación Biologica del Beni, 27–29.vii.1993, H. Höfer & A.D. Brescovit leg.

**Etymology.**—The specific name is a random combination of letters.

**Diagnosis.**—The epigynum of *Cryptachaea lavia* new species (Fig. 2n) resembles that of *C. manzanillo* (Levi 1959) (see Levi 1959, Figs. 27, 28) by the median lobe in the anterior border of the epigynum, but differs from it by the color pattern (Fig. 2o) and by the closely positioned copulatory openings (Fig. 2n).

**Description.**—*Female* (MCN 24687). Carapace, labium, endites, and sternum dark yellow with brown pigment. Chelicerae yellow, promargin with one tooth. Legs dark yellow, except by the proximal and distal portion of the femora, which is pale yellow; coxae pale yellow, gray stained. Abdomen yellow; dorsum, anteriorly, with two paramedian white bands and then, three narrow white lines on each side, descendant laterally, but only the median one reaches the pulmonary area; posterior area with a narrow median-longitudinal white line, from the spinnerets to the third lateral line (Fig. 2o). Eyes subequal. AME separated from each other by two-third of its diameter and close to the ALE. Posterior eyes equidistant, separated from each other by two-thirds of the PME diameter. Measurements. Total length 2.42. Carapace: length 0.72, width 0.65. Abdomen: length 0.72, width 1.47, high 1.75. Legs, formula 1423, length I/II/III/IV: femora 0.97/0.72/0.55/0.80; patellae 0.32/0.27/0.20/0.32; tibiae 0.62/



0.37/0.30/0.72; metatarsi 0.70/0.47/0.37/0.55; tarsi 0.44/0.37/0.30/0.40. Total legs length: 3.05/2.20/1.72/2.79.

Male: unknown.

**Distribution.**—BOLIVIA (*Beni*) (Fig. 3b).

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