A taxonomic revision of the spider genus *Ariadna* Audouin, 1826 in Argentina and Chile, with the description of five new species (Arachnida, Araneae, Segestriidae)

Cristian J. GRISMADO
División Aracnología,
Museo Argentino de Ciencias Naturales "Bernardino Rivadavia",
av. Angel Gallardo 470, C1405DJR Buenos Aires (Argentina)
grismado@macn.gov.ar.

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ABSTRACT
The spider genus *Ariadna* Audouin, 1826 is represented in the Argentinean and Chilean faunas by nine species at least. Four of them were previously known: *A. maxima* (Nicolet, 1849), widely distributed in Chile and recorded for the first time in Argentina; *A. cephalotes* Simon, 1907, from Peru and Bolivia, newly recorded in northwestern Argentina; *A. mollis* (Holmberg, 1876) and *A. boesenbergi* Keyserling, 1877 from Argentina, also found in Uruguay and Brazil. Five new species are here described: *A. calilegua* n. sp. from northwestern Argentina, and four species from different regions of Chile are also described: *A. changellkuk* n. sp.; *A. abrilae* n. sp.; *A. levii* n. sp. and *A. araucana* n. sp. The type specimens of the Chilean species described by Nicolet (1849, under *Dysdera*) were examined, confirming all the synonymies established by Simon in 1896 (*D. virens*, *D. incerta*, *D. coarctata* and *D. longipes* with *A. maxima*). The internal genital structures show diagnostic characters for the identification of females. *Ariadna mollis* and *A. boesenbergi* are sympatric only in the region of Buenos Aires city and Uruguay, but not in other parts of their geographic ranges.

KEY WORDS
Arachnida,
Araneae,
Segestriidae,
Ariadna,
Argentina,
Chile,
new species.

RÉSUMÉ
Révision taxonomique du genre Ariadna *Audouin, 1826 en Argentine et au Chili, et description de cinq espèces nouvelles (Arachnida, Aranae, Segestriidae).*
Le genre d'araignées *Ariadna* Audouin, 1826 est représenté en Argentine et au Chili par au moins neuf espèces, dont quatre étaient déjà connues : *A. maxima* (Nicolet, 1849), largement répandue au Chili et mentionnée d'Argentine pour la première fois ; *A. cephalotes* Simon, 1907, du Perou et de Bolivie, nouvellement notée du nord-ouest de l'Argentine ; *A. mollis* (Holmberg, 1876) et *A. boesenbergi* Keyserling, 1877 d'Argentine, trouvées aussi en Uruguay et au Brésil ; et cinq espèces décrites ici : *A. calilegua* n. sp. du nord-ouest de l'Argentine, et quatre espèces du Chili : *A. changellkuk* n. sp. ; *A. abrilae* n. sp. ; *A. levii* n. sp. and *A. araucana* n. sp. Les spécimens type des espèces chiliennes décrites par Nicolet (1849, sous *Dysdera*) ont été examinés, confirmant les synonymies établies par Simon en 1896 (*D. virens*, *D. incerta*, *D. coarctata* et *D. longipes* synonymes d'*Ariadna maxima*). Les structures génitales internes possèdent des caractères diagnostiques permettant l'identification des femelles. *Ariadna mollis* et *A. boesenbergi* ne sont sympatriques que dans la région de la ville de Buenos Aires et en Uruguay, mais pas dans les autres parties de leurs aires de répartition.

MOTS CLÉS
Arachnida,
Araneae,
Segestriidae,
Ariadna,
Argentine,
Chili,
espèces nouvelles.

INTRODUCTION

The family Segestriidae Simon, 1893 comprises six-eyed haplogyne spiders of small to medium size and with the third pair of legs directed forward; they have sedentary and nocturnal habits, living in crevices, holes in trees, rocks, and human buildings, where they construct tubular retreats woven with silk, with an anterior funnel-shaped opening. From the mouth of the retreat radiate several non-viscid threads, which serve to detect potential prey; when an insect touches one of these lines, the spider emerges quickly from the tube and catches it with the chelicerae and the spinose forelegs, and then carries it inside for feeding.

In South America two genera are currently known: the probably introduced *Segestria* Latreille, 1804 and *Ariadna* Audouin, 1826 (Platnick 2007). The latter is distinguished by having the posterior eye row straight or slightly recurved, only one tooth on the cheliceral retromargin, and a short male palpal tarsus, not extending more than the bulb insertion, and with a distal notch (Beatty 1970). The American species of this genus were revised by Beatty (1970), in the most recent work on the systematics of the group.

Beatty concluded that *Ariadna* females lack any genital details separating the species, and for this reason used only somatic characters, mainly the number and arrangement of leg spines (macrosetae). Nevertheless, Brignoli (1976) showed that, at least in three European species of *Segestria*, there are diagnostic differences in the female genitalia, suggesting that these characters must be studied in more detail. Following his suggestion, dissections of the female genitalia of all the species here studied for which females were available were made, and consistent and regular diagnostic features have been found. Males of *Ariadna* show more evident external differences than females in their sexual organs (although not so marked as in other spider groups), and some species have, further, curvatures, apophyses and modified spines on metatarsi I, which are also useful for specific identification (Beatty 1970). These modifications, although not present in all species, presumably function during mating, as occurs in several unrelated groups, including many mygalomorphs, some filistatids and phyxelidids, the austrochilid *Hickmania* Gertsch, 1958, etc. (Raven 1985; Griswold 1990; Ramírez & Grismado 1997; Doran *et al.* 2001). Nevertheless, Beatty's criteria

for identifying females (leg spination, especially the spines on tibiae and metatarsi I and II, and the peculiar preening comb on metatarsi IV) seem to show little intraspecific variability and the utility of these characters have been supported, even for the determination of immatures.

Beatty (1970) recognized the large *A. maxima* Nicolet, 1849 as the only member of this genus present in Chile, distributed in a wide latitudinal range from Antofagasta to Magallanes, and also on the Juan Fernández Archipelago. This species was originally described as *Dysdera maxima* by Nicolet (1849), together with four other species (*D. virens* Nicolet, 1849, *D. incerta* Nicolet, 1849, *D. coarctata* Nicolet, 1849 and *D. longipes* Nicolet, 1849); all these were later synonymized by Simon (1896) and Beatty (1970) with *A. maxima* Nicolet, 1849, being considered variations in size, age, colour or sex of the same species.

Nicolet's type specimens were presumed lost for many years, until Ramírez (1989) found them in the Muséum national d'Histoire naturelle, Paris; the examination of those specimens confirmed the synonymies established by Simon (1896) for all of these.

In Beatty's revision, two species were reported from Argentina: *A. mollis* Holmberg, 1876 and *A. boesenbergi* Keyserling, 1877, remarkable for their sympatry in the area of Buenos Aires city. Both species are usually recognized by the abdominal colour pattern, with dark transverse bands on whitish background (Beatty 1970). Nevertheless, because in the past both species were synonymized (Mello-Leitão 1933, 1947), Prandi (1990) carried out studies on their reproductive behaviour in Uruguay (where these species are also sympatric), trying to obtain interspecific couplings. Her experimental results confirmed that *A. mollis* and *A. boesenbergi* are biospecies.

For this contribution some collections of Chilean and Argentinean specimens were examined, including not only material that enlarges the known geographic range of the previously described species, but also five species new to science: *A. calilegua* n. sp., from Jujuy and Salta provinces (northwestern Argentina); *A. changellkuk* n. sp. from Regions IV to VIII; *A. abrilae* n. sp. from Valparaíso; *A. levii*, n. sp. from Regions V to XI, and *A. araucana*, n. sp. from Regions VII to X (Chile). Detailed descriptions of the internal female genitalia of all the species are also provided.

MATERIAL AND METHODS

The specimens are deposited in the following collections: Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires (MACN-Ar, Cristina L. Scioscia), Muséum national d'Histoire naturelle, Paris (MNHN, Christine Rollard), American Museum of Natural History, New York (AMNH, Norman Platnick), Museum of Comparative Zoology, Cambridge (MCZ, Herbert Levi and Laura Leibersperger).

Abbreviations

ap apical;
D dorsal;
P prolateral;
R retrolateral;
V ventral.

The descriptions of external morphological features are based on single specimens (holotypes or paratypes) and some variability is discussed separately. To study the female genital structures, the abdomen was digested with KOH solution (treated as in Platnick *et al.* 1999). Because of the destructive and irreversible method of dissection of internal female genitalia, undoubtful conspecific specimens, other than type material, were used whenever possible. At least three females were dissected, except in those taxa with little material available. Line drawings were made with a camera lucida on a stereomicroscope (Leitz Wetzlar) or compound microscope (Olympus BH-2); photographs of preserved specimens were taken with a digital camera (Nikon DXM 1200 mounted on a stereomicroscope Nikon SMZ1500); measurements are expressed in mm.

The macrosetae notation is standard for Araneae were possible; for example: PV 0-0-0-1-1 refers to two consecutive distal macrosetae on the prolateral-ventral surface of a given podomere divided in fifths, counting from proximal to distal; for the ventral surfaces (especially on tibiae) if the arrangement

is symmetrical, they are noted by pairs (i.e. V 2-2-2-2), but if not symmetrical, the surface is divided in VP and VR and noted independently (i.e. VP 0-0-1-1-1, VR 1-1-1-1-1). When (as occurs on some metatarsi) it is not possible to match exactly the pairs of macrosetae (because they are displaced from the opposite), the macrosetae dividing the surface in regions are noted, counting the spines as follows: V 1-2-2-2-1-2-2-1-2. If differences are found between the same podomere of both sides, bars are used, for example: P 1-1-1/0, meaning three macrosetae on the prolateral face, but the distal one is absent on the opposite leg. For special arrangements or distributions and particular notes, see the explanations in the text. The distribution of macrosetae on legs III and IV is very variable, even between opposite legs of the same specimen. For this reason, I report the spination for legs I and II, and the fourth metatarsal preening comb.

Some specimens were reared to maturity in the laboratory. For this, glass cylindrical containers (diameter *c.* 25 mm, length *c.* 80 mm) were used; house flies (*Musca domestica* Linnaeus, 1758) were given as food and water was embedded in a piece of cotton.

RESULTS

The female genitalia of *Ariadna*

Beatty (1970: 449) stated that the female of *Ariadna*: "has no epigynum, there being only a shiny, brownish, somewhat elevated patch of cuticle in the genital area. The internal genitalia present no usable taxonomic characters. There is a single median 'seminal receptacle', which probably does not actually receive sperm. Dorsal and posterior to the receptacle is a large membranous bursa copulatrix. Both receptacle and bursa have a uniform structure throughout all the American species."

Without diagnostic characters for the female genitalia, Beatty explored a series of features (mainly mensurable) suitable to a statistical analysis of intraspecific variability: "The list of characters ultimately settled on for intensive investigation and statistical analysis included the entire spination of appendages, the cheliceral teeth, and a series of measurements. Other characters were omitted as being unsuited for statistical tratment." (Beatty 1970: 446). Brignoli (1976) examined the morphology of segestriid genital organs in greater detail, attempted to establish a terminology and investigated the homologies for these structures, discussing their taxonomic value. He published convincing illustrations of the female genitalia of *Ariadna insidiatrix* Audouin, 1826 and three different European species of *Segestria*: *S. florentina* (Rossi, 1790), *S. bavarica* C. L. Koch, 1843 and *S. senoculata* (Linnaeus, 1758); all of these species seemed to be easily identified by their genital morphology.

Later, other studies showed more details of the female genital structures of *Ariadna* and related dysderoid genera (De la Serna de Esteban 1976; Forster & Platnick 1985; Uhl 2000; Burger *et al.* 2003).

The structures found in the present study correspond to those described by all these authors, except for the different terminology used by each (Brignoli [1976] listed his own terms and previous synonyms). There are two distinct elements associated with the anterior and posterior walls of the atrium. The posterior receptaculum (called "atrial diverticle" by De la Serna de Esteban 1976) is the largest and most conspicuous structure, and consists of an invagination of the posterior atrial (or bursal, *sensu* Forster & Platnick 1985) wall. From the anterior wall arises the anterior receptaculum (called "spermatheca" by De la Serna de Esteban 1976 and Brignoli 1976), that usually has two lobes, one dorsal and one ventral (Figs 1A; 2). Both receptacula are surrounded by secretory tissues, which discharge secretions in their lumen through conspicuous ductules; the ductules of the anterior receptaculum discharge their products through a sclerotized poreplate on the dorsal lobe, while the glandular equipment of the posterior diverticulum is distributed on all its internal surface (Fig. 2).

Posterior to the anterior receptaculum (Fig. 2A) can be observed the distal section of the uterus externus and, behind it, before the posterior receptaculum, the interpulmonary fold (not showed in all drawings because in several specimens it folds below the other structures). The terminology of Forster & Platnick (1985) is followed over the other authors

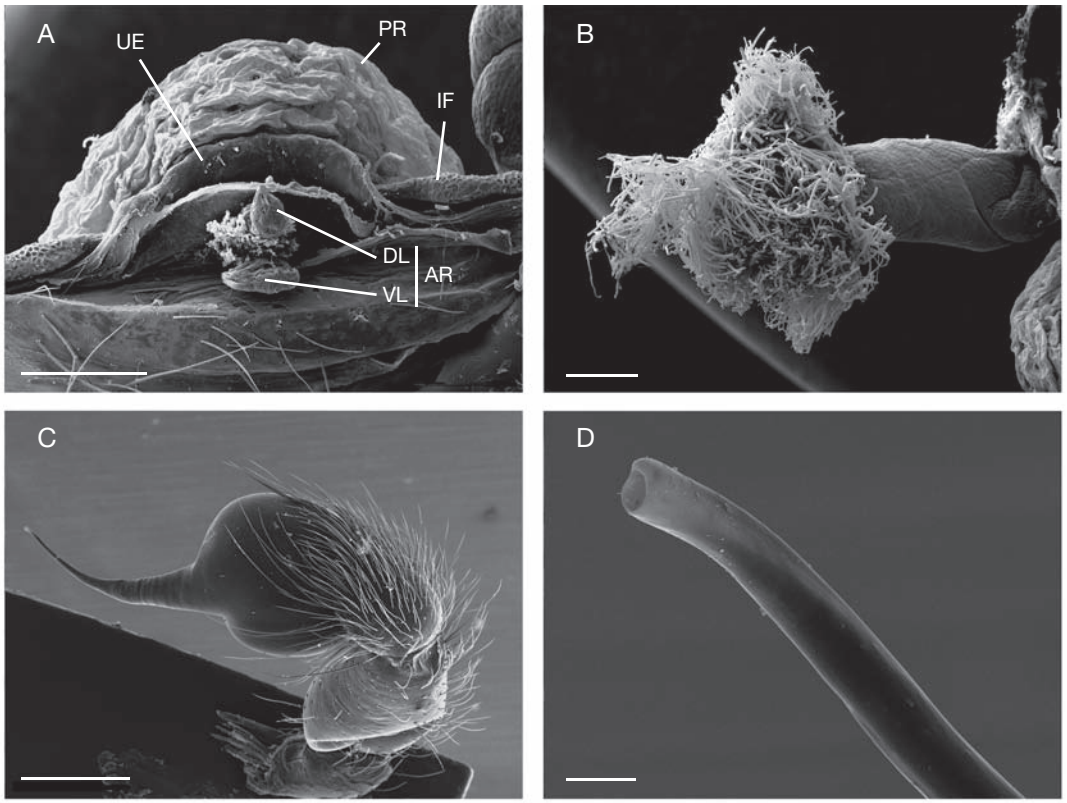

FIG. 1. — *Ariadna mollis* (Holmberg, 1876): **A**, **B**, ♀, Buenos Aires; **C**, **D**, ♂, Iguazú National Park; **A**, internal genitalia, anteroventral view; **B**, tracheal trunk; **C**, palp, retrolateral view; **D**, detail of embolar tip. Abbreviations: **AR**, anterior receptaculum; **DL**, dorsal lobe; **IF**, interpulmonary fold; **PR**, posterior receptaculum; **UE**, uterus externus; **VL**, ventral lobe. Scale bars: A, B, 200 µm; C, 500 µm; D, 20 µm.

because both receptacula seem to have, indistinctly, functions of sperm storage, and there are no reason to discriminate one as "spermatheca" and the other as "receptaculum" or "diverticle".

After dissecting several specimens of all the studied species, the only genital diagnostic features between the species examined seem to be the shape and organization of the anterior receptaculum; bilobate in some species (*A. mollis*, *A. maxima*, *A. cephalotes*, *A. abrilae* n. sp., *A. changellkuk* n. sp., *A. levii* n. sp.), unilobate in others (*A. boesenbergi*, *A. araucana* n. sp.), and always diagnostic between different species because of shape and/or relative size.

These results support the suggestion of Brignoli (1976) that the genital organs should always be considered and usually provide good characters for separating species. Additionally, in the Canary Islands, species of the genus *Dysdera*, Arnedo & Ribera (1997) and Arnedo *et al.* (1997, 2000) used the internal female genitalia (endogyne, vulva) to distinguish many species, although in some cases, these characters must be considered in combination with others.

Some authors tried to explain the functional significance of this genital conformation. For example, Brignoli (1976) suggested that the sperm storage area is the "spermatheca" (here, anterior receptaculum) and that the posterior receptaculum may serve as an "incubation" site for the fertilized eggs. De la Serna de Esteban (1976) proposed that the posterior receptaculum, through its glandular equipment, provides the conditions for spermatozoa

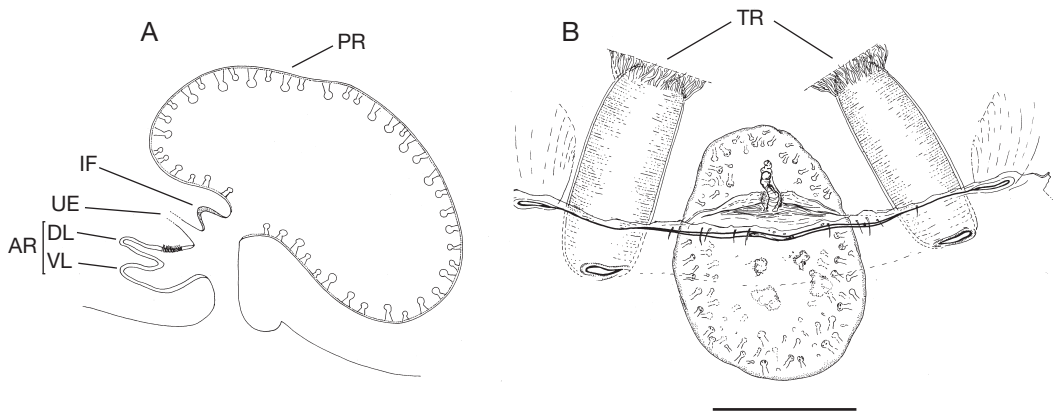

FIG. 2. — *Ariadna maxima* (Nicolet, 1849), ♀, Vilches, internal genitalia, KOH digested: **A**, lateral view (schematic); **B**, ventral view. Abbreviations: **AR**, anterior receptaculum; **DL**, dorsal lobe; **IF**, interpulmonary fold; **PR**, posterior receptaculum; **TR**, tracheae; **UE**, uterus externus; **VL**, ventral lobe. Scale bar: 1 mm.

survival, or to dissolve their capsulate protection, or both. Uhl (2000) studied the function and morphology of the female genital apparatus of *Dysdera erythrina* (Walckenaer, 1802). Her results agree in the anatomic structures with those discussed previously by Cooke (1966) on *D. crocata* C. L. Koch, 1838, but she advanced histological observations that show important differences among the glands of the anterior and posterior parts of the genitalia. She affirmed that "the glandular products produced differ, leading to different storage conditions for the spermatozoa from copulation to egg laying. It is suggested that multiple organ types have evolved to facilitate specialization in short-term and long-term storage and to allow (posterior diverticulum) or prevent (spermatheca) males from accessing previously stored sperm" (Uhl 2000). This conclusion seems to be coherent with the idea that the posterior receptaculum is a recent innovation, a synapomorphy of Dysderoidea (Forster & Platnick 1985), whose evolution could be related with the acquisition of some type of female cryptic choice (Burger *et al*. 2003). A possibility is that a female stores sperm of a previous male in the anterior structure ("spermatheca"). In a posterior mating, the sperm of a second male is deposited on the posterior receptaculum, to avoid the mixture with the sperm of the first male. It is possible that, then, the female can translocate both receptacular contents, although such a mechanism is still unknown (Uhl 2000). The only data previously known which could be in conflict with this hypothesis are those of De la Serna de Esteban (1976), who reported that, at least in *A. mollis* and in *Segestria*, the spermatozoa were found encapsulated in the spermathecae (here anterior receptaculum) and in the anterior portion of the posterior receptaculum, while in the posterior part of the posterior receptaculum, the capsulate protection was missing (De la Serna de Esteban 1976: 145). This suggests, unlike the above hypothesis, that the sperm stored in the posterior part of the posterior receptaculum is older than the sperm situated in the anterior portions of the genitalia.

Finally, Uhl (2000) also advanced an additional hypothesis: the two different receptacles could be the result of the evolution of the specialization for guarding sperm for short time and longer times respectively.

SYSTEMATICS

Family SEGESTRIIDAE Simon, 1893
Genus *Ariadna* Audouin, 1826

Ariadna calilegua n. sp.
(Figs 3A, B; 4A-D; 12A)

TYPE MATERIAL. — **Argentina.** Jujuy Province, Ledesma Departament, Parque Nacional Calilegua, Ruta Provincial

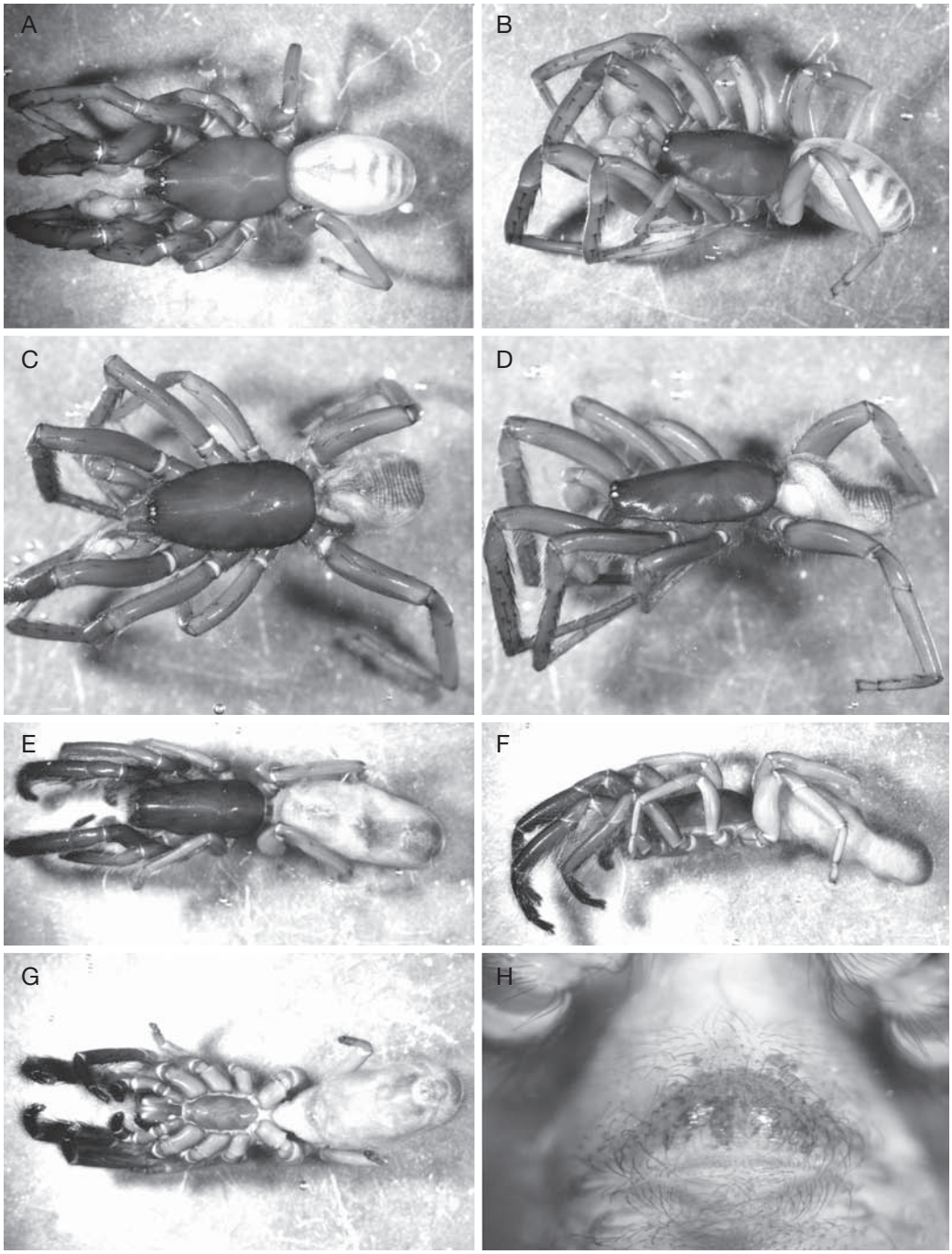

FIG. 3. — Habitus of *Ariadna* Audouin, 1826 species: **A**, **B**, *A. calilegua* n. sp., ♂, Alto de la Sierra (total length 7.19 mm); **C**-**H**, *A. changellkuk* n. sp.; **C**, **D**, ♂ holotype (total length 5.33 mm), **E**-**H**, ♀ paratype (total length 8.88 mm); **A**, **C**, **E**, dorsal view; **B**, **D**, **F**, lateral view, **G**, ventral view, **H**, epigastrium.

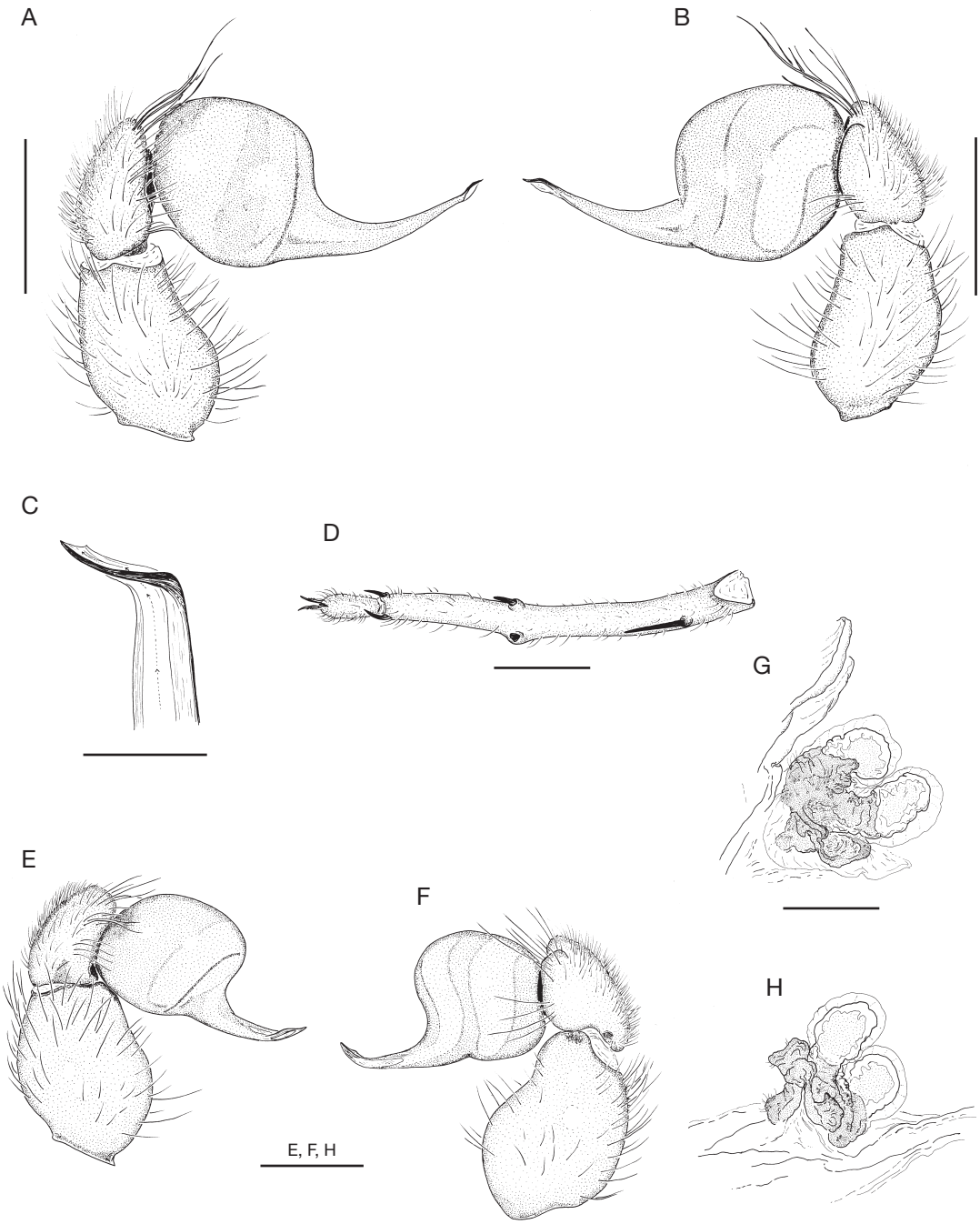

FIG. 4. — **A**-**D**, *Ariadna calilegua* n. sp.: **A**, **B**, **D**, ♂, La Caldera, **C**, ♂ holotype; **A**, left palp, prolateral view; **B**, same, retrolateral view; **C**, left palp, embolar tip; **D**, left metatarsus-tarsus I, ventral view; **E**-**H**, *A. changellkuk*, n. sp.; **E**, **F**, ♂ holotype; **G**, **H**, ♀ paratype; **E**, left palp, prolateral view; **F** same, retrolateral view; **G**, anterior receptaculum, lateral view, **H**, same, ventral view. Scale bars: A, B, D, 1 mm; C, 0.2 mm; E, F, 0.5 mm; G, H, 0.1 mm.

no. 83, Mesada de las Colmenas, 25.X.1983, G. Lingua, ♂ holotype (MACN-Ar 10087).

ETYMOLOGY. — The specific name is a noun in apposition from the type locality.

OTHER MATERIAL EXAMINED. — **Argentina.** Salta, 17 km N La Caldera, Alto de la Sierra, 1550 m ("Malaise fit, subtropical humid forest"), 2-30.XII.1987, S. Peck J. Peck, 1 ♂ (AMNH, preparation CJG-000098). — Same date and collectors, 22 km N La Caldera, El Ucumar, 1550 m ("Malaise fit 87-133, subtropical humid forest"), 1 ♂ (preparation CJG-000206, AMNH).

DISTRIBUTION. — Wet forests (yungas) from Jujuy and Salta Provinces, northwestern Argentina.

DIAGNOSIS. — Males of *A. calilegua* n. sp. resembles those of *A. mollis* and *A.boesenbergi* in the abdominal dorsal pattern but differ from the latter by having prolateral macrosetae on tibiae I and II and by the fourth metatarsal preening comb having 5 or 6 macrosetae; they are easily distinguished from *A. mollis* by having the metatarsi I curved, with only 1 ventral retrolateral macroseta and with the second ventral prolateral spine blunt, situated on a tubercle (Fig. 4D), the embolus more abruptly upward pointed, and with an apical lamella on its tip (Fig. 4C).

DESCRIPTION

Male (holotype)

Total length 7.19, carapace length 3.68, width 2.40, abdomen length 3.36. Carapace and chelicerae orangish-brown, legs and palps yellowish (distal podomeres of legs I darkened); labium and sternum orangish-brown with small dark spots; endites orangish with white anterior margins. Abdomen whitish with dorsal dark gray arrow-shaped spot followed by transverse consecutive bands (Fig. 3A); at sides, longitudinal gray bands more or less diffused; venter whitish with diffuse grayish broad band more obvious in front of epigastric furrow and around yellowish spinnerets. Leg measurements (I-IV): femora 3.68, 3.28, 2.48, 2.80; patellae 1.36, 1.36, 1.08, 1.28; tibiae 2.88, 2.88, 1.88, 2.08; metatarsi 3.60, 3.24, 2.12, 1.88; tarsi 0.76, 0.80, 0.76, 0.72. Macrosetae: leg I, femora D 2 ap, P 0-0-0-1-1; patellae DP ap 1; tibiae R 1-1-1-1, P 1-1-1-1, PV prox 1, RV prox 1, V 2-2-2-2; metatarsi VR 1-1-1, VP 1-1 (blunt)-1; leg II, femora DP 0-0-1-1, DR 0-0-1-1, Dap 1; tibiae R 1-1-1-1, RV prox 1, VP 0-0-1-1-1, VR 1-1-1-1-1, P 0-1-1-1-0; metatarsi R 1-0-1-0, V 2-2-2; metatarsus IV: distal prolateral preening comb with five macrosetae. Palp (Fig. 4A, B) with swollen tibia; embolus almost straight in lateral view, tip abruptly curved, with apical traslucent lamella.

Male variability

The other two males examined have the metatarsal preening comb with six macrosetae.

Female

Unknown.

Ariadna changellkuk n. sp.
(Figs 3C-H; 4E-H; 11B)

TYPE MATERIAL. — **Chile.** Region VII (Maule), Curicó Province, Las Tablas, E Curicó, II.1985, L. Peña, ♂ holotype and 1♀ paratype, together with a juvenile, (preparations CJG-00077/79, AMNH).

ETYMOLOGY. — "*Changellkuk*" is an Araucanian word that means "hand finger" and refers to the very elongate and cylindrical body shape of this species.

OTHER MATERIAL EXAMINED. — **Chile.** Region IV (Coquimbo), Elqui, 11 km S Vicuña, 25.X.1992, J. G. Rozen, 1 juv. (AMNH).
Region V (Valparaíso), Valparaíso, Valparaíso, IV.1970, Fritz, 1 juv. (MACN-Ar 10509). — Quillota, Palmas de Ocoa, not burned, trap #25, 25.V.1984, R. Calderón, 1 ♂ (AMNH). — Same locality, elev. 475 m, riparian forest, 12.I.1985, N. Platnick & O. Francke, 1 juv. (AMNH).
Region Metropolitana, Santiago, Guayacán, Río Colorado, I.1984, P. Goloboff, 1 juv. (MACN-Ar 10508). — Renca, 23.IV.1984, L. Irarrazával, 1 ♂ (AMNH). — La Africana, 24.X.1984, L. Irarrazával, 1 juv. (AMNH).
Region VIII (Bío Bío), Ñuble, Las Trancas, Chillán area, 11-17.I.1985, L. Peña, 1 juv. (AMNH).

DISTRIBUTION. — Chile, from Elqui (Region IV) south of Ñuble (Region VIII).

DIAGNOSIS. — Males and females of *A. changellkuk* n. sp. are distinguished from all other American *Ariadna* by the body proportions, especially the elongate prosoma and relatively short legs (Fig. 3C-G). The males have a shorter and wider palpal embolus than in other South American species (Fig. 4E, F). Females have internal genitalia with a larger area covered by the sclerotized poreplate (Fig. 4G, H).

DESCRIPTION

Male (holotype)

Total length 5.33, carapace length 3.16, width 1.64, abdomen length 2.32. Carapace brown, sternum and endites slightly lighter, legs orangish-brown. Abdomen gray with darkened, wide dorsal area composed of closely spaced transverse lines on posterior half; laterally light gray; ventrally, wide gray band similar in size to dorsal but more diffuse. Spinnerets yellowish. Leg measurements (I-IV): femora 2.52, 2.28, 1.84, 2.08; patellae 0.92, 0.92, 0.76, 0.88; tibiae 2.32, 2.48, 1.44, 1.68; metatarsi 2.56, 2.28, 1.28, 1.48; tarsi 0.68, 0.68, 0.48, 0.48. Macrosetae: leg I: femora D 0-0-0-1-2, DP 0-0-0-1-1; tibiae: D 0-0-0-1; R 1-1-1-1-1-1-1-1 (zigzagging, unequally sized), P 1-1-1, VP 1-1-1-1-0, VR 1-1-1-1-1, RV 1 prox, 1 ap; metatarsi: R 1-1-0, P 1-0-0, V 0-2-2-2-2-2-2-2-2 (decreasing its size apically), assymetrical: (left: 0-2-2-2-2-2-2); leg II: femora DP 0-0-0-0-1-1, D 0-0-1-1-1, DR 0-0-0-0-1-1; tibiae R 0-0-0-0-1-1-1-1, RV 1-1-1-1-0, VP 1-0-1-0-1-0-0-1-0, VR 1-1-1-1-1-1-1-1-1 (ventral retrolateral row with additional macrosetae, larger than on prolateral row), plus more or less aligned row of six small macroseta between V and RV rows, P 1-1-1; metatarsi V 0-2-2-2-2/0-2, P 1-1-0/1, R 1-1-1; metatarsi IV: distal retrolateral preening comb with four macrosetae.

Male variability

The other two known males have fewer macrosetae than the holotype: tibiae I: V 1-1-2-2, RV 1-1-1, R 1-1-1-1, plus one proximal RV and 1 D subapical; metatarsi: V 2-2-2, P 1-0-0, R 1-0-0; tibiae II: R 1-0-1-1, RV 0-1-1-1, VP 0-0-1-1, VR 1-1-1-1, P 1-1-1 (Palmas de Ocoa); same, except: metatarsi I: V 1-2-1-2-1-2; tibia II: VP 0-0-1-1-1, VR 1-1-1-1-1; metatarsi II: V 2-1-2-1-2, R 1-1 (Renca).

Note: compared to other males, it seems that the holotype has supernumerary macrosetae, but it is chosen because it is the only male collected together with a female.

Female (paratype)

Total length 8.88, carapace length 3.80, width 1.64, abdomen length 5.00. Carapace brown, sternum and labium slightly lighter, endites and legs III-IV light brown, I-II dark brown, especially metatarsi and tarsi, almost black; forelegs densely haired, leg IV (especially femora) very robust, relatively short. Abdomen whitish with irregular diffuse gray area along dorsum; ventrally uniform gray, darkened around spinnerets. Epigastrium conspicuously sclerotized, shiny (Fig. 3H); spinnerets yellowish. Leg measurements (I-IV): femora 2.16, 1.88, 1.56, 1.80; patellae 1.00, 1.08, 0.76, 1.04; tibiae 1.96, 2.00, 1.12, 1.52; metatarsi 1.76, 1.60, 1.00, 1.08; tarsi 0.56, 0.52, 0.52, 0.48. Macrosetae: leg I: femora DP 0-0-0-1/2; tibiae V 2-2-2-2; metatarsi V 0-2-2-2-2-2-2; leg II: femora D 0-0-0-1, DP 0-0-0-1; tibiae V 2-2-2-2; metatarsi V 0-2-2-2-2-2-2; metatarsus IV: distal retrolateral preening comb with four macrosetae.

Internal genitalia as in Figure 4G, H, poreplate covers base and most of surface of both lobes of anterior receptaculum.

Female variability

Only known from the paratype.

Ariadna abrilae n. sp.
(Figs 5A-C; 6A-C; 11A)

TYPE MATERIAL. — **Chile.** Region V (Valparaíso), Petorca Province, Los Molles, Rt. 5 km 188, elev. 10 m, 32°14'S, 71°30'W, 27.I.1994, N. Platnick, K. Catley, R. Calderón & T. Allen, ♀ holotype (preparation CJG-00044); 1 ♀ paratype (preparation CJG-00081); 2 ♀♀ paratypes (together with 7 immatures, AMNH). — Same locality, 9.XI.1993, N. Platnick, K. Catley, M. Ramírez & T. Allen, 1 ♀ paratype (together with 1 immature, MACN-Ar 10592).

ETYMOLOGY. — The specific name is a patronym in honour of my daughter, Abril, in recognition to her early enthusiasm for biology.

OTHER MATERIAL EXAMINED. — Same locality as type material, 9.XI.1993, N. Platnick, K. Catley, M. Ramírez & T. Allen, 2 ♀♀, 2 juvs (AMNH).

DISTRIBUTION. — Known only from the type locality.

DIAGNOSIS. — *Ariadna abrilae* n. sp. females differ from the remaining species of the region by their small size, by the fourth metatarsal preening comb with 4 or 3 macrosetae (Fig. 6C) and by the internal genitalia (Fig. 6A, B): anterior receptacula with rounded terminal heads, the dorsal one with a sinuous stalk.

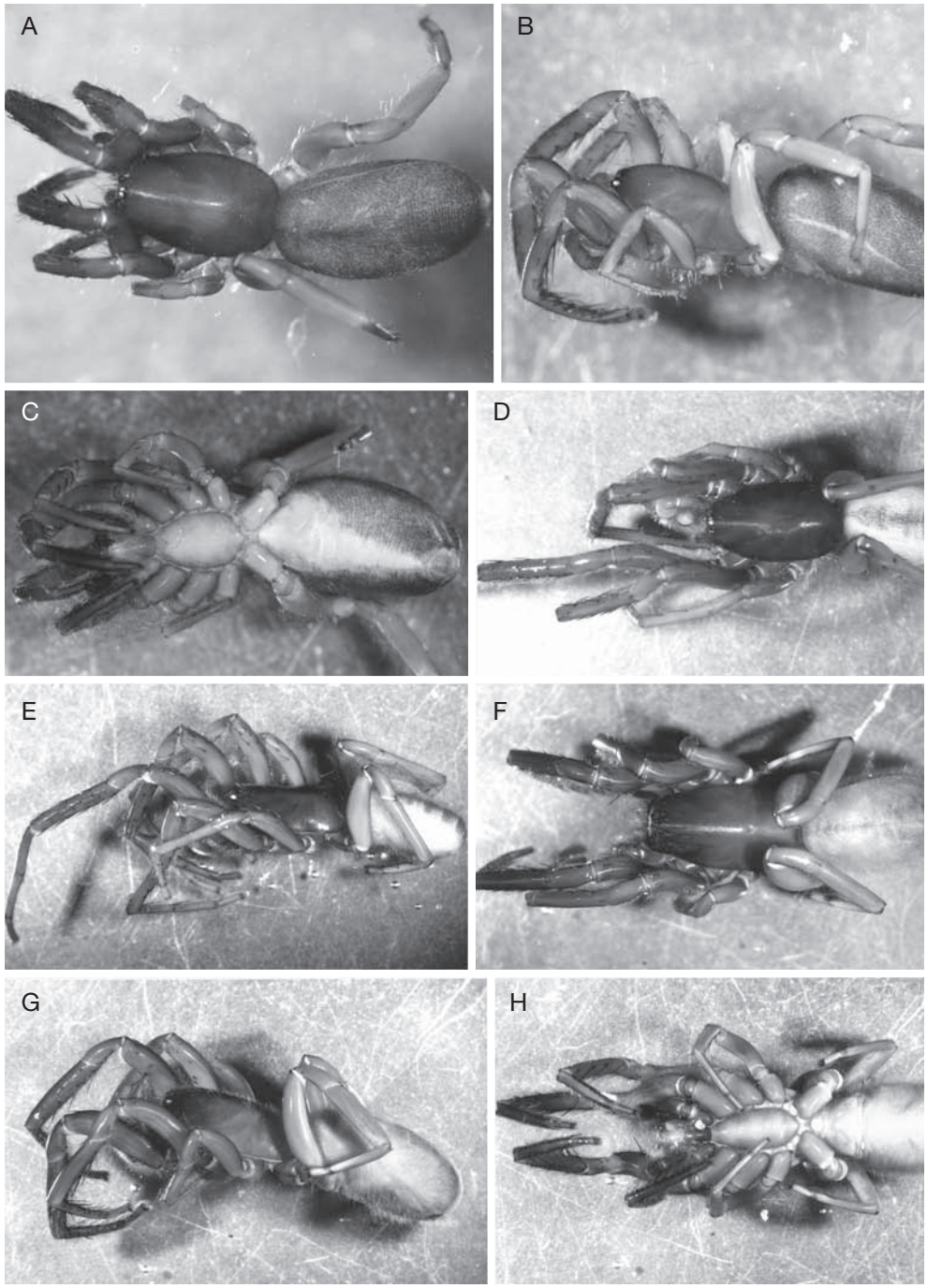

FIG. 5. — Habitus of *Ariadna* Audonin, 1826 species: **A**-**C**, *A. abrilae* n. sp., ♀ holotype (total length 5.20 mm); **D**-**H**, *A. levii*, n. sp.; **D**, **E**, ♂ holotype (total length 6.87 mm); **F**-**H**, ♀ paratype (total length 10.59 mm); **A**, **D**, **F**, dorsal view; **B**, **E**, **G**, lateral view; **C**, **H**, ventral view.

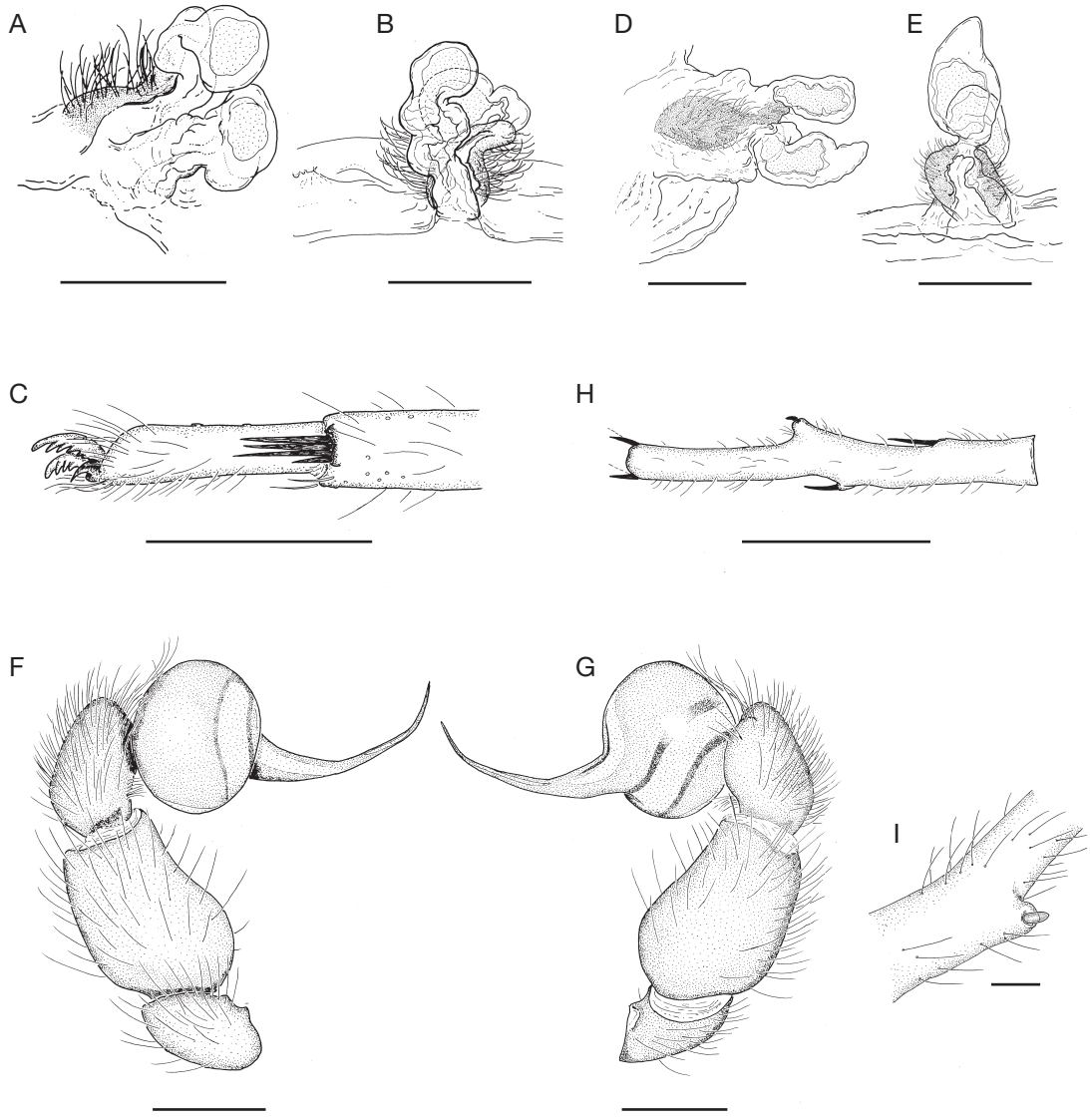

FIG. 6. — **A**-**C**, *Ariadna abrilae* n. sp., ♀ paratype (AMNH); **D**-**I**, *A. levii* n. sp.; **D**, **E**, ♀, Las Tablas; **F**-**I**, ♂ holotype; **A**, **D**, anterior receptacula, lateral view; **B**, **E**, same, ventral view; **C**, metatarsus-tarsus IV, prolateral view; **F**, left palp, prolateral view; **G**, same, retrolateral view; **H**, metatarsus I, dorsal view; **I**, detail of the metatarsal tubercle. Scale bars: A, B, D, E: 0.1 mm; C, F, G: 0.5 mm; H: 1 mm; I: 0.2 mm.

DESCRIPTION

Female (holotype)

Total length 5.20; carapace length 2.12, width 1.42; abdomen length 2.76. Carapace brown, sternum, labium, endites and legs lighter (III and IV paler); abdomen violaceous brown, darker on cardiac area, with thin longitudinal light bands at sides, below which dorsal colour turns gradually

diffuse until touching wide ventral yellowish band. Epigastrium shiny yellowish. Leg measurements (I-IV): femora 1.70, 1.50, 1.18, 1.70; patellae: 0.76, 0.70, 0.58, 0.68; tibiae: 1.40, 1.24, 0.80, 1.16; metatarsi: 1.16, 1.10, 0.80, 1.00; tarsi: 0.42, 0.40, 0.34, 0.40. Macrosetae: leg I: femora D 0-1-1-0-2, DP 0-0-0-1-1, P 0-0-1-0 (remarkably longer than others); tibiae P 1-1-1, V 2-2-2-2, R 1-1-1; metatarsi V 2-2-2-2-2-2-2; leg II: femora D 0-1-1-1-2, DP 0-0-0-1; tibiae P 1-1-1, V 2-2-2-2, R 1-1-0/1; metatarsi V 2-2-2-2-2-2; leg IV: metatarsal preening comb 4/3 VRAp. Internal genitalia: see Figure 6A, B.

Female variability

Some specimens lack the fourth, smaller macrosetae of the preening comb on one or both metatarsi IV.

Male

Unknown.

Ariadna levii n. sp.
(Figs 5D-H; 6D-I; 11A)

TYPE MATERIAL. — **Chile.** Region Metropolitana, Santiago, Cuesta La Dormida, N of Tiltil, 800-1300 m, 13-18.XI.1982, L. Peña, ♂ holotype (preparations CJG-000100/101; AMNH).
Region V (Valparaíso), Petorca, Pichicuy, 20 m, dry streambed, 9.II.1986, N. Platnick & R. Schuh, ♀ paratype (preparation CJG-000102, AMNH).
Region X (Los Lagos), Valdivia, Isla Teja, farmland, 6.III.1965, H. Levi, 1 ♂ paratype (MCZ 47261).

ETYMOLOGY. — The specific name is a patronym in honour of the eminent arachnologist Herbert W. Levi, who recognized this species as new (labels in the vials from Valdivia collected by him) and in recognizion of his contributions to arachnology, especially the South American fauna.

OTHER MATERIAL EXAMINED. — **Chile.** Region Metropolitana, Santiago, Talagante, VIII.1961, O. Ramírez, 1 ♀ (AMNH). — Cantillana, 10-22.XII.1983, L. Irarrazával, 1 ♀ (preparation CJG-00083, AMNH).
Region V (Valparaíso), Quillota, Cuesta El Melón, elev. 520 m, chaparral, 10.I.1985, N. Platnick & O. Francke, 1 ♀ (AMNH).
Region VII (Maule), Curicó, Las Tablas, E Curicó, II.1985, L. Peña, 2 ♀♀, 2 juvs (preparation CJG-00082, AMNH).
Region IX (Araucanía), Malleco, Monumento Natural Contulmo, 19-21-XII-1998, M. Ramírez, L. Compagnucci, C. Grismado, L. Lopardo, 1 juv. (MACN-Ar 10203). — Cautín, Temuco, Cerro Nielol, 15.I.1989, M. Ramírez, 1 ♂ (MACN-Ar 10088).
Region X (Los Lagos), Valdivia, Huachocopihue, 7.III.1965, H. Levi, 1 ♂, 1 subadult ♀ (MCZ 47259).

DISTRIBUTION. — Chile, from Petorca (Region V) south of Valdivia (Region X).

DIAGNOSIS. — The male of *A. levii* n. sp. is clearly distinguished from the remaining American species by the following combination of characters: abdominal contrasting pattern and modified branched metatarsi I (Figs 5D, F; 6H, I); the palp almost identical to that of *A. maxima*, differing only by the more abruptly turning up of the tip of the embolus (Fig. 6F, G). Females differ from those of the other species with contrasting coloured abdomens by the shape of the anterior receptacula, especially the ventral one, which is elongated, piriform and pointed anteriorly (Fig. 6D, E).

DESCRIPTION

Male (holotype)

Total length 6.87; carapace length 3.56, width 2.12; abdomen length 3.40. Carapace, labium and chelicerae brown, sternum and endites slightly lighter, legs orangish-brown. Abdomen yellowish-gray with distinct dark dorsal pattern: longitudinal band with several indentations looking like chevrons, caudal area with definite transversal bands. Venter uniformly light yellowish-gray, except for two diffuse dark spots at anterior corners of spinneret area. Leg measurements (I-IV): femora 3.08, 3.00, 2.36, 2.52; patellae: 1.24, 1.24, 0.92, 1.16; tibiae: 2.60, 3.08, 1.80, 2.08; metatarsi: 2.92, 2.88, 1.72, 1.68; tarsi: 0.68, 0.68, 0.60, 0.52. Macrosetae: leg I: femora: D 3 consecutive subapical, DP 2 consecutive subapical, DR 2 consecutive subapical; tibiae: D 1-1/2-1, R 1-1-1-1-0, P 0-1-1, RV 1-1-1-1, VR 1-1/0-1-1-1, VP 0-0-1-1-1, plus one additional basal macrosetae VR; metatarsi: VP 1-1 (blunt)-1, VR 0-1-1 (central macrosetae of each row on projections); leg II: femora: D 0-0/1-0-0/1-1-1-1, DR 2 consecutive subapical, DP 2 consecutive subapical; tibiae: D 1 subapical, R 1-1-1-1-1-1-1, P 1-1-1, VR 1-1/0-1-1-1, VP 0-0-0-1-1, plus one additional basal macrosetae VR; metatarsi: P 1-1-1, R 1-0-0, V 2-2-2; metatarsi IV: preening comb with four

macrosetae. Palp: tibia globose, midpiece narrowed abruptly, passing to embolic portion; tip of embolus upwards (Figs 6F, G).

Male variability

In general, the dorsal spination on tibiae and femora of males is quite variable. The southernmost specimens (Cerro Ñielol, Valdivia and Contulmo) have a paler abdominal background, almost white, making the contrasting dorsal pattern more conspicuous; the males of these localities are also smaller and have 1 or 2 additional prolateral macrosetae on tibiae II, and one prolateral are on the patellae.

Female (paratype)

Total length 10.59; carapace length 5.01, width 3.12; abdomen length 5.49. Carapace brown, darkened on cephalic area; legs and sternum brown, labium, endites and chelicerae darker; abdomen light gray, whitish, with dorsal dark stripe, darker on anterior half (expanded diffusely to sides in posterior half, as thin transverse bands, Fig. 5F); ventrally uniform light gray, spinnerets light brown. Leg measurements (I-IV): femora 4.16, 3.72, 2.80, 3.80; patellae: 1.72, 1.72, 1.28, 1.80; tibiae: 3.40, 3.12, 2.20, 3.20; metatarsi: 2.76, 2.60, 1.92, 2.44; tarsi: 0.40, 0.72, 0.68, 0.40. Macrosetae: leg I: femora: DP 0-0-0-1-1, D 2 subapical, P 1 subapical (very large); tibiae: P 1-1-1, V 2-2-2-2, R 1-1-1; metatarsi: V 2-2-2-2-2-2-2-2; leg II: femora: DP 0-0-0-1-1, D 2 subapical; tibiae: R 1-1/0-0, P 1-1-1, V 2-2-2-2; metatarsi: V 2-2-2-2-2-2-2-2; leg IV: metatarsal preening comb with four macrosetae. Genitalia: see Figure 6D, E.

Ariadna araucana n. sp.
(Figs 7; 8A-G; 11B)

TYPE MATERIAL. — **Chile.** Region X (Los Lagos), Llanquihue Province, NE Puerto Montt, 22-28.XII.1985, L. Peña, ♂ holotype (preparation CJG-000374, AMNH). — Chiloé Province, Chiloé Island, 4 km SE Rilan, 30.XI.1981, N. Platnick & R. Schuh, ♀ paratype (preparation CJG-00097, AMNH). — Chiloé Island, 15 km S of Chepu, 3.II.1991, M. Ramírez, ♀ paratype (preparation CJG-000112, MACN-Ar 10090).

ETYMOLOGY. — The specific name refers to the Araucanos (also known as Mapuches), the indigenous nation living in the region where this species inhabits.

OTHER MATERIAL EXAMINED. — **Chile.** Region VII (Maule), Cauquenes, Reserva Nacional Los Ruiles, elev. 160 m, N. Platnick, P. Goloboff & M. Ramírez, 25.II.1992, 1 juv. (AMNH).

Region VIII (Bío Bío), Concepción, Pissis, (label bears "Chili: Pissis"), 1 ♀ (MNHN AR 9069 [4211], presumably mislabeled, see below under *A. maxima*). — Hualpén, 11.I.1989, M. Ramírez, 1 ♀ (MACN-Ar 10089). — Same locality, 18.III.1975, T. Cekalovic, 1 ♀ (AMNH). — Same locality, elev. 75 m, moist forest, 22.I.1985, N. Platnick & O. Francke, 1 ♀, 2 juv (AMNH). — Ramuncho, 3 km W Concepción, elev. 70 m, 9.II.1992, N. Platnick, P. Goloboff & M. Ramírez, 1 ♀ (AMNH).

Region IX (Araucanía), Malleco, Monumento Natural Contulmo, 360 m, 38°00'46.8"S, 73°11'15.4"W, 10-11.II.2005, M. Ramírez & F. Labarque, 1 ♂ (maturity in lab 26.VIII.2005, preparation CJG-00312, MACN-Ar 10918). — Same locality, 19-21.XII.1998, M. Ramírez, L. Compagnucci, C. Grismado & L. Lopardo, 3 juvs (MACN-Ar 10094). — Same data, 2 juvs (MACN-Ar 10095). — 1 juv. fixed with Dubosq-Brasil (MACN-Ar 10096). — Same locality, elev. 340 m, 18.XI.1993, 38°01'S, 73°11'W, N. Platnick, K. Catley, M. Ramírez & T. Allen, 1 juv. (AMNH). — Same locality, 300 m, wet forest, 31.I.1986, N. Platnick & R. Schuh, 1 ♀ (AMNH). — Same locality, elev. 300 m, N. Platnick, P. Goloboff & M. Ramírez, 1 juv. (AMNH). — Purén, FIT, 350 m, mixed evergreen forest, 11.XII.1984-13.II.1985, S. Peck & J. Peck, 1 ♂ (AMNH). — Tolhuaca, Laguna Malleco, 4.III.1978, T. Cekalovic, 1 ♂ (AMNH).

Region X (Los Lagos), Valdivia, Huachocopihue, 7.III.1965, H. Levi, 1 ♀ (MCZ 47260). — Las Lajas, W La Unión, 13-15.I.1990, L. Peña, 1 ♂, 4 juvs (preparation CJG-00095, AMNH). — Same locality and collector, 9-13.I.1990, 3 ♀♀, 2 juvs (AMNH). — 34 km W La Unión, FIT mixed evergreen forest, 17.XII.1984-7.II.1985, 700 m, S. Peck & J. Peck, 1 ♂ (AMNH). — Osorno, hills S Maicolpué, elev. 50 m, 19.II.1992, N. Platnick, P. Goloboff & M. Ramírez, 1 ♀, 1 juv. (AMNH). — Same locality, 75 m, wet dist. forest, 26.I.1986, N. Platnick & R. Schuh, 3 ♀♀, 3 juvs (AMNH). — Chiloé, Chiloé Island, 15 km S de Chepu, 3.II.1991, M. Ramírez, 3 juvs (MACN-Ar 10091, 10092, 10093). — Chepu, NW coast Chiloé Isl., elev. 75 m, N. Platnick, P. Goloboff & M. Ramírez, 21.II.1992, 2 juvs (AMNH). — Piruquina, 19.II.1983, T. Cekalovic, 1 ♀ (AMNH). — Mocopulli, 19.III.1991, T. Cekalovic, 2 ♀♀ (preparation CJG-00080, AMNH). — Same locality, 2.II.1983, T. & N. Cekalovic, 1 ♀ (AMNH). — Llanquihue, P. N. Alerce Andino, Correntoso, sendero "Huillifoten", wet forest, 135 m, 41°27'53.0"S, 72°38'43.4"W, 3.II.2005, M. Ramírez & F. Labarque, 1 ♂ (maturity in lab 28.II.2005, MACN-Ar 10919). — Same data, 1 ♂ (maturity in lab

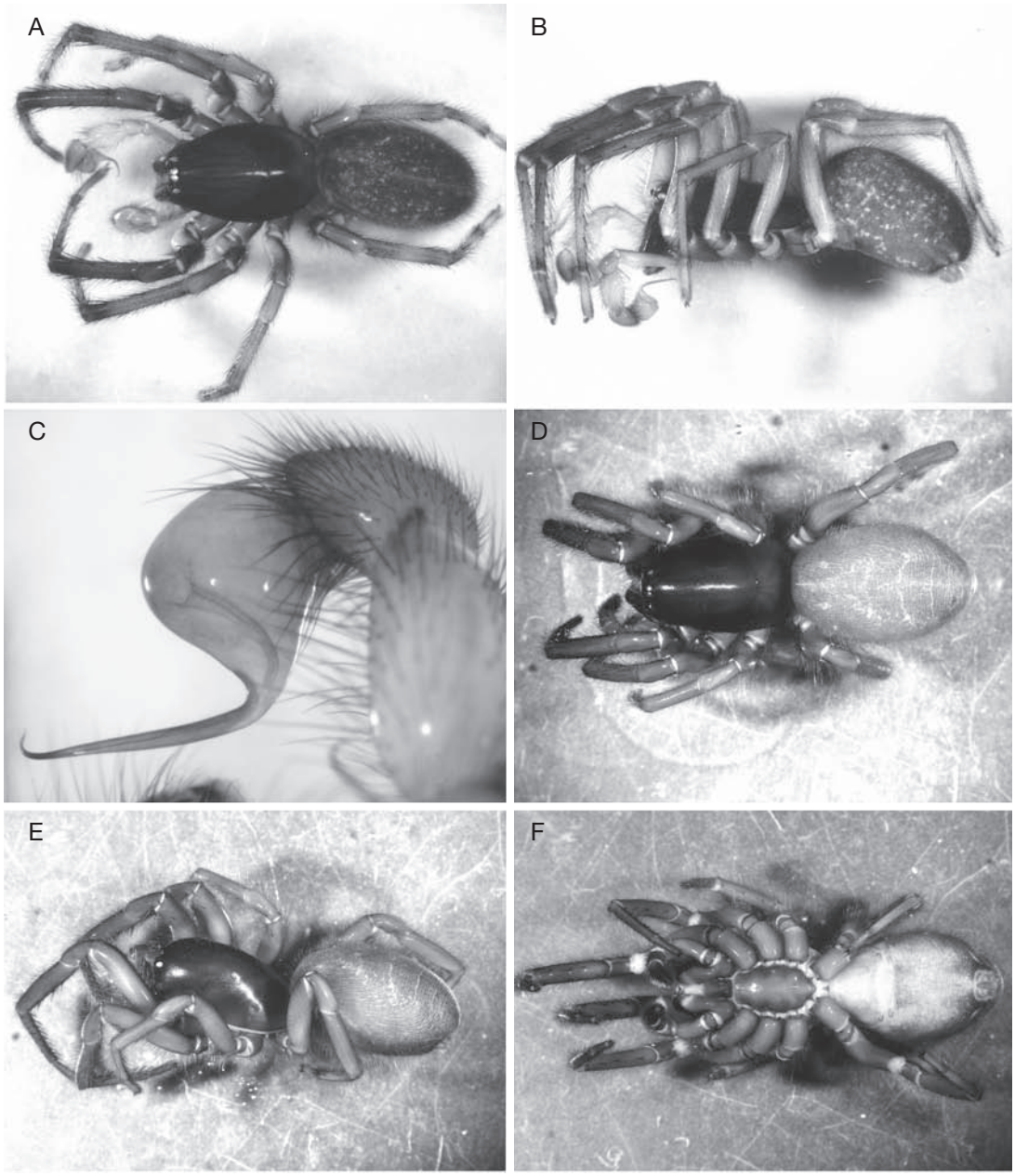

FIG. 7. — *Ariadna araucana* n. sp.: **A**-**C**, ♂, Contulmo (total length 8.08 mm – the whitish spots on abdomen are probable fungi); **D**-**F**, ♀, southeastern of Rilan (total length 10.92 mm); **A**, **D**, habitus, dorsal view; **B**, **E**, habitus, lateral view; **C**, left palp, retrolateral view; **F**, habitus, ventral view.

14.VI.2005, MACN-Ar 10920). — Same data, 1 ♂ (maturity in lab 2.III.2005, MACN-Ar 10921). — Correntoso, XII.1968, L. Peña, 1 ♀ (MCZ 40636). — 10-14 km E Correntoso, elev. 305 m, disturbed forest, 3.II.1985, N. Platnick & O. Francke, 1 juv. (AMNH). — 35 km NW Río Negro, 240 m, disturbed forest, 24.I.1986,

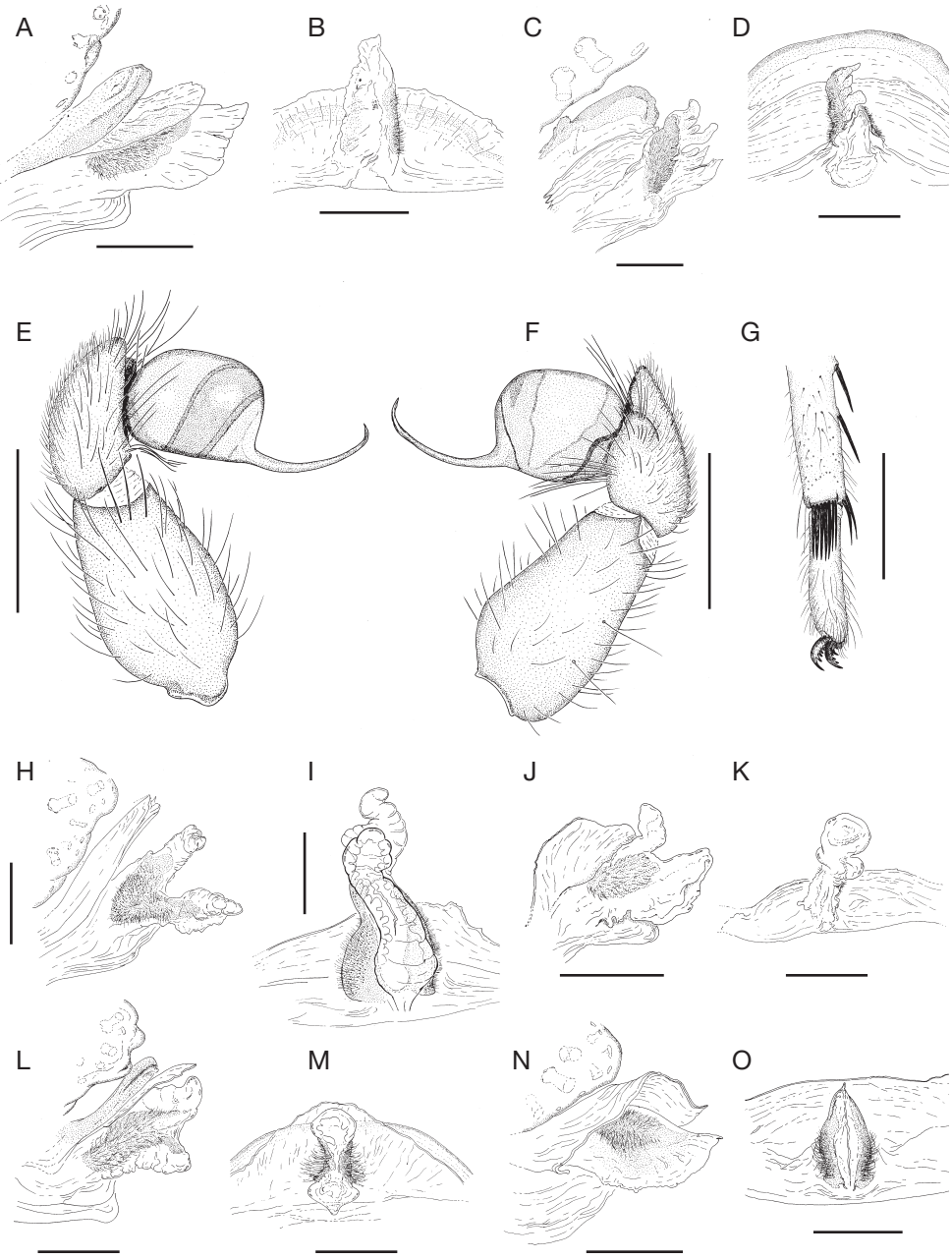

FIG. 8. — **A**-**G**: *Ariadna araucana* n. sp., **A**-**D**, female anterior receptacula, **A**, **B**, south of Chepu; **C**, **D**, Mocopulli; **E**, **F**, ♂, holotype: **E**, left palp, prolateral view; **F**, same, retrolateral view; **G**, ♀, Plazza Philippi (Puerto Varas), right metatarsus-tarsus IV, prolateral view; **H**-**O**, female anterior receptacula of *Ariadna* species; **H**, **I**, *A. maxima* (Nicolet, 1849), Vilches; **J**, **K**, *A. cephalotes* Simon, 1907, C. Morochata; **L**, **M**, *A. mollis* (Holmberg, 1876), Buenos Aires; **N**, **O**, *A. boesenbergi* (Keyserling, 1877), Glew; **A**, **C**, **H**, **J**, **L**, **N**, lateral view; **B**, **D**, **I**, **K**, **M**, **O**, ventral view. Scale bars: A-D, H-O, 0.2 mm; E-G, 1 mm.

N. Platnick & R. Schuh, 1 ♀ (AMNH). — Puerto Varas, Parque Philippi, 2.III.1962, A. Archer & H. McMillin, 1 ♀, 1 juv. (AMNH; label bears: "*Ariadna maxima* det. J. A. Beatty"). — Lago Chapo, 34 km E Puerto Montt, 300 m FIT 2nd growth *Nothofagus*, 24.XII.1984-2.II.1985, S. Peck & J. Peck, 1 ♂ (AMNH). — Lago Chapo, 13.5 km E Correntoso, site 656, window trap, 310 m, Valdivian rainforest, 16-27.XII.1982, A. Newton & M. Thayer, 1 ♀, 1 juv. (AMNH). — Palena, Chaitén, roadside at night, 10 m, 16.I.1986, N. Platnick, P. Goloboff & R. Schuh, 1 ♂ (AMNH). — Same locality, 0-100 m, 4.XII.1981, N. Platnick & R. Schuh, 1 juv. (AMNH). — 25-27 km N Chaitén, wet virgin forest, 40 m, 17.I.1986, N. Platnick, P. Goloboff & R. Schuh, 3 juvs (AMNH).
Region XI (Aisén), Aisén, Queulat National Park, nr. Puerto Cisnes, elev. 500 m, wet forest, 6.II.1985, N. Platnick & O. Francke, 1 juv. (AMNH).

DISTRIBUTION. — Chile, from Cauquenes (Region VII) south of Aisén (Region XI).

DIAGNOSIS. — Males and females of this species are clearly distinguished by the greatly elevated, convex carapace (Fig. 7B, E) and by the fourth metatarsal preening comb with 6 or 7 macrosetae (Fig. 8G). The male palp is also very characteristic, with a strongly curved embolus tip pointing back to the bulb, and a deeply notched tarsus (Figs 7C; 8E, F); females have 4 VR macrosetae and only 1 VP (situated proximally) on tibiae II; the anterior receptacle is unilobate, sometimes with a ragged ventral margin (Fig. 8A-D).

DESCRIPTION

Male (holotype)
Total length 8.24; carapace length 4.24, width 2.56; abdomen length 3.80. Carapace and chelicerae dark brown, palps and legs orangish-brown, sternum and endites darkened. Abdomen with gray thin, compressed reticulation that seems to be uniformly gray, except for some cream thin transverse bands on posterior half: pattern turning diffuse at sides and venter, but conspicuous again ventrally, in front of spinnerets; epigastrium and spinnerets yellowish. Leg measurements (I-IV): femora 4.00, 3.92, 3.08, 3.28; patellae: 1.40, 1.40, 1.20, 1.24; tibiae: 3.44, 3.60, 2.28, 2.24; metatarsi: 3.60, 3.56, 2.60, 2.64; tarsi: 1.28, 1.40, 1.08, 1.04. Macrosetae: leg I: femora: D 0-0-0-1, DP 0-0-0-1, P 0-0-0-1; tibiae: R 0/1-1-1-1-1-1, P 1-1-1, VR 1-1-1-1, VP 0/1-1-1-1-1-1; metatarsi: R 1-1-0-0, P 1-0-0-0, V 2-2-2-2-2-2; leg II: femora: D 0-0-0-1, DP 0-0-0-1; tibiae: R 1-1-1-1, P 1-1-1, VR 1-1-1-1, VP 0-0-1-1; metatarsi: P 1-1/0-0, R 1-1/0-0, V (assymetrycal), VP 0-1-1-1-1, VR 0-1-1-1-1-1-1/0-1-1-1-1; metatarsi IV: preening comb with seven macrosetae. Palp: cymbium with deep prolateral notch, bulb almost cylindrical. Midpiece more or less straight, embolar tip strongly curved (Figs 7C; 8E, F).

Female (paratype from SE Rilan)
Total length 10.59; carapace length 5.09, width 3.36; abdomen length 6.14. Carapace very elevated, convex (Fig. 7E): coloration as in male, but with legs slightly darker, with more obvious transverse light bands on abdominal dorsum (Fig. 7D, E). Leg measurements (I-IV): femora 3.96, 3.68, 3.00, 3.40; patellae: 1.64, 1.64, 1.40, 1.68; tibiae: 2.88, 2.88, 2.08, 2.52; metatarsi: 2.48, 2.08, 2.04, 2.24; tarsi: 1.00, 0.92, 0.88, 0.88. Macrosetae: leg I: femora: P 1/2 subapical; tibiae: VP 1-1-1-1, VR 1-1-1-1/0-1-1; metatarsi: V 2-2-2-2-2-2-2-2; leg II: femora: P 1 subapical; tibiae: P 0-0-0-1, VR 1-1-1-1, VP 0-0-0-1; metatarsi: VR 1-1-1-1-1-1-1-1-1-1, VP 1-1-1-1-1; leg IV: metatarsal preening comb with seven macrosetae. Genitalia: see Figure 8A-D.

Variability
The number of prolateral and retrolateral macrosetae on tibiae I and II of males is quite variable. Living specimens are darker than preserved ones, having the carapace cuticle almost black to the naked eye; in detail, it shows a dorsal pattern of very dark longitudinal stripes. The metatarsal IV preening comb varies between six and seven macrosetae.

NATURAL HISTORY

The specimens maintained in captivity, unlike those of *A. maxima*, that tried always to escape, adopt frequently a cryptic (comatose) posture when disturbed.

Ariadna maxima (Nicolet, 1849)
(Figs 2; 8H, I; 9A-D; 12A)

Dysdera maxima Nicolet, 1849: 341, pl. 2, fig. 6, 6 a-d (♀ holotype, Chile, Santiago, Gay 1845 [MNHN, AR 9068 (4210)], examined) — Keyserling 1877: 230.

Dysdera virens Nicolet, 1849: 342 (5 ♀♀ syntypes,

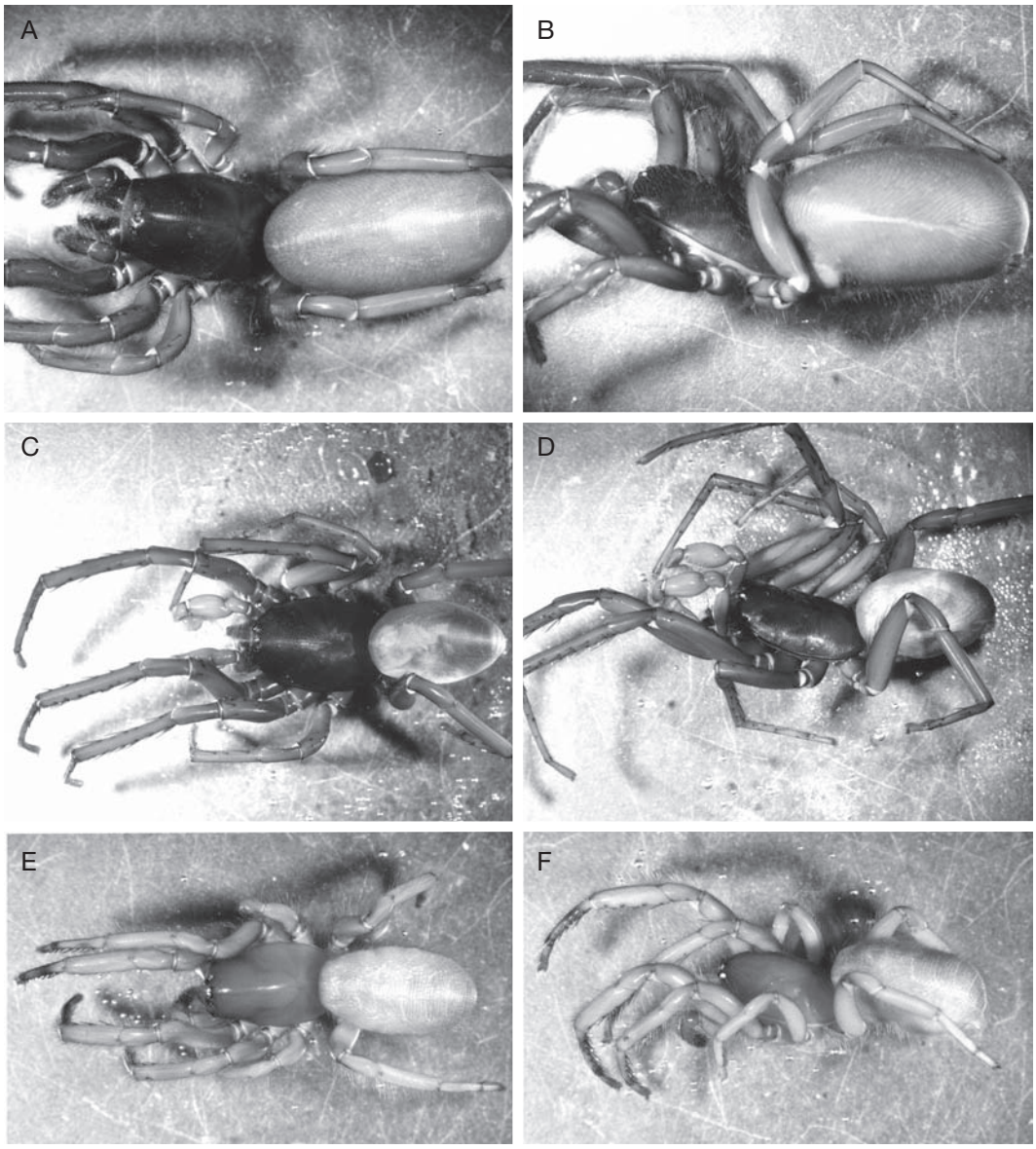

FIG. 9. — Habitus of *Ariadna* species **A**-**D**, *A. maxima* (Nicolet, 1849); **E**, **F**, *A. cephalotes* Simon, 1907; **A**, **B**, ♀, Concepción (total length 16.46 mm); **C**, **D**, ♂, Concepción (total length 9.61 mm); **E**, **F**, ♀, Calilegua National Park (total length 7.43 mm); **A**, **C**, **E**, dorsal view; **B**, **D**, **F**, lateral view.

Chile, Santiago, Gay 1845 [MNHN, AR 9071 (4143)], examined). — Keyserling 1877: 230. — Petrunkevitch 1911: 131.

Dysdera incerta Nicolet, 1849: 342 (2 ♀♀ syntypes, Chile, Santiago, Gay 1845 [MNHN, AR 9072 (4132)], examined). — Keyserling 1877: 230. — Petrunkevitch 1911: 131.

Dysdera coarctata Nicolet, 1849: 344, pl. 2, fig. 7, 7 a-c (4 juvs syntypes, Chile, Santiago, Gay 1845 [MNHN, AR 9070 (4145)], examined. — Simon 1864: 106. —

Keyserling 1877: 230. — Petrunkevitch 1911: 131. — Bonnet 1956: 1619.

Dysdera longipes Nicolet, 1849: 343, pl. 2, fig. 8. (1♂, 2 ♀♀ syntypes, Chile, Valdivia, Gay 1845 [MNHN, AR 9067 (4133)], examined).

Ariadna maxima – Simon 1896: 64; 1902: 11; 1905: 71. — O. Pickard-Cambridge 1898: 17. — Petrunkevitch 1911: 131. — Bonnet 1955: 734. — Beatty 1970: 469. — Platnick 2007.

NEW RECORDS. — **Argentina.** Neuquén, Lago Moquehue, 10.I.1985, E. Maury & Toth, 1 juv. (MACN-Ar 10097).

Chile. Region II (Antofagasta), Antofagasta, 6 km E of Paposo, elev. 480 m, 12.X.1992, N. Platnick, K. Catley & P. Goloboff, 3 juv (AMNH).

Region III (Atacama), Chañaral, Isla del Chañaral, ± 4 km from coast, 30.X.1980, L. Peña, 1 ♀ (AMNH). — Copiapó, Puerto Viejo, S Caldera, 15-16.X.1992, L. Peña, 1 juv. (AMNH). — Copiapó R., "near to the sea", 13.VI.1968, L. Peña, 1 ♀ (MCZ 40639). — Copiapó, 450 m, 8.X.1982, J. Moreno, 11 ♀♀, 13 juvs (AMNH). — Puerta Vieja, 17.IV.1980, L. Peña, 1 juv. (AMNH).

Region IV (Coquimbo), Elqui, 30 km N La Serena, 2.XI.1981, on beach, 10 ft elev., N. Platnick & R. Schuh, 1 ♀, 2 juvs (AMNH). — Beach 6 km S of S. Cruz Grande, elev. 20 m, 7.X.1992, N. Platnick, P. Goloboff & K. Catley, 2 juvs (AMNH). — Same locality and collectors, elev. 20 m, 6.X.1992, 1 ♀, 1 juv. (AMNH). — Same locality, elev. 5 m, 29°29'S, 71°19'W, 11.XI.1993, N. Platnick, K. Catley, M. Ramírez & T. Allen, 1 ♂, 1 juv. (AMNH). — Palo Colorado, 5-6.VIII.1994, L. Peña & A. Ugarte, 1 ♀ (AMNH). — Tongoy, elev. 3 m, under succulent rock cover along coast, 8.I.1985, N. Platnick & O. Francke, 1 ♂ (AMNH). — Guanaqueros, elev. 15 m, arid coastal scrub, 6.I.1985, N. Platnick & O. Francke, 1 ♀ (AMNH). — Limarí, Socos, 16.IX.1964, L. Peña, 1 juv. (MCZ 46141). — Termas de Socos, elev. *c.* 300 m, 2.X.1992, N. Platnick, P. Goloboff & K. Catley, 1 juv. (AMNH). — Choapa, Salamanca, SE Illapel, 18.X.1986, L. Peña, 27 ♀♀, 47 juvs (AMNH). — Los Vilos, 30-IX-1983, E. Maury, 3 juvs (MACN-Ar 10098). — 10 km S of Los Vilos, I.1989, P. Goloboff, 1 ♀, 1 juv. (MACN-Ar 10099). — Los Vilos, 12.X.1986, L. Peña, 2 ♀ (AMNH). — 5 km N Los Vilos, elev. 3 m, under succulent rock cover along coast, 5.I.1985, N. Platnick & O. Francke, 21 juvs (AMNH). — Same data, 9 juvs (AMNH). — Ruta 5 km 212, quebrada 16 km N Pichidangui, 10 m, 32°01'00.5"S, 71°30'29.0"W, 20.II.2005, M. Ramírez & F. Labarque, 1 ♂ (captured as juvenile, maturity in lab 27.X.2005, MACN-Ar 10787). — Same data, 1 ♂ (MACN-Ar 10788).

Region V (Valparaíso), Aconcagua, between Río Blanco y Juncal, 1950 m, 6.I.1984, A. Roig, 1 ♀ (MACN-Ar 10101). — Talanquén, 32°33'S, 71°14'W, X.1982, L. Peña, 40 ♀♀, 101 juvs (AMNH). — Chincolco, 14.X.1986, L. Peña, 1 ♀ (AMNH). — Llayllay, 6.I.1984, P. Goloboff, 1 juv. (MACN-Ar 10104). — Los Hornos, 20 km E Huaquén, 2-4.XII.1986, L. Peña, 4 ♀♀, 1 juv. (AMNH). — Los Andes, Juncal, 1950 m, I.1984, P. Goloboff, 1 juv. (MACN-Ar 10102). — Valparaíso, Valparaíso, IV.1970, Fritz, 3 juvs (MACN-Ar 10103). — Loncura, 17.XI.1969 (no collector), 2 ♀♀ (MCZ 40637). — Cerro Las Vizcachas, 1800-2200 m, 1-12.XII.1982, L. Peña, 8 ♀♀, 10 juvs (AMNH). — Viña del Mar, I-II.1978, A. Tobar, 2 ♂♂, 3 ♀♀ (AMNH). — Same locality and collector, XII.1978, 1 ♀ (AMNH). — Same locality and collector, II.1979, 1 ♀, 8 juvs (AMNH). — Same locality, IV.1979, A. Tobar, 2♂♂, 2 juvs (AMNH). — 11 km E Quintero, elev. 8 m, small, mixed forest, 10.I.1985, N. Platnick & O. Francke, 2 juvs (AMNH). — San Antonio, Quebrada Córdoba, 5 km E of El Tabo, elev. 80 m, N. Platnick, P. Goloboff & M. Ramírez, 6.II.1992, 1 ♂ (AMNH). — Petorca, Quebrada Huaquén, Pichicuy, I.1984, P. Goloboff, 1 ♀ (MACN-Ar 10105). — Same locality, 16.X.1992, N. Platnick, P. Goloboff & K. Catley, 1 juv. (AMNH). — Same locality and collectors, elev. 10 m, 2.X.1992, 2 juvs (AMNH). — Quebrada de Chivato, 1 km S from Los Molles, 30.IX.1988, P. Goloboff, E. Maury & C. Szumik, 1 ♀ (MACN-Ar 10106). — Between Cachagua and La Laguna, I.1984, P. Goloboff, 1 ♀, 1 juv. (MACN-Ar 10107). — Los Molles, elev. 2 m, under succulent rock cover along coast, 9.I.1985, N. Platnick & O. Francke, 3 ♀♀, 4 juvs (AMNH). — Same locality, Rt. 5 km 188, elev. 10 m, 9.XI.1993, 32°14'S, 71°30'W, N. Platnick, K. Catley, M. Ramírez & T. Allen, 1 juv. (AMNH). — Quillota, Cuesta el Melón, 10-12.X.1986, L. Peña, 1 ♀ (AMNH). — Same locality, nr. La Caldera, 15.XI.1985, L. Peña, 2 ♀♀, 15 juvs (AMNH). — Same locality, 430 m, 8.XI.1993, 32°37'S, 71°14'W, N. Platnick, K. Catley, M. Ramírez & T. Allen, 1 ♀ (AMNH). — Cuesta La Dormida, N Tiltil, 800-1300 m, 13-18.XI.1982, L. Peña, 2 ♀♀, 9 juvs (AMNH). — Same locality, elev. 975 m, under rocks, 11.I.1985, N. Platnick & O. Francke, 1 ♀ (AMNH). — Palmas de Ocoa, elev. 475 m, riparian forest, 12.I.1985, N. Platnick & O. Francke, 1 ♀ (AMNH). — No precise locality, I.1979, A. Tobar, 3 ♀♀ (AMNH). — Without data, 8 ♀♀, 8 juvs (MACN-Ar 10108). — Islas Juan Fernández, Robinson Crusoe Island, Plazoleta El Yunque, 26.I.1992, S. Marshall & C. Marshall, 1 ♀, 4 juv (AMNH). — Same locality and collector, 28.I.1992, 3 juvs (AMNH). — Robinson Crusoe Island, Mirador Selkirk Trail, 27.I.1992, S. Marshall & C. Marshall, 3 ♀♀, 1 juv. (AMNH). — Más Afuera, XII.1965, O. Solbrig, 1 ♂ (MCZ 46036).

Region Metropolitana, Santiago, Guayacán, Río Colorado, I.1984, P. Goloboff, 1 ♀ (MACN-Ar 10100). — Los Condes, 25.X.1968, T. Catterson, 1 juv. (MCZ 40631). — La Ollita, Cantillana, 2000 m, 1-6.XII.1969, L. Peña, 2 ♀♀, 1 juv. (MCZ 40635). — Quilicura, VIII-IX.1979, L. Peña, 8 ♀♀, 90 juvs (AMNH). — Same locality and

collector, 9.IX.1979, 8 ♀♀, 17 juvs (AMNH). — Same locality and collector, X.1979, 5 ♀♀, 41 juvs (AMNH). — Same locality and collector, 25.V.1979, 2 ♂♂, 1 ♀, 6 juvs (AMNH). — Renca, 23.IV.1984, L. Irarrazával, 7 ♀♀, 13 juvs (AMNH). — Aculeo, NE Lago Aculeo, 17-18.XII.1986, L. Peña, 2 juvs (AMNH). — Melipilla, X.1986, L. Peña, 1 ♀ (AMNH). — Melipilla, La Viluma, 13-14.V.1980, L. Peña, 2 ♀♀, 1 juv. (AMNH). — El Manzano, VIII.1973, L. Peña, 1 ♀, 2 juvs (AMNH). — El Canelo, 800-1000 m, 1980, L. Peña, 5 juvs (AMNH). — El Canelo (Maipo canyon), 850 m, XII.1984, L. Peña, 2 ♀♀ (AMNH). — El Salto, X.1979, L. Peña, 3 ♀♀, 10 juvs (AMNH). — Pirque, 20.XI.1982, L. Peña, 3 ♀, 12 juvs (AMNH). — Same locality and collector, 5.X.1982, 1 juv. (AMNH). — Lampa, 14.VIII.1984, L. Irarrazával, 1 ♀ (AMNH). — Same locality and collector, 19.VIII.1984, 3 juvs (AMNH). — Caleu, elev. 1850 m, *Nothofagus* forest, 14.I.1985, N. Platnick & O. Francke, 2 juvs (AMNH). — N side Cuesta de Chacabuco, elev. 1235 m, dry mountainside, acacias, 14.I.1985, N. Platnick & O. Francke, 2 juvs (AMNH). — Quebrada de la Plata, nr. Maipú, elev. 580 m, streamside, 15.I.1985, N. Platnick, O. Francke, 4 ♀♀, 4 juvs (AMNH). — C. San Cristóbal, 500-800 m, nr. Santiago city, 30.XI.1982, L. Peña, 20 ♀♀, 107 juvs (AMNH). — Valdés, 2000 m, Cordillera nr. Santiago, G. Mann, 5 juvs (AMNH). — No specified locality 1979, L. Peña, 3 ♀♀, 8 juvs (AMNH). — Cordillera, Reserva Nac. Río Clarillo, elev. 940 m, 26.XI.1993, 33°44'S, 70°28'W, N. Platnick, K. Catley, M. Ramírez, T. Allen, 1 ♀ (AMNH).

Region VI (Libertador General Bernardo O'Higgins), Cachapoal, La Leonera, nr. Rancagua, 1976, L. Peña, 1 juv. (AMNH).

Region VII (Maule), Curicó, Los Queñes, I.1984, P. Goloboff, 1 juv. (MACN-Ar 10109). — Same locality, elev. 700 m, 17.X.1992, N. Platnick, P. Goloboff & K. Catley, 1 ♀, 2 juvs (AMNH). — El Coigo, Cordillera Curicó, 23.III.1983, L. Peña, 1 ♂, 1 ♀ (AMNH). — Talca, Talca, 1200 m, I.1984, P. Goloboff, 1 ♀ (MACN-Ar 10111). — 3 km W of Vilches, elev. 1070 m, N. Platnick, P. Goloboff & M. Ramírez, 7.II.1992, 1 ♀ (AMNH). — Vilches, 16-17.I.1984, P. Goloboff, 1 ♀ (MACN-Ar 10112). — Same data, 2 juvs (MACN-Ar 10113). — Same locality, 7-8.I.1989, E. Maury, 1 juv. (MACN-Ar 10114). — Gil de Vilches, 7.I.1989, M. Ramírez, 1 ♀ (MNHN). — Parque Gil de Vilches, 1200 m, I.1984, P. Goloboff, 1 ♀ (MACN-Ar 10116). — Same locality, N. Platnick, P. Goloboff & M. Ramírez, 8.II.1992, 1 ♀ (AMNH). — Linares, El Canelo, X-1963, Fritz, 8 juvs (MACN-Ar 10110). — Malcho Parral, 24-26.I.1993, L. Peña, 1 ♀ (AMNH). — Termas de Castillo, 28.III.1975, T. Cekalovic, 1 ♂ (AMNH). — Bullileo, Parral, 5-8.XII.1990, L. Peña, 3 juvs (AMNH). — Cauquenes, W Cauquenes, 350 m, 4.X.1983 (no collector data), 2 ♀♀, 1 juv. (AMNH). — W. Cauquenes, V.1984, L. Irarrazával, 1 ♀ (AMNH). — Reserva Nac. Los Ruiles, W Cauquenes, elev. 135 m, 15.XI.1993, 35°50'S, 72°31'W, N. Platnick, K. Catley, M. Ramírez & T. Allen (SEM MJR 150), 1 ♀ (AMNH). — Ninquini, 18.VII.1984, L. Irarrazával, 2 ♀♀ (AMNH).

Region VIII (Bío Bío), Ñuble, Recinto, Andes of Ñuble, II.1969, L. Peña, 1 ♂ (MCZ 40641). — Recinto, SE Chillán, 800 m, 23.I.1979, L. Peña, 1 ♀ (AMNH). — Los Lleuques, 11-27.V.1975, G. Moreno, 5 subadults ♀♀ (MCZ 40643). — Chillán, 31.XII.1975, G. Moreno, 1 ♂, 1 ♀ (AMNH). — Same locality and collector, 2.I.1976, 1 juv. (AMNH). — El Purgatorio (Las Trancas), Chillán, 1400 m, 3.III.1968, L. Peña, 1 ♀, 2 juvs (MCZ 46139). — Same locality, II.1980, L. Peña, 2 ♂♂, 1 ♀, 3 juvs (AMNH). — Same locality, XII.1985, M. Umaña, 8 ♀♀, 7 juvs (AMNH). — Same locality (no date, no collector), 1 juv. (MCZ 46140). — 7 km S of Chillán, 16.I.1976, B. Moreno, 3 ♀♀ (AMNH). — Puente Nebuco, 6.I.1976, G. Moreno, 4 ♀♀, 2 juvs (AMNH). — Same locality and collector, I.1976, 1 ♀ (AMNH). — Fundo El Sauce, San Fabián de Alico, 8-24.I.1986, L. Peña, 4 ♀♀, 1 ♂, 7 juvs (AMNH). — 13 km E San Fabián de Alico, elev. 550 m, dry mountainside, 19.I.1985, N. Platnick, O. Francke, 1 ♀ (AMNH). — Tregualemu, 24.I.1976, G. Moreno, 1 juv. (AMNH). — Same data, 2 ♀♀ (AMNH). — 4.5 km E of San Fabián, 24.II.1992, 820 m, N. Platnick, P. Goloboff & M. Ramírez, 1 ♀ (AMNH). — Bío Bío, M. Ralco / Trapa Trapa, 600 m, 21-22.XI.1994, L. Peña, 2 juvs (AMNH). — Concepción, Concepción, 11.II.1979, T. Cekalovic, 13 ♀♀, 7 juvs (MCZ 40630). — Same locality and collector, 17-26.XII.1977, T. Cekalovic, 1 ♀, 1 juv. (MCZ 40642). — Same locality and collector, 29.V.1977, 1 ♀ (AMNH). — Same locality and collector, 20.III.1980, 1 juv. (AMNH). — Same locality and collector, 10.III.1976, 1 ♂ (AMNH). — Same locality and collector, 8.I.1976, 1 ♂ (AMNH). — Same locality, 15.II.1985, S. Cekalovic, 1 ♀ (AMNH). — Same locality and collector, 30.III.1986, 1 ♂ (AMNH). — Same locality and collector, 25.III.1986, 1 ♀, 1 juv. (AMNH). — Same locality, 1.IV.1988, S. González, 1 ♀ (AMNH). — Hualpén, 19.III.1975, T. Cekalovic, 1 ♀ (AMNH). — Same locality, elev. 75 m, moist forest, 22.I.1985, N. Platnick, O. Francke, 4 juvs (AMNH). — Tomeco, 12.XI.1989, T. Cekalovic, 4 ♀♀, 1 juv. (AMNH). — Río Andalién, 11.I.1983, G. Muñoz, 2 ♂♂, 3 ♀♀, 13 juvs (AMNH). — Escuadrón, 20.IX.1980, N. Cekalovic, 5 ♀♀, 2 ♂♂, 3 juvs (AMNH). — Same locality and collector, 25.X.1979, 4 ♀♀, 5 juvs (AMNH). — Penco, XII.1979, T. Cekalovic, 1 ♂ (AMNH). — Road to Tomé, 30.XI.1984, G. Muñoz, 4 ♀♀, 10 juvs (AMNH). — Road to Ramuntcho, 24.VIII.1988, T. Cekalovic, 6 ♀♀ (AMNH). — Road to Talcahuano (Las Higueras) 25.I.1985, S. Cekalovic, 9 ♀♀, 14 juvs (AMNH). — Chiguayante, 3.I.1977, J. Vilo, 1 ♀, 3 juvs (MCZ 46037). — Estero Nonquén, 12.XII.1976, T. Cekalovic, 1 ♀ (MCZ 46034). — Same data, 1 ♂ (MCZ 46035). — Valle Nonquén, 12.XII.1976, T. Cekalovic, 1 juv. (MCZ 40644). — Same data, 2 ♂♂ (MCZ 40645)

(note: the labels of the last two vials bear "Argentina", but the localities are actually in Chile). — Nonguén, 3.X.1976, T. Cekalovic, 1 ♀ (AMNH). — Estero Nonguén, 13.III.1977, T. Cekalovic, 1 ♀ (AMNH). — Same locality and collector, 18.IX.1979, 2 juvs (AMNH). — Same locality and collector, III.1981, 1 ♀, 1 juv. (AMNH). — "Desembocadura del Río Río-Bío", 13.IV.1980, I. Barra, 1 ♀ (AMNH). — Arauco, Isla Mocha, Los Chinos, 3.III.1994, T. Cekalovic, 2 ♀♀ (AMNH).
Region IX (Araucanía), Malleco, Victoria, II-1965, Fritz, 1 ♀, 3 juvs (MACN-Ar 10117). — Tolhuaca, Laguna Malleco, 4.III.1978, T. Cekalovic, 1 ♂ (AMNH). — Monumento Natural Contulmo, 19-21.XII.1998, M. Ramírez, L. Compagnucci, C. Grismado & L. Lopardo (with Moczarski-Tullgren extractor), 1 juv. (MACN-Ar 10118).
Region X (Los Lagos), Valdivia, Purolón, NW Panguipulli, 10.I.1985, L. Peña, 6 ♀♀ (AMNH). — Osorno, Osorno, VIII.1977, A. Tobar, 4 ♀♀, 2 juvs (AMNH). — Same locality, X.1977, same collector, 6 ♀♀, 5 juvs (AMNH).
Unknown localities: Linderos, V.1963, Fritz, 4 ♀♀, 3 juvs (MACN-Ar 10119). — Vina, 28.II.1977, A. Tobar, 1 ♂, 1 ♀, 13 juvs (AMNH). — Mauco Quintero, II.1979, A. Tobar, 2 ♀♀, 4 juvs (AMNH).

DISTRIBUTION. — Chile, from Antofagasta to Magallanes, including the Juan Fernández Islands and one locality in Neuquén (northwestern argentinean Patagonia), which represents the first record in Argentina (Fig. 12A).

DIAGNOSIS. — *Ariadna maxima* differs from the other South American species by its large size (females up to 20 mm). Besides the body size, the male palp (Beatty 1970: figs 18, 19) is almost identical to that of *A. levii* n. sp., but has metatarsi I straight, with normal macrosetae and lacking any apophyses or curvatures (Beatty 1970: fig. 21). Females have the leg spination also very similar to that of *A. levii* n. sp., but differ by the very long anterior receptacula, with annulated texture (Fig. 8H, I). Both sex have gray uniform abdomens (sometimes with a gradually darkened dorsum, or thin light lateral stripes at the sides, Fig. 9A, D), but lack the dorsal contrasting pattern of *A. levii* n. sp.; that coloration is the only reliable feature to distinguish the immatures of both species.

REMARKS

Nicolet (1849) described five species of *Dysdera* (*D. maxima*, *D. virens*, *D. incerta*, *D. coarctata*, *D. longipes*) all (except *D. coarctata*) were synonymized with *Ariadna maxima* by Simon (1896), who concluded that all of these are merely variations of sex, colour and age of the same species. *Dysdera coarctata* was ommited for unknown reasons, but Beatty (1970) added it to the list of synonyms of *A. maxima*. The latter author, in his revision, listed all the synonymies, but, given that the types were unavailable, presumably lost, at that time, declined to ratify the synonymy of *Dysdera longipes*. One of his reasons was that, unlike the other Nicolet's species, all from Santiago, its type locality is Valdivia, far to the south (Beatty 1970). Thanks to Ramírez (1989), who rediscovered the Nicolet's types, they could be examined for this study.

Specimens from MNHN were originally labeled by Simon, but these labels were later replaced (C. Hervé pers. comm.). In the current labels there are some mistakes that can be attributed to erroneous reading of Simon's caligraphy (i. e. "*inanima*" instead of "*maxima*", "*viteus*" for "*virens*", etc.) but with *D. longipes* the problem is different. There are two vials labeled as "*longipes*": one of these (AR 9067 [4133]) contains one male and two females: the former apparently corresponds to the original description, which was accompanied by a couple of figures (Nicolet 1849: figs 6-8) besides, the label have the locality mentioned by Nicolet (Valdivia); all these specimens are conspecific with the type of *D. maxima*. The second vial (AR 9069 [4211]) contains a female of the species described here (see above) as *A. araucana* n. sp. and has different locality data (Pissis). It is hard, from the original descriptions, to decide confidently which of the females was used in Nicolet's description. *Dysdera longipes*, nevertheless, was the only species for which the male description was given; this fact and the mention of Valdivia suggest that the first tube is the original, and the second is a mislabeled specimen (curiously, its preservation is the best of that series); an erroneous transcription of the locality seems less likely than in the specific names. I propose to accept, thus, the synonymy of *D. longipes* with *A. maxima* and consider the specimen from Pissis belonging to a different (new) species.

DESCRIPTION

See Beatty (1970: 469).

Ariadna cephalotes Simon, 1907
(Figs 8J, K; 9E, F; 12A)

Ariadna cephalotes Simon, 1907: 262 (♀ lectotype and juveniles paralectotypes [designated by Beatty 1970], Bolivia,

San Mateo [MNHN, not examined]. — Petrunkevitch 1911: 131. — Bonnet 1955: 732. — Beatty 1970: 465. — Platnick 2007.

Ariadna hotchkissi Chamberlin, 1916: 216 (synonymized by Beatty 1970: 465)

NEW RECORDS. — **Argentina.** Jujuy, Calilegua National Park, "near Sevenguillar, 3 km up to Mesada de las Colmenas" (*c.* 1600 m), 7.VIII.1997, M. Ramírez & L. Compagnucci, 1 ♀ with eggsac (84 eggs) (MACN-Ar 10120). — Mesada de las Colmenas (*c.* 1500 m), 8.VIII.1997, same collectors, 1 ♀, 1 juv., (MACN-Ar 10121). — Near Monolito (*c.* 1700 m), 9.VIII.1997, same collectors, 2 juvs (MACN-Ar 10122).
Bolivia. Cochabamba, Morochata, 19.X.1983, A. Roig, 1 ♀ (MACN-Ar 10123).

DISTRIBUTION. — A species previously reported from Peru and Bolivia (Beatty 1970), but extending also to the yungas (montane cloudy rainforests) of Jujuy, northwestern Argentina (Fig. 12A), where it is sympatric with *A. calilegua* n. sp.

DIAGNOSIS. — The small dorsal lobe of the anterior receptaculum (especially in comparation with the ventral one (Fig. 8J, K), distinguishes this species from the other *Ariadna* of the region. There are two other species in neighbouring areas that I have not examined: *A. peruviana* Beatty, 1970 and *A. boliviana* Simon, 1907, but the descriptions given in Beatty (1970: 467, 477) leave no doubt that they are different species: the apical dark rings on the forelegs, the uniform purplish abdominal colour, and the IV preening comb with 4 macrosetae separate *A. cephalotes* from *A. peruviana*; the absence of prolateral and retrolateral macrosetae on tibiae I-II separate it also from *A. boliviana*.

DESCRIPTION
See Beatty (1970: 465).

REMARKS
I have not seen the types, but the specimens here studied fit very well with the description given by Beatty (1970) and are also matched by geographical proximity.

Ariadna mollis (Holmberg, 1876)
(Figs 1; 8L, M; 10A-D; 12)

Segestria mollis Holmberg, 1876: 25 (♀? holotype), Argentina, Buenos Aires, lost).

Segestria vulgarissima Holmberg, 1876: 25.

Ariadna mollis – Mello-Leitão 1933: 12; 1944: 312, 322 (description of male); 1947: 233, 234. — Bonnet 1955: 735. — Beatty 1970: 475. — De la Serna de Esteban 1976: 139. — Prandi 1990: 3. — Platnick 2007.

NEW RECORDS. — **Argentina.** Catamarca, El Rodeo, I.1957, M. E. Galiano, 1 ♀ (MACN-Ar 10126).
Formosa, P. Santo (Palo Santo?), 1941, exp. H. Hepper, 1 ♀ (MACN-Ar 1038).
Misiones, Iguazú National Park, VII.1985, M. Ramírez, 1 ♂, 1 juv. (MACN-Ar 10128). — Same data, 1 ♀ (MACN-Ar 10129). — Same locality, 22-30.VIII.1986, M. Ramírez, 1 juv. (MACN-Ar 10130). — Same locality, XI.1989, M. Ramírez, 1 ♀ (MACN-Ar 10131). — Cataratas del Iguazú, XI.1954, R. Schiapelli & De Carlo, 1 ♀, 3 juvs (MACN-Ar 10132). — Yacuí, 3.IX.1972, E. Maury, 2 juvs (MACN-Ar 10133). — Provincial Park Uruguaí, Refugio Caá-Porá, 3 km W Deseado, 14-15.II.1995, M. Ramírez, 1 ♀ (MACN-Ar 10134). — A. Uruguaí, km 30, IX.1958, Patridge, 1 ♀ (MACN-Ar 10135). — Aguapaí-Guazú, IX.1948, exc. A. Giai, 1 ♀ (MACN-Ar 2636). — Santa María, XII.1947 (no collector), 3 juvs (MACN-Ar 2502). — Same locality, X.1953, exp. De Carlo, Schiapelli, Viana & Galiano, 1 juv. (MACN-Ar 3846). — Santa Ana, 16.VII.1985, M. Ramírez, 1 juv. (MACN-Ar 10136). — Refugio Piñalito, XI.1954, M. E. Galiano & R. Schiapelli, 1 ♂ (MACN-Ar 10223).
Córdoba, Anizacate, VII.1973, Carpintero, 1 ♀ (MACN-Ar 10137). — Calamuchita, I.1952, Viana, 2 ♀♀ (MACN-Ar 10217).
Buenos Aires, Isla Martín García, II-1933, exc. Daguerre-Moreau, 1 juv. (MACN-Ar 10138). — Reserva Natural Otamendi, 10.VI.1997, M. Ramírez, L. Compagnucci, F. Uehara & C. Grismado, 1 ♀ (MACN-Ar 10140). — Same locality, 22.IV.2006, M. Ramírez, F. Labarque & C. Sosa, 1 ♂ (MACN-Ar 10966); 3 juvs (MACN-Ar 11074). — Delta, Est. Experimental INTA, VII.1968, A. Bachmann, 1 juv. (MACN-Ar 10141). — Same locality and collector, 1977, 1 ♀ (MACN-Ar 10142). — Paraná de las Palmas, II.1963, A. Bachmann, 1 ♀ (MACN-Ar 10143). — Same locality (no date, no collector), 1 juv. (MACN-Ar 276). — Tigre, XII.1957, Viana, 1 ♀ (MACN-Ar 10144). — Same locality and collector, VI.1955, 1 juv. (MACN-Ar 10235). — Same locality, (no date), M. Viana dad., 1 juv. (MACN-Ar 2951). — Delta del Paraná, Río Luján, 9.VI.1940, F. Monrós, 1 ♂, 1 ♀, 1 juv. (MNHN). — San Fernando (no date), Daguerre, 1 ♀ (MACN-Ar 10146). — Campo de Mayo, 28.V.2005, leg. P. Turienzo, 1 ♀ (MNHN). — Zelaya, 11.V.1938, leg. D. Pereyra, 1 ♀ (MACN-Ar 495). — Same locality, IX.1941, H. Hepper, 2 juvs (MACN-Ar 1025). — Same locality and collector, VII.1941, 1 ♀ (MACN-Ar 1047). — Same locality and collector, 1939, 1 juv. (MACN-Ar 698). — Same locality

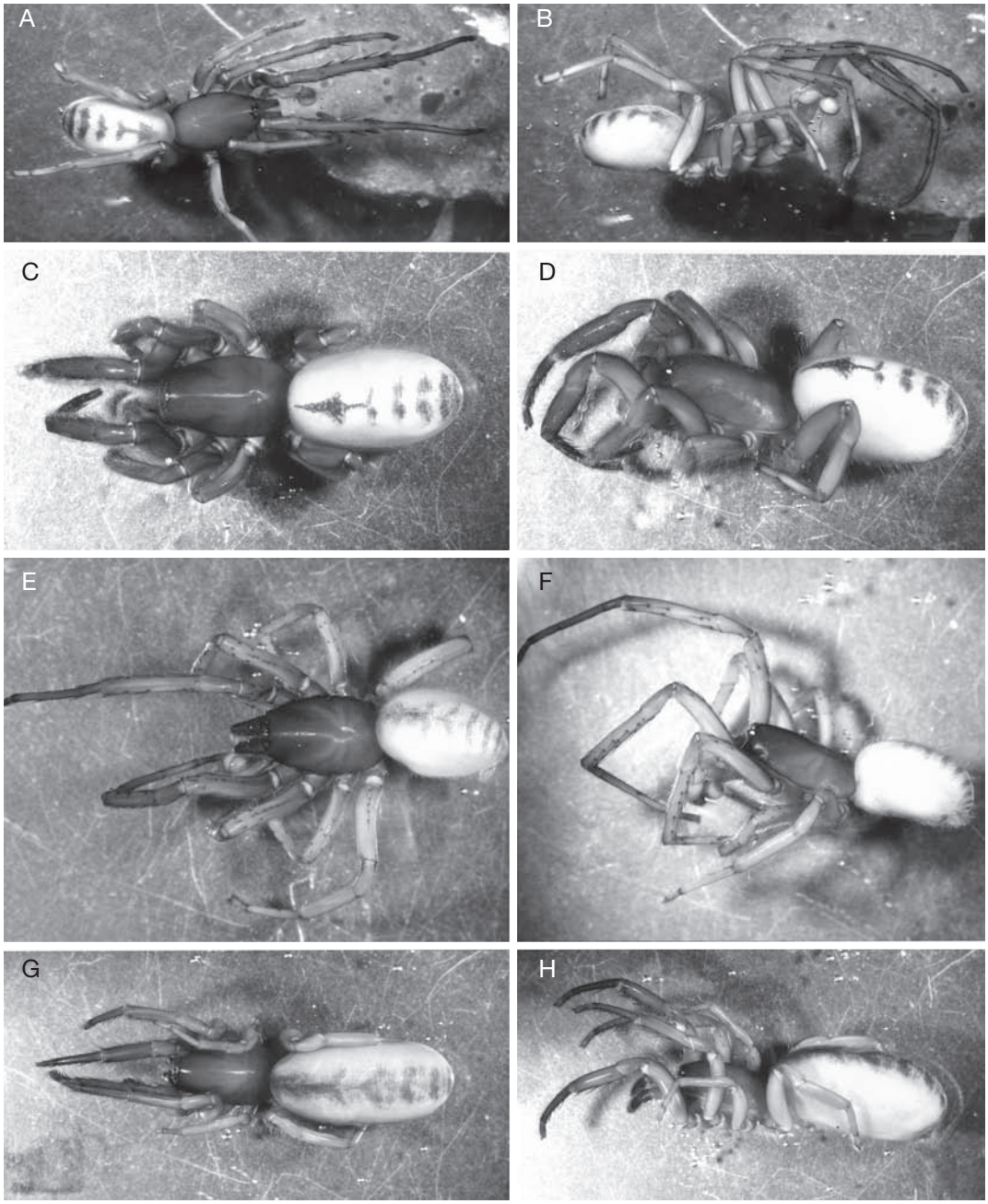

FIG. 10. — Habitus of *Ariadna* species: **A**-**D**, *A. mollis* (Holmberg, 1876), **E**-**H**, *A. boesenbergi* Keyserling, 1877; **A**, **B**, ♂, Río Salado (total length 7.11 mm); **C**, **D**, ♀, Buenos Aires (total length 10.10 mm); **E**, **F**, ♂, Buenos Aires (total length 7.35 mm); **G**, **H**, ♀, Quebrada Merlo (total length 9.85 mm); **A**, **C**, **E**, **G**, dorsal view; **B**, **D**, **F**, **H**, lateral view.

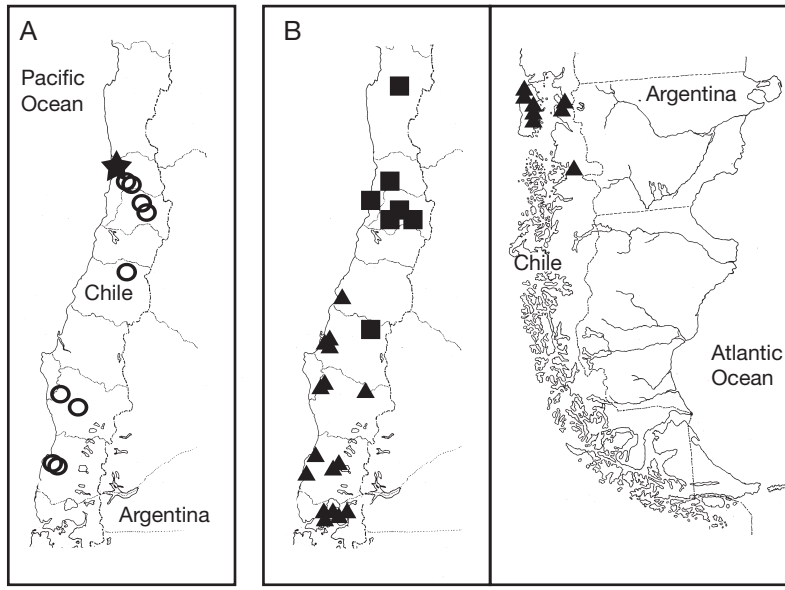

FIG. 11. — Distribution of *Ariadna* species in Chile (specimens of the present study): **A**, *A. abrilae* n. sp. (★) and *A. levii* n. sp. (O); **B**, *A. changellkuk*, n. sp. (■) and *A. araucana*, n. sp. (▲).

and collector, VI.1939, 1 ♀ (MACN-Ar 10147). — Pereyra, VIII.1972, Cesari, 1 ♀, 1 juv. (MACN-Ar 10148). — Hurlingham, Arroyo Morón, XI.1962, E. Massoia, 1 ♀ (MACN-Ar 10149). — Castelar, 25.X.1946, W. Partridge, 1 juv. (MACN-Ar 10218). — Lomas del Mirador, II.1992, C. Grismado, 1 juv. (MACN-Ar 10224). — Moreno, F. C. O., III.1947, exp. Rita D. Schiapelli, 1 ♀ (MACN-Ar 2338). — Same locality, II.1966, Rossi y Maury, 1 ♀ (MACN-Ar 10229). — Sarandí, 15.VII.2006, C. Grismado & A. Raya, 1 ♀ (MACN-Ar 11426). — Glew, 1970, Carpintero, 1 ♀ (MACN-Ar 10150). — Same locality and collector, 1979, 1 ♀ (MACN-Ar 10151). — I.1969, leg. Quilmes, C. Rebollo, 1 ♀ (MACN-Ar 10152). — Quilmes Oeste, Estancia "El Dorado", 18.V.1969, Rebollo, 1 ♀ (MACN-Ar 10228). — Gral. Madariaga, I.1962, M. E. Galiano, 2 ♀, 5 juvs (MACN-Ar 5361). — Punta Lara, 2.V.1948, W. Patridge, 1 ♀, 2 juvs (MACN-Ar 10153). — Same locality and collector, 17.VII.1946, 2 juvs (MACN-Ar 10154). — Same locality, 6.V.1948, A. Bachmann, 1 ♀ (MACN-Ar 10155). — Same locality, 6.IV.1950, M. J. Viana, 3 ♀♀, 5 juvs (MACN-Ar 2950). — Same locality and collector, V.1954, 2 juvs (MACN-Ar 10230). — 10 km N of Punta Indio, 13.III.1983, E. Maury & P. Goloboff, 1 ♀ (MACN-Ar 10227). — Castelli, X.1960, Viana, 3 ♀♀, 1 juv. (MACN-Ar 5157). — Río Salado y Ruta 11, 13.III.1983, E. Maury & P. Goloboff, 1 ♂ (MACN-Ar 10156). — Same data, 1 ♀, 6 juvs (MACN-Ar 10215). — L. del Sur, III.1954, J. M. Gallardo, 1 ♀ (MACN-Ar 10157).

Ciudad de Buenos Aires, X.1992, C. Grismado, 2 ♀♀ (MACN-Ar 10225). — VII.1948, O. Carpintero, 1 ♀ (MACN-Ar 10222). — No date, same collector, 1 juv. (MACN-Ar 10226). — XII.1968, A. Bachmann, 6 ♀♀ (MACN-Ar 10158); 4 ♀♀, 7 juvs (MACN-Ar 10221). — Parque Centenario (under bark of *Tipuana tipu*), 10.VII.1993, C. Grismado, 2 ♀♀ (MACN-Ar 10159); 2 ♀♀ (MACN-Ar 10160). — Same locality and collector, VI.1992, 1 ♀ (MACN-Ar 10220).
Río Negro, Viedma, IV.1976, J. Arias Obarrio, 1 ♀ (MACN-Ar 10216).

DISTRIBUTION. — Southern Brazil, Uruguay (Beatty 1970; Prandi 1990) and Argentina. In the latter country, this species was collected in Buenos Aires (in the metropolitan area only) and the northeastern provinces (Misiones and Formosa) plus a few isolated records in Catamarca, Córdoba and Río Negro (Fig. 12).
Concerning the suggested sympatry with *A. boesenbergi* (Beatty 1970; Prandi 1990), the data label of the specimens here studied shows that, except for the data of Uruguay and Buenos Aires area, the ranges of the two species almost do not overlapped (Fig. 12). *Ariadna boesenbergi* is known from the central and central-northern parts of the country (Buenos Aires, Santa Fe, Entre Ríos, Corrientes, Córdoba, San Luis, La Rioja, Catamarca and Tucumán). I tentatively conclude that these species were originally allopatric, but their synanthropic habits facilitate their later

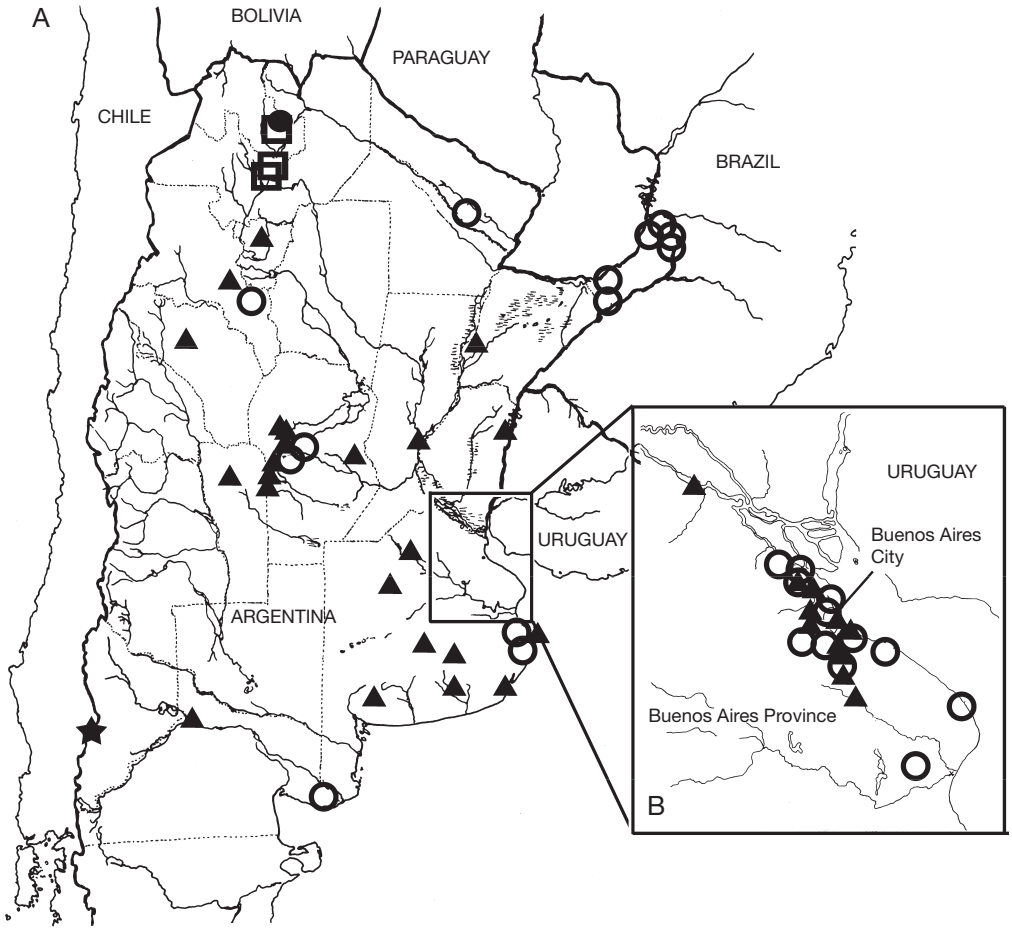

FIG. 12. — Distribution of *Ariadna* species in Argentina: **A**, localities studied in Argentina for *A. cephalotes* Simon 1907 (●), *A. calilegua* n. sp. (□), *A. maxima* (Nicolet, 1849, ★), *A. mollis* (Holmberg, 1876, O) and *A. boesenbergi* Keyserling, 1877 (▲); **B**: detail of Buenos Aires city and its periphery, showing localities of *A. mollis* (O) and *A. boesenbergi* (▲).

establishment in the densely anthropized zones of both margins of the Río de la Plata and other urban areas.

DIAGNOSIS. — For the abdominal pattern (Fig. 10A-D), *A. mollis* resembles *A. calilegua* n. sp. and *A. boesenbergi*; it differs from the latter in having prolateral and retrolateral macrosetae on tibiae I and II and by the IV preening comb with 5-7 spines; besides that, males differ from those of both species by the slender embolus and having the embolic portion more or less of the same length as the midpiece (Fig. 1C; Beatty 1970: figs 16,17; Prandi 1990: figs 4, 5), with the tip simple and tubular (Fig. 1D). An additional difference from *A. calilegua* n. sp. is the unmodified metatarsi I in males (Beatty 1970: fig. 22). Females differ from those of *A. boesenbergi* by having 2 (vs. 1) lobes in the anterior receptaculum; their lobes are more or less equal in size and are united along most of their length (Figs 1A; 8L, M).

DESCRIPTION.
See Beatty (1970: 476) and Prandi (1990: 3).

Ariadna boesenbergi Keyserling, 1877
(Figs 8N, O; 10E, H; 12)

Ariadne Bösenbergii Keyserling, 1877: pl. 7, fig. 7 (♂♂ syntypes, Montevideo, Uruguay, [Zoologisches Staats-Museum, Hamburg], not examined).

Ariadna bösenbergi – Petrunkevitch 1911: 130.

Ariadne bösenbergi – Gerhardt 1921: 92.

Ariadna mollis – Mello-Leitão 1933: 12 (in part); 1947: 234. — Bonnet 1955: 730, 735.

Ariadna boesenbergi – Beatty 1970: 476 (removed male from synonymy of *A. mollis*, description of the female). — Prandi 1990: 3. — Platnick 2007.

MATERIAL EXAMINED. — **Argentina.** Tucumán, Arroyo India Muerta, road to Ticucho, 25.VI.1995, M. Ramírez & P. Goloboff, 1 ♀ (MACN-Ar 10161).
Catamarca, Andalgalá, 31.I.1986, P. Goloboff, 1 juv. (MACN-Ar 10162).
La Rioja, Chilecito, 27-30.I.1956, M. E. Galiano, 1 ♀ (MACN-Ar 10163).
Córdoba, Leones, 13.X.1946, W. Patridge, 1 ♀ (MACN-Ar 10164). — Same locality, 12.X.1946, no collector, 1 juv. (MACN-Ar 10234). — Pampa de Achala, 15 km W El Cóndor, 31.VII.1999, M. Ramírez & L. Lopardo, 1 ♀, 1 juv. (MACN-Ar 10165). — Bosque Alegre, IX.1981, P. Goloboff, 1 ♀ (MACN-Ar 10166); 1 juv. (MACN-Ar 10167); 1 ♀, 3 juvs (MACN-Ar 10168).
San Luis, Cortaderas (in wood of "Molles" [*Schinus* sp.], under stones), 10.XI.1982, A. Roig, 1 ♀ (MACN-Ar 10169). — Quebrada Merlo, 12.XI.1982, A. Roig, 3 ♀♀, 1 juv. (MACN-Ar 10170). — Carolina (between stones), XI.1992, C. Scioscia, 2 ♀♀ (MACN-Ar 10171). — Same data, 1 ♀ (MACN-Ar 10172). — Papagayos, Arturo Roig, 9.XI.1982, 1 ♀ (MACN-Ar 10173).
Corrientes, Santiago Alcorta, VI.1943, M. Birabén, 1 juv. (MACN-Ar 10174).
Entre Ríos, Concordia (under bark of *Melia azederach*), X.1992, C. Grismado, 1 ♀ (MACN-Ar 10175).
Santa Fe, Santa Fe (La Capital), I.1965, leg. Martínez Achenbach, 2 ♂♂ (MACN-Ar 5853). — No precise locality, 9.X.1963, Pignalloni, 1 juv. (MACN-Ar 10176).
Buenos Aires, Junín, II.1962, Daguerre, 1 ♀ (MACN-Ar 10186). — San Pedro ("in a tube under bark of *Eucalyptus*"), 24.XII.1912, A. G. Frers, 1 ♀ (MACN-Ar 10187). — Atucha, 27.VII.1984, P. Goloboff & M. Ramírez, 1 ♂ (MACN-Ar 10139). — V. Obligado, VI.1974, C. Toth, 1 ♀, 1 juv. (MACN-Ar 10219). — Tigre, I.1938, J. M. Viana, 1 ♂ (MACN-Ar 303). — Zelaya, VIII.1939, H. Hepper, 1 ♀ (MACN-Ar 10188). — Same data, 1 ♀ (MACN-Ar 10189). — Same locality and collector, V-1940, 1 juv. (MACN-Ar 10231). — Hurlingham, Arroyo Morón, XI.1962, E. Massoia, 2 ♀♀, 1 juv. (MACN-Ar 10190). — Moreno, F. C. O., III.1942, L. R. D. Schiapelli, 1 ♀, 2 juvs (MACN-Ar 2354). — Same locality, III.1947, exp. R. D. Schiapelli, 3 juvs (MACN-Ar 10191). — Lomas del Mirador, II.1992, C. Grismado, 1 juv. (MACN-Ar 10192). — Carlos Casares, 9.IV.1981, P. Goloboff, 1 ♀ (MACN-Ar 10193). — Sarandí (on wall of bricks), 27.IV.2002, C. D. Grismado & A. Grismado, 5 juvs (MACN-Ar 10204). — Same data (under bark of *Tipuana tipu*), 1 juv. (MACN-Ar 10205). — Same locality, 15.VII.2006, C. Grismado & A. Raya, 1 ♀ (MACN-Ar 11425, ARAMR000769). — Same locality (in a bathroom), I.1998, C. Grismado, 1 ♂ (MACN-Ar 10242). — Glew, 1970, Carpintero, 1 juv. (MACN-Ar 10194). — Same locality and collector, 1972, 1 juv. (MACN-Ar 10195). — Same locality and collector, 1979, 2 juvs (MACN-Ar 10196). — Florencio Varela, XII.1939, F. Monrós, 1 ♀ (MACN-Ar 10197). — San Vicente, 1945, B. G. de Pikelin, 1 juv. (MACN-Ar 1653). — G. Brandsen, 2.VIII.1971, J. Arias Obarrio, 1 juv. (MACN-Ar 10233). — 15 km O de Lobería, 4.IX.1972, 1 ♀ (MACN-Ar 10127). — Santa Teresita, II.1984, M. Ramírez, 1 subadult ♀ (MACN-Ar 10198). — Tandil, V.1967, E. Maury, 2 ♀♀, 2 juvs (MACN-Ar 10199). — Same locality, La Cascada, 16.V.1973, C. Cesari, 1 ♀ (MACN-Ar 10200). — Sierras de Olavarría, 3-6.XII.1992, M. Ramírez, 2 ♀♀, 2 juvs (MACN-Ar 10201). — Sierra de los Padres, XI.1962, M. E. Galiano, 2 ♀♀, 2 juvs (MACN-Ar 10202). — Tornquist, Estancia Fortín Chaco, I.1972, J. Arias Obarrio, 1 ♂ (MNHN).
Ciudad de Buenos Aires, I.1989, M. Miranda, 1 ♂ (MACN-Ar 10177). — VIII.1948, D. Y. Carpintero & O. Carpintero, 1 ♀, 3 juvs (MACN-Ar 10178). — Parque Patricios, X.1948, illegible collector, 1 ♀ (MACN-Ar 10179). — VII.1945, no collector, 4 ♀♀ (MACN-Ar 1585). — VI.1964, A. Martínez, 1 ♀ (MACN-Ar 10180). — XII.1968, A. Bachmann, 1 ♀, 2 juvs (MNHN). — Parque Centenario (under bark of *Tipuana tipu*), X.1992, C. Grismado, 1 juv. (MACN-Ar 10182). — V. Lugano (no date), L. R. Rodríguez, 1 juv. (MACN-Ar 10183). — Same data, 1 ♀ (MACN-Ar 10184). — XII.1965 (no collector), "bit to Paladino" (legend in label), 1 ♂ (MACN-Ar 10185).
Río Negro, Gral. Fernández Oro, I.1976, Coscarón, 1 ♂ (AMNH).

DISTRIBUTION. — Uruguay, Brazil (Beatty 1970; Prandi 1990) and Argentina. In the latter country (Fig. 12), this species was collected in the central and northwestern provinces (see note under *A. mollis*).

DIAGNOSIS. — *Ariadna boesenbergi* resembles *A. calilegua* n. sp. and *A. mollis* in abdominal pattern (Fig. 10E-H), but is distinguishable from both because males lack macrosetae on patellae I and II; females differ from those of *A. mollis* by lacking prolateral and retrolateral macrosetae on tibiae I and II; both sexes have only four macrosetae on the IV preening comb. The male palp is similar to that of *A. calilegua* n. sp. because the midpiece is longer than the embolic portion, but the bulb is relatively smaller and the metatarsi I are ummodified (Beatty 1970: figs 46-48; Prandi 1990: figs 8, 9). Females have a compact unilobate

anterior receptaculum that has a kind of membranose keel in the ventral margin (Fig. 8N, O).

DESCRIPTION

See Beatty (1970: 476) and Prandi (1990: 3).

Variability

The specimens coming from some hilly localities of central and central-northern Argentina (Buenos Aires hills, Córdoba, San Luis and Tucumán) show differences in the abdominal pattern, with the transverse bands less conspicuous, sometimes fused in a more or less uniform longitudinal band, although the remaining characters are typical of *A. boesenbergi*. The discovery of males from these places could reveal the existence of a different species.

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