Description of *Sybota compagnuccii*, a new spider species from Patagonia, Argentina (Araneae, Uloboridae)

Cristian J. GRISMADO

División Aracnología, Museo Argentino de Ciencias Naturales «Bernardino Rivadavia», Av. Angel Gallardo 470, C1405DJR Buenos Aires, Argentina, e-mail: grismado@macn.gov.ar.

Abstract: Description of *Sybota compagnuccii* a new spider species from Patagonia, Argentina (Araneae, Uloboridae). *Sybota compagnuccii* new species is described for the Argentinian Patagonia (Neuquén, Río Negro and Chubut Provinces). Relationships with the previously described *Sybota* species are discussed.

Key words: Araneae, Uloboridae, *Sybota*, Taxonomy, Patagonia, Argentina.

The uloborid spider genus *Sybota* Simon 1892, comprises five species: two from Central and Southern Chile, *S. abdominalis* (Nicolet) and *S. osornis* Opell and three from Argentina, *S. rana* (Mello-Leitão), *S. mendozae* Opell and *S. atlantica* Grismado (Platnick, 2007). One of the most remarkable features of the genus *Sybota* (convergent with the genus *Polenecia* Lehtinen) is the abdominal caudal projection that extends beyond the spinnerets (Fig. 4; Opell 1979, figs. 51, 102, 110, 116; Grismado 2001, figs. 1, 3). The female genitalia of *Sybota* species have a partially entelegynne condition (Fig. 13, Grismado 2001, fig. 10); and the males have a well developed conductor and a median apophysis with two or three projections (Figs. 5-10; Opell 1979, figs. 6A-B; Grismado 2001, figs. 5-7). Coddington (1990), in the last published cladistic analysis of the family, suggested that *Sybota* is the sister group of the clade *Orinomana* Strand + (*Hyptiotes* Walckenaer + *Miagrammopes* O. P.Cambridge), all of them united by having the posterior lateral eyes on conspicuous tubercles of carapace.

In a previous paper (Grismado, 2001), I proposed a monophyletic group within the genus *Sybota* that comprises the Argentine species, all of them share the following putative synapomorphies: long cephalotorax, anterior median eyes on a prominent tubercle, females with long sperm ducts and males (at least in *S. atlantica*) with the embolus longer than those of the Chilean species.

In this contribution I describe a new species, *S. compagnuccii*, from the Andean forests of Neuquén, Río Negro and Chubut provinces, in the Argentinian Patagonia, that lacks the synapomorphies above mentioned, resembling more to the chilean than to the argentianin members of the genus.

MATERIALS AND METHODS.

The specimens here studied are deposited in the National Collection of Arachnology of the Museo Argentino de Ciencias Naturales «Bernardino Rivadavia», Buenos Aires (MACN-Ar, Cristina L. Scioscia). The format of descriptions and terminology of genital structures follows mostly Opell (1979). As in a previous paper (Grismado, 2001) I follow this nomenclature in the male palpal sclerites only for ease comparison with previously described species. I also discriminated in this paper the three projections of the median apophysis for descriptive purposes (dorsal, median and ventral; Fig. 7). Coddington (1990) suggested that the terms median apophysis and conductor must be switched, although he recognized that the homology of this sclerites in uloborids is still unsolved. The abbreviations used in the text are as follows: BH= basal haematodocha; C= conductor; CD= copulatory duct; CO= copulatory opening; Cy= cymbium; E= embolus; F= fundus; FD= fertilization duct; MA= median apophysis; MH= median haematodocha; PP= posterior plate; S= spermatheca; ST= subtegulum; T= tegulum. Abbreviations for eyes are the standard for Araneae. The drawings were made with camera lucida mounted on a stereoscopic compound microscope Leitz Wetzlar; the photographs of preserved specimens were taken with a digital camera Nikon DXM 1200 mounted on a stereoscopic compound microscope Nikon SMZ 1500; male palp was expanded in KOH solution and transferred to distilled water. The epigynum was cleared in clove oil for observation. All measurements are expressed in millimeters.
SYSTEMATIC DESCRIPTION

Sybota compagnuccii n. sp.  
(Figs. 1-14)

Types. Male holotype and two females para-
types from Argentina, Neuquén Province, Parque 
Nacional Lanín: Departamento Huiliches: Lago 
(MACN-Ar 10524, 12347 and 12348 respectively).

Etymology. The species epithet is a patro-
nymic in honor to Luis A. Compagnucci, ento-
mologist of the MACN, collector of the type se-
ries, companion of several field trips and good 
friend.

Diagnosis. Both sexes differ from the remaining 
spieces of the genus by having the relatively 
shorter caudal projection of abdomen (Figs. 1-
4). Females resemble those of S. abdominalis and 
S. osornis by having a short prosoma and by lacking 
the anterior tubercle for the AME (Fig. 3; 
Opell 1979, figs. 98, 100-101), but differ by their 
broad median field of the epigynum (Fig. 11) 
and a broadened posterior plate (Fig. 12). The 
male palp is, nevertheless, more similar to that 
of S. atlantica by having the embolus and the 
conductor longer than the Chilean species and 
by the shape of the median apophysis: S. 
abdominalis and S. osornis have a rounded 
ventral projection, and the dorsal one is thinner 
and well separated from the other two prongs by 
a large concavity (Opell 1979, figs. 6A-B). The me-
dian apophysis of S. atlantica and S. comp-
agnucci share the more or less equidistant pro-
jections (in retrolateral view), with the ventral 
one shortened, not rounded; moreover, the dor-
sal projection is broadened and flattened. The 
new species here described differs clearly from 
S. atlantica by having a shorter embolus and con-
ductor; a longer digitiform prolateral projection 
of the conductor, a much larger conical projec-
tion of the palpal tibia, and by lacking a basa-
lum tubercle (Figs. 5-10, Grismado 2001, figs. 
5-7).

Description. Male (holotype): Total length: 
3.56, cephalotorax length: 1.40, sternum length: 
0.94, abdomen length: 2.30; leg I, length of 
podomeres: femur 2.92, tibia 2.64, metatarsus 
2.96, tarsus 0.78. Color: Cephalotorax brown with 
fine dark radial lines, with a thin light median 
band, more contrasting around the fovea, and 
diffused on the ocular area (Fig. 1); clypeus and 
carapace margins yellowish; prosoma completely 
covered by fine light hairs; eyes bordered by dark 
brown rings. Sternum with a dark brown «V» 
design with posteriorly directed tip, posterior and 
lateral to the «V», reddish; anterior to that, light 
brown; labium yellowish with whitish anterior 
border; endites yellowish, lighter at margins. Legs 
yellowish with a diffuse grey pigment on 
prolateral sides of femora and tibiae I-II and 
retrolateral faces of femora, tibiae, and metatarsi 
III -IV. Abdomen with a less pronounced caudal 
projection than in other known species, more or 
less truncated; there is a wide dark dorsal band, 
almost black in front, light gray in central and 
posterior parts; conspicuous white guanine de-
posits at the sides, and four pairs of black spots 
(Fig. 1); from the anterior part of abdomen two 
laterally directed dark bands that continue along 
both sides, becoming more wide and diffuse un-
til joining with the dorsal pattern in the caudal 
projection. Ventrally there is a dark brown pre-
epigastic area that continues as a wide dark ven-
tral band; sides with white guanine deposits; 
spinnerets yellowish brown except the posterior 
facer of PMS, dark grey.

Palp: Tibia with a large conical projection; 
plate-shaped subtegulum visible in the resting 
palp (prolateral view); basal and median hea-
matodochae present (Figs. 8-9, visible with ex-
pansion); ejaculatory duct sinuous, also visible 
through the tegulum; embolus encircling poste-
roventrally the median apophysis; conductor 
with a large digitiform projection in the prolateral 
side (Figs. 5-6, 9-10); median apophysis with 
three equidistant projections, the dorsal one flat-
tened and pointing upwards (in retrolateral 
view), the median projection is the largest, and 
the venral projection is short and with irregu-
lar outline (Figs. 6, 7-10).

Female (paratype MACN-Ar 12347): Total 
length: 5.25, cephalotorax length: 1.60, sternum 
length: 1.12, abdomen length: 3.64; leg I, length 
of podomeres: femur 2.48, tibia 2.00, metatarsus 
2.08, tarsus 0.68. Color: Carapace as in the male 
but slightly lighter and without the dorsal stripe 
(Fig. 3); eyes and legs as in the male, except the 
darkened distal part of tibiae I-II (Fig. 4). Ster-
num as in the male, endites and labium uniformly 
yellowish. Abdomen (Figs. 3, 4) with relatively 
short and rounded caudal projection, color simi-
lar as the male except by the shorter dorsal band 
(reaching until the first pair of black spots) and 
by the lateral dark areas, that are replaced by 
four diffuse gray bands, each corresponding to 
the dorsal dark spots; in the venter, the median 
band is thinner, slightly widened at the cribellum.

Epigynum: Paired atria slightly smaller than 
those of S. osornis and S. abdominalis, with the 
median field wider (Fig. 11). Posterior plate also
widened, with distinctive sclerotization pointing ventrally (Fig. 12). Large spermathecae, similar to those of the known Chilean species, with copulatory openings in the margins of the epigynal atria (Fig. 13).


**Distribution.** Andean forests of Neuquén, Río Negro and Chubut Provinces, Argentina.

**DISCUSSION**

*Sybota compagnucii* greatly resembles *S. abdominalis* and *S. osornis* in lacking the putative synapomorphies of the other three argentine species, although no quantitative cladistic analysis has been carried out for the species in this genus. Nevertheless, I cannot hypothesize synapomorphies for these three species; the greatly elongated cone-shaped palpal tibia of these three
Austral species is possibly a shared apomorphy (in *S. atlantica* the conical shape is lesser pronounced, and the males of *S. rana* and *S. mendozae* remain unknown). However, this character must be taken with some caution, given that most *Miagrammopes* species have similar features (Chickering 1968; Opell 1979: fig. 90; Opell 1984: figs. 19-22).

Despite the somatic morphology, the genital bulb of the male looks very similar to that of *S. atlantica*. In contrast, the female genitalic structure more closely resembles those of *S. abdominalis* and *S. osornis*.

These puzzling combination of morphological features make the species assemblage more complex than originally suggested by Grismado.
ACKNOWLEDGEMENTS

I am very grateful to Martín J. Ramírez, Brent Opell, Cristina L. Scioscia and Gustavo Hormiga for comments and suggestions on the manuscript. I am also indebted to Sergio Archangelsky for editorial comments. This paper is one of a series started during a long convalescence at my home. During this time, Martín J. Ramírez, Cristina Scioscia, Luis Compagnucci, Lara Lopardo and my wife Andrea Raya provided technical assistance and moral support. I wish to especially thank them for their invaluable help, encouragement and advice during that hard period of my life.

BIBLIOGRAPHY


(2001). Consequently, until phylogenetic studies can be conducted, I cannot confidently place *S. compagnucci* close to any of the known *Sybota* species.