Fundación Miguel Lillo
Tucumán
Argentina

NOTA

New record of *Ischnothele annulata* (Mygalomorphae: Ischnothelidae) in San Juan extends its known western range

Nuevo registro de *Ischnothele annulata* (Mygalomorphae: Ischnothelidae) en San Juan extiende su rango occidental conocido

Juan Hector Aragon-Traverso*[1,2]; Lorena Beatriz Quiroga[1,2]; Francisco Iribas[1,2]; Eduardo Alfredo Sanabria[1,2,3]

[1] Instituto de Ciencias Básicas, Facultad de Filosofía Humanidades y Artes, Universidad Nacional de San Juan. Av. José Ignacio de la Roza 230 (O). (5400) San Juan, Argentina.
[2] CONICET, Consejo Nacional de Investigaciones Científicas y Técnicas, CCT. (5400) San Juan, Argentina.
[3] Facultad de Ciencias Exactas y Naturales, Universidad Nacional de Cuyo. Padre Contreras 1300, (5500) Mendoza, Argentina.
* Autor corresponsal: <aragontjh@gmail.com>

Abstract

We report the first record of *Ischnothele annulata* (Mygalomorphae: Ischnothelidae) for the province of San Juan, Argentina. This record extends its known distribution, marking a new western limit with the nearest locations being Chepes and Quines in La Rioja and San Luis, respectively. The observed population is within the arid region of central-western Argentina, at the ecotone between the Arid Chaco and the Monte Desert.

Keywords: Biogeography, Arid Chaco, Monte, Argentina, Cuyo.

Resumen

Informamos el primer registro de *Ischnothele annulata* (Mygalomorphae: Ischnothelidae) para la provincia de San Juan, Argentina. Este hallazgo extiende su distribución conocida, marcando un nuevo límite occidental

➤ Ref. bibliográfica: Aragón-Traverso, J. H.; Quiroga, L. B.; Iribas, F.; Sanabria, E. A. 2025. "New record of *Ischnothele annulata* (Mygalomorphae: Ischnothelidae) in San Juan extends its known western range". *Acta Zoológica Lilloana 69* (1): 29-33. DOI: https://doi.org/10.30550/j.azl/2067
➤ Recibido: 27 de noviembre 2024 – Aceptado: 3 de diciembre 2024.
➤ URL de la revista: http://actazoologica.lillo.org.ar

con las ubicaciones más cercanas en Chepes y Quines en La Rioja y San Luis, respectivamente. La población observada se encuentra dentro de la región árida del centro-oeste de Argentina, en el ecotono entre el Chaco Árido y el Desierto del Monte.

Palabras clave: Biogeografía, Chaco Árido, Monte, Argentina, Cuyo.

Spiders of the genus *Ischnothele* Ausserer, 1875 belong to the family Ischnothelidae (Pickard-Cambridge, 1897, Opatova, Hamilton, Hedin, Montes de Oca, Král, 2020), with tropical and subtropical distributions in Central and South America. The group is distinguished by their long, pseudosegmented lateral spinnerets, used to construct complex webs comprising a sticky capture web and a tubular refuge lined with silk (Coyle, 1995). These solitary spiders only meet for mating during the reproductive season (Ghirotto and Guadanucci, 2021) and exhibit parental care, where offspring cohabit with the mother until they can disperse. *Ischnothele annulata* (Tullgren, 1905) is one of the most widely distributed species, from the humid Amazon regions to the Arid Chaco. In Argentina, it is recorded in several provinces including: Jujuy, Salta, Formosa, Chaco, Santiago Del Estero, Catamarca, La Rioja, Córdoba and San Luis (Figure 1 A) (Coyle, 1995, Ferreti, González, Pérez-miles, 2014), and in this note reports a population recorded for San Juan, extending the known distribution range in the country.

The observation of this population occurred during a fauna survey near Guayaguas mountain range (-31.778669, -67.168958, 547 m.a.s.l), Caucete department, San Juan Province. Nine sheet webs were identified in an area of ~4000 m^2. An adult female specimen was collected and transported to the laboratory for identification and deposited in the biological collection of the Institute of Basic Sciences, National University of San Juan, under the acronym ECRA-I-182. For taxonomic identification we followed Coyle (1995).

The new record of *I. annulata* in San Juan significantly expands its known geographical range, with the nearest records being 75 km away in Chepes, La Rioja, and 140 km in Quines, San Luis (Ferreti, 2013). This shifts the known western limit 55 km westward, following the aridity gradient into a hot desertic environment. The collection site is an ecotone between the Arid Chaco and the Monte Desert, with vegetation patches of shrubs and bare soil, mainly consisting of xerophytes from several genera (Oyarzabal, Clavijo, Oakley, Biganzoli, Tognetti, 2018). The spiders were found in different soil types: a light-colored sandy dune and a reddish sandy loam with rocks. The capture webs, found under shrubs, covered a surface of around 15 cm in diameter, with threads extending up to 30 cm from the entrance hole. No prey, juveniles, or kleptoparasites were detected in the observed webs.

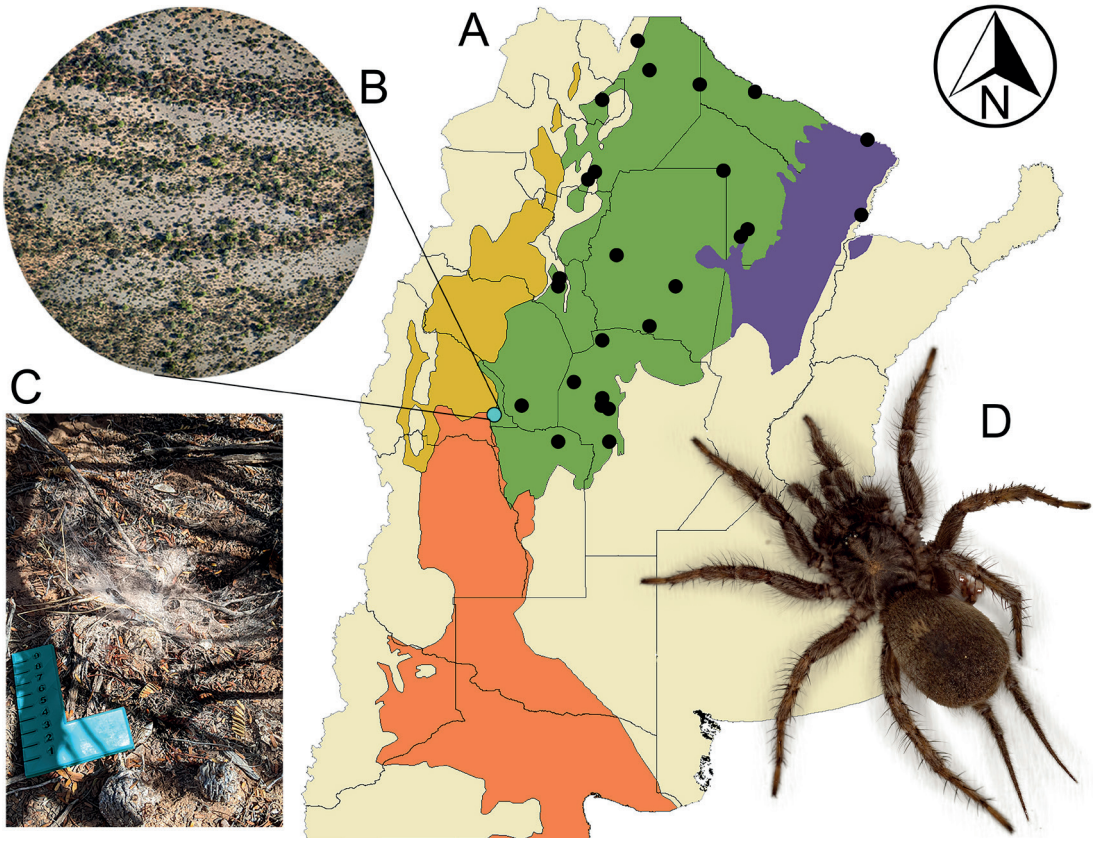

Figure 1. A) Distribution of *Ischnothele annulata* in Argentina. Black dots indicate previous records, the light blue dot indicates the new finding in the province of San Juan. Phytogeographical provinces are shown in different colors: Humid Chaco in violet, Arid Chaco in green, Monte desert of mountains and valleys in yellow, and Monte of Plateaus and Plains in orange. **B)** Aerial image of the area where specimens were found. **C)** Photo of a sheet-web of *I. annulata* found at the site with a scale. **D)** Dorsal view of the collected specimen.

ACKNOWLEDGEMENTS

We thank Dr. Cecilia Apaledetti for inviting us to the patronage project. We acknowledge Pompozzi Gabriel and Schwerdt Leonela for help in specimen identification. We also would like to thank the editor and reviewers for helping to improve this manuscript

FINANCING

This study was funded by Patronage Project: Paleontology, Biology, and Society: Scientific and Cultural Interpretation Center, Balde de Leyes, Marayes, Caucete (Res 0590-MTyC-2023, Dir: Dr. Cecilia Apaledetti).

PARTICIPATION

Aragon-Traverso J.H., Quiroga L., Iribas F., and Sanabria E. contributed to the search and collection of specimens. Taxonomic identification, graphic design and manuscript writing was performed by Aragon-Traverso J.H.

CONFLICTS OF INTEREST

Authors declare no conflicts of interest.

LITERATURE CITED

Ausserer, A. (1875). "Zweiter Beitrag zur Kenntniss der Arachniden-Familie der Territelariae Thorell (Mygalidae Autor)". Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien, 25: 125–206. https://www.biodiversitylibrary.org/part/57934

Coyle, F. (1995). A revision of the funnelweb mygalomorph spider subfamily Ischnothelinae (Araneae, Dipluridae). Bulletin of the American Museum of Natural History. 226: 1–133. https://digitallibrary.amnh.org/items/4a53622f-6661-42f0-b6dd-44f91168ed8a

Ferretti, N. E. (2013). Biogeografía histórica y diversidad de arañas Mygalomorphae de Argentina, Uruguay y Brasil: énfasis en el arco peripampásico (Doctoral dissertation, Universidad Nacional de La Plata). https://sedici.unlp.edu.ar/handle/10915/26081

Ferretti, N., González, A., Pérez-miles, F. (2014). Identification of priority areas for conservation in Argentina: quantitative biogeography insights from mygalomorph spiders (Araneae: Mygalomorphae) Journal of Insect Conservation. 18: 1087–1096. https://www.infona.pl/resource/bwmeta1.element.springer-d50e6aa0-b5d4-3ec5-9642-e23d4e0d6fb4

Ghirotto, V., Guadanucci, J. (2021). Sexual behavior of *Diplura macrura* and *Ischnothele annulata* (Araneae: Mygalomorphae): further evidence of diplurid polyphyly. The Journal of Arachnology, 48: 249–261. https://bioone.org/journals/the-journal-of-arachnology/volume-48/issue-3/JoA-S-19-006/Sexual-behavior-of-iDiplura-macrura-i-and-iIschnothele-annulata-i/10.1636/JoA-S-19-006.short

Opatova, V., Hamilton, C., Hedin, M., Montes de Oca, L., Král, J., Bond, J. (2020). Phylogenetic systematics and evolution of the spider infraorder Mygalomorphae using genomic scale data. Systematic Biology. 69, 701–702. https://par.nsf.gov/biblio/10127520

Pickard-Cambridge, F. O. (1897a). Arachnida - Araneida and Opiliones. In: Biologia Centrali-Americana, Zoology, Botany and Archaeology (2, 1–40, pl. 1–3). London

Oyarzabal, M., Clavijo, J., Oakley, L., Biganzoli, F., Tognetti, P., Barberis, I., Maturo, H., Aragón, R., Campanello, P., Prado, D., Oesterheld, M., León, R. (2018). Vegetation units of Argentina. Ecología austral, 28. https://bibliotecadigital.exactas.uba.ar/greenstone3/exa/collection/ecologiaaustral/document/ecologiaaustral_v028_n01_p040

Tullgren, A. (1905). Aranedia from the Swedish expedition through the Gran Chaco and the Cordilleras, Arkiv för Zoologi, 2: 1–81.