NEW RECORDS OF THE FLATTIE SPIDER GENUS *SELENOPS* LATREILLE, 1819
(ARANEAE: SELENOPIDAE) FROM COLOMBIA

William Galvis¹ & Eduardo Flórez D.

¹Instituto de Ciencias Naturales, Departamento de Biología, Universidad Nacional
de Colombia, Bogotá, Colombia. — wgalvis@unal.edu.co.

Abstract: Two new records of the spider genus *Selenops* Latreille, 1819 from Colombia are presented: *S. anikok* Crews, 2011 from Barichara, Santander, and *S. geraldinae* Corronca, 1996 from Puerto López and Villavicencio, Meta. Additionally, new Colombian localities are provided for *S. cocheleti* Simon, 1880, from Pandi, Cundinamarca, and *S. mexicanus* Keyserling, 1880, from Mistrató, Risaralda. A distribution map including these new records and records previously published of *Selenops* from Colombia, is presented.

Key words: Araneae, Selenopidae, flattie crab spiders, wall crab spiders, distribution, faunistics, Colombia.

Introduction

The spider family Selenopidae Simon, 1897, commonly known as flattie or wall crab spiders, contains ten genera and 256 species of Cosmotropical distribution, with its most diversity in the tropics (Corronca, 1996a, 1996b, 1996c, 1998a; Crews, 2011; Crews & Harvey, 2011; Kunt et al., 2011; World Spider Catalog, 2015). The genus *Selenops*, described by Latreille (1819) and distributed worldwide throughout the tropics and subtropics, is the only genus of the family known from the Americas, with approximately 84 of the 128 species (World Spider Catalog, 2015).

The New World members of the genus have been recently revised, and different aspects of their biology, including ecology, faunistics, natural history, physiology, taxonony and systematics, have been studied (Alayón-García, 1992, 2001, 2003, 2005; Birabén, 1953; Corronca, 1996a, 1996b, 1996c, 1996d, 1996e, 1997, 1998a, 1998b; Crews, 2011; Crews & Harvey, 2011; Kunt et al., 2011; World Spider Catalog, 2015). The genus *Selenops*, described by Latreille (1819) and distributed worldwide throughout the tropics and subtropics, is the only genus of the family known from the Americas, with approximately 84 of the 128 species (World Spider Catalog, 2015).

The New World members of the genus have been recently revised, and different aspects of their biology, including ecology, faunistics, natural history, physiology, taxonony and systematics, have been studied (Alayón-García, 1992, 2001, 2003, 2005; Birabén, 1953; Corronca, 1996a, 1996b, 1996c, 1996d, 1996e, 1997, 1998a, 1998b; Crews, 2011; Crews & Harvey, 2011; Kunt et al., 2011; Lins, 1980; Muma, 1953; Valdéz-Mondragón, 2007, 2010; Villanueva B. [not published data]). Although this spiders are common in certain localities and are relatively large, they are sparse in museum collections or in poor condition due to collecting methods (Corronca, 1998a; Crews, 2011).

Despite its natural distribution across the Americas, certain species of the genus have been shown to be easily transported artificially on tropical fruits shiplods, resulting in reports far away from its original natural range, such as: *Selenops aissus* Walckenaer, 1837 from a Banana storeroom (Ithaca, New York), *S. candidus* Muma, 1953 and *S. insularis* Keyserling, 1881 from bananas (New York), and finally *S. mexicanus* Keyserling, 1880 [as *S. galapagoensis* Banks, 1902] from one specimen taken at the Pacific Fruit and Produce Company (Seattle) (Muma, 1953). The last species were also collected on a palm shipped from Florida, via Mexico, in St. Maarten (Crews, 2011). In Colombia, a total of three species are recorded. The genus was recorded for the first time by Mello-Leitão (1941), with the description of *S. isopodus* from Pamplona, Norte de Santander, and *S. aculeatus* from El Espinal, Tolima. Subsequently, Röewer (1955) changed the name of *S. aculeatus* to *S. columbianus* (preoc. Simon, 1901), and then the species was synonymized by Corronca (1996b) as junior synonym of *S. cocheleti* Simon, 1880, an species with a widespread distribution from Panama to Argentina (World Spider Catalog, 2015).

Posteriorly, Corronca (1998a) provided a new record of *S. galapagoensis* Banks, 1902 from Colombia, which was later synonymized as junior synonym of *S. mexicanus* Keyserling, 1880 by Crews (2011), adding new distributional data to a widespread species that have a natural distribution from Mexico to Colombia, and Ecuador (Galapagos islands) (World Spider Catalog, 2015). This three Selenopid species have been collected in Colombia, at intervened wet (S. *cocheleti, S. mexicanus*) and dry (S. *isopodus*) Andean forests, deciduous forests (S. *cocheleti, S. mexicanus*), riparian forests (S. *cocheleti*), and tropical thorn forests (S. *isopodus*).

Therefore, the aim of the paper is to update the known distribution of Selenopids from Colombia. While examining material from the country, it was possible to identify new records of the genus *Selenops* from Colombia. *S. anikok* Crews, 2011 from Barichara (Santander) and *S. geraldinae* Corronca, 1996 from Villavicencio and Puerto López (Meta), are first time recorded from the country. Additionally, new faunistic records are presented for *S. cocheleti* Simon, 1880 from Pandi (Cundinamarca) and *S. mexicanus* Keyserling, 1880 from Mistrató (Risaralda).
Materials and methods

The material examined is deposited in the Instituto de Ciencias Naturales Arachnological Collection of the Universidad Nacional de Colombia (ICN-Ar), Bogotá, Colombia. The species are listed in alphabetical order. The multifocal photographs and measurements were taken with an AmScope MU300 digital camera, attached to an Advanced Optics JSZ-6 stereomicroscope, and then united by the free-code image-stacking software CombineZP (Hadley, 2010).

For visualization of female genitalia, the epigynal plate was dissected from the body and cleaned with 10% KOH. For visualization of the male genitalia, the left palp was dissected from the body. The information in square brackets was added to complement the label data. The map was prepared using the Geographic Information System (GIS) software program QGIS, version 2.10 “Pisa” (Sherman et al., 2012). Records without coordinates on the label were approximated to municipalities via Google Earth. Institutions cited in the text are: BMNH=British Museum of Natural History, London, EME=Essig Museum of Entomology at the University of California, Berkeley, MNHN=Museum National d’Histoire Naturelle, Paris, MNRE=Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro.

Abbreviations used in the text and figures are as follow: DRTA=dorsal branch of the RTA, MA=median apophysis of the male palp, RTA-retrolateral tibial apophysis of the male palp, VRTA=ventral branch of the RTA; coord.=coordinates, ltl=lateral lobe of the median field of the female epigyne, mf=median field of the female epigyne, masl=meters above sea level, sp=spermathecae. The measurements are in millimeters.

Results

A total of 26 museum specimens belonging to four species were examined, as follows: one female of S. arikok Crews, 2011, one female of S. cocheleti Simon, 1880, three females and 20 immatures of S. geraldinae Corronca, 1996, and finally one male of S. mexicanus Keyserling, 1880.

Selenops Latreille, 1819


NOTE: For further taxonomic information, see Corronca (1996b, 1998a) and Crews (2011). DIAGNOSIS: Members of the genus can be diagnosed by their extremely dorsoventrally flattened bodies with laterigrade legs, and eyes in two rows, with six in the anterior row and two in the posterior row (Joqué & Dippenaar-Schoeman, 2006; Crews, 2011).

Selenops arikok Crews, 2011

Selenops arikok Crews, 2011: 16, figs. 1-2, 177, map 1. Fig. 1, 5-6, 14.
TYPE LOCALITY: Female holotype from near Gran Tonel in valley Rooi Coashati, Arikok National Park, Aruba, in EME sel_068, not examined.
NOTE: For further taxonomic information and the complete description of the species, see Crews (2011: 16-18).

Selenops cocheleti Simon, 1880

Selenops cocheleti Simon, 1880: 235. Fig. 2, 7-8, 14.
TYPE LOCALITY: Male lectotype and juvenile female paratype (designated by Corronca, 1998a: 131) from Paraguay [without exact locality], in MNHN N° 1143, not examined. NOTE: For further taxonomic information and the complete description of the species, see Corronca (1998a: 131; 1998b: 135).

MATERIAL EXAMINED: Colombia, Cundinamarca, Pandi, Vereda Los Cauchos, [coord. 4.183930°N, 74.471870°W], alt. 1024 masl, 1 female, 29/IV/2002, J. Cepeda col. (ICN-Ar 5832).
DIAGNOSIS: Females of Selenops cocheleti can be recognized by the epigynal shape, with a triangular median projection in posterior margin at the median field, and by the form of the spermathecae (Fig. 2, 7-8); males can be recognized by the form of the tibial apophysis and the slender MA (Corronca, 1998a: fig 4-7). NATURAL HISTORY: The species has been collected on walls inside houses and under bark of Eucalyptus sp. trees (Corronca, 1998a). For further information about the natural history and population dynamics of the species, see Villanueva B. (not published data).

REFERENCES: Crews (2011) and herein.

Selenops geraldinae Corronca, 1996

Selenops geraldinae Corronca, 1996e: 95. Fig. 9-10. Fig. 3, 9-10, 14.
TYPE LOCALITY: Male holotype from Mara, Venezuela, in CAS 10-1113, not examined.

NOT MATERIAL EXAMINED.

REFERENCES: Banks (1902, 1930), Corronca (1996b, 1998a), Crews (2011), F.O. Pickar-Cambridge (1900), Keyserling (1880), Kraus (1955), Muma (1953), Petrunkevitch (1925), and herein.

Selenops isopodus Mello-Leitão, 1941
Selenops isopoda Mello-Leitão, 1941: 293.
Fig. 19. Fig. 14.
TYPE LOCALITY: Female holotype from Pamplona, [Norte de Santander, coord. 7.37110°N, 72.657704°W], Colombia, in MNJR, lost, not examined.

NOTE: For further taxonomic information and the complete description of the species, see Corronca (1998a: 25-26).

NATURAL HISTORY: Not information exist about the species, but the vegetation of the localities where the species has been collected are of a highly intervened Andean forest in the Pamplona region (Sánchez & Gelviz, 2004; Sánchez et al., 2007), and a very dry ecosystem dominated by a subxerophytic formation known as Tropical Thorn Forest (W. Galvis pers. obs).

DIAGNOSIS: Females can be recognized by the subrectangular median field occupying large part of the epigynum and by the form of the spermathecae (Corronca, 1998a: 25-26).

DISTRIBUTION RECORDS AND REMARKS: Endemic to Colombia (Fig. 14). Flórez & Sánchez (1995: 364) recorded this species from Septentrional Andes as S. isopoda.

REFERENCES: Corronca (1998a), Mello-Leitão (1941), and herein.

Acknowledgments

To Sarah Crews for her great disposition, support, comments and help with the improving of the paper. To German Villanueva for his comments on the paper. Also, to Ligia Benavides, Ivan Magallães, Luis Piacentini, and specially to Jaime Pinzón for their help with the attainment of relevant information for the paper.
Figure 14. Distribution records of the species of Selenops from Colombia.

References


VILLANUEVA B., G.A. s/f. Dinâmica populacional e seleção de habitat por Selenops cocheleti Simon, 1880 (Araneae: Selenopidae) na Serra do Japi, São Paulo, Brasil. [not published].