Revista Ibérica de Aracnología, nº **24** (30/06/2014): 123–124.
Grupo Ibérico de Aracnología (S.E.A.). ISSN: 1576 - 9518.

First record of the orb-weaving spider genus *Homalometa* Simon, 1897 (Araneae, Tetragnathidae) in Colombia

Milton Bastidas[1,2], Cecilia Cantor-Vaca [1,2] & Alexander Sabogal-González[2]

[1] Department of Biology, Universidad Nacional de Colombia, Bogotá, Colombia – milbastidas@gmail.com
[2] Artrophods Laboratory at Centro Internacional de Física Universidad Nacional de Colombia, Sede Bogotá, Colombia

Abstract: *Homalometa* is a Neotropical spider genus in the family Tetragnathidae with only three described species: two are known from Central America and the Caribbean (*H. chiriqui* Levi, 1986 and *H. nigritarsis* Simon, 1897), and one from Brazil (*H. nossa* Levi, 1986). We report the presence of *H. nigritarsis* in the Andes of Colombia, thus extending its known distribution to northern South America. Individuals were collected at coffee plantations at several localities between 1462 and 1834 m, 85 km west from Bogotá.
Key words*: Homalometa nigritarsis,* range expansion, Neotropics.

Primera cita para Colombia del género *Homalometa* Simon, 1897(Araneae, Tetragnathidae)
Resumen: *Homalometa* es un género de arañas neotropical de la familia Tetragnathidae con sólo tres especies descritas: dos se conocen de América Central y el Caribe (*H. chiriqui* Levi, 1986 y *H. nigritarsis* Simon, 1897), y una de Brazil (*H. nossa* Levi, 1986). Se cita aquí la presencia de *H. nigritarsis* en los Andes de Colombia, extendiendo así su distribución conoida hasta Sudamérica septentrional. Se colectaron los individuos en plantaciones de café en diversas localidades entre 1462 y 1834 m, a 85 km al oeste de Bogotá.
Palabras clave*:* Araneae, Tetragnathidae, *Homalometa nigritarsis,* distribución, Colombia, región neotropical.

Tetragnathids are part of the Araneoidea (Griswold *et al*., 1998; Hormiga & Griswold, 2014), because they share several morphological and behavioral synapomorphies with other araneoids, in addition to some of the web construction characters (Alvarez-Padilla & Hormiga, 2011). The main characteristic of the family is the simple male pedipalps with only one tegular sclerite (the conductor, the araneoid median apophysis is lost) and the conductor coiled together with the embolus (Alvarez-Padilla & Hormiga, 2011; Hormiga & Griswold, 2014). Females of almost all genera are entelgynes, but members of Tetragnathinae are secondary haplogynes (Dimitrov & Hormiga, 2011).

Tetragnathidae has a worldwide distribution and is most diverse in the tropics, with species often found in wet areas (Álvarez-Padilla & Hormiga, 2011). A total of 966 species has been described in 47 genera, with 293 species in 19 genera present only in the Neotropics (Platnick, 2014). In Colombia, 73 species in 9 genera are reported (Sabogal-González, 2010).

The epigyna in the subfamily Metainae exhibit well sclerotized structures (spermathecae and fertilization ducts), short copulatory ducts and a broadly separated spermatheca; male palps have a simple terminal apophysis and an ectocymbial process (a cuticular flattened extension) (Hormiga *et al.,* 1995; Alvarez-Padilla *et al.,* 1999, 2011). Levi in 1986 includes in the subfamily the genera *Meta*, *Metellina*, *Dolichognatha*, *Chrysometa*, *Diphya* and *Homolameta*. However, in a recent phylogenetic study, which includes morphological, molecular and behavioral data, the genus *Homalometa* is not considered (Alvarez-Padilla *et al.,* 2009). Nonetheless, here we assume *Homalometa* as part of Metainae due to morphological similarities with *Chrysometa.*

Homalometa is characterized by having two or three teeth on the posterior margin of the chelicerae, in contrast to *Chrysometa*, which presents four (Levi, 1986). Male palpal tibia with a projection, palpus with a lobed and narrow cymbium, lacking a paracymbium (Levi, 1986). Females present an epigynum with transverse swelling (Levi, 1986). Webs in this genus are orbicular, with open hubs and are horizontal, inclined or vertical (Álvarez-Padilla *et al*., 2009). Juveniles build horizontal webs, but subadults and adults construct a vertical web. Females build a retreat (connected to the web for protection and as a place for laying eggs, females do not construct egg sacs and eggs are laid in rows (Edwards *et al.,* 2000; Ibarra-Núñez, 2001).

Table I. Names and geographic coordinates to the sample farms. Alt: Altitude (m)

Town	District	Farm	N	W	Alt
Quipile	Arabia	Paraíso	4°41'20,33"	74°35'14,6"	1743
	Sinaí	Piedemonte	4°44'02,2"	74°33'24,6"	1825
	El Tiber	San Fernando	4°42'20,7"	74°33'43,1"	1440
		Aldea	4°43'11,6"	74°33'29,6"	1619
		Venecia	4'42'12,1"	74°33'45,7"	1430
Puli	Palestina	San Antonio	4°41'33,4"	74°35'19,6"	1833
		Barcelona	4°41'41,2"	74°35'22,4"	1824
Alban	Namay	Hacienda El Porvenir	4°54'28,11"	74°27'33"	1600

Homalometa is a Neotropical genus with only three species described: *H. nigritarsis* Simon, 1897 and *H. chiriqui* Levi, 1986 distributed in Central America and *H. nossa* Levi, 1986 in Southeast of Brazil (Levi 1986). *H. chiriqui* is reported in Panama, Costa Rica (Levi 1986) and in coffee plantations of Soconusco (Chiapas, Mexico) between 800-1000 m (Ibarra-Núñez, 2001). *H. nigritarsis* is reported between 0-320 m in the Caribbean (Levi 1986; Edwards *et al*., 2000) and in Mexico (Tepic city) with no reference to altitude Levi (1986); however, the city is located higher than 300 m.

We collected *H. nigritarsis* in coffee agroecosystems in the Andes of Colombia between 1450 and 1830 m from 2007 and 2013 in various farms near the towns of Quipile, Puli and Alban Cundinamarca (Table I). The specimens were collected during a study on the spiders in coffee agroecosystems. We collected 7 females, 2 males and 1 subdault female using manual capture and beating coffee bushes.

The towns of Quipile, Albán and Puli are located approximately 85 km west from Bogotá on the eastern chain of the Colombian Andes within the coffee region of the state of Cundinamarca. Farmers in this region own family farms which are (non-extensive systems) where coffee and banana are grown; some of these farms also have cattle. Some farmers grow a diversity of crops in the same plots where coffee is grown. The conditions of this region are similar to the habitats reported by Edwards and Edwards (2000), where *H. nigritarsis* has been observed in different fruit trees such as *Mangifera indica*, *Inga* spp., *Ocotea leucoxylum*, *Casearia silvestris* and *Musa* sp.

This is the first report of *Homalometa* in Colombia and the highest altitude record for *H. nigritarsis* (1833 asl). We also report once more on their presence in agroecosystems, especially coffee plantations. The specimens are deposited at the Arachnological Collection of the Instituto de Ciencias Naturales (ICN, Universidad Nacional de Colombia, curator Eduardo Flórez).

Acknowledgements

We thank Colciencias because the program "Jóvenes Investigadores e Innovadores Virginia Gutiérrez de Pineda" benefited the second author. We were also sponsored by Centro Internacional de Física and the research institutes ICN & IDEA at Universidad Nacional de Colombia. We also thank Jaime Pinzon who improved earlier drafts of this manuscript.

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