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## On the taxonomic placement of the Cuban spider *Nops ariguanabo* Alayón and the description of a new Mexican *Tarsonops* (Araneae, Caponiidae)

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### Abstract

The Cuban spider species *Nops ariguanabo* Alayón, 1986 is transferred to the genus *Tarsonops* Chamberlin based on the presence of several false sutures on the anterior tarsi and metatarsi, and a broad, subcircular carapace. A redescription of the species, including the description of female internal genitalia is provided. Additionally, a new species of *Tarsonops* from Mexico is described. The first SEM photos and a new diagnosis for the genus *Tarsonops* are included.

**Key words:** taxonomy, new species, Haplogynae, Cuba, Mexico

### Introduction

The genus *Nops* MacLeay is currently represented by 29 species distributed throughout the Neotropics (World Spider Catalog, 2014). This genus has not been reviewed, but its representatives are characterized by having two eyes and the unpaired claw elongated and reflexed (nearly the same size as paired claws) on the anterior legs (Sánchez Ruiz, 2004: fig. 5). Specimens of *Nops* resemble other nopines in having subsegmented tarsi, but also present a ventral translucent keel on the anterior metatarsi (Dupérré, 2014: fig.15) and a translucent fan-shaped extension of the membrane between the anterior metatarsi and tarsi (Dupérré, 2014: figs. 14, 16); characteristics shared with *Cubanops* Sánchez–Ruiz, Platnick & Dupérré, *Orthonops* Chamberlin and *Tarsonops* Chamberlin.

The Cuban species *Nops ariguanabo* Alayón resembles other known *Nops* in having two eyes, and the metatarsal and tarsal modification on the anterior legs, but this species has the unpaired claw shorter than the paired claws, on all legs (figs. 11–14, 17). This species show characteristics that are closer to the genus *Tarsonops*, including the presence of several false sutures on the tarsi and metatarsi (figs. 8, 9) and in having the carapace broad and subcircular (figs. 35, 36), with the pars thoracica elevated near its middle and strongly sloping posteriorly (figs. 1, 25, 30). *Nops* species have entire metatarsi (Dupérré, 2014: fig.15) and a more narrowly ovate carapace, with the pars thoracica only slightly elevated near its middle and gradually sloping posteriorly. We therefore propose in this paper the transfer of *Nops ariguanabo* to the genus *Tarsonops* because all specimens examined, including the types, share the characteristics described above for this genus.

Additionally, we describe a new species of *Tarsonops* from Guerrero, Mexico: *T. coronilla* new species. The genus *Tarsonops* has never been revised, therefore a new diagnosis for the genus, the first SEM photos and the description of the female internal genitalia are included. The female genitalia of *N. ariguanabo* and *T. coronilla* are characterized by a sclerotized and concave wall of bursa (anterior margin of receptaculum), and an unsclerotized median receptaculum formed by a short duct directed dorsally, posteriorly leading to a large sac (figs. 28, 29, 46–48).

### Material and methods

Specimens were studied in 70% ethanol, using a Leica MZ12 stereomicroscope. Electron scanning microscope

longer than wide; anterior legs with ventral translucent keel on metatarsi, translucent fan-shaped extension of membrane between anterior metatarsi and tarsi (fig. 52); membranes between femora and patellae, and between tibiae and metatarsi projected; trichobothria present on metatarsi and tarsi; all tarsi and metatarsi with several false sutures, on tarsi occupying most of length, on metatarsi starting from middle part, not reaching junction with tarsus (figs. 52, 54). Tarsi with three claws, inferior claw shorter than paired ones, distinctly protruding from onychium; onychium projected in anterior legs. Male palp with cymbium pointed, bulb sub-spherical, with retrolateral groove which divides partially one third (fig. 43); embolus thin, pointed, curved upward at middle on lateral position (figs. 42, 43), straight ventrally (fig. 41). Abdomen dorsally immaculate light gray (fig. 37), lighter ventrally. Spinnerets six, in typical caponiid arrangement. Total length 3.6. Carapace 1.5 long, 1.2 wide. Two oval eyes equal size, 0.11 major diameter, 0.09 minor diameter. Leg measurements: I: femur 1.1/ patella 0.8/ tibia 1.0/ metatarsus 1.0/ tarsus 0.3; II: 1.2/ 0.9/ 1.2/ 1.3/ 0.3; III: 1.3/ 0.9/ 1.4/ 1.2/ 0.4; IV: 1.4/ 1.0/ 1.6/ 1.3/ 0.5. Leg formula: 4321. Sternum 1.0 long, 0.8 wide. Palpal tibia 0.3 long.

*Female* (paratype): Coloration as in male but slightly darker (fig. 38). Carapace, eyes, thoracic groove, chelicerae, endites, labium, sternum as in male (figs. 44, 49). Femur I elongate, almost four times longer than wide; other anterior legs modification as in male (figs. 50, 51); membranes between femora and patellae, and between tibiae and metatarsi projected (fig. 50); trichobothria on metatarsi and tarsi; all tarsi and metatarsi with several false sutures, on tarsi occupying most of length, on metatarsi starting from middle, not reaching junction with tarsus (figs. 51, 53). Tarsal claws as in male. External genitalia with sclerotized plate as in figure 45; internal genitalia with slightly concave sclerotized wall of bursa, membranous receptaculum formed by median, short, dorsally curved duct, leading to wide, large sac (figs. 46–48). Total length 3.9. Carapace 1.7 long, 1.4 wide. Two oval eyes equal size, 0.12 major diameter, 0.1 minor diameter. Leg measurements: I: femur 1.2/ patella 0.9/ tibia 1.1/ metatarsus 1.1/ tarsus 0.4; II: 1.3/ 1.0/ 1.2/ 1.3/ 0.4; III: 1.5/ 1.0/ 1.5/ 1.3/ 0.4; IV: 1.5/ 1.0/ 1.7/ 1.3/ 0.7. Leg formula: 4213. Sternum 1.3 long, 1.1 wide. Palpal tibia 0.5 long.

**Distribution.** Known only from the type locality in Mexico.

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