

ARTÍCULO:

Current taxonomic status of the family Caponiidae (Arachnida, Araneae) in Cuba with the description of two new species

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CURRENT TAXONOMIC STATUS OF THE FAMILY CAPONIIDAE (ARACHNIDA, ARANEAE) IN CUBA WITH THE DESCRIPTION OF TWO NEW SPECIES

Alexander Sánchez-Ruiz

Abstract:

All information known about the spider species of the family Caponiidae recorded from Cuba is compiled. Two new species of the genus Nops MacLeay, 1839 (Araneae, Caponiidae) are described from eastern Cuba, raising to seven the number of species in the Caponiidae fauna of this archipelago.

Key words: Araneae, Caponiidae, taxonomy, West Indies, Cuba.

Taxonomy:

Nops enae sp. n. Nops siboney sp. n.

Estado taxonómico actual de la familia Caponiidae (Arachnida, Araneae) en Cuba y descripción de dos especies nuevas

Se recopila toda la información conocida acerca de las especies de arañas de la familia Caponiidae registradas para Cuba. Se describen dos nuevas especies del género Nops MacLeay, 1839 (Araneae, Caponiidae) procedentes del oriente de Cuba, alcanzando las siete especies la fauna de Caponiidae de este archipiélago.

Palabras clave: Araneae, Caponiidae, taxonomía, Antillas, Cuba. Taxonomía:

Nons enae sp. n. Nops siboney sp. n.

Introduction

The family Caponiidae in the New World is represented by nine genera: Calponia Platnick 1993, Caponina Simon, 1891, Nops MacLeay, 1839, Nopsides Chamberlin, 1924, Notnops Platnick, 1994, Orthonops Chamberlin, 1924, Taintnops Platnick, 1994, Tarsonops Chamberlin, 1924 and Tisentnops Platnick, 1994. In Cuba only two genera and five species two-eyed have been described so far (Caponina pelegrina Bryant, 1940, Nops guanabacoae MacLeay, 1839, Nops gertschi Chickering, 1967, Nops ludovicorum Alayón, 1976 and Nops ariguanabo Alayón, 1986). However the caponiid fauna of Cuba is much more diverse that it appears.

The genus *Nops* was described originally on the basis of a single female specimen from Guanabacoa, Cuba (Nops guanabacoae MacLeay); the whereabouts of this specimen are currently unclear. Chickering (1967) supposed it to be in the Natural History Museum (London, UK), nevertheless, Alavón (2000) supposed it to be housed in the MacLeay Collection (Sydney, Australia). During my search for this specimen, I contacted Margaret A. Humphrey, curator of the MacLeay Collection and Janet Beccaloni, curator of British Museum, who kindly spent several weeks trying to find it in their collections without success.

Fourteen additional species of Nops have been described from Central America and the West Indies (Alayón, 1976; Alayón, 1986; Bryant, 1942; Chickering, 1967; Hasselt, 1887; Simon, 1891, 1893), as well as an other ten from South America (Birabén, 1954; Chamberlin, 1916; Hasselt, 1887; Keyserling, 1877; Prosen, 1949; Simon, 1893, 1907; Strand, 1909; Taczanowski, 1874). Species of Nops are characterized by: the presence of subsegmented tarsi (Fig. 1), a greatly elongated unpaired claw which is associated with a translucent pulvillar lobe (Fig. 2), a translucent keel under metatarsi I-II, and a translucent ventral extension of the membrane between the metatarsi and tarsi I-II (N. Platnick pers. com.). The last two caponiid species described from Cuba (N. ludovicorum Alayón and N. ariguanabo Alayón) and currently assigned to the genus *Nops* do not present that combination of characters; therefore the generic assignment of those two species is unclear at present.

The other genus recorded from Cuba is *Caponina* Simon, 1891; this genus only occur in the Neotropics where it is represented by eight species Platnick (1994). However, the Cuban species (*C. pelegrina* Bryant) is not congeneric with the type species of the genus (*Caponina testacea* Simon, 1891) and apparently belongs to an undescribed genus (Platnick, 1994).

Materials and methods

Drawings and measurements were made under a stereomicroscope equipped with both grid and linear scale eyepieces. All measurements are given in millimeters. Leg measurements were taken after Galiano (1962); the total length of the legs corresponds to the sum of the individual length of each measured segment. All SEM photos were taken on a Hitachi S-4700 field emission scanning electron microscope.

Description of the female internal genitalia of the new species is not included in the description and will require further studies; in the present paper it has been limited to a simple drawing of the external structures. Female genitalia were dissected from five adult specimens, but, unfortunately, spermathecae of the new species are too small and poorly sclerotized, and are easily destroyed during the process of clearing. Two different clearing techniques were used: one based on KOH solution and another on Trypsin 250; only one out of the five dissected specimens yielded observable spermathecae (Figs. 3, 4), but these were too deteriorated for detailed description. For this reason, descriptions of the two new species were based only upon the analysis of the male genitalia; nevertheless, the females of the new species are easily separable from each another. Descriptions of West Indian Nops have traditionally been based upon male genitalia and only exceptionally (Alayón, 1976, 1977) the female genital groove was illustrated.

Examined specimens are deposited in the following collections: Centro Oriental de Ecosistemas y Biodiversidad, Santiago de Cuba, Cuba (BIOECO), Giraldo Alayón personal collection, La Habana, Cuba (GAPC), Instituto de Ecología y Sistemática, La Habana, Cuba (IES), American Museum of Natural History, New York, USA (AMNH), Museum of Comparative Zoology, Massachusetts, USA (MCZ).

Systematics

Nops ariguanabo Alayón, 1986

Figure 1

TYPE DATA: Holotype % and paratype & (GAPC), from San Antonio de los Baños, La Habana, Cuba; June/1982; Sara González. Examined.

SEX KNOWN: Both.

DISTRIBUTION: Known only from the type locality.

COMMENTS: So far, this species has been collected only inside a house, but it is not regarded as synanthropic;

only the types are known, both were collected after rainfall (Alayón, 1986). Closely related to *N. ludovico-rum*, but these two species possibly do not belong in the genus *Nops*.

Nops gertschi Chickering, 1967

Figure 1

TYPE DATA: Holotype % (AMNH) from Loma Cibao 600-1600 m elevation (La Vega, Dominican Republic); August/9/1956; Allan F. Archer, E. B. M. Examined.

SEX KNOWN: Male.

DISTRIBUTION: Known only from the type locality and Archipiélago de los Canarreos in Cuba.

OTHER MATERIAL EXAMINED: Monte Arunga, Cayo Cantiles (Archipiélago de los Canarreos), Municipio Especial Isla de la Juventud, Cuba; February/1988; G. Alayón; 1%X (GAPC)

Nops guanabacoae MacLeay, 1839

Figures 2, 3

SYNONYMS: *Nops olivaceus* Franganillo (1931): p. 287 (synonymized by Franganillo, 1936: 38).

TYPE DATA: Holotype & from Guanabacoa, La Habana, Cuba; W. S. MacLeay. Not examined, depository uncertain.

SEX KNOWN: Both; an adult male from Isla de Pinos was designated as "allotype" and described by Bryant (1940); this same specimen was later redescribed by Chickering (1967). Alayón (1977) redescribed the female regarding the original description of MacLeay (1839) as insufficient.

DISTRIBUTION: Cuban archipelago.

MATERIAL EXAMINED: San A. de los Baños, (San Antonio de los Baños, La Habana province); March/21/1915; T. Barbour and Brooks; 1& (MCZ). Jiguaní, Los Negros (Los Negros, Contramaestre, Santiago de Cuba province); February/1913; T. Barbour; two immatures (MCZ). Isla de Pinos (Isla de la Juventud); 1918; T. Barbour and Brooks; 1% (described by Bryant [1940] and Chickering [1967], deposited in MCZ). Soledad (locality uncertain, presumably "Soledad" Botanical Garden, Cienfuegos province); August/10/1931; G. Worley; two immatures (MCZ); June/25/1925; G. Salt; one immature (MCZ); August/1-11/1934; P. J. Darlington; 1&, one immature (MCZ). Guarry, Soledad (locality uncertain, presumably "Soledad" Botanical Garden, Cienfuegos province); August/4-13/1931; G. Worley; 1%, 2&&, three immatures (MCZ). Santiago de la Vegas, La Habana province; N. Banks; 1& (MCZ). Río La Mula (Guama, Santiago de Cuba province); June/20/2003; R. Teruel; 1 % 3&&.

NATURAL HISTORY: Usually found under stones and fallen trunks, preferably in dry areas. It feeds on very small scorpions (Teruel & Sánchez, 2000), small insects and other spiders (Alayón, 2000).

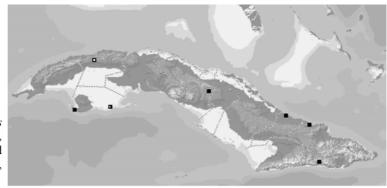


Fig. 1. Points of collection in Cuba of *Nops ariguanabo* Alayón, 1986 (white square), *Nops gertschi* Chickering, 1967 (black and white square) and *Nops ludovicorum* Alayón, 1976 (black squares).

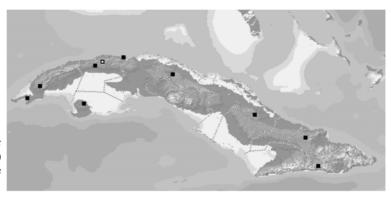


Fig. 2. Points of collection in Cuba of *Nops guanabacoae* MacLeay, 1839 (black squares) and *Caponina pelegrina* Bryant, 1940 (white square).

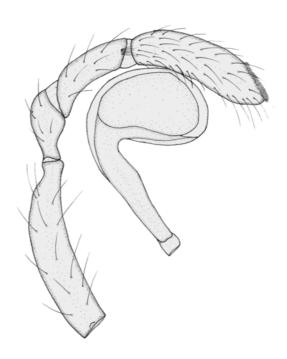


Fig. 3. Male left palp of *Nops guanabacoae* MacLeay, 1839. Specimen "allotype" from Isla de Pinos, Cuba described by Bryant (1940) and redescribed by Chickering (1967).

COMMENTS: Chickering (1967) disagreed with Bryant's description of the adult male and described the same specimen as follows: "... eyes separated from one another by nearly 3/5 of the diameter of one of them; chelicerae with the usual fleshy lobe on the promargin of the fang groove; lip firmly united to sternum and only a little longer than wide; legs 4123 in order of length; all tarsi with three claws; tarsi 1 and 2 with the typical ventral, proximal lobe; metatarsi 1 and 2 with

the ventral, median, membranous fold...". During the present study, I examined this same specimen and confirmed all the differences noted by Chickering (1967).

Franganillo (1936) recorded this species from La Habana and Santa Clara (in central Villa Clara province). Alayón (1977) redescribed the adult female and assigned to this taxon some additional female material from Sabana Llana (Luis Lazo, Pinar del Río province),

San Antonio de los Baños (La Habana province), Loma de la Guanábana (Nueva Gerona, Isla de la Juventud), Puente de Bacunayagua (Matanzas province), Yaguajay (Minas, Camagüey province) and Puerto Boniato (Santiago de Cuba province); it was also recorded from Aguas Claras (Holguín) by Teruel & Sánchez (2000). During years of collecting in eastern Cuban, dozens of Nops specimens have been captured but I had never found a single adult male matching the "allotype" specimen (Fig. 3), which otherwise came from a locality in the western part of the archipelago and is clearly conspecific with the other adult male I examined from Soledad (Cienfuegos province). However, recently I examined a male from Río La Mula in southeastern Cuba. This specimen is conspecific with the male "allotype", therefore apparently N. guanabacoae is distributed throughout the whole Cuban archipelago.

Nops ludovicorum Alayón, 1976

Figure 1

TYPE DATA: Holotype & (IES) from Cocodrilo (formerly Jacksonville, Isla de la Juventud, Cuba); June/15/1974; L. R. Hernández, L. F. de Armas; examined.

SEX KNOWN: Both; adult male described by Alayón (1977).

DISTRIBUTION: Recorded from several localities of Cuban archipelago (Alayón, 2000).

MATERIAL EXAMINED: Isla de la Juventud: Cocodrilo; G. Alayón, L. R. Hernández; no other data; 1%(GAPC).

NATURAL HISTORY: This species is usually found under stones and feeds on small insects; it is also very swift (Alayón, 2000). In the type locality it lives in an arid zone lying between a coastal forest and a road (Alayón, 1976).

Nops enae new species

Figures 4-10; Table I.

HOLOTYPE: % (BIOECO): CUBA: Guantánamo province: Yateras: Piedra La Vela (20°27'12"N – 74°59'34"W); 500 masl; December/10/1997; A. Sánchez, R. Teruel.

PARATYPES: 1& (AMNH), same data as holotype. 1% (AMNH); December/8/1997, other data same as holotype. 5&&, three immature && (BIOECO); December/6/1997, other data same as holotype. 1%(BIOECO), Santiago de Cuba province: Universidad de Oriente, Loma de Quintero (outskirts of Santiago de Cuba city, 20°02'42"N – 75°48'46"W); 50 m asl; April/9/1999; R. Teruel. 1%(BIOECO), Santiago de Cuba province: III Frente: La Pimienta (1.5 km from La Tabla, 20°11'29"N–76°24'26"W); April/18/2000; R. Viña.

ETYMOLOGY: The specific name is a patronym honoring my beloved mother Ena Ruiz.

DIAGNOSIS: The form of the embolus easily distingui-

shes *N. enae* n. sp. from its closest Cuban relative *N. guanabacoae*; this feature is also diagnostic when compared to the other West Indies species of the genus. *N. enae* n. sp. has the embolus distinctly shorter than the cymbium and belongs to the group formed by *N. blandus* (Bryant, 1942), *N. coccineus* Simon, 1981, *N. flutillus* Chickering, 1967, *N. gertschi*, *N. toballus* Chickering, 1967, *N. ursumus* Chickering, 1967 (see Chickering, 1967: 3) and *N siboney* n. sp. (described below). Females are very similar to *N. guanabacoae*

MALE (HOLOTYPE): Color in alcohol: Carapace dark orange, ocular tubercle black; legs orange, lighter than carapace, with yellowish-orange coxae and yellowish pedipalps; sternum same color as carapace but with dark line at margin; abdomen dorsally gray-greenish, hue defined by very thin, parallel gray lines forming pattern where two small clear points (diameter 0.10), placed 0.20 mm apart, occur in anterior third of abdomen, ventrally pale gray proximally, fading to greenishgray distally, epigastric groove pale yellowish-gray. Two oval eyes on slightly raised ocular tubercle (eye major diameter 0.13, minor diameter 0.08). Palpi with globose bulb, embolus enlarged, short, tip with two large spines (Fig. 9). Legs I-II with translucent keel under metatarsi and translucent ventral extension of membrane between metatarsi and tarsi; all tarsi subsegmented 2:2:2:2; unpaired claw elongated. Total length 6.75; carapace 3.10 long, 2.20 wide. Sternum 1.95 long, 1.40 wide. Abdomen 3.45 long, 1.55 wide. Leg measurements in Table I.

FEMALE (PARATYPE): Color in alcohol: carapace, legs, coxae, pedipalps and sternum as in male, but somewhat darker, abdomen grayish-green with same pattern as male except for two clear spots, which double those of male in both diameter (0.20) and separation (0.40). Eyes as in male, eye major diameter 0.20, minor diameter 0.15. Epigynal plate as in Figure 10. Legs I-II as in male; all tarsi subsegmented 2:2:2:2; unpaired claw elongated only in legs I-II. Total length 9.90. Carapace 3.50 long, 2.70 wide. Sternum 2.30 long, 1.75 wide. Abdomen 6.30 long, 3.20 wide. Leg measurements in Table I.

OTHER MATERIAL EXAMINED (not types): CUBA: Santiago de Cuba province: Universidad de Oriente, Loma de Quintero (outskirts of Santiago de Cuba city, 20°02'42"N-75°48'46"W); 50 m asl; April/9/1999; R. Teruel; 2&& (BIOECO). Santiago de Cuba province: III Frente: La Pimienta (1.5 km from La Tabla, 20°11'29"N - 76°24'26"W); April/18/2000; R. Viña; 3&&, 4 immatures (BIOECO).

DISTRIBUTION: Known only from three localities in the east of Cuba's main island, possibly also occurring in other intermediate areas of eastern Cuba.

VARIATION: Adults of moderately large size (males up to 6.7 mm, females up to 9.9). Specimens from Guantánamo and Santiago de Cuba populations differ only

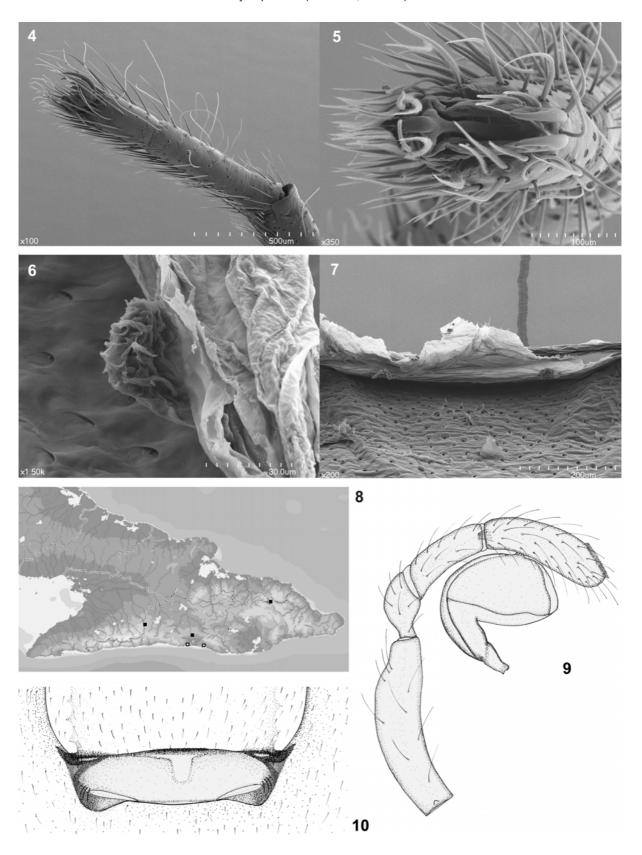


Fig. 4. Left tarsus IV showing the subsegmentation in *Nops enae*, n. sp., female paratype deposited in AMNH. **Fig. 5.** Left tarsus IV showing unpaired claw elongated in *Nops enae*, n. sp., female paratype deposited in AMNH. **Fig. 6.** Spermathecae of *Nops enae*, n. sp., female paratype deposited in AMNH. **Fig. 7.** Spermathecae of *Nops enae*, n. sp., female paratype deposited in AMNH. Posterior view. **Fig. 8.** East of Cuba showing points of collection of *Nops enae* n. sp. (black squares) and *Nops siboney* n. sp. (white squares). **Fig. 9.** Male left palp of *Nops enae*, n. sp. holotype male. **Fig. 10.** Female external genitalia of *Nops enae*, n. sp., paratype female deposited in AMNH.

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	Male holotype					Female paratype deposited in AMNH				
	I	II	Ш	IV		l	II	III	IV	
Femur	2.15	2.00	1.62	2.37		2.50	2.57	2.07	2.62	
Patella	0.95	0.87	0.75	1.15		1.35	1.50	1.12	1.25	
Tibia	1.60	1.57	1.27	2.20		1.97	1.95	1.62	2.37	
Metatarsus	1.30	1.27	1.25	2.17		1.65	1.65	1.57	2.50	
Tarsus	0.47	0.62	0.57	0.90		0.57	0.62	0.62	0.77	
TOTAL	6.47	6.35	5.47	8.80		8.05	8.30	7.02	9.52	

Table I. Leg measurements of Nops enae n. sp.

slightly in color: those from Santiago de Cuba have the dorsal part of the abdomen somewhat lighter than those from Guantánamo. Among different instars in specimens from the type locality the adult females are orange in overall coloration, somewhat darker in the legs, carapace and sternum; on the other hand, immature females have carapace, sternum and legs pale yellow.

NATURAL HISTORY: All specimens from the type locality were collected under the loose bark of standing pine trees (*Pinus cubensis* Griseb.); several females were found inside their silky refuge. Specimens from Loma de Quintero were collected under small stones in secondary grassland and specimens from La Pimienta were found among dead leaves of *Agave* sp. plants. The strong difference in microhabitat and ecological conditions (including altitude) among these three localities suggests some ecological plasticity for this taxon.

Nops siboney new species

Figures 8, 11-12; Table II.

HOLOTYPE: % (BIOECO): CUBA: Santiago de Cuba province: Reserva Ecológica "Siboney-Juticí": 1 km west of Siboney beach (19°57'45"N – 75°43'12"W); January/8/2001; R. Teruel.

PARATYPES: 1& (AMNH), 1& and 1 immature & (BIOECO); same data as holotype.

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: The form of the embolus easily distinguishes *N. siboney* n. sp. from *N. guanabacoae* and *N. enae* n. sp.; this feature is also diagnostic when compared to the other West Indies species of the genus. Its closest Cuban relative is *N. gertschi*, but the main differences lie in the form of the embolus tip, the color of the carapace and legs and the lack of the two irregular, light greenish, dorsolateral bars on the anterior two-thirds of the abdomen. Females on easily be distinguished from the other Cuban *Nops* (*N. guanabacoae*, *N. gertschi* and *N. enae* n. sp.). The main differences are in leg size and body coloration. The female specimens of *N. siboney* n. sp. have large legs than the other Cuban *Nops* and hare the carapace and legs lighter yelloworangish with yellow coxae and pedipalps.

MALE (HOLOTYPE): Color in alcohol: Carapace orangish-yellow, ocular tubercle black; legs orangish-yellow (somewhat lighter than carapace), with yellow

coxae and pedipalps; sternum yellow but with dark line at margin; abdomen dorsally immaculate grayish-green, somewhat lighter ventrally, epigastric groove pale yellow. Two oval eyes on slightly raised ocular tubercle (eye major diameter 0.21, minor diameter 0.18). Palpi with yellow globose bulb, embolus enlarged, very short, with sclerotic part on tip (Fig. 11). Legs I-II with translucent keel under metatarsi and translucent ventral extension of membrane between metatarsi and tarsi; all tarsi subsegmented 2:2:2:2 (difficult to observe on legs III and IV); unpaired claw elongated only on legs I-II. Total length 7.60; carapace 3.20 long, 2.40 wide. Sternum 2.10 long, 1.50 wide. Abdomen 4.30 long; 2.00 wide. Leg measurements in Table II.

FEMALE (PARATYPE): Color as in male, but somewhat lighter on carapace and legs; abdomen dorsally grayish, without any green, somewhat lighter ventrally. Eyes as in male, eye major diameter 0.21, minor diameter 0.14. Epigynal plate as in Figure 12. Legs I-II as in male; all tarsi subsegmented 2:2:2:2 (difficult to observe on legs III-IV); unpaired claw elongated only on legs I-II. Total length 8.70. Carapace 4.10 long, 3.00 wide. Sternum 2.50 long, 1.80 wide. Abdomen 4.60 long, 2.60 wide. Leg measurements in Table II.

OTHER MATERIAL EXAMINED (not types): CUBA: Santiago de Cuba province: Boca de Cabañas (19°58'28"N – 75°54'35"W); November/21/1999; A. Fong; 2%% (BIOECO).

DISTRIBUTION: Known only from two localities placed 27 km apart in eastern Cuba, possibly occurring also in several areas in the southeastern coast of the main island.

VARIATION: Adult males up to 7.6 mm and females up to 8.7. Remarkable differences in both color and size are evident between males from the two localities. The two males from Boca de Cabañas are much smaller than the holotype, and their carapace is much more opaque yellow. The abdomen of Boca de Cabañas males is the same as in Siboney females, but quite different from the holotype male. Finally, males from Boca de Cabañas have a very faint dark pattern dorsally in the distal part of abdomen. Getting into account the above mentioned variations plus further minor differences observed in the male pedipalps from both populations, there is a possibility that Boca de Cabañas specimens belong to another undescribed species; nevertheless, it is necessary to examine additional material before making any definitive conclusions.

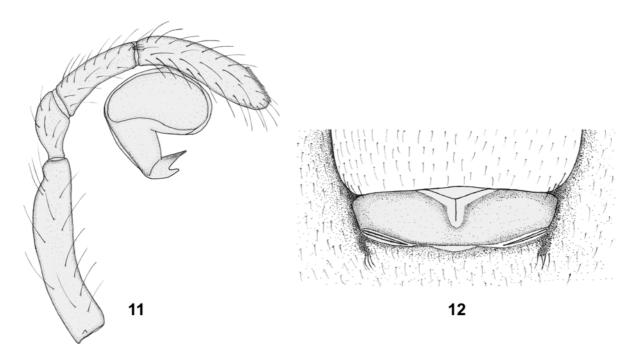


Fig. 11. Male left palp of *Nops siboney*, n. sp., holotype male. **Fig. 12.** Female external genitalia of *Nops siboney*, n sp., paratype female deposited in AMNH.

Table II. Leg measurements of *Nops siboney* n. sp.

	Male holotype				Female paratype deposited in AMNH				
	I	II	III	IV		I	II	Ш	IV
Femur	2.50	2.35	2.00	2.80		3.00	2.87	2.35	3.12
Patella	1.37	1.12	0.10	1.27		1.67	1.55	1.07	1.37
Tibia	1.87	1.75	1.62	2.55		2.25	2.12	1.70	2.52
Metatarsus	1.40	1.42	1.50	2.65		1.75	1.62	1.67	3.05
Tarsus	0.67	0.67	0.75	1.05		0.77	0.67	0.75	1.10
TOTAL	7.82	7.32	5.97	10.32		9.45	8.85	7.55	11.17

NATURAL HISTORY: All specimens from the type locality were collected under stones in a xeromorphic scrub. Specimens from Boca de Cabañas were found among dead leaves of *Agave* sp. plants in secondary grassland.

COMMENTS: Siboney-Juticí is an Ecological Reserve of 2 075 ha managed by BIOECO, located in the eastern south coast of Cuba, to the east of Santiago de Cuba bay. The types of *N. siboney* n. sp. were collected in the area of use public, a kilometer from the Siboney beach.

Caponina pelegrina Bryant, 1940 Figure 2

TYPE DATA: Holotype & (MCZ) from Santiago de las Vegas (Boyeros, Ciudad de La Habana, Cuba); Banks; no other data. Examined.

SEX KNOWN: Female

DISTRIBUTION: Known only from the type locality.

MATERIAL EXAMINED: Only the holotype.

COMMENTS: This species was described from a single specimen identified by Banks (1909) as *Nops guanaba-*

coae. Platnick (1994) listed it as a misplaced species because it lacks the characters of the genus and suggests that it does not belong to any described genus. Males of this species are unknown, which makes it difficult to clarify its taxonomic position, even though the female holotype possesses several characters, which unequivocally separate it from the rest of the known caponiid genera.

Conclusions

Including the two new species herein described, the caponiid fauna of Cuba comprises seven species. Among the whole West Indies, Cuba is the greated diverse territory with respect to Caponiidae, and compared to the other American countries, it also has one of the highest values in spite of its small size. Nevertheless, this could merely be an artifact caused by the scarcity of both collected material and pertinent studies on the remaining countries.

The Cuban caponiid fauna is not yet well studied, as diagnostic characters are needed to separate the females of *Nops*, new material of *Caponina pelegrina* should be collected (and the species redescribed), and

finally, it is necessary to examine much more material of the species *N. ariguanabo* and *N. ludovicorum* which are not congenerics with the type species of the genus and may belong to two new genera.

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References

- ALAYÓN, G. 1976. Nueva especie de *Nops* MacLeay, 1839 (Araneae: Caponiidae) de Isla de Pinos, Cuba. *Poeyana*, **148**: 1-6.
- ALAYÓN, G. 1977. Descripción del macho de *Nops ludovico*rum y redescripción de la hembra de *Nops guanaba*coae (Arachnida: Araneae: Caponiidae). *Poeyana*, **169**: 1-8
- ALAYÓN, G. 1986. Descripción de una especie nueva de *Nops* MacLeay, 1839 (Arachnida: Araneae: Caponiidae). *Poeyana*, **308**: 1-5.
- ALAYÓN, G. 2000. Las arañas endémicas de Cuba (Arachnida: Araneae). *Revista Ibérica de Aracnología*, **2**: 1-48.
- BIRABÉN, M. 1954. Nueva especie de *Nops. Neotropica*, **1**(3):
- BRYANT, E. B. 1940. Cuban spiders in the Museum of Comparative Zoology. *Bull. Mus. Comp. Zool.*, **86**: 247-554.

- BRYANT, E. B. 1942. Notes on the spiders of the Virgin Island. *Bull. Mus. Comp. Zool.*, **89**: 317-366.
- CHAMBERLIN, R. V. 1916. Results of the Yale Peruvian Expedition of 1911. The Arachnida. *Bull. Mus. Comp. Zool.*, **60** (6): 173-299.
- CHICKERING, A. 1967. The genus *Nops* (Araneae, Caponiidae) in Panama and the West Indies. *Brev. Mus. Comp. Zool.*, **272**: 19 pp.
- FRANGANILLO B., P. 1936. Los arácnidos de Cuba hasta 1936. Cultural, La Habana.
- GALIANO, M. E. 1962. Redescripciones de especies del género *Lyssomanes* Hentz, 1845, basadas en los ejemplares típicos Descripción de una especie nueva (Araneae, Salticidae). *Acta Zoológica Lilloana*, **18**: 45-97.
- HASSELT, A. W. M. 1887. Études sur le genre *Nops. Tijds*. *Entomology.*, **30**: 77-86.
- KEYSERLING, E. 1877. Amerikanische Spinnenarten aus den Familien der Pholcidae, Scytodoidea und Dysderoidae. *Verh. zool. bot. Ges. Wien.* **27**: 218.
- MACLEAY, W. S. 1839. On some new forms of Arachnida. *Ann. Nat. Hist.*, **2**: 1-14
- PLATNICK, N. I. 1994. A revision of the spider genus *Caponina* (Araneae, Caponiidae). *American Museum Novitates*, **3100**: 1-15.
- PROSEN, A. F. 1949. Nops farhati especie nueva. Ann. Inst. Med. Reg. Univ. Tucuman, 2(3): 321-323.
- SIMON, E. 1891. On the spiders of the Island of St. Vicent. *Procc. Zool. Soc. London*: 549-575.
- SIMON, E. 1893. Arachnides in Voyage de M. E. Simon au Venezuela. *Annls. Soc. Ento. France*, **61**: 423-462.
- SIMON, E. 1907. Etude sur les Ariagnées de la sous-section des Haplogynes. E. Ann. Soc. Entom. Belgique, 51: 264
- STRAND, E. 1909. Eine neue zweiaugige Spinne Entomologischen Rundschau, XXV Jahrgang (1909), 8: 47-48.
- TACZANOWSKI, L. 1874. Les Araneides de la Guyane Française. Horae Soc. Entomol. Ross., 10: 56-115.
- TERUEL, R. & A. SÁNCHEZ 2000. Nota sobre la depredación de un escorpión (Scorpiones: Buthidae) por una araña (Araneae: Caponiidae). *Biodiversidad de Cuba Oriental*, vol. **IV**: 82-83.