

First Records of Four Species of Tarantulas (Araneae: Theraphosidae) from Chacachacare, Trinidad & Tobago

Chacachacare is the westernmost island belonging to Trinidad and Tobago. It is separated from Venezuela to the west by the Grand Boca, and from Huevos Island to the east by the Third Boca, also known as the Ship's Mouth (Boos 1983). It is located at 10.41° N, 61.45° W and is approximately 360 hectares in area. The vegetation on the island was classified as "Deciduous Seasonal Forest" by Helmer *et al.* (2012).

During February, July and November 2023 I made three trips to the island to survey terrestrial herpetofauna. During these surveys, I inadvertently observed four species of tarantula not previously reported from the island. During February 2024 I made a fourth trip to the island specifically to search for and photograph tarantulas.

Surveys were made during the day and night. Night surveys were made with the assistance of a LED headlight. A hand-held shovel and rake were used to dig through leaf litter and to turn over logs, rocks and debris from abandoned buildings. The species recorded are as follows:

Holothele longipes (L. Koch 1875)– This species has a wide distribution across South and Central America, and is found in Panama, Colombia, Venezuela, Guyana, French Guiana, Suriname, Brazil, Ecuador, Peru and Trinidad and Tobago (Peñaherrera-R 2023). This species displays significant ecological plasticity. It inhabits humid, Andean forests and grasslands, coastal savannahs and caves within a wide altitudinal gradient. It is commonly found under rocks and logs, and also within human constructions (Guadanucci 2017). During my surveys on Chacachacare, specimens were found under debris from buildings, rotting wood, rocks, leaf litter and one inhabiting a leaf cutter ant nest. All were located between 1 and 175 m above sea level. Specimens under objects often had the floor lined with a blanket of silk.

Neoholothele incei (F.O. Pickard-Cambridge, 1899)– This species is known from mainland Venezuela, Margarita Island, Trinidad, Tobago and Soldado Rock (Guadanucci and Weinmann 2015; Sherwood *et al.* 2022). During my surveys on Chacachacare, 26 specimens were found under debris from buildings, rotting wood, and leaf litter usually in silk tubes, all between 1 and 35 m above sea level.

Cyriocosmus elegans (Simon, 1889)– This species is known from Trinidad, Tobago, Venezuela and Guyana (Fukushima 2005; Sherwood and Gabriel 2023). During my surveys on Chacachacare, 50 specimens were found under debris from buildings, rotting wood, leaf litter and at the entrance of burrows dug into soil, all between 1 and 150 m above sea level.

Psalmopoeus cambridgei Pocock, 1895– This species is endemic to Trinidad and Tobago. During my surveys on Chacachacare, 2 specimens were found at night, just over 1 m apart. One was found outside its dwelling in the brick of a broken building 1.5 m off the ground and the other on a tree trunk 2 m off the ground. Both were seen at approximately 25 m above sea level.

In addition to my sightings, there are two photographic voucher records of tarantulas from Chacachacare on iNaturalist (inaturalist.org). The first is an observation of *H. longipes* on 29 September 2012 (Rutherford 2018a). The second is an observation of *C. elegans* on 18 May 2013 (Rutherford 2018b).

The only tarantula previously reported from the Bocas Islands in the published literature has been *Avicularia avicularia* which was reported from Monos Island and Chacachacare Island by West (1984). However, I did not see *A. avicularia* on any of my 4 visits. It seems likely that *A. avicularia* was still present but not observed due to their arboreal nature. The lack of previous records for the other species may be due to the paucity of surveys on these islands as well as the secretive and nocturnal nature of tarantulas.

This note represents the first records of *H. longipes*, *N. incei*, *C. elegans* and *P. cambridgei* from Chacachacare Island, increasing the number of tarantula species known from the island from one to five. The two other species known from the main island of Trinidad that have not yet been recorded on Chacachacare are *Spinobatibiapalpus trinitatis* and *Trichopelma coenobita*. These species seem to prefer wetter, rainforest habitat from my personal observation and thus Chacachacare may be too dry for them to inhabit, although wetter habitat does exist at higher altitudes on the island. Future surveys may reveal the presence of the



Fig. 1. Tarantulas from Chacachacare Island (a) *Holothele longipes*, (b) *Neoholothele incei*, (c) *Cyriocosmus elegans*, (d) *Psalmopoeus cambridgei*.

four species reported here on other islands of the Bocas archipelago, as well as potentially reconfirming the presence of *A. avicularia* on Chacachacare.

REFERENCES

- Boos, Hans E.A.** 1983. A consideration of the terrestrial reptile fauna on some offshore islands northwest of Trinidad. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 1983-1984: 19–26.
- Fukushima, C.S., Bertani, R. and da Silva Jr., P.I.** 2005. Revision of *Cyriocosmus* Simon, 1903, with notes on the genus *Hapalopus* Ausserer, 1875 (Araneae: Theraphosidae). *Zootaxa*, 846: 1–31.
- Guadanucci, J.P.L., Perafán, C., and Valencia-Cuéllar, D.** 2017. The genus *Holothele* Karsch, 1879: the identity of the type species (Mygalomorphae, Theraphosidae). *Zoosystema*, 39: 263-271.
- Guadanucci, J.P.L. and Weinmann, D.** 2015. Description of *Neoholothele* gen. nov. (Araneae, Theraphosidae, Schismatothelinae). *Studies on Neotropical Fauna and Environment*, 50: p.221-228.
- Helmer, E.H., Ruzycki, T.S., Benner, J., Voggeser, S.M., Scobie, B.P., Park, C., Fanning, D.W. and Ramnarine, S.** 2012. Detailed maps of tropical forest types are within reach: forest tree communities for Trinidad and Tobago mapped with multiseason Landsat and multiseason fine-resolution imagery. *Forest Ecology and Management*, Vol. 279: 147–166.
- Peñaherrera-R, P., Guerrero-Campoverde, A., León-E, R.J. and Cisneros-Heredia, D.F.** 2023. First record of *Holothele longipes* (L. Koch, 1875) (Araneae, Theraphosidae) from Ecuador. *Check List*, 19(2).
- Rutherford, M.G.** 2018a. iNaturalist observation. Available at <https://www.inaturalist.org/observations/10333423> (Accessed 21 March 2024)
- Rutherford, M.G.** 2018b. iNaturalist observation. Available at <https://www.inaturalist.org/observations/10440203> (Accessed 21 March 2024)
- Sherwood, D., Guadanucci, J.P.L. and Gabriel, R.** 2022. On the lectotype and paralectotype males of *Neoholothele incei* (FO Pickard-Cambridge, 1899) and further records of *Spinobatibiapalpus trinitatis* (Pocock, 1903) from the Natural History Museum, London (Araneae: Theraphosidae). *Arachnology*, 19: 644-649.
- Sherwood, D. and Gabriel, R.** 2023 First distribution record of *Cyriocosmus elegans* (Simon, 1889) from Guyana (Araneae: Theraphosidae). *Revista Ibérica de Aracnología*, p.059–062.
- West, R.** 1984. An Introduction to the Tarantula Spiders of Trinidad, W.I. *Living World, Journal of the Trinidad & Tobago Field Naturalists' Club*, 1983-1984: 54–58.

Saifudeen M. Muhammad

West Indian Herping Organization, Trinidad and Tobago
Saifudeenherpresearch@gmail.com