

Rhopalurus laticauda
(Thorell, 1876)



Rhopalurus laticauda adult female M.A.C.Cozijn © 2008

What's in a name?

R. laticauda has no generally accepted common name. *Rhopalurus* males all have distally widened metasoma's, hence their genus name, which translated from Greek means literally "club like tail" (*Rhopalos* = club, *uros* = tail). Also, *laticauda* (*cauda* = tail in Latin) means basically the same, wide or broad tail.

Distribution

The Llanos of Colombia and Venezuela (see Discussion below).

Natural habitat

This species does not dig burrows, but it hides under stones, surface debris, logs and such. It is capable of digging small scrapes under these objects. Venezuela has a tropical hot and humid climate, where savanna and rainforests predominate. This species inhabits deciduous forests and semi-arid regions, like savannahs (also in Colombia). These have sandy soils and are covered with spiny bushes, grasses and clusters of trees. The dry season is from November through May, but there are regional climatic differences. Some parts of the coastal areas may not receive any rain for up to ten months, while the southern parts (Amazonas) do not really have a dry season. The average day temperature is 27° C (81° F). This species readily enters houses and buildings in some areas in Venezuela.



Rhopalurus laticauda adult male M.A.C.Cozijn © 2008

Venom

Although this scorpion is from the family Buthidae Koch, 1837, it is not considered medically important. The LD50 value of the venom is low, 30 mg/ kg. Because it is rather common in some areas, this species is responsible for a relative large number of stings. The majority of the cases of envenomations result in local pain and/ or mild swelling or redness of the sting site.

Morphological information

This is a small to medium-sized scorpion (total length 45-70 mm). Size variation is not uncommon in *Rhopalurus* (and other Buthids for that matter). The base color is yellowish to light brown. Fingers of

the pedipalp are darker as the chela. Metasomal segments I-III yellowish to light brown, segment IV reddish brown and segment V dark brown to black. There is a dark stripe on the ventral side of the metasoma. Vesicle reddish brown to dark brown.

Tergites have one median keel. Compared to females, males are somewhat smaller and have less robust mesosoma's, but more bulbous chela and metasoma, and the pedipalp fingers are scalloped so a basal gap is evident when the fingers are closed. The vesicle is small and has a short, curved aculeus. The subaculear tooth is absent or small, shaped as a blunt to spinoid granule. Pectinal tooth counts overlap between sexes, 23-26 in males, 20-25 females. There are eight rows of granules on both fingers. This species stridulates through brushing of the pectines against the sternites. The pectines have special structures called lyriform files. These somewhat resemble the lamellae on the ventral side of the feet of some geckoes. Stridulation is probably used to warn potential predators, because they do not stridulate during foraging or mating.



Rhopalurus laticauda subadult female M.A.C.Cozijn © 2008

Keeping in captivity

The latter of the following information is based on my own experience and the information given below is an example of how you can keep this species. Because this species is not yet commonly kept, good information about the ideal captive conditions is not readily available. I keep *R. laticauda* warm

and dry. I keep the temperature between 25-30° C (77-86° F) in the daytime and around 20° C (68° F) during the night. I use a mixture of dry humus and sand as substrate, on which some flat stones and pieces of cork bark are placed for the scorpions to hide under. The substrate layer is a bit more than 2.5 cm (one inch) thick, since they do not burrow. Regarding the relative humidity, it seems that young are more prone to dehydrate than their adult counterparts. To prevent fungal infections one must be careful not to keep this species too moist and enclosures must be well ventilated.

To maintain a proper humidity level, one needs to spray some water in a corner of the enclosure. I spray the adult's enclosures once a month and the instars' enclosures once or twice a week. A small bottle cap of fresh water is provided weekly for adults, the young drink from the droplets of water after spraying. Instars can be kept in wider deli cups. The young can be raised on small (pinhead) crickets after they have left their mother, smaller food like fruit flies, is not necessary. Adults feed on larger crickets. Young are best raised separately to avoid cannibalism. There is much unknown about the postembryonic development of this species. One female in my care gave birth to 26 young, after an estimated gestation period of about 5-7 months. It took 9 days for the young to molt to instar 2. They left their mothers' dorsum after 14 days. Life expectancy in captivity is around 3 years. *Rhopalurus* spp. do not produce multiple broods from a single insemination, thus it needs to mate again after giving birth.



Rhopalurus laticauda female and instar 1M.A.C.Cozijn © 2008



Rhopalurus laticauda instar 3 with prey (*Achetia domestica*) M.A.C.Cozijn © 2008

Discussion

The genus *Rhopalurus* currently consists of 17 species, *R. laticauda* is the type species of the genus and was discovered first in Colombia, but according to the literature (see references) it occurs in Brazil (Roraima, Amazonas), Colombia, Guyana and Venezuela.

This species used to be divided into two subspecies: *Rhopalurus laticauda laticauda* Thorell, 1876 (Colombia, Venezuela) and *Rhopalurus laticauda pintoii* Mello-Leitão, 1932 (Brazil and Guyana). The Brazilian records were derived from Lourenço's 1982 revision of the genus, where both *R. crassicauda* and *R. pintoii* were synonymized under *R. laticauda* as *R. laticauda pintoii*. Later, the Brazilian records were regarded as erroneous by the same author (Lourenço, 2002) when he restored back *R. crassicauda*, and Teruel (2006) resurrected *R. pintoii*.

Not all the facts are yet known about the distribution of *R. laticauda* and its (relation to) closely related species. Most of the literature refers to *R. laticauda* and not all of the records were confirmed. It is not yet fully understood how to interpret intraspecific variation between the specimens that were collected from different areas. More specimens from Venezuela and Guyana should be studied to gain

a better understanding about these subjects. *R. laticauda* is closely related to both *R. crassicauda* Caporiacco, 1947 and *R. caribensis* Teruel & Roncallo, 2008; *R. crassicauda* is smaller and lacks a spinoid subaculear tooth, and *R. caribensis* has a bright yellow coloration and does not have a totally darkened metasomal segment V.

Acknowledgements

Also many thanks to Rolando Teruel for sharing valuable information and for reviewing this factsheet, and to Wilson R. Lourenço, for information and advice.

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