## Cupiennius salei Francesco Tomasinelli First published in The British Tarantula Society Journal Volume 15 Number 3

<u>Family:</u> Ctenidae, usually called wandering spider, typical hunting spiders similar to lycosidae but with smaller eyes and usually nocturnal habits.

## Description

The females can reach 3.5 cm body length and 10 cm legspan. The dorsal pattern is chocolate-brown with small, lighter spots on the abdomen and many darker longitudinal stripes, particularly on the carapace. On the legs, the patella and femurs are striped also with lighter circles. The underside is red-orange with thin black vertical stripes under the abdomen.

Males are evidently smaller. Body length is around 2.5 cm body but they have very long and thin legs. Colours are lighter with no stripes, aside from the black line under the abdomen. Conspicuous palpal bulbs are present. The males are really less clamorous than females.

## **Captive Care and Breeding**

Cupiennius sp. live in tropical rainforest in Central and South America. They are arboreal, so their favourite habitat is those big trees covered with epiphytes, branches, moss that constitute rainforest roof. Ideal temperature is around 25°C but they can tolerate both colder and warmer climates. This is a consequence of their arboreal nature. Since the forest's high levels can experience big day-night variations, their inhabitants are used also to those relative extremes of conditions. Humidity should be very high, around 80%, but I have seen they have a good tolerance to dehydration also. Good ventilation is also important, but I have never had a problem with any terrarium.

Cupiennius are nocturnal and not very active, probably not much than most arboreal tarantulas. However, they are faster, so great care should be used during handling. If they escape during terrarium maintenance or transfer operation they will seek cover immediately and then stop there. Just watch where they hide and recover them calmly.

They hunt on trees, using ambush tactics; usually resting in some kind of retreat during the day and they start roaming slowly around as the light goes down, often changing different ambush spots each night. They lie quietly on the bark and bromeliads and then launch a rapid attack when the prey comes close. Eyesight is not used during hunts; they are nocturnal and mainly rely on tactile stimuli. The attack is very fast and sometimes the prey is fastened to the substrate with the silk before being consumed. They seem to be fond of small arboreal reptiles and frogs.

I have read in a great spider book, "Natural History of Spiders" by Preston-Mafham, page 50, that females *Cupiennius coccineus*, a similar species, hunts frogs at night in Costa Rican rainforests. She often creeps stealthily on the vegetation stalking frogs, using their loud sounds produced during the mating season, to guide her to the target. The vibrations are transmitted by leaves and detected by slit-organs on spider tarsi. It seems they are also able to detect certain airborne sounds, such as harlequin frogs mating calls. Some amphibians, like *Dendrobates* are immune to attack, given their poisonous skin secretions. The spiders refuse them after the briefest touch with palps or legs without harming them. Of course they will consume most of the common food items, especially crickets and flies, but, as far as I have seen, do not like Tenebrionid beetles. I have personally observed these spiders taking small European reptiles in terrarium as well.

Like most arboreals they can easily climb on glass and plastic, often deploying a security wire with the silk, just like jumping spiders. For this reason the terrarium after some weeks will be covered with many small white spots indicating previous fastened lines.

I like to keep these spiders in a small rainforest set-up. I briefly describe these two different ideas to house adult specimens in a pleasant terrarium:-

You can use a small cage, say 20 x 20 x 30 cm with a section of cork bark fixed on the rear cage side. It is advisable to add a branch inside, going from the high part of the cork bark to the ground. Just add bark chips as substrate and some plants. Since live plants are difficult to maintain in such small terrarium you can use some good reproduction ones that can be fixed to the bark wall with concealed nails or thin metal wire. Probably climbing plants are the better choice.

Another idea is to use a similar terrarium laid down on its side, so  $20 \times 30 \times 20$  cm, bark chips, a branch on the bottom and coiled decorative roots all around, to build some kind of terrace. You can find these kind of roots near lakes and rivers where they are usually eradicated and then transported by the water during raining days. If you are lucky enough to find them, add some epiphytes and moss on this "hanging garden". As usual is better to employ fake plants if you are able to find good models.

With these set-ups you should be able to enjoy Cupiennius at their best. They will rest somewhere in the shadow during the day and later come out hunting on roots and plants during the night.

They are not aggressive, but should never be handled with bare hands, given their speed and nervous reaction. The family Ctenidae contains the infamous Phoneutria, one of the deadliest spiders in the world. It's bite caused many deaths in South America. Cupiennius however, are not dangerous and I have never been bitten, but the bite is said to be painful.

The courtship is quite long and complex. For this reason it's better to wait about 2-3 weeks after adulthood before mating them. There is no real mating trick to understand if they are mature. They simply reach maximum size and then do not moult again. Males become evident two or three moults before maturation given different coloration, morphology and big palps. The male should be introduced in the female terrarium after at least a week of presence of the female.

This way her mate should be able to sense her presence for sure, given the number of silk lines with pheromones laid by female. The male starts soon drumming on the substrate, shakes the abdomen and after some time he starts touching her with the legs. His attempts can take quite a long time, usually several hours, and are repeated many times. The receptive female answers by shaking the abdomen and sometimes turning towards the male. During mating the male hugs her from above introducing both palps alternately in the process.

After mating the female is very voracious and her abdomen swells a lot. After about three weeks she spins a very big spherical white cocoon she fastens to her spinnerets

The spiderlings will take about a month to hatch. Before hatching the female spins a small "nursery web" of an irregular shape. Each cocoon produces several hundreds spiders of a small size, about 2-3 mm body length, that spread out over the web. After about a week they disperse but start to feed later. New cocoons, usually two, are made at about two monthly intervals and they seem to contain fewer offspring.

The spiderlings grow fast, taking only about 8-10 months to reach adult size (this greatly depends on temperature and feeding rates). They are cannibalistic and very aggressive towards others. I would strongly advise that they are separated as soon as possible to avoid cannibalistic losses, especially after size differences become evident. If you must keep them together, give them plenty of fruit flies and micro-crickets but don't expect not to lose any. Spiderlings are quite easy to rear and are kept just like adults. Of course they are more vulnerable to low humidity and their cages should be never dry up completely.

These spiders are quite long lived, my biggest female lived for almost two years as adult. Males have shorter lifespan, as always.

Cupiennius salei are quite common on the pet market, especially in Germany and Holland. One time I also saw C. jetazi on a list but did not manage to obtain any.

They are easy to rear like most rainforest arboreal tarantulas and are an interesting addition to any collection. If you have problem finding them or want additional information please feel free to contact me:

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