

Predation and feeding on the tropical house gecko *Hemidactylus mabouia* (Squamata: Gekkonidae) by the giant orb-weaver spider *Nephilengys cruentata* (Araneae: Nephilidae)

Suzana Diniz

The species *Hemidactylus mabouia* (commonly known as tropical house gecko) is a gekkonid lizard of African origin, although currently it has a wide distribution in the Neotropics (Kluge, 1969). *Hemidactylus mabouia* is a predominantly synanthropic species, as their populations are abundant and almost exclusively found in human buildings (Howard et al., 2001). Therefore, *H. mabouia* has a preponderant role in the ecology of urban environment ecology. It has already been noticed, for example, that *H. mabouia* is an invasive species of high-speed colonisation that can replace ecologically similar species (Meshaka, 2000). On the other hand, it has been proven that *H. mabouia* individuals can be efficient predators of arthropods of medical interest, such as *Loxosceles* spiders, which commonly cause severe poisoning in southern Brazil (Ramires and Fraguas, 2004). Despite its wide distribution, few studies have been conducted on the natural history and ecological interactions of *H. mabouia* (Howard et al., 2001). Predation interactions represent a major factor in regulating lizard populations like *H. mabouia* (Siqueira and Rocha, 2008). This note is a predation event report on an *H. mabouia* individual by the orb-weaver spider *Nephilengys cruentata* (Nephilidae) (Fig. 1). The event was observed in the Biology Institute of the State University of Campinas (22°49 '09.13 "S, 47°04' 11:46"W), in Campinas, São Paulo state, south-eastern Brazil. On May 18, 2010, at approximately 15:30, there was an individual of *H. mabouia* with snout-vent length of 45.5 mm entangled in the web of an adult female of *N. cruentata* with a body length of 25.6 mm (Fig. 1). The web was approximately at 1.30 m above the ground, it was built on a wall corner and had a vertical diameter of about 60 cm. The spider was feeding on the partially digested body of *H. mabouia*, indicating that the capture

occurred far before the observation, probably at night, when both *H. mabouia* and *N. cruentata* forage. One day after the observation, there were no traces of the *H. mabouia* individual on the spider web. Therefore, the orb-weaver spider *N. cruentata* may represent a potential mortality source for populations of *H. mabouia*, since *N. cruentata* is a common synanthropic spider in Brazil and Africa that typically builds large orb-webs (with diameter up to one meter) on the corners of walls and ceilings (Kuntner, 2007), which, in turn, are sites normally used by *H. mabouia* for locomotion (Howard et al., 2001).



Figure 1. Predation on the gekkonid lizard *Hemidactylus mabouia* by the orb-weaver spider *Nephilengys cruentata* at the Biology Institute of the State University of Campinas. The lizard is entangled in the net on a wall corner. Note the spider sucking the fluids of the partially digested body of *H. mabouia*.

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