REPTILES & AMPHIBIANS

Predation of a Fossorial Lizard, *Saiphos equalis* (Scincidae), by an Arboreal Spider, *Heteropoda jugulans* (Sparassidae), in Australia

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Lizards are prey of a broad range of predators (Wilson 2012). Historically, predation of vertebrates by spiders was underestimated and thought to be restricted to a small number of taxa. Observations of spiders preying on lizards were treated as either doubtful reports or extremely rare events (Nyffeler and Gibbons 2022); however, the number of reports of such observations in the scientific literature has been increasing (e.g., Maffei et al. 2010; Shine and Tamayo 2016; Nyffeler et al. 2017; Valenzuela-Rojas et al. 2020; Cubas-Rodríguez and Teruel 2022; Zdunek and Bandara 2022a, 2022b), as have observations of spiders preying on other herpetofauna (e.g., Turner 2010; Marín-Martínez and Rojas-Morales 2016; Nyffeler and Altig 2020; Quah et al. 2022). The vernacular name of the widely distributed huntsman spiders (Sparassidae) is derived from their speed and active hunting mode. Several reports in the scientific literature document lizard predation by huntsman spiders (Gudger 1931; Henschel 1994; Nordberg et al. 2018; Nordberg and Schwarzkopf 2019).

At about 2200 h on 2 December 2023, we observed a Jungle Huntsman Spider, *Heteropoda jugulans* (L. Koch 1876) preying on an adult Yellow-bellied Three-toed Skink, *Saiphos equalis* (Gray 1825) in a garden shed during a short period of heavy rainfall in the suburb of Beverly Hills, New South Wales, Australia (-33.95020, 151.08405). When first observed, the spider was perched on the shed door approximately 30 cm above the floor, handling the lizard's head with its chelicerae and the lizard's body dangling below.

Observations were briefly discontinued for approximately 5 min to retrieve a camera. Upon our return, the lizard, still held by the spider's chelicerae, was in a curled position (Fig. 1A). At no point did we observe movement in the lizard, which presumably was dead; however, we noticed the spider using silk to hold the lizard against the door, which appeared to free its chelicerae to perform envenomation at multiple sites (Fig. 1B). The final envenomation we observed before the spider retreated to a concealed space was in the lizard's

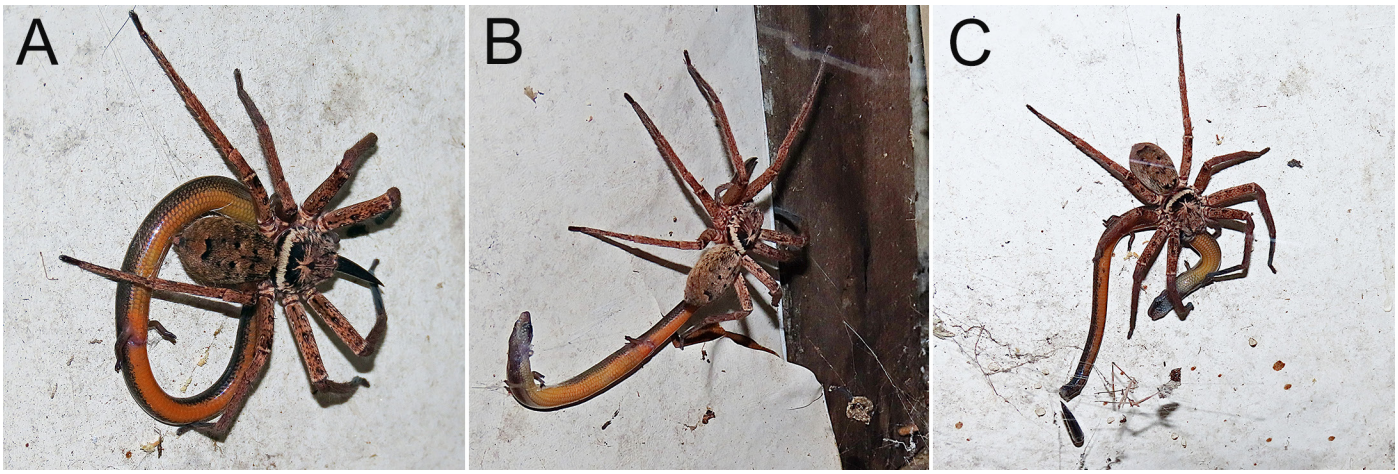

Figure 1. (A) The Jungle Huntsman Spider (*Heteropoda jugulans*) grasps the Yellow-bellied Three-toed Skink (*Saiphos equalis*) by the tail; the lizard is easily identifiable by the distinctive yellow venter that distinguishes this species from other lizards of the Sydney region. (B) The spider moves toward the edge of the shed door, with the body of the skink held to the door by silk (otherwise gravity would cause the lizard's body to dangle vertically from the spider's chelicerae); note that the lizard's neck is twisted, presumably from the multiple actions of the spider's chelicerae. (C) The spider repositions the skink to facilitate penetration of its chelicerae in the lizard's abdomen; note that the tip of the lizard's tail has autotomized, whereas it was attached when photographs A and B were taken. Photographs by Matthew Mo.

Reptiles & Amphibians ISSN 2332-4961
https://doi.org/10.17161/randa.v31i1.21498

abdomen, at which time the tip of the lizard's tail autotomized (Fig. 1C). Since the lizard was already dead, we suggest that the multiple deliveries of venom were to liquefy the prey to aid digestion (Saucier 2004).

Although predation of lizards by spiders in the genus *Heteropoda* has been reported previously (e.g., Priyadarshana and Wijewardana 2016), this particular predation event is unusual due to the microhabitats used by the two species. The Yellow-bellied Three-toed Skink is fossorial, usually found under rocks and logs (Gray 1825; Wu et al. 2009) and only coming to the surface to forage at night (Beltrán et al. 2021). The Jungle Huntsman Spider, on the other hand, is mostly arboreal, although individuals frequently disperse across the ground (M. Mo, pers. obs.). Thus, we would not expect the encounter rate between these species to be high. We suspect the heavy rainfall might have been responsible for bringing the lizard to the surface and into the garden shed within access of the spider.

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