

Irschick et al. 2006. J. Herpetol. 40:107–112). Therefore, ours is the first record of a flesh fly attacking a *Gonatodes humeralis*.

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HEMIDACTYLUS FRENATUS (Common House Gecko). DIET. *Hemidactylus frenatus* is an invasive species in the Americas that has succeeded in establishing populations in Costa Rica (Savage 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna between Two Continents, between Two Seas. University of Chicago Press, Chicago, Illinois. 934 pp.). Although of recent arrival (it is thought to have arrived to the country in the 1990s), it is now widespread and the effects on local fauna (Barquero and Hilje 2005. Wilson Bull. 117:204–205) and human health (Jiménez et al. 2015. Vector Borne Zoonotic Dis. 15:550–555) have just started to be unveiled.

On 2 July 2016, I observed an adult male *H. frenatus* (SVL = 66 mm) capturing and handling an adult female *Gonatodes albogularis*. Observations occurred within a building of the University of Costa Rica campus, Limón port city, Costa Rica (9.9829°N, 83.0623°W, WGS 84; 42 m elev.), between 0755 and 0810 h. During this period, the *H. frenatus* approached and grasped by the neck the inattentive *G. albogularis*. The *H. frenatus* then started to hit the *G. albogularis* body against the substrate (i.e., the wall of the building). After a few minutes of holding the prey in a hidden retreat between the wall and a girder, the *H. frenatus* released it as it was apparently unable to consume it. The *G. albogularis* fell down to the ground alive and ran to the nearest wall looking for cover, where it escaped from sight. After this, I captured the male *H. frenatus*, measured it, and released it.

The diet of *H. frenatus* includes mostly insects, although predation on eggs and juveniles of other gecko species (e.g., *Lepidodactylus lugubris*) has been documented elsewhere under captive conditions (Bolger and Case 1992. Anim. Behav. 44:21–30). This report, however, is the first to my knowledge of *H. frenatus* attacking a native and diurnal gecko under natural conditions. As an invasive species in Costa Rica, the role of *H. frenatus* as a competitor, predator, and prey of local organisms must be quantified.

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HEMIDACTYLUS FRENATUS (Asian House Gecko). DIET. *Hemidactylus frenatus* is native to southern and southeast Asia, and the Indo-Australian Archipelago. This extremely adaptable gecko is arguably one of the most prolific invasive herpetofaunal species ever known, owing its colonising success to its ability to closely associate with urban environments. It is considered invasive in 53 out of the 70 countries in which it occurs, including Honduras and all of the Bay Islands (Ota and Whitaker. 2010. IUCN Red List of Threatened Species. e.T176130A7184890).

This invasion has not come without consequence; throughout the Pacific region and the Americas this intruder has been

associated with the decline and extinction of numerous native gecko species (Case et al. 1994. Ecology 75:464–477; Hanley et al. 1998. Oecologia 115:196–205; Brown et al. 2002. Behaviour 139:1161–1173; Cole et al. 2005. Biol. Conserv. 125:467–474). On Isla de Utila (Islas de la Bahía/Bay Islands, Honduras), the invasion of this species has eradicated the Bay Island endemic *Phyllodactylus palmeus* (Honduran Leaf-toed Gecko) from edificarian habitats, such as the town center (McCranie and Hedges 2013. Zootaxa 3694:51–58). Additionally, *H. frenatus* is present and almost certainly competing with native gecko populations in other disturbed environments, as well as the majority of hardwood forest, mangrove and coastal habitats of Utila (T. Brown, pers. obs.). Here we report two observations of predation on arachnids by *H. frenatus*.

The following observations were made within a 500-m radius of the Kanahau Utila Research & Conservation Facility (KURCF); 16.11938°N, 86.88498°W (WGS 84). At approximately 2030 h on 17 April 2013, within a storage outhouse near the Kanahau Utila Research & Conservation Facility, a *H. frenatus* individual was encountered by SMC, preying on what is believed to be a *K. hibernalis* (Southern House Spider). The gecko captured the spider by the head, and slowly proceeded to chew and swallow the individual (Fig. 1). The distinctive tangled webbed home, typical of *K. hibernalis*, can also be seen in the image, although the circumstances in which the spider was caught from its web are not known.



FIG. 1. *Hemidactylus frenatus* preying upon a female *Kukulcania hibernalis* (Southern House Spider).



FIG. 2. *Hemidactylus frenatus* preying upon a solpugid spider (Ammotrechinae).

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