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Note on the interaction between house gecko and potter wasp

The year 2020 is a notable year in human history due to the spread of the novel virus COVID-19 and the kind of threat the entire globe faced. Due to this, lockdown events were confronted by the whole human civilization, and many activities were shut down in Vadodara City as well. During this period, I visited some new construction sites in the city. These unused vacant spaces and homes were used by some potter wasps (Hymenoptera: Vespidae) to construct their nests in the summer months (between March to June) for breeding performance. There were six potter wasp nests at various heights from 0.2–2.4 m from the ground level and close to the roof. Four nests are close to roofs and two above floors. I observed all these nest construction activities regularly out of



The Northern House Gecko licking up a nest of the potter wasp. © Raju Vyas.



The Northern House Gecko approaching a potter wasp © Raju Vyas.



An unsuccessful attack on the potter wasp by an adult Northern House Gecko. © Raju Vyas.

curiosity to learn the movement of the wasps.

Potter wasps make tiny nests that look like ceramic jugs or pots. They build these small containers' nests on twigs, branches, trunks of trees, or vacated houses' walls. Each pot has only one chamber, unlike the many chambers found inside a honeybee hive. Females lay just one egg inside the room and then place paralyzed caterpillars inside

with the egg before sealing the pot at the opening. The potter wasp larva eats the caterpillars as it grows and develops before digging its way out of the side of the chamber; the top of the pot is the thickest part and requires more work to break through.

On 18 March 2020, I noticed an adult gecko slowly approaching one of the nests under construction, high and close to the roof. The gecko

settled close to the nest and started licking the outer walls of the nest. The intent of licking a wasp's nest by a gecko was found interesting. Such unusual behaviours of the gecko ignited enthusiasm that tempted me to keep track of the nest. On the second day, at noon, the gecko approached one of the potter nests. The gecko attacked a wasp while the wasp was bringing the nesting materials. It was an unsuccessful attempt by the gecko. I observed that the gecko was regularly predated on the wasp after a few unsuccessful attempts. The reason for licking remained unanswered.

The gecko was identified as the Northern House Gecko *H. flaviviridis* (Smith, 1935). The wasp was identified up to genus level *Eumeninae* sp. with the help of literature (Girishkumar et al. 2020). The Northern House Gecko is a nocturnal and insectivore reptile and grows 15–18 cm in length (Daniel 2002). This gecko species is widely distributed naturally and by anthropogenic activities in many parts of the world, including Egypt, Kuwait, Saudi



Arabia, United Arab Emirates, Oman, Iraq, Iran, Afghanistan, Yemen, north Somalia, Sudan, Ethiopia, Eritrea, Nepal, Bangladesh, Pakistan, and India (Uetz et al. 2022). In addition, this species is found in many Indian states and is the most adapted and common gecko found in human habitation.

The literature surveys indicated the gecko species from *Hemidactylus* feed on various types of nocturnal insects. Geckos are occasionally cannibalistic (Bauer 1990; Daniel 2002), eat rice grain and sugar (Smith 1935), at times seeds of wild plants (Sharma 1982), and rarely flowers too (Vyas 1997). The geckos predate stingless bees and prefer incoming, heavily loaded bees with honey and pollen grains (Vyas 2012). Such feeding behaviour might have developed due to the gecko's preference for sweet taste. It is often observed that *H. flaviviridis* likes sweet and is found in empty teapots in the kitchen (author's unpublished observation). Earlier, the same kind of interaction was observed in Asian House Gecko *H. frenatus* preying on nests of paper wasp (*Polisties* sp.) at Brisbane, NW Queensland, Australia (David 2006).

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Raju Vyas

Sashwat Apartment, BPC-Haveli Road, Nr. Splatter Studio, Alakapuri, Vadodara, Gujarat 390007, India.
Email: razoovyas@hotmail.com

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