



# Mating in Common House Geckos, *Hemidactylus frenatus* Duméril and Bibron 1836 (Squamata: Gekkonidae), in Godda District, Jharkhand, India

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With 192 currently recognized species (Uetz et al. 2024), *Hemidactylus* is one of the world’s most diverse lizard genera. Breeding strategies in different species are similar and closely associated with body structure (Rabbe et al. 2019). The Common House Gecko (*Hemidactylus frenatus*) is native to southern and southeastern Asia but has been transported widely by humans and now occurs worldwide in tropical and subtropical regions (Uetz et al. 2024). Males are generally larger than females (Goldberg and Kraus 2011). These lizards are generally nocturnally active and rely mainly on vocal/auditory or chemical cues during courtship (Frankenberg 1982; Shine and Mason 2001). In tropical habitats, they

breed throughout the year, but in cooler regions, breeding is seasonal, and females can store functional sperm for as long as a year (Yamamoto and Ota 2006). Herein we report, to the best of our knowledge, the first detailed description of the different stages of mating of Common House Geckos.

At 2242 h on 19 May 2023, we observed mating behavior during a field survey at the DFO Residence, Godda, Jharkhand, India (24.799030, 87.211320; WGS 84; elev. 87 m asl) (Fig. 1). The pair was tolerant of our presence, allowing us to document the four distinct stages of mating behavior: initiation, pre-copulatory positioning, copulation, and post-copulation dispersal. The total time of the observation was 12



**Figure 1.** A mating pair of Common House Geckos (*Hemidactylus frenatus* Duméril and Bibron 1836). Photographs by Dr. Pratyush P. Mohapatra.

min 35 sec. The male initiated the encounter with tail-wobbling and biting at the thorax of the female, then approached more closely and bit her neck, holding it firmly while undulating his tail. Tail wobbling, which occurred six times, lasted 13 sec. Following the initiation stage, pre-copulatory positioning was brief and lasted for about 8 sec. At this stage, the male mounted the female and used his body to hold her trunk. A suitable copulatory position was attained as the female moved under the male, while he arched his body over her dorsum in the shape of a C, effectively performing a “body wrap” (Pandav et al. 2007). The male holding the female’s body with the right forelimb and the base of the tail with the right hindlimb, while using his left fore- and hindlimbs for support. The copulatory stage was subdivided into three phases; twice during the first 12-sec phase, sudden jerk with irregular and fast movements by the male preceded insertion of the right hemipenis. After a series of regular jerky motions, which lasted 34 sec from the initiation of mating, the male released the neck-bite hold. The second phase lasted 3 min 46 sec, during which the male jerked 83 times. In the third phase, the pair remained motionless for 8 min 14 sec while the hemipenis remained in the female’s cloaca. After apparently successful insemination, post-copulatory dispersal was sudden and they disengaged in about 2 sec and fled in the same direction.

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