



# First Record of the Kanger Valley Rock Gecko, *Hemidactylus kangerensis* Mirza, Bhosale, and Patil 2017, from Odisha, India

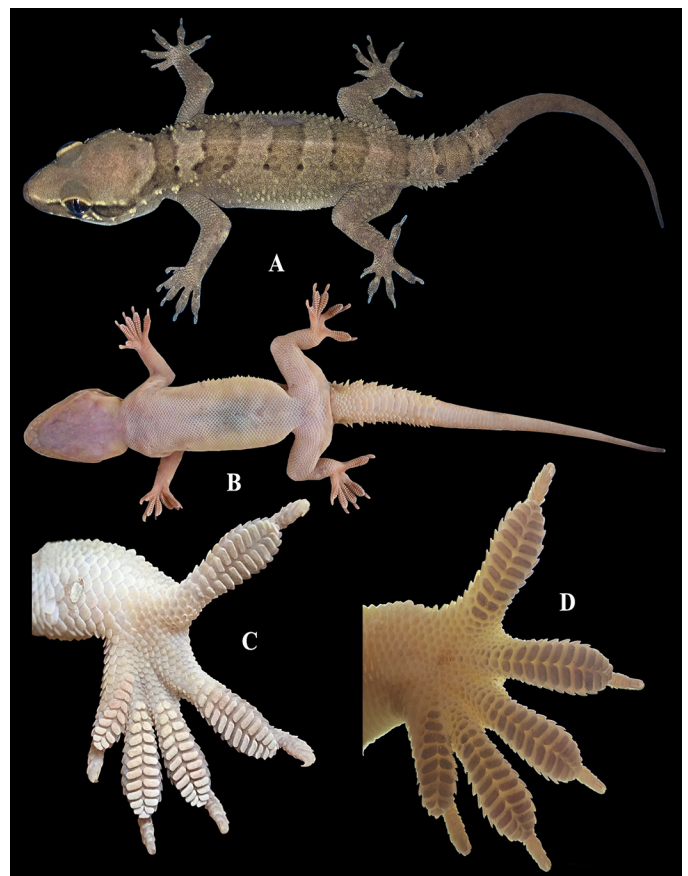
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Odisha, in the Eastern Ghats of India, has been recognized as a biodiversity hotspot in India, providing a home to 131 species of reptiles (Behera et al. 2019). During 2020–2022, we conducted a faunal diversity inventory in the Gupteswar PRF (Proposed Reserve Forest), Koraput, Odisha, which is characterized by moist deciduous forest with isolated hill ranges and is home to significant species of flora and fauna.

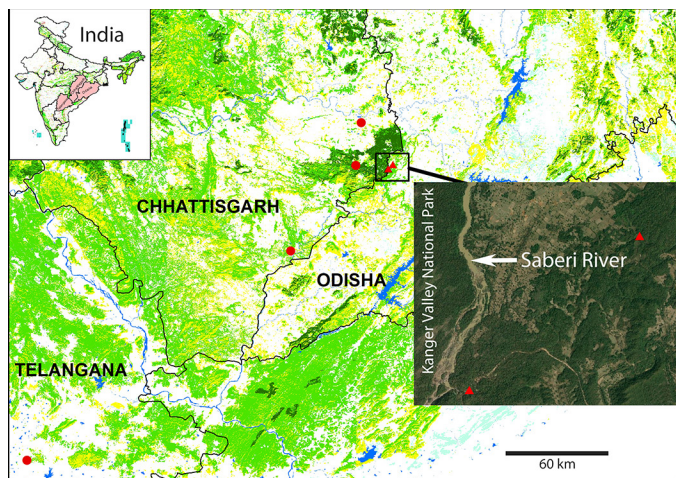
During this survey, we encountered a gecko on 16 March 2022 near the Paravadi Cave (18.81989 N, 82.16711 E) at Gupteswar, but took only a photograph at that time. However, on 12 July 2022, we found another individual of the same species near a forest beat house (18.82306 N, 82.16747 E) that was captured and released after obtaining morphological data.

We identified the gecko as *Hemidactylus kangerensis* (Mirza et al. 2017) (Fig. 1), which represents the first records from Odisha (Fig. 2), 18.05 km (aerial distance) from the type locality. The gecko was a subadult female (SVL = 64.86 mm) with morphometric characters that corresponded closely with those of the type series of Mirza et al. (2017) (Table 1). This species had been recorded previously from Kanger Valley National Park (18.84117 N, 81.99731 E), Jagdalpur (19.06592 N, 82.02633 E) and Sukma (18.39081 N, 81.65392 E) in Chhattisgarh (Mirza et al. 2017) and from Khamman (17.29036 N, 80.26236 E) in Telangana (Mirza et al. 2017; Srinivasulu and Kumar 2022) (Fig. 2). The new localities are separated from Kanger Valley National Park by the Saberi River, a major tributary of the Godavari River and presumably a substantial barrier to the species' dispersal. After consulting local residents, we believe that the species might have extended its range by exploiting temporary bamboo bridges constructed during festivals since time immemorial. A photographic voucher has been deposited in the digital archives of the University of Kansas Natural History Museum (KUDA 13991) and the identity of the species was confirmed by Dr. Pratyush P. Mohapatra.



**Figure 1.** A Kanger Valley Rock Gecko (*Hemidactylus kangerensis*) from the Gupteswar PRF, Odisha, India: dorsal view (A), ventral view (B), right pes (C), and right manus (D). Photographs by Bhabani Sankar Mohapatra.

With 150 species, the genus *Hemidactylus* is the second most speciose gekkonid genus (Uetz et al. 2022), and at least 30 species occur in India (Mirza et al. 2017) and seven (now eight) have been recorded in Odisha (Mohapatra 2022). The current study indicates that there are now eight species under genus *Hemidactylus* in the mainland of Odisha. *Hemidactylus kangerensis* is listed as Endangered on the IUCN Red List



**Figure 2.** Distribution of the Kanger Valley Rock Gecko (*Hemidactylus kangerensis*) in the Eastern Ghats of India. Dots mark previously documented localities and rectangles denote new records for the species.

(Srinivasulu et al. 2021) based on a limited extent of occurrence and widespread threats attributable to development and fire and fire suppression efforts. Particularly, the Shiva Linga shrine at Gupteswar draws hundreds of thousands of tourists each year, which is likely to have an adverse impact on the habitat of the species. To safe-guard their habitat, we recommend that administrative departments like the Archeological or Forest Departments should create a tourist activity regulation plan for the conservation and protection of the species as well as their fragile ecosystem of the Eastern Ghats.

**Table 1.** Comparison of morphometric ratios of the type series of *Hemidactylus kangerensis* with the individual from the Gupteswar PRF, Odisha, India.

	Holotype BNHS 2484	BNHS 2485	BNHS 2486	Paratypes BNHS 2487	BNHS 2488	BNHS 2489	This report KUDA 13991
<b>Sex</b>	Male	Male	Male	Female	Female	Female	Female
<b>HL/SVL</b>	0.27	0.26	0.23	0.26	0.22	0.25	0.23
<b>HW/HL</b>	0.82	0.87	0.85	0.85	0.96	0.78	0.87
<b>HH/HL</b>	0.5	0.54	0.51	0.52	0.49	0.40	0.46
<b>SE/HW</b>	0.57	0.55	0.59	0.53	0.55	0.56	0.57
<b>OD/SE</b>	0.48	0.50	0.50	0.51	0.50	0.61	0.48
<b>OD/HL</b>	0.23	0.24	0.25	0.23	0.26	0.27	0.26
<b>EL/OD</b>	0.46	0.44	0.40	0.43	0.40	0.49	0.46
<b>EE/OD</b>	1.48	1.33	1.16	1.45	1.50	0.91	1.48
<b>TRL/SVL</b>	0.4	0.40	0.40	0.45	0.39	0.39	0.43
<b>FL/SVL</b>	0.14	0.14	0.12	0.13	0.13	0.13	0.15
<b>CL/SVL</b>	0.16	0.16	0.16	0.15	0.15	0.18	0.16
<b>TL/SVL</b>	1.21	1.70	0.39	1.72	1.10	1.21	1.11

### Acknowledgements

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