

Biodiversity Record: Spiny hill turtle at Rifle Range Link

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Subject: Spiny hill turtle, *Heosemys spinosa* (Reptilia: Testudines: Geoemydidae).

Subject identified by: Chin Yu Xun and Lee Wee Meng.

Location, date and time: Singapore Island, Central Catchment Nature Reserve, Rifle Range Link; 1 May 2025; around 0854 hrs.

Habitat: Secondary forest.

Observers: Chin Yu Xun and Lee Wee Meng.

Observation: An adult example of approximately 20 cm in carapace length, was observed walking along a dirt footpath before pausing to survey its surroundings (Fig. 1). It froze in its tracks and kept still for approximately two minutes in the presence of the observers. It remained motionless when the observers departed.



Fig. 1. In-situ lateral view of the spiny hill turtle frozen in its tracks (Photograph by: Chin Yu Xun).

Remarks: *Heosemys spinosa* is listed as Endangered by the International Union for Conservation of Nature (IUCN) (Cota et al., 2021). It is likewise classified as Endangered and uncommon in Singapore (Figueroa et al., 2023; Thomas et al., 2024) where it seems restricted to the Central Catchment Nature Reserve and adjacent nature parks, with the majority of records dating from 1988 to 1997 (Figueroa et al., 2023). Except for the rear margin of the carapace which is serrated, adults have smooth marginal scutes (see Fig. 1); while those on juveniles are all greatly expanded and bear distinct spines (Das, 2010). These spines are thought to serve as an anti-predatory function as illustrated by an observation in which a keeled rat snake failed to ingest a juvenile turtle (Donnelly, 2023).

Literature cited:

- Cota M, Guntoro J, Horne BD, Kusrini MD, Krishnasamy K & Shepherd C (2021) *Heosemys spinosa*. The IUCN Red List of Threatened Species. DOI: 10.2305/IUCN.UK.2021-2.RLTS.T9942A3152508.en (Accessed on 1 May 2025)
- Das I (2010) A Field Guide to the Reptiles of South-east Asia. New Holland Publishers (UK) Ltd, London, 376 pp.
- Donnelly J (2023) Biodiversity Record: Attempted predation of spiny hill terrapin by keeled rat snake. Nature in Singapore, 16: e2023051. DOI: 10.26107/NIS-2023-0051
- Figueroa A, Low MEY & Lim KKP (2023) Singapore's herpetofauna: updated and annotated checklist, history, conservation, and distribution. Zootaxa, 5287: 1–378.
- Thomas N, Law IS & Lim KKP (2024) Checklist of reptile species with their category of threat status for Singapore. In: Davison GWH, Gan JWM, Huang J, Hwang WS, Lum SKY & Yeo DCJ (eds.) The Singapore Red Data Book. Red Lists of Singapore Biodiversity. Third Edition. National Parks Board, Singapore, pp. 672–674.