

Biodiversity Record: A red eared slider nesting near Sungei Punggol

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Subject: Red eared slider, *Trachemys scripta elegans* (Reptilia: Testudines: Emydidae).

Subject identified by: Tan Jian Qing.

Location, date and time: Singapore Island, Sungei Punggol; 30 July 2024; 1630 hrs.

Habitat: Urban parkland.

Observer: Tan Jian Qing.

Observation: A female red eared slider of about 20 cm carapace length was spotted around 1630 hrs wandering about on the grass (Fig. 1) before climbing up a nearby slope (Fig. 2) and exploring the bushes next to drains (Fig. 3). At around 1700 hrs, she settled beneath a bush and began to dig a hole using her hind legs (Fig. 4). The turtle expelled bodily fluids from its cloaca at the start of the digging process, apparently to soften the soil for digging. She was observed to use one hind leg at a time during the digging process, with each hind leg being used for digging and scooping out small balls of soil for a few minutes before alternating to the other hind leg and repeating the process. Once the depth of the hole was about the length of its hind legs, the turtle stopped digging and started laying eggs at around 1820 hrs. In total, eight eggs were observed to be laid in the nest. The eggs were oval and white, and about 4 to 5 cm in length. When the turtle finished laying, she covered up the nest using its hind legs by sweeping the soil back over the hole. She also stomped on the dirt on top of the nest with her hind legs when most of it was covered up, presumably to compact the soil (Fig. 5). The turtle finished covering the hole around 1845 hrs. She walked towards Sungei Punggol (at least 60 m away) thereafter (Fig. 6).

Remarks: The non-native red eared slider is known to be capable of reproducing in Singapore (see Leong & Lim, 2014; Chong & Yeo, 2022; Pocklington, 2022). Apparently as an adaptation to the aseasonality of Singapore's equatorial climate, red-eared sliders there have been found to produce smaller clutches of eggs at a higher frequency throughout the year (Ng, 2009). The present observation appears to show that the choice of nesting sites seems to be dependent on the turtle's perception of the presence of suitable conditions (such as substrate type and seclusion) regardless of immediate proximity to water, and that turtles may travel long distances over land to find suitable nest sites. In Singapore, nests excavated without human interference have previously been recorded as being 3 m (Chin, 2023) to about 40 m (Chong & Yeo, 2022) away from the water's edge. In this observation, the distance covered by the turtle was at least 60 m.

While it is unknown if this clutch of red eared slider eggs will hatch, this observation suggests the possibility of red eared sliders successfully reproducing in the wild is more common than assumed. This may affect future policies regarding invasive species management for red eared sliders.

Literature cited:

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- Ng PKA (2009). The Ecology of the Non-native Red-eared Sliders and their Potential Impacts on the Native Fauna of Singapore. Unpublished PhD thesis, Department of Biological Sciences, National University of Singapore, xii + 256 pp.
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Fig. 1. and Fig 2. Turtle wandering around the park connector. Fig. 3. Turtle ascended a grassy slope and crawling over a covered drain. Fig. 4. Dorsal view of the rear part of the turtle digging a hole under a bush near the slope. Note the wet soil, caused by the turtle expelling bodily fluids. Fig. 5. Dorsal view of the rear end of the turtle using both hind legs to compact the soil over the nest after covering it up. Fig. 6. Rear view of the turtle returning to Sungei Punggol by crossing the park connector, using the same route it came onto land. Note the soil on the rear of the turtle's body and shell (Photographs by: Tan Jian Qing).