

Biodiversity Record: Successful reproduction of captive red-eared sliders in Singapore

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Recommended citation. Pocklington K (2022) Biodiversity Record: Successful reproduction of captive red-eared sliders in Singapore. *Nature in Singapore*, 15: e2022066. DOI: 10.26107/NIS-2022-0066

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

Subjects identified by: Kate Pocklington.

Location, date and time: Singapore Island, Tiong Bahru housing estate; 18 January 2022 at around 1500 hrs and 9 April 2022, at around 1100 hrs.

Habitat: Urban. Glass aquarium and flower pot in an apartment unit within a concrete multi-level residential building.

Observers: Kate Pocklington and Sidd Perez.

Observations: On the afternoon of 18 January, the author's pet female red-eared slider appeared restless and was taken outdoors to a grass lawn. She scouted about for a suitable spot before excavating a pit in the earth with her hind legs. The hole was about 10 cm in depth, around the length of each hind limb. She proceeded to deposit six eggs, each around 4 cm in length, into the hole (Fig. 1). All the eggs were removed by the author as they were laid (Fig. 2). After laying, the turtle covered the hole with the earth she had dug up. The author buried all the eggs in dry soil in a plastic flower pot (15 cm in diameter and 15 cm in depth), which was placed on a window sill in the author's apartment. The soil was watered occasionally.



Fig. 1. Female terrapin ovipositing into the pit (indicated by arrow) she excavated in the lawn, and the author collecting the eggs as they are laid. (Photograph by: Sidd Perez)



Fig. 2. The six eggs freshly laid by the female red-eared slider. (Photograph by: Kate Pocklington)

On 9 April at around 11 am, a hatchling turtle of about 2 cm carapace length was found on the window sill near the flower pot. Its egg tooth was still attached to the upper jaw (Fig. 3). Fragments of egg shell and a non-viable egg were found on the surface of the soil in the flower pot, apparently unearthed by the hatchling while it emerged (Fig. 4). Out of the six eggs, it appeared that only one had hatched.

Both parents were acquired as hatchlings in 2017. At the time of oviposition, the female was about 21 cm in carapace length, and the male about 17 cm. They were kept indoors in a glass aquarium 90 x 45 x 45 cm filled with tap water and with a haul out platform installed. A basking light was positioned above the platform and turned on daily for about 12 hours. The turtles were observed copulating in the water days before the female laid the eggs.

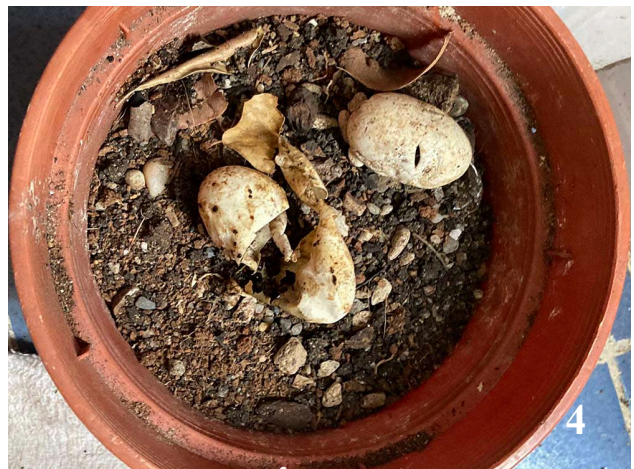


Fig. 3. Lateral view of the hatchling turtle discovered on 9 April 2022. Note the egg-tooth at the tip of its upper jaw. Fig. 4. A non-viable egg and egg shells in the flower pot apparently unearthed by hatchling. (Photographs by: Kate Pocklington)

Remarks: The featured observation is a deviation from the usual contents of Biodiversity Records. Although it involves captive animals that are not native to Singapore, it has direct implications with regard to local fauna. The red-eared slider is a common feral species in the country, and many, if not all the animals seen in the wild were once believed to be abandoned pets. Mating and nesting behaviour have been observed in the wild but actual hatching was not reported until 2014 in captivity (Leong & Lim, 2014) and 2021 in the wild (Chong & Yeo, 2022). This record shows that the red-eared slider's entire life cycle can be achieved under captive conditions in Singapore without special provisions. It is possible that red-eared sliders have already established self-sustaining populations in the wild in Singapore.

Literature cited:

Chong E & Yeo DCJ (2022) Biodiversity Record: First record of in-situ hatching of red-eared sliders in equatorial Southeast Asia. *Nature in Singapore*, 15: e2022044.
 Leong KWC & Lim KKP (2014) Successful hatching of red-eared sliders in Singapore. *Singapore Biodiversity Records*, 2014: 315–316.