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Biodiversity Record: Malayan tapir on Pulau Ubin

Marcus A. H. **Chua**[1,2*], Noel **Thomas**[3], Robert C. H. **Teo**[4] & Haw Chuan **Lim**[2]

[1]Lee Kong Chian Natural History Museum, National University of Singapore, Singapore 117377;
Email: marcuschua@nus.edu.sg ([*]corresponding author)
[2]George Mason University, Fairfax, Virginia 22030, USA
[3]% National Parks Board, Singapore Botanic Gardens, Singapore 259569
[4]National Parks Board, Singapore Botanic Gardens, Singapore 259569

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Subject: Malayan tapir, *Tapirus indicus* (Mammalia: Perissodactyla: Tapiridae).

Subject identified by: Marcus A. H. Chua, Noel Thomas and Robert C. H. Teo.

Location, date and time: Pulau Ubin, various forested locations across the island; 27 May to 12 August 2024 (refer to observations).

Habitat: Secondary forest regrowth over rubber and fruit orchards.

Observers: From images recorded with camera traps set by Marcus A. H. Chua and Noel Thomas.

Observations: Multiple records at five camera trap stations herein recorded —

1. One individual recorded on 27 May 2024 at 2033 hrs and 2149 hrs across two camera trap stations located in the eastern part of Pulau Ubin, indicating eastward movement of the tapir.

2. One animal recorded on 24, 28, 29, and 31 July, and 1, 3, 6, 8, and 10 August 2024 at the western part of Pulau Ubin close to the coast. The tapir made repeated visits to the site and was feeding on a tree branch and fallen fruit of *Artocarpus* sp. in at least three separate instances (Fig. 1). All records occurred at night.

3. One animal recorded on 25 July 2024 at 0420 hrs in the western part of Pulau Ubin pulling down and eating a leafy branch (Fig. 2).

4. One animal recorded at 0006 hrs on 12 August 2024 in the western part of Pulau Ubin moving through the undergrowth.

Remarks: These records of Malayan tapir on Pulau Ubin are from a camera trap study from 1 March to 23 September 2024, with 41 camera trap stations across the island totaling 2,493 trap nights. The animal in these records was identified to be an adult female based on external genitalia. A curved scar on the left hindquarter of the animal (Fig. 3) in the images, suggests that all records on Pulau Ubin are of the same individual.

The tapir was recorded feeding on fallen fruit and branches on the island. This is consistent with the diet of the species in Malaysia (Williams & Petrides, 1980). The multiple appearance of the tapir at the same camera trap station in July and August coincided with the fruiting of *Artocarpus* sp., which also attracted wild pigs (*Sus scrofa*) and long-tailed macaques (*Macaca fascicularis*).

The Malayan tapir is listed as Endangered throughout its range in Indonesia, Malaysia, Myanmar and Thailand, and is not considered to be part of the resident fauna in Singapore (Traeholt et al., 2016). Individuals recorded in Singapore are regarded as visitors. The first documented record of the species in Singapore was an individual that was found dead in a quarry on Pulau Ubin in 1986 (Chua, 2000). In 2016, a tapir was photographed swimming in the sea off Changi on 21 June by Vincent Chew (Fig. 4), and subsequently on the reclaimed land at Changi North on 24 June (Cheong, 2016). Both records were likely of the same individual. In February 2023, a Malayan tapir was photographed on Pulau Tekong (the image was posted on social media platform, X [formerly Twitter], but has since been removed), and fresh tracks of a tapir were found near the southwestern coast of Pulau Ubin on 13 July 2023 (Fig. 5). These were followed by

sightings in July, September and November 2023 in Punggol (Cheng, 2023; Chua, 2023; Woon, 2023). It is not clear if the records from 2023 and 2024 involved the same individual.

Fig. 1. Malayan tapir feeding on *Artocarpus* fruit on Pulau Ubin on 8 August 2024 at 1925 hrs. Fig. 2. A tapir feeding on a leafy branch on Pulau Ubin on 25 July 2024 at 0421 hrs (Photographs from camera traps set by: Marcus A. H. Chua).

Fig. 3. Female genitalia and curved scar on the same location of the left hindquarter of the Malayan tapir recorded on 27 May 2024 (left) and 8 August 2024 (right) (Photographs from camera traps set by: Marcus A. H. Chua and Noel Thomas)

Records of the Malayan tapir in Singapore have all been in the northeastern part of the main island and Pulau Ubin, suggesting dispersal from forested sites in Johor, Malaysia (Fig. 6). Malayan tapirs are found in a variety of tropical forest habitats across disturbance regimes, but are sensitive to habitat loss, degradation and fragmentation (Holden et al., 2003; Samantha et al., 2020). The persistent presence of this large forest megafauna species on Pulau Ubin follows the recovery of smaller forest-dependent species such as the greater mousedeer (*Tragulus napu*), which indicates the recovery of formerly extensively human-modified sites for wildlife (Chua et al., 2009). The National Parks Board has also been actively rehabilitating degraded habitats on the island (Thomas & Leng, 2015). Studies have found that the home range of adult Malayan tapirs could range from around 0.6 km^2 to 12.7 km^2 in Peninsular Malaysia (Williams, 1979; Khadijah-Ghani, 2010). Forested habitats on the offshore islands of Pulau Ubin or Pulau Tekong fall into the lower end of that range, which suggests that they could potentially support the residence of individual Malayan tapirs in Singapore.

Note: This study was conducted under the National Parks Board permit NP/RP24-070. The authors thank Vincent Chew for kind permission to reproduce his photograph of a swimming tapir (Fig. 4).

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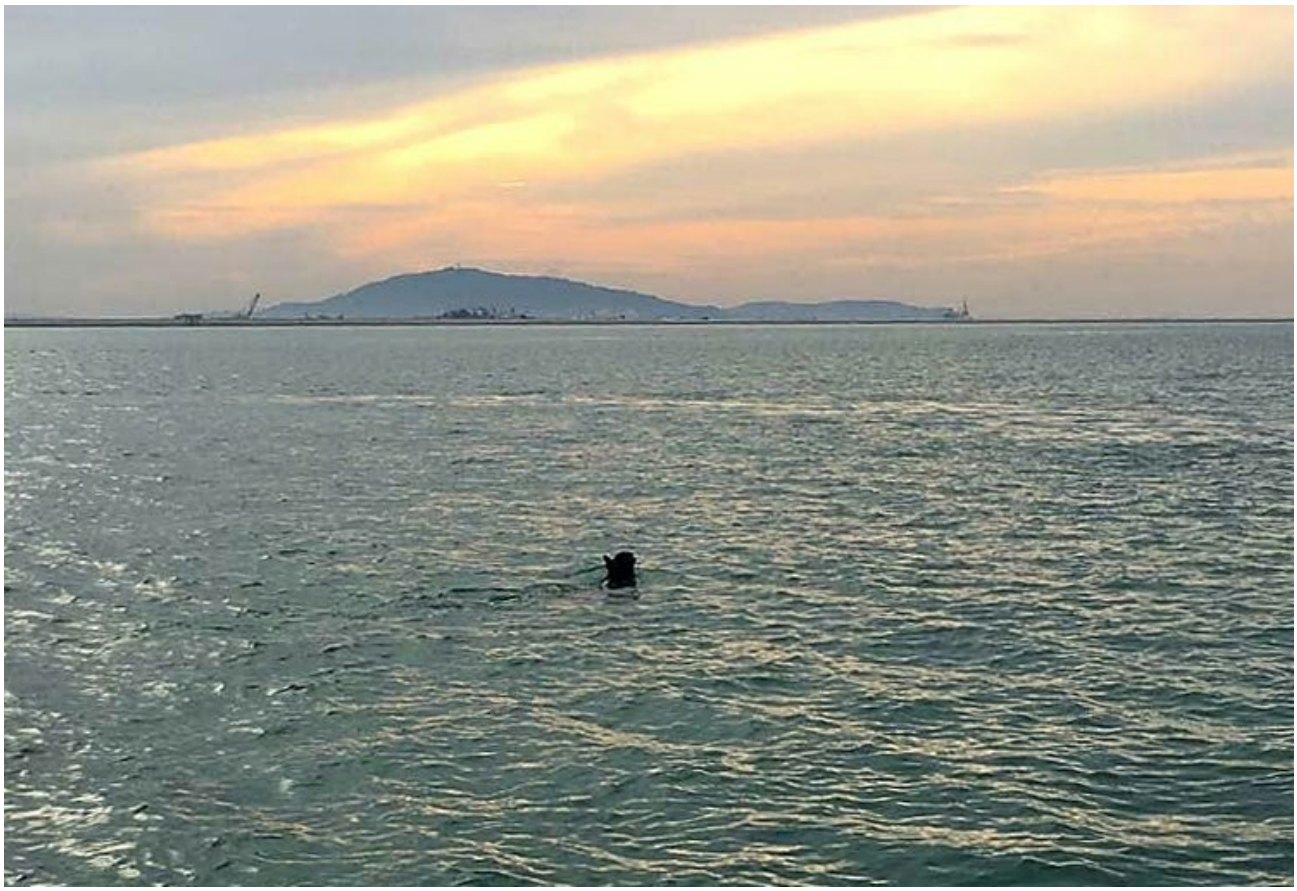

Fig. 4. Malayan tapir swimming towards Changi on 21 June 2016 (Photograph by: Vincent Chew).

Fig. 5. Fresh tapir tracks near the southwestern coast of Pulau Ubin on 13 July 2023 (Photographs by: Robert C. H. Teo).

Fig. 6. Map of the eastern end of the Johor Strait showing Pulau Ubin, Pulau Tekong, Changi and Punggol on Singapore Island in relation to nearby forested areas (dark green) in Johor, Malaysia. Scale = 3 km (Source: Google Earth).