

Biodiversity Record: Rediscovery of the cleptoparasitic bee, *Thyreus abdominalis rostratus*, in Singapore

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Subject: Beaked cloak-and-dagger bee, *Thyreus abdominalis rostratus* (Insecta: Hymenoptera: Apidae).

Subject identified by: Zestin W.W. Soh.

Location, date and time: Singapore Island, Central Catchment Nature Reserve, MacRitchie Reservoir, Jelutong Tower; 18 December 2025; around 0945 hrs

Habitat: Native-dominated secondary forest (Fig. 6).

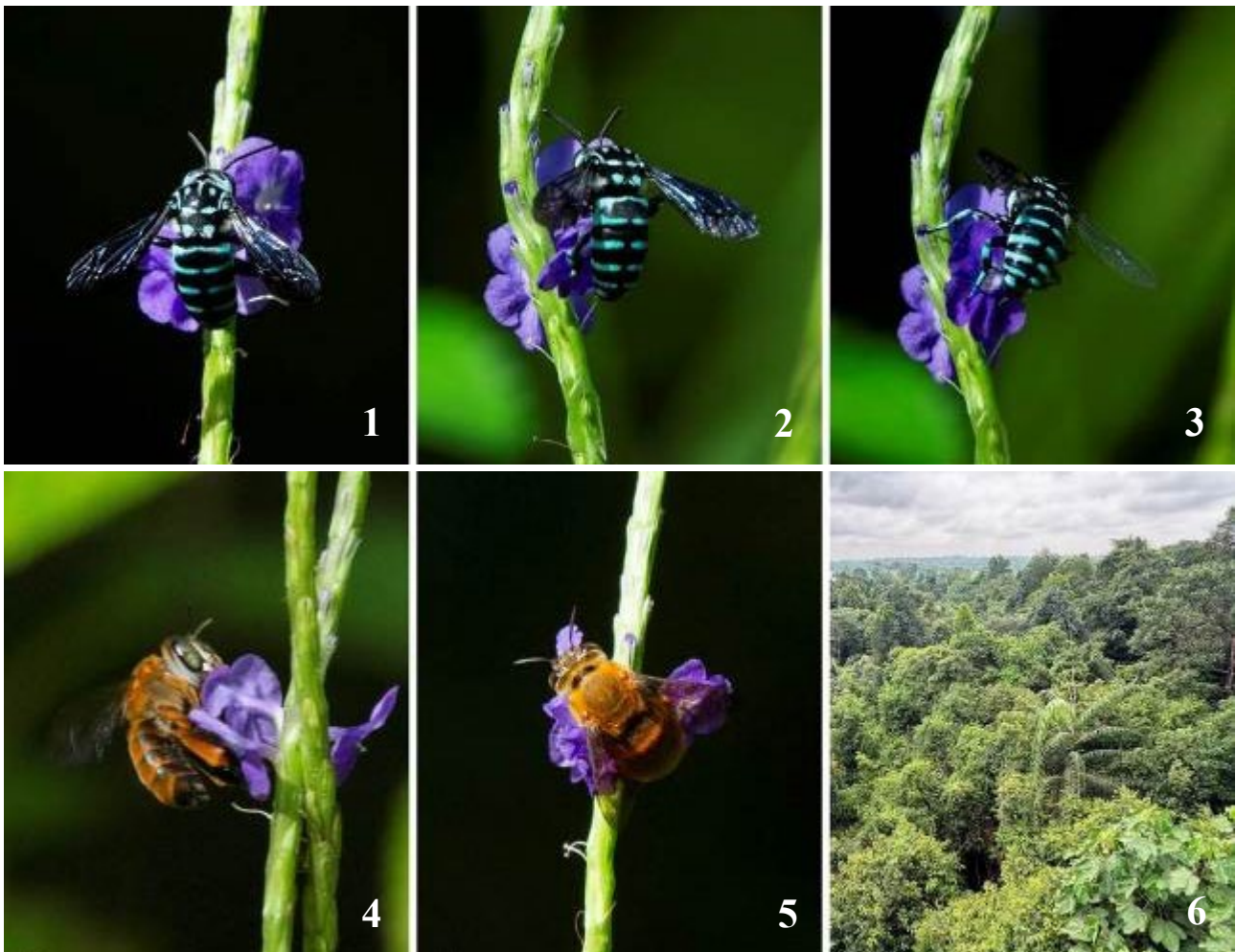
Observer: Ethan P. Beaver.

Observation: A single individual of about 20 mm total length was observed feeding from flowers of *Stachytarpheta* sp. for approximately five minutes (Figs. 1–3). During the same observation period, *Amegilla* (*Glossamegilla*) *insularis*, the putative host of *Thyreus abdominalis* (see Ascher et al., 2020), was also recorded attending the same flowers at the same site (Figs. 4 & 5).

Follow-up visits to the site by colleagues on 24 December 2025 and 15 January 2026 did not yield further observations of *Thyreus abdominalis rostratus*, reflecting the apparent local rarity and low detectability of the species.

Remarks: *Thyreus abdominalis rostratus* (Friese, 1905) is the largest representative of its genus recorded in Singapore and is readily distinguished from local congeners by its large body size, narrow blue transverse bands on the metasoma, and blue hair patches on the scutellum, among other characters (Liefstinck, 1962). The species was last recorded in Singapore in 2015 from Nee Soon Swamp Forest based on Malaise trap collections (Ascher et al., 2022), and the present observation, a decade later, confirms the continued persistence of this cleptoparasitic bee within the Central Catchment Nature Reserve.

The detection of this species provides insight into both its conservation status and ecological context in Singapore. *Thyreus abdominalis rostratus* is listed as Endangered in the third edition of the Singapore Red Data Book due to its restricted national range and paucity of recent records (Ascher et al., 2020; Soh et al., 2024). As an obligate cleptoparasite, its occurrence may also indicate the presence of suitable host populations at the site (Sheffield et al., 2013), noteworthy given that its presumed host, *Amegilla* (*Glossamegilla*) *insularis*, is range-restricted in Singapore and listed as nationally Vulnerable (Ascher et al., 2020; Soh et al., 2025). This rediscovery further reinforces the significance of the Central Catchment Nature Reserve as a critical refuge for forest-associated taxa and adds to a growing number of recent detections of previously unrecorded or long-unseen native bee species in Singapore (Lim et al., 2022; Soh et al., 2023; Soh et al., 2025), highlighting the value of continued targeted surveys and opportunistic observations.



Figs. 1–3. *Thyreus abdominalis rostratus* visiting flowers of *Stachytarpheta* sp. Figs. 4–5. *Amegilla* (*Glossamegilla*) *insularis*, presumed host of *Thyreus abdominalis rostratus*, visiting flowers of *Stachytarpheta* sp. Fig. 6. Aerial view of the habitat from the Jelutong Tower in the Central Catchment Nature Reserve (Photographs by: Ethan P. Beaver).

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