

## Biodiversity Record: The forest cockroach, *Haanina adusta*, in Singapore

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**Subjects:** *Haanina adusta* (Insecta: Blattodea: Blaberidae: Epilamprinae).

**Subjects identified by:** Choo Ruirong.

**Location, date and time:** Two locations —

- 1) Singapore Island, Rifle Range Road; 16 January 2025; around 2000 hrs.
- 2) Pulau Ubin, Sensory Trail; 25 September 2024, around 2230 hrs.

**Habitat:** Edge of secondary forest, adjacent to public road (1) or dirt trail (2).

**Observers:** Choo Ruirong, Lumin Jun Xiang Ong, Eleanor Tan, Leshon Lee and Tan Min Wen.

**Observations:** Two separate sightings —

- 1) An adult female of approximately 35 mm body length was found resting on the trunk of an *Albizia* tree by the road about 1 m above the ground (Fig. 1).
- 2) A macropterous male of about 40 mm body length was found at rest on a vine, hanging about 1.5 m above the ground (Fig. 2).



Fig. 1. In-situ dorsal view of female *Haanina adusta*, resting on a tree trunk along Rifle Range Road (Photograph by: Lumin Jun Xiang Ong). Fig 2. In-situ dorsal view of a male *Haanina adusta* resting on a vine on Pulau Ubin (Photograph by: Tan Min Wen).

**Remarks:** Cockroaches of the genus *Haanina* Hebard (1929) are characterised by their almost straight or gently curved, rather than apical, posterior margins of the pronotum. The anterior margins of the pronotum are round and cover the vertex entirely. The tegmen and hindwings of females are truncated and sometimes do not extend beyond the posterior margins of the abdomen, and bear rounded costa (see Fig. 1). They possess cryptic markings and pigmentation, which likely help them avoid detection by potential predators.



Fig. 3. In-situ dorsal view of ZRC\_ENT000010243 in life at the edge of Sime Forest on the night of 13 May 2009 (Photograph by: Kelvin K. P. Lim).

This appears to be the first formal documentation of the genus *Haanina*, and consequently *Haanina adusta* (Walker, 1869, as *Epilampra adusta*) in Singapore (see e.g., Princis, 1967; Woo, 2011). Images of an adult example at Upper Seletar Reservoir Park first surfaced online in February 2024 (see <https://www.inaturalist.org/observations/198874257>). Since then, there have been other local sightings in the same area, often on the leaves of *Dracaena* shrubs.

In the Zoological Reference Collection of the Lee Kong Chian Natural History Museum, at the National University of Singapore, there are two dry-pinned specimens collected in 2009 – an adult female (ZRC\_ENT000010242) from Bukit Kallang, and an adult male (ZRC\_ENT000010243) from the edge of Sime Forest (see Fig. 3 for this specimen in life).

*Haanina adusta* also occurs in neighbouring Malaysia and Indonesia (Cockroach Species File, 2016). However, its cryptic appearance and possibly low reproductive rates may contribute to its overall low detection rates throughout its range. Being a forest dweller, *Haanina adusta* is likely to be native to Singapore. Its presence along the edges of secondary forest suggests that it is somewhat tolerant of anthropogenic disturbance.

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