

## Biodiversity Record: The dwarf awlslug, *Opeas hannense*

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**Subjects:** Dwarf awlslug, *Opeas hannense* (Mollusca: Gastropoda: Achatinidae).

**Subjects identified by:** Chan Sow-Yan and Lau Wing Lup.

**Location, date and time:** Singapore Island, Hougang, Hougang Green Shopping Mall; 4 July 2023; around 1210 hrs.

**Habitat:** Urban. At a shopping mall, within concrete planter boxes, in leaf litter under ornamental plants. (Fig.1).

**Observers:** Chan Sow-Yan and Lau Wing Lup.

**Observations:** Seven examples were observed grazing after a drizzle. Five dead specimens (Figs. 6 & 7) were found nearby. The empty shells appear smooth, thin, yellowish white, glossy and translucent. Adult shells have about six convex whorls with a rounded apex and an elongated conical shape. The last whorl is large, making up more than half of the total shell length. Shell sculpture consists of fine radial striations. The umbilicus is narrowly open. The peristome is simple and has a thin outer lip even in mature specimens. The aperture is oval. The columella is straight without truncation. Adult snails can reach a shell height of 7 mm.



Fig.1. Substrate under ornamental plants in a planter box where both live and dead *Opeas hannense* were found. Fig. 2. Dorsal aspect of the head of a live snail. Fig. 3. Dorsal view of a live snail. Fig. 4. Ventral view of another live snail about 6 mm shell height, showing its foot. An egg (indicated by arrow) is visible within the last whorl of the shell. (Photographs by: Lau Wing Lup).

In live examples, the pale yellow head-foot bears two pairs of tentacles, with a pair of eyespots on the tip of the longer upper tentacles (Figs. 2–4). Round whitish eggs were seen within the last whorl of some adult specimens (Fig. 4). The visceral parts appear reddish brown and visible through the opaque shell.

When disturbed, the snails were noted to retract readily into their shells and exude copious amount of slime, presumably a form of defence (Fig. 5). The clear frothy slime was noted to be sticky and odourless. If left alone, the snails emerged from their shells within a minute or two. Ants were found among the snails but they did not appear to have any obvious interaction.

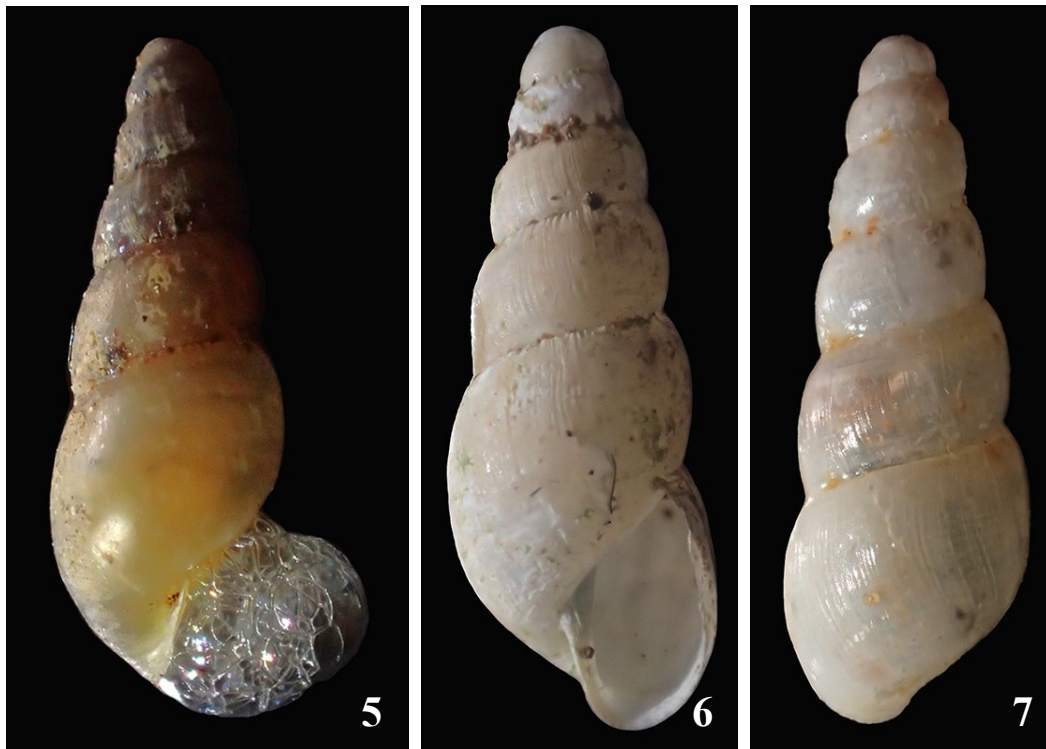


Fig. 5. Upon being touched and handled, foamy slime was secreted by the snail after it retracted into its shell. Fig. 6. Aperture view of a *Opeas hannense* shell of about 6 mm. Fig. 7. Dorsal-lateral view of a *Opeas hannense* shell of about 7 mm. (Photographs by: Lau Wing Lup).

**Remarks:** The type locality of *Opeas hannense* is a village called Hann in Senegal, West Africa (Rang, 1831 as *Helix hannensis*). However, its native range is unknown, and suspected to be East Asia (Robinson, 1999), Africa or tropical America (Tan et al., 2012 as *Opeas pumilum*). This species is widely distributed in many parts of the world in tropical, subtropical and even temperate areas.

In Singapore, *Opeas hannense* occurs in human modified areas among buildings, and in gardens and wasteland. It has been found in flowerpots, leaf litter, under rocks, and on algae/moss-covered concrete surfaces (Ho, 1995 as *Opeas pumilum*; Tan et al., 2012 as *Opeas pumilum*; Chan & Lau, 2019). Although this species is well-documented in Singapore, this may be the first time live examples are depicted in local malacological literature.

Despite its occurrence in human modified habitats, it appears that virtually nothing is known about the behaviour of *Opeas hannense*. The population of this diminutive snail herein featured was living together with ants. Without physical interaction between the two, whether the slime exuded by the snails could be acting as a protective barrier (see Tan et al., 2012) or a chemical defense mechanism against the ants, would require further study.

#### Literature cited:

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