

## Biodiversity Record: Some observations on the striated awlsnail, *Striosubulina striatella*

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**Subjects:** Striated awlsnail, *Striosubulina striatella* (Mollusca: Gastropoda: Achatinidae: Subulininae).

**Subjects identified by:** Lau Wing Lup.

**Location, date and time:** Singapore Island, at three locations —

- 1) Hougang Avenue 10; 19 May 2021; 2030 hrs.
- 2) Buangkok Green; 20 May 2021; 0912 hrs.
- 3) Toa Payoh Sensory Park; 9 September 2020; 1104 hrs.

**Habitat:** Urban parkland.

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

**Observations:** At Hougang Avenue 10, many examples of *Striosubulina striatella* were found in decaying leaf litter with an underlying layer of sandy soil, well shaded by a young coconut tree (*Cocos nucifera*). Some were found among skeletal remains of a bird (Fig. 1), and a couple were grazing on the bones (Fig. 2). Nearby, a few snails were grazing on moss-covered concrete embankments (Figs. 3, 4), and several were found on the trunk of the coconut tree and on freshly fallen coconut tree inflorescence (Figs. 5, 6). At least two were seen grazing on shrivelled coconuts, while some others were feeding on algae and lichens growing on the bark of a red lip tree (*Syzygium myrtifolium*) (Fig. 7). White calcareous eggs were observed in the body whorl of some adult snails (Fig. 3). This species appears to be gregarious. Empty shells and snails of different developmental stages were seen together. Other live micro-molluscs present include one *Kaliella barrakporensis* on the bird remains, two prowling *Gulella bicolor*, and three *Liardetia scandens* grazing on leaves and other decaying vegetation. *Striosubulina striatella* seems to be the most abundant snail species there.



Fig. 1. Two *Striosubulina striatella* (within circle) among decaying coconut inflorescence, flower sheaths and bird skeletal remains. (Photograph by: Lau Wing Lup).



Fig. 2. A juvenile *Striosubulina striatella* crawling on a piece of bird bone. (Photograph by: Lau Wing Lup).



Fig. 3. A *Striosubulina striatella* grazing on moss-laden concrete embankment. A calcified egg (indicated by arrow) is visible through its translucent shell. (Photograph by: Lau Wing Lup).



Fig. 4. Another *Striosubulina striatella* on the concrete embankment feasting on organic material. (Photograph by: Lau Wing Lup).



Fig. 5. A group of *Striosubulina striatella* snails grazing on coconut flower sheath. (Photograph by: Lau Wing Lup).



Fig. 6. An adult snail feeding on a male coconut flower. (Photograph by: Lau Wing Lup).



Fig. 7. A *Striosubulina striatella* snail grazing on algae and lichen on the bark of the red lip tree. (Photograph by: Lau Wing Lup).



Fig. 8. A juvenile snail grazing on a broken mynah shell. (Photograph by: Lau Wing Lup).

At Buangkok Green, only one live juvenile snail was observed grazing within a broken blue eggshell of a mynah bird (Fig. 8) at the bottom of a grassy slope beside a walkway.

At Toa Payoh Sensory Park, several examples were seen inside a concrete planter box aestivating on soil under a discarded tile. One particular specimen seems aberrant, having distinct dark stripes on its latter whorls (Figs. 9, 10).



Fig. 9. An aberrant adult *Striosubulina striatella* with dark stripes on the later whorls of its shell. (Photograph by: Lau Wing Lup).



Fig. 10. Aberrant snail in the middle of two normal examples. (Photograph by: Lau Wing Lup).

**Remarks:** To the casual observer, *Striosubulina striatella* bears a close resemblance to the confamilial *Subulina octona* (see Chan, 2019), but can, with the aid of an eye loupe of 40 X magnification, be distinguished from the latter by the presence of axial striae. *Striosubulina striatella* is a widespread synanthropic species that is normally associated with disturbed and urban environments like residential areas. This species appears to be largely nocturnal, as shown by the many active individuals at the Hougang location, which was visited in the night. It is a small species. The snails observed were all under 15 mm in shell height.

The featured observations suggest that *Striosubulina striatella* is a generalist microdetritivorous forager that feeds on decomposing organic matter, algae and lichen. The featured presence of *Striosubulina striatella* among skeletal remains implies that they could be rasping on the bones for calcium, which is also available on egg shells and concrete surfaces.

The aberrant snail with striped shell is interesting. Rather than being a genetic trait, it seems more likely to have been caused by the snail's damaged mantle, possibly a result of attempted predation.

**Literature cited:**

Chan SY (2019) Confirmed occurrence of the awl snail, *Striosubulina striatella*, in Singapore. Singapore Biodiversity Records, 2019: 18.