



Subulina octona
(Bruguère, 1789)

FAMILY SUBULINIDAE

Current Risk Status in Fiji:
Low

Body Type:
Snail with elongate shell

Size:
Shell up to 17 mm in height



USP Introduced Land Snails of the Fiji Islands Fact Sheet Series, No. 8



Manaaki Whenua Landcare Research



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Special points of interest:

- *Subulina octona* is capable of self-fertilization so theoretically only one individual is necessary to create a new population.
- *S. octona* and its eggs are easily transported in soil or via ornamental or crop planting materials.
- Although relatively common *S. octona* is considered a low risk species in the Fiji Islands.

Description & Distribution

Description

Living individuals of *Subulina octona* (Bruguère, 1789) are uniformly cream to pale yellow in colour. The shell is thin, elongate and translucent. Up to eleven convex whorls are parted by deep sutures. The first two and a half to three whorls are regularly crenulated (notched). The aperture is small and ovate, the outer lip thin (Pilsbry 1946). No aperture teeth or barriers are present. The mature adults often have several relatively large white eggs in the uterus that are visible through the last whorl of the shell (Stanisic 1998).

Distribution

Subulina octona is indigenous to the tropical Americas including the Caribbean (Pilsbry 1946, Deisler & Abbott 1984). Introduced to many areas including Hawaii, Cook Islands, Samoa, American



Source and location of photographs:

G. Brodie (Viti Levu) &
L. Jurickova (Czech Rep.)

Samoa, Tonga, New Caledonia, Vanuatu, Solomon Islands, Marshall Islands, FSM, Palau and Guam (Cowie 2001). It is widely distributed in Fiji particularly in lowland to mid-elevation forests (Barker *et al.* 2005).

Habitat & Behaviour

Habitat

Subulina octona is a terrestrial species that can be found in leaf litter, loose soil and in disturbed habitats (Barker *et al.* 2005). The species is restricted to wetter areas and often found in village crop plantations such as banana.

Behaviour

Individual *S. octona* are very

rarely found alone and are most commonly found in small groups (=gregarious). Although some members of the family can aestivate (shut down) during dry months *S. octona* is not known to do this. However, it secretes a mucous membrane over the shell aperture to retard water loss (Stanisic 1998).

FIJI LAND SNAILS

Biology

Subulina octona feeds mostly on plant materials and debris. Its radula (feeding tongue) is not specialised. It is documented to be a prey item for the introduced predatory snail *Gulella bicolor* (Solem 1988) but the latter should not be used as a biological control agent (Stanisic 1998) because it also consumes native species.

Subulina octona is an hermaphrodite i.e. possesses both male and female reproductive organs, and is documented as being capable of self-fertilization under laboratory conditions (Bessa & Araujo 1996). Egg-capsules are hard-shelled and white, measuring 1.8 by 1.5 mm (Pilsbry 1946).

**Threats & Similar Species****Threats**

Subulina octona may sometimes become a minor pest in gardens or nurseries by making holes in cultivated plant leaves (Stanisic 1998). However, they are not documented as major pests in other countries. *Subulina octona* is also reported as a second intermediate host for the trematode *Postharmostomum gallinum*, a worm which infects domestic chickens (Juřicková 2006).

Similar Species

The taxonomy of subulinids is notoriously difficult and identification often requires confirmation by specialists. *Subulina octona* is very similar to other members of family Subulinidae such as *Paropeas achatinaceum* or *Allopeas clavulinum*. These latter species have a similar shell morphology except that the whorls have a less rounded periphery (outline). Further the living animal is often more strongly pigmented.

Further Reading

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