

Yellow-shelled semi-slug (403)

Summary

- Restricted. Asia, North America (Hawaii), Oceania. In Fiji.
- An invasive species, attacking vegetables and fallen fruit. Pale grey to dark brown, up to 45 mm long, plate-like shell, covered or partly covered by mantle, white line along edge of keel (rear end), and larger of the two pairs of tentacles dark-brown to black. Spread with produce, soil, machinery. Spreads rat lung worm to humans.
- Natural enemies: predatory snails and flatworms, but they should NOT be introduced without environmental impact studies. These generalists will annihilate local snails. Use Indian runner ducks (but note, slug climbs trees and buildings).
- Biosecurity: intercepted on vegetables.
- Cultural control: bare earth or sand around plots; collect and destroy; use beer traps to attract slugs.
- Chemical control: note, metaldehyde NOT recommended: toxic to livestock, pets and humans; use baits with iron phosphate, sodium ferric EDTA - effective and safer.

Common Name

Yellow-shelled semi-slug. A semi-slug does not have a shell that it can retract into.

Scientific Name

Parmarion martensi



Photo 1. Side view of the yellow-shelled semi-slug, *Parmarion martensi*, showing the shell partly covered by the mantle. Contrast the grey colour with Photo 2.



Photo 2. A yellow-shelled semi-slug, *Parmarion martensi*, brown, and showing the shell partly covered by the mantle, the cream ridge (keel) along the tail, and black antennae.

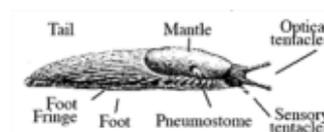


Diagram. Slug anatomy.



Photo 3. A yellow-shelled semi-slug, *Parmarion martensi*, showing little of the shell, but the cream ridge (keel) along the tail is clear.



Photo 4. A yellow-shelled semi-slug, *Parmarion martensi*, with dark body colour, and shell well-covered by mantle (similar to Photo 5).



Photo 5. A yellow-shelled semi-slug, *Parmarion martensi*, with dark body colour, shell well-covered by mantle, and distinct cream-coloured line of the keel.

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¹Information from Brodie G, Barker GM (2011) Introduced land snails in the Fiji Islands: are there risks involved? In: Veitch CR, *et al.* (eds.) 2011, pp32-36, Island Invasives: Eradication and Management. IUCN, (International Union for Conservation of Nature), Gland, Switzerland; and Helicariionidae. Terrestrial Mollusc Tool. USDA, UF, Lucid. (<http://idtools.org/id/mollusc/factsheet.php?name=Helicariionidae>); and Cowie RH, *et al.*(2018) *Parmaion martensi* Simroth, 1893 (Gastropoda: Ariophantidae), an intermediate host of *Angiostrongylus cantonensis* (rat lungworm), on Maui. Records of the Hawaii Biological Survey for 2017. Edited Neal L. Evenhuis. Bishop Museum Occasional Papers 123: 7-10 (2018); and from Brodie G, Barker GM (2012) *Parmaion martensi* Simroth, 1893. Family Ariophantidae. USP Introduced Land Snails of the Fiji Islands Fact Sheet Series, No. 1. (https://www.researchgate.net/publication/265647102_Parmaion_martensi_Simroth_1893_Family_Ariophantidae). Photos 1&2 *Parmaion martensi* (DSC00332 & DSC07854. (www.NatureLoveYou.sg), Diagram Billion. Wikipedia. (<https://en.wikipedia.org/wiki/Slug>). Photos 4-6 Gillian Brodie, Biology Division, USP, Suva, Fiji Islands.

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