

U3A Port Fairy

Science...naturally!

Terrestrial Snails and Slugs of Port Fairy

John Miller: 28 July 2020

This is the 19th in a series of guides for U3A members around Port Fairy and district to help us get out and about safely during COVID-19 restrictions. The aim of the guides is to provide enjoyable outdoor activities that can be undertaken either by yourself or your family (with appropriate separation and other precautions).

And what could be better than a scavenge through your backyard to search for those slimy little blighters that are eating your vegies and other precious plants.

According to the distribution maps in the *Australian Land Snails Volume 2: A field guide to southern, central and western species* by J. Stanisic *et al* 2017, there are at least 26 species of terrestrial slugs and snails that we could reasonably expect to occur in Port Fairy.

To date I have found just five slug and five snail species in and around Port Fairy, all of which are introduced pests munching on our gardens, including my Cinerarias.



One dayhappy little Cineraria.



Next day.....not-so-happy!

Snail or slug?

Snails and slugs are molluscs – and we already know how interesting molluscs are!

Snails have obvious shells into which they retreat if threatened or to rest. Slugs do not have a visible shell (although some of them have an internal shell). Semi-slugs are intermediate forms in which there is a small external rudimentary shell, but the animal cannot retract into the shell. There are no species of semi-slug likely to occur in or around Port Fairy.

How to identify Snails and Slugs

Snails

All snail shells are comprised of spiral coils which get progressively larger as the animal grows. All Port Fairy snails can be identified from their shells so it is not necessary to have a live animal. Once you have determined that the animal has an external shell, the first feature to consider is the size and shape of the shell.

The two main shapes of terrestrial snail shells are **conical** and **turbinate** (like a turban). Conical shells may range between tall and thin to quite squat where they are barely taller than wide. Some have a pointy apex while others have a rounded apex.



Turbinate shell

Conical shell

Turbinate shells may range from almost flat like a pinwheel or inflated like a balloon.

The external markings on the shells may also be diagnostic but markings can be quite variable and sometimes completely lacking so care is required with this feature.

The next two important identification features are the direction in which the shell coils and the presence and size of an **umbilicus**.

By holding the shell between your index finger and thumb, with the pointy end (or smallest coil) upwards, and the shell opening near your thumb and pointing towards you, you can determine if the shell spirals to the right (dextral) or the left (sinistral).

Then look at the underside of the shell. Some shells have a hole in the centre called an umbilicus, some of which may be large and deep while others are small or non-existent.



The opening of the shell is on your right so it is dextral.



Umbilicus

The umbilicus is a hole in the underside of the shell

Some shells have external ridges, bumps or even small spines that may also be diagnostic.

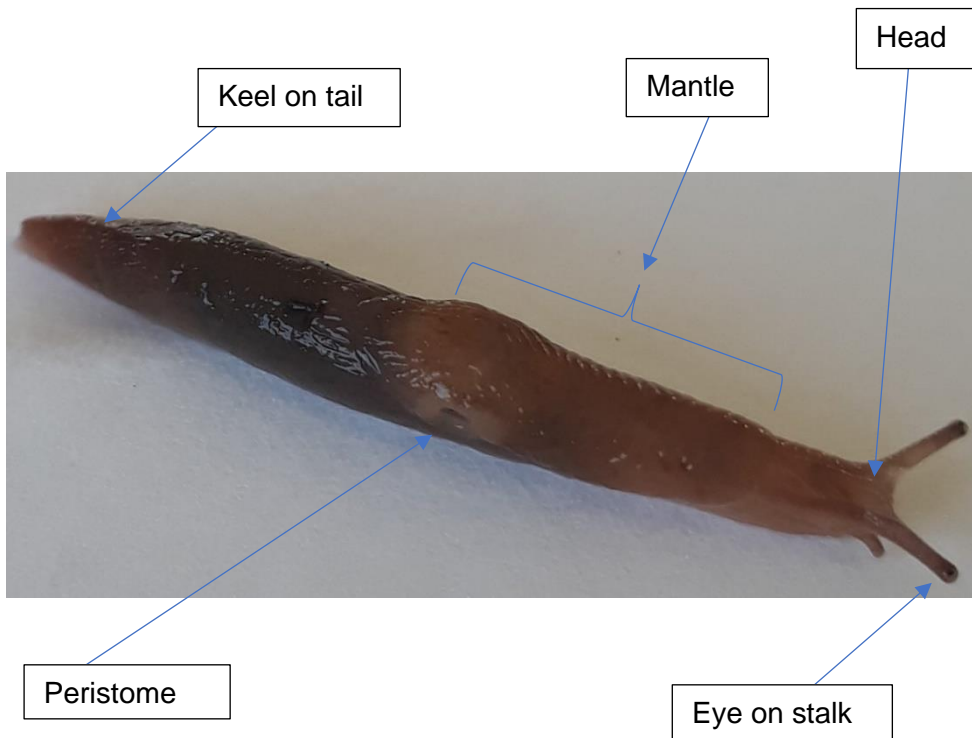
Slugs

Slugs have a soft fleshy or leathery body with no obvious or visible shell. It is really only feasible to identify a slug from a live animal plus it must be relaxed and starting to move around so you can see its full extent.

Identification features of slugs to look out for include:

- The presence or absence of a **keel** (sharp ridge) along the midline on the tail. The keel is often difficult to see but with the right light and a side-on view it is generally easier to observe.
- The length of the keel – is it only on the tail or does it extend all the way to the mantle?
- The location of the **peristome** (the peristome is the hole in the right-hand side of all slugs – only visible when the slug is relaxed) through which the animal breathes. The peristome may be either near the rear or the front (head end) part of the mantle.




Slug bits







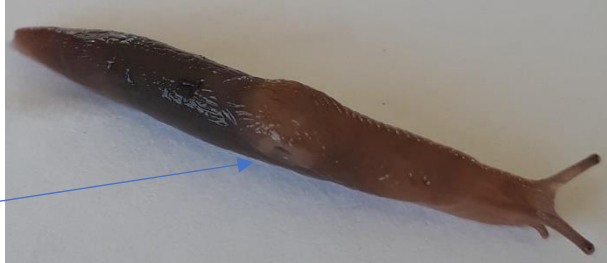

Now you know the important bits you should be able to identify the snails and slugs in your garden with the help of the following guide. But, if you find a snail or slug and can't identify it, send me an email with a photo and a short description and we will sort it out.

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The snails and slugs of Port Fairy

Name	Habitat	Features	Photo
<p>Pointed Snail</p> <p><i>Cochlicella acuta</i></p> <p>Family: <i>Cochlicellidae</i></p> <p>Introduced</p>	<p>Sand dune grassland and shrubland.</p> <p>Often large aggregations.</p> <p>Vegetarian.</p>	<ul style="list-style-type: none"> • Conical • Dextral • Shell up to 18mm • Pointed apex • Oblique vertical dark markings on each spiral coil 	
<p>Small Pointed Snail</p> <p><i>Prietocella barbara</i></p> <p>Family: <i>Cochlicellidae</i></p> <p>Introduced</p>	<p>Widespread in gardens, roadsides and coastal vegetation.</p> <p>Vegetarian.</p>	<ul style="list-style-type: none"> • Conical • Dextral • Shell up to 10 mm • Slightly rounded apex • Banded horizontal dark markings on each spiral coil 	
<p>Vineyard Snail</p> <p><i>Cernuella virgata</i></p> <p>Family: <i>Hygromiid</i></p> <p>Introduced</p>	<p>Gardens, vineyards, orchards.</p> <p>Vegetarian.</p>	<ul style="list-style-type: none"> • Turbinate • Dextral • Shell 12-18 mm • Very wide open umbilicus • May be pearly white or banded 	

Name	Habitat	Features	Photo
<p>White Italian Snail</p> <p><i>Theba pisana</i></p> <p>Family: <i>Helicidae</i></p> <p>Introduced</p>	<p>Coastal dune grasslands and shrublands.</p>	<ul style="list-style-type: none"> • Turbinate • Dextral • Shell up to 20 mm • Umbilicus present but very small almost closed with small flange • Mainly boldly banded brown on white but may also be plain white 	
<p>European Garden Snail</p> <p><i>Cornu aspersum</i></p> <p>Family: <i>Helicidae</i></p> <p>Introduced</p>	<p>Gardens, coastal dunes, anywhere really. Very common throughout south eastern Australia.</p>	<ul style="list-style-type: none"> • Turbinate • Dextral • Shell up to 40 mm – the biggest snail you will find in Port Fairy • No umbilicus • Shell overall brown with some black and lighter markings 	
<p>Striped Field Slug</p> <p><i>Lehmannia nyctelia</i></p> <p>Family: <i>Limacidae</i></p> <p>Introduced</p>	<p>Under rotting wood, paper and other garden refuse. Vegetarian.</p>	<ul style="list-style-type: none"> • Short keel on tail • Up to 50 mm when active • Two distinctive purplish stripes on mantle and body • Overall pinkish when active 	

Name	Habitat	Features	Photo
<p>Grey Field Slug</p> <p><i>Deroceras reticulatum</i></p> <p>Family: <i>Agriolimacidae</i></p> <p>Introduced</p>	<p>Under rotting wood, paper and other garden refuse. Vegetarian.</p>	<ul style="list-style-type: none"> • Short keel on tail • Up to 50 mm when active • Overall light to mid grey with small paler spots particularly on the body behind the mantle 	
<p>Chestnut Slug</p> <p><i>Deroceras invadens</i></p> <p>Family: <i>Agriolimacidae</i></p> <p>Introduced</p>	<p>Under rotting wood, paper and other garden refuse. Vegetarian.</p>	<ul style="list-style-type: none"> • Short keel on tail • Up to 30 mm when active • Pinkish on head and mantle, grey on body • A light region around the peristome is a good identification feature for this slug 	
<p>Yellow Cellar Slug</p> <p><i>Limacus flavus</i></p> <p>Family: <i>Limacidae</i></p> <p>Introduced</p>	<p>Under rotting wood, paper and other garden refuse. Omnivorous.</p>	<ul style="list-style-type: none"> • Short keel on tail • Up to 100 mm when active – one of the largest slugs in the region • Yellowish and spotted • Eye stalks blue – a good identification feature for this slug 	

Name	Habitat	Features	Photo
<p>Jet Slug</p> <p><i>Milax gagates</i></p> <p>Family: <i>Milacidae</i></p> <p>Introduced</p>	<p>Under rotting wood, rocks and garden refuse. Vegetarian.</p>	<ul style="list-style-type: none"> • Keel extends the whole way from tip of tail to mantle • 40-50 mm when active • Very dark, almost black – which gives the slug its name • Mantle very hunched when inactive 	