



**he goes but softly, but she goeth sure, she stumbles not, as stronger creatures do...**

(John Bunyan "Upon a Snail")

**What are slugs and snails?**

Slugs and snails are **Gastropod Molluscs**. Gastropod means 'the soft-bodied ones that walk on their stomachs'! These animals have been around for over 500 million years, and started out with a hard, spirally coiled shell for protection. Since then, the shells of some species have changed shape and have fewer coils. Slugs seem to have lost their shells completely, but all slugs have some remnant of a shell inside their bodies to testify to their ancient past lives as snails.

**How do they move?**

Molluscs have a hydrostatic skeleton. This works rather like a plastic bag filled with water, helping them to keep their shape. To move, slugs and snails send lots of travelling waves along the underside of their muscular 'foot', lubricated by slime. Recent research has shown that snails with the least slime travel the fastest!

**TRY THIS!** Put a snail or slug on a clear piece of plastic bottle and watch the waves from underneath. You may see the sandpaper-like tongue or radula on the head too – they use this to rasp away at plant material.

**Annual rings!**

Big snails live for several years and some hibernate in winter. The shell stops growing in the winter, and so each year, a line is left marking the period of hibernation. Look for this feature in the Garden Snail (*Cornu aspersum*).

**How do they breathe?**

Slightly over to one side of the body there is a breathing hole which opens and closes, and leads to a lung.

**How many tentacles do they have?**

Most slugs and snails have two pairs of retractable sensory tentacles on their head. The longer pair each have a simple black eye spot at the tip to detect light.

**TRY THIS!** Look through a magnifying glass as you bring your finger close to one of a snail's long tentacles. You'll see the snail turn its tentacle inside out and roll it back into its head!

**Baby? Or adult but still tiny?**

About a quarter of Shotover's snails grow to no more than 4 mm. Other tiny shells will be baby ones of larger species. How do you tell? The secret is in the small whorl of smooth shell at the tip, or centre. This is the **protoconch** formed in the egg. It will be much larger in a snail from a big egg.



Glossy Glass Snail

**Where to look**

**TRY THIS!** Using a magnifying glass, see if you can spot the protoconch on snails you find.

Snails and slugs have moist skin and dry out easily, so they usually glide about quite unnoticed by night. In the daytime they hide under logs, in moist leaf-litter and grass tussocks. You will need to kneel down to find them. They don't like heavy rain! But after a shower they may be out in force, even high up tree trunks. For example, look out for the slender and elegant Two-toothed Door Snail (*Clausilia bidentata*) and the Tree Slug (*Lehmannia marginata*).

**Slugs and snails come in all shapes and Sizes**

**BIG - Boulders on The Plain**

The largest species of snails are found at the bases of the boulders near the car park. Look for the Kentish Snail (*Monacha cantiana*), the White-lipped Snail (*Cepaea hortensis*) and the Garden Snail (*Cornu aspersum*).



Two-toothed Door Snail

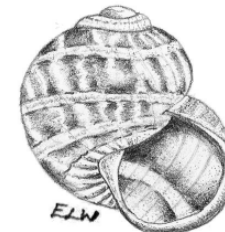
**And little - Life in leaf-litter**

Most snails in leaf-litter are small (2-5 mm) and difficult to see.

**TRY THIS!** Take a small bag of leaf-litter home to sort. Spread it out on newspaper and search using a magnifying glass and a reading light. Look out for the tiny, exquisitely sculpted Prickly Snail (*Acanthinula aculeata*). (front cover) Well worth the search.

**Variety**

- About 30 species of snail and slug have been found on Shotover.
- Shell shape can be globular, a flat disc, spindle-shaped or like a spinning-top.
- The largest snail on Shotover is the common Garden Snail which can be 30 mm across. The smallest is the tiny Dwarf Snail (*Punctum pygmaeum*) which only grows to 1.5mm, and is a perfect miniature!



Garden Snail

## Unusual slugs and snails on Shotover

### Smelly snails

Turn over rotten logs and look for a flat, shiny, brown shell up to 6 mm across. This may be the Garlic Glass Snail (*Oxychilus alliarius*). Prod the body with a piece of grass stem and sniff. The strong garlic smell may be for deterring beetles that feed on snails.

### Staining slugs

The Dusky Slug (*Arion subfuscus*) has thick slime that stains dark orange. To check for this species, just dab its nose on your notebook.

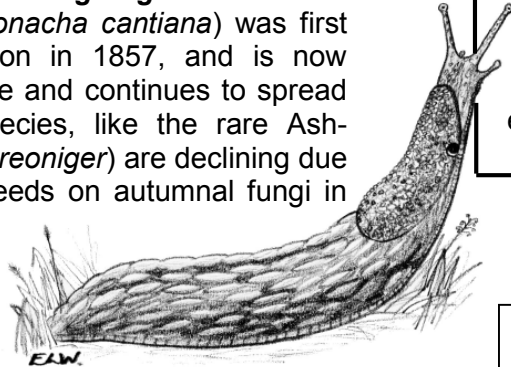
### Hairy snails

Some species, like the Common Hairy Snail (*Trochulus hispidus*), have hairs on the shell to reduce moisture loss by evaporation.

### Comings and goings

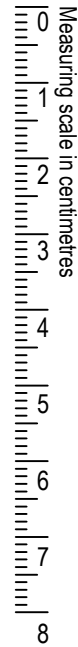
The Kentish Snail (*Monacha cantiana*) was first recorded in Headington in 1857, and is now common in Oxfordshire and continues to spread northwards. Other species, like the rare Ash-black Slug (*Limax cinereoniger*) are declining due to loss of habitat. It feeds on autumnal fungi in Brasenose Wood.

The Great Black Slug



### Stripy snails and hungry thrushes

The White-lipped Snail (*Cepaea hortensis*) has a large globular shell up to 24 mm across. The shell may be pink or yellow and either unbanded or crossed with up to 5 spiral brown bands. How many forms can you find? Thrushes eat this snail but the better camouflaged ones usually escape. Thrushes break the shell on a hard object and extract the 'meat'. As they often use the same place, you might find broken shells and slime at the thrushes' "anvil".



### Find out more about molluscs

Contact the Conchological Society of Great Britain and Ireland. Visit their website at [www.conchsoc.org](http://www.conchsoc.org)

Go on a snail course with the Field Studies Council.

Visit their website at [www.field-studies.org.uk](http://www.field-studies.org.uk)

**Shotover Wildlife** is a voluntary organisation founded to research and communicate the importance of Shotover Hill for wildlife.

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### Related leaflet titles:

Geology

Habitats

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# SLUGS AND SNAILS on SHOTOVER

