1. How to hunt banded snails

Where and when to look

Banded snails (*Cepaea nemoralis* and *Cepaea hortensis*) can be found in almost any part of the UK where snails are generally present. Where the soil is acidic or peaty, there is insufficient calcium available for snails to make their shells, so avoid such areas.

Snails are most active and easy to find when conditions are warm and damp. So, you will only find them in spring and summer (End of March - End of September).

Good times to find snails are during or after rain and in the early morning when there is dew on the grass.

Cepaea can be found in a wide variety of habitats including in woodland, scrub, in and under hedges, in tall herbaceous vegetation like nettle patches, in long or short grass, on garden shrubs. They are increasingly common in gardens in many cities.

Identifying the right species

There are two species of *Cepaea*. We would like you to count the different types (called morphs) of both the brown-lipped snail (*Cepaea nemoralis*) and the white-lipped snail (*Cepaea hortensis*).

Take a look at the pictures on the right and reverse of the different species of larger snail you might find with *Cepaea*.

We only want you to hunt for adult snails, as juvenile snails do not have a fully formed shell lip. Without a fully formed lip on the snail shell it makes it difficult to be sure which species they belong to.

Cepaea nemoralis

Cepaea hortensis

How and what to record

In a wide area such a school playing field, search an area of about 20m X 20m, looking under leaves and other hiding places.

If you are sampling a hedgerow, or along a path then search along a 30m stretch.

You can sample as many areas as you like. Just keep the records for each area separate and record the location of each one using a place name. There are maps and satellite pictures on the Evolution MegaLab website which you can use very easily to tell us where you collected your samples.

THE TWO SPECIES OF *CEPAEA* AND THE OTHER LARGE SPECIES THAT MAY BE FOUND WITH THEM

Cepaea hortensis

Usually has a white lip. Adults can be as little as 14mm across the shell, but 17-20mm is more usual. Larger specimens can be found, but where the species co-exists with *C. nemoralis,* it is always smaller.

Cepaea nemoralis

Usually has a dark lip. Adults can be as little as 17mm across the shell, but usually they are in the range 20-24mm. There are a few places where shells are bigger, 26mm or more.

Arianta arbustorum

Prefers wetter places than *Cepaea* on average, but often lives in the same sites. The shell varies in colour from dark brown through to yellow, and there may, or may not be a dark central band. There is a tiny, slit-like umbilicus, and the shape of the mouth is more rounded below than that of *Cepaea.* The shell is usually mottled or flecked, which is never the case in *Cepaea.*

20 mm

The pictures are roughly to scale, but remember that size varies. Shell colour and pattern also vary.

2. How to hunt banded snails

Start at one end/edge of your chosen area and work systematically across it. As you go along record each *Cepaea* you find with a vertical stroke in the appropriate box on the record sheet. For example, IIII for 4 snails. The 5th snail is then recorded with a horizontal line through the 4 strokes, like this ~~IIII~~ and then you start again with vertical strokes. For example, 7 snails would be recorded: ~~IIII~~ II and ten like this ~~IIII IIII~~ . When you have finished your search write the totals for each morph in the boxes provided. If you replace the snails where you found them they will not be harmed by handling.

Aim to collect 50 adult *Cepaea* if you can, but a sample of as few as 5 or 6 is sufficient if this is all you can find. (If conditions are too dry you can always come back later to complete the sample).

You can record living snails OR dead ones, so long as the empty shells look reasonably fresh. Ignore any empty shells that are obviously very weathered in appearance.

Shell colour: This can be a little tricky, especially distinguishing between pink and brown. The best way to distinguish is to look at the underside of the shell, brown shells are brown with a faint purple tinge whereas pink shells lack the purple.

Shell pattern: Unbanded shells have absolutely no sign of bands, a one banded shell has one obvious fairly narrow band, many banded shells have many bands but sometimes these are fused together into one very wide band or the bands can be missing in parts. Most shells that are not clearly unbanded or one banded should be classed as many banded in this survey.

Finding out more

For more detailed identification information, go to the Identification section on the website.

Snails are not harmful but it is wise to take a few precautions when out in the field, see the Instructions section on the website or the recording sheet for some field do's and don'ts.

Once you have completed your record sheet, log on to the Evolution MegaLab website and input your observations. There are instructions on how to do this on the website.

Now go to the Evolution MegaLab website to record your observations:

www.evolutionmegalab.org

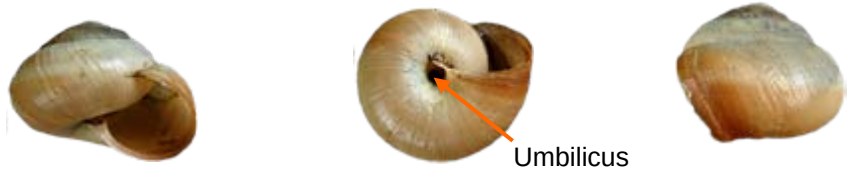
Cornu aspersum (the Garden snail)

Is the common "garden snail" in Britain, and it occurs commonly in the western and Mediterranean parts of Europe, but not further east. It has a characteristic texture to the shell.

Theba pisana

The shell is white, often with a multitude of darker spiral bands and blotches. Adults often rest in large numbers some way up plants. It has a small, but clearly visible umbilicus.

Monacha cantiana



Is often found alongside *Cepaea.* It has an obvious umbilicus even when adult. The shell is whitish, often with a reddish tinge behind the mouth of the shell.

Cernuella virgata

Is rather similar in shape to *Cepaea,* but note the umbilicus and the rounded base of the mouth of the shell.

20 mm

The pictures are roughly to scale, but remember that size varies. Shell colour and pattern also vary.