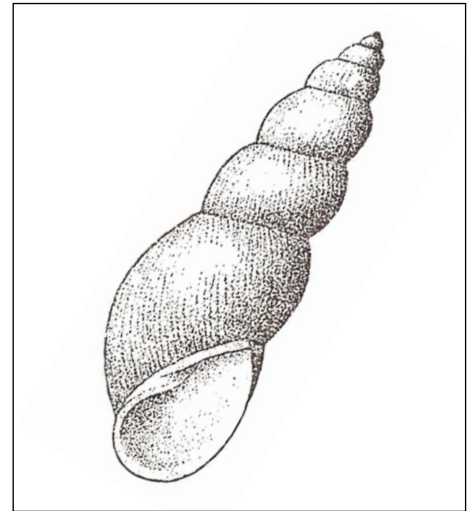


Pond mud snail

(*Omphiscola glabra*)



Pond mud snail lives in temporary freshwater habitats such as pools, ditches and seepages. They are small, just 12-20mm long, with an elongated brown conical shell. Once widespread, these snails have disappeared from their former habitats. As a result the Pond mud snail is now classified as Near Threatened by the IUCN, Vulnerable (RDB 2) in the UK Red Data Books and is a Section 41 Conservation Priority Species.

Life cycle

In February, Pond mud snails lay egg masses of 10-30 eggs, which take up to 25 days to hatch. The temporary nature of their habitat means that they are very dependent on weather conditions, and extremes of either drought or flooding can cause their numbers to fluctuate. They are well adapted to temporary drought, and this is where they have acquired their name as they bury into soft mud becoming inactive until their habitat becomes wet again.

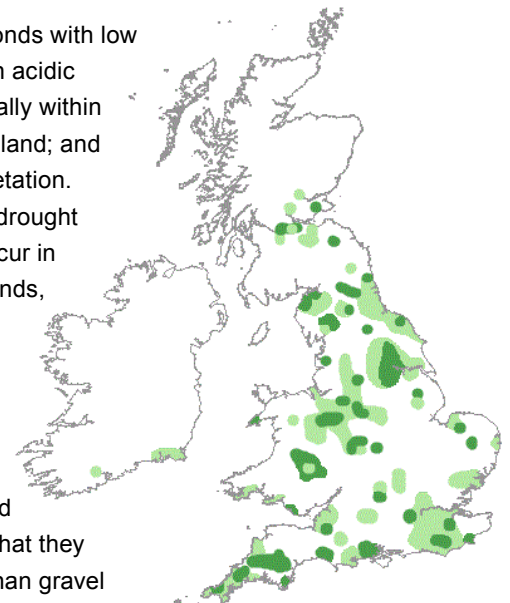
Distribution map

Although an under-recorded species, Pond mud snails are thought to have been widespread across

acidic lowland areas of England, Wales and central Scotland in the past. However, in the last 25 years, numbers have declined significantly and now they are found thinly distributed over England, Wales and central Scotland.

Habitat

The Pond mud snail prefers ponds with low calcium, nutrient poor water on acidic sandy or gravelly soils, especially within unimproved pasture and heathland; and sites often feature sparse vegetation. Pond mud snails can survive drought conditions, and so typically occur in habitats such as temporary ponds, ditches and seepages that dry up in summer. The snails do however occasionally occur in permanent water bodies, such as marshes and ponds. Their habit of burrowing into soft mud to survive dry periods means that they prefer muddy habitats rather than gravel ones, which dry more rapidly.



1980 Dark green, pre1980 light green

Reasons for decline

The main reasons for the decline of the Pond mud snail are the loss or degradation of temporary ponds through infilling, pollution from agricultural run-off, overgrazing, scrub encroachment, and



Pond mud snail habitat in the New Forest.

the enlargement of small ponds to create permanent water bodies. The small, temporary ponds that Pond mud snails prefer are rarely protected and are seen as being difficult to manage and inferior. These ephemeral habitats are, however extremely important and support various scarce species that, like the Pond mud snail are specially adapted to survive periodic drought.

Habitat management

- Maintain small, shallow ponds and temporary pools and avoid drainage, unnecessary clearance, infilling and deepening.
- Prevent pollution and eutrophication by avoiding fertiliser use near ponds, or in areas that might drain into a pond.
- Management should be on a rotational basis, with any essential dredging limited to less than 50% of the pond in any two year period.
- Cattle stocking densities need to be carefully balanced and low enough to prevent water bodies becoming overgrown or excessively poached and eutrophic from overstocking. In some cases, the exclusion of livestock or the use of water troughs can help protect this vulnerable habitat.
- Ideally, the habitat should be wet in most years over the winter and spring period to allow the snails to breed. Note that the complete drying of some ponds, particularly in hot summers is normal.

- Temporary pond restoration and creation, in the areas where Pond mud snails occur, will help create a network of suitable habitat and increases the species ability to survive.

Environmental Stewardship options

Note other options may also be suitable depending on individual sites. These options are available in England, although Wales and Scotland have similar schemes in place.

HLS options

HQ1 / HQ2 - Maintenance of ponds of high wildlife value < 100m² or > 100m².

HB14 - Management of ditches of very high environmental value.

HD10 / 11 - Maintenance or restoration of traditional water meadows.

HK15 / HK16 - Maintenance or restoration of grassland for target features.

ELS options

EB6 / EB7 - Ditch and half-ditch management options.

EE7 / EE8 - Buffering in-field ponds in improved permanent grassland or arable land.

EK4 - Management of rush pastures.

EL4 / EL4 - Management of rush pastures (in severely disadvantaged areas).

References and further information

This sheet can be accessed at www.buglife.org.uk

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Pond Conservation (2012) Species dossier, information on identification and survey techniques. <http://www.pondconservation.org.uk/Resources/Pond%20Conservation/Documents/Mud%20Snail%20Species%20Dossier.pdf>

There is also a mud snail study group: <http://www.mudsnailstudygroup.org.uk>

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