Garden Snail (*Helix aspersa*)

**Domain:** Eukaryota  
**Kingdom:** Animalia  
**Phylum:** Mollusca  
**Class:** Gastropoda  
**Subclass:** Orthogastrpoda  
**Order:** Pulmonata  
**Family:** Helicidae  
**Genus:** Helix  
**Species:** *H. aspersa*

**Description:** The adult bears a hard, thin calcareous shell 25–40 mm in diameter and 25–35 mm high, with four or five whorls. The shell is somewhat variable in colour and shade but is generally dark brown or chestnut with yellow stripes, flecks, or streaks. The body is soft and slimy, brownish-grey, and is retracted entirely into the shell when the animal is inactive or threatened. During dry and cold weather, the aperture of the shell is sealed with a thin membrane of dried mucus which is known as an epiphragm, which helps the snail retain moisture. The resultant quiescent periods are known as aestivation and hibernation respectively. When hibernating, *Helix aspersa* avoids ice formation by altering the osmotic components of its blood (or haemolymph), and can survive temperatures as low as -5°C. During aestivation, the mantle collar has the unique ability to change its permeability to water. In combination with an osmoregulatory mechanism similar to that seen during hibernation this allows *Helix aspersa* to survive several months of aestivation. During times of activity the head and foot emerge. The head bears four tentacles, the upper two of which have eye-like light sensors, and the lower two of which are smaller, tactile and olfactory sensory structures. The tentacles can be retracted into the head. The mouth is located beneath the tentacles, and contains a chitinous radula which the snail uses to scrape and manipulate food particles.

**Movement:** The snail’s muscular foot contracts to move the animal, and secretes mucus to facilitate locomotion by reducing friction against the substrate. It moves at a top speed of 1.3 centimetres per second (47 meters per hour).

**Reproduction:** *Helix aspersa* is a hermaphrodite, producing both male and gametes. Reproduction is usually sexual, although self fertilization can occur. During a mating session of several hours, two snails exchange sperm and after about two weeks approximately 80 spherical pearly-white eggs are laid into crevices in the topsoil. Up to six batches of 80 eggs can be laid in a year. The young snails take one to two years to reach maturity.

**Ecology:** The garden snail is herbivorous and has a wide range of host plants. It is a food source for many other animals, including small mammals, many bird species, lizards, frogs, centipedes, predatory insects, and predatory terrestrial snails.

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