

GRASS SNAKE

The name grass snake belies the very nature of this reptile, as it is amphibious and more tied to freshwater habitats than grassland. The average size of an adult grass snake is around 100cm for females and 80cm for males. With a life expectancy of up to 25 years, grass snakes go on growing beyond these lengths and can reach a staggering 150cm (five feet long). Throughout its life, as a snake continues to grow, it needs to discard or slough its skin regularly, a process called ecdysis. Male grass snakes do this twice a year on average. The female sloughs her skin just once per year just before laying eggs. During this skin shedding process, grass snakes are vulnerable to predation.

The distinctive diagnostic feature setting grass snakes aside from other snakes is the yellow or cream collar just behind the head. The head shape of adult grass snakes is a good indication of the sex of the animal as the head of an adult female is distinctly triangular when viewed from above. The male's head is much slimmer, forming little more than a slight bulge from the rest of its body width.

The grass snake is at the northernmost edge of its range here and sadly, like so much of our wildlife is declining. This is not due to climate change though, as a warmer climate could benefit the snake, but rather due to human activity. The spread of urbanisation, increased incidence of dog walking, the steady proliferation of the domestic cat population and intensive farming all contribute to its demise.

Recent research has shown that grass snakes are developing at a slower rate than previously. One of the reasons cited for this are the emissions from jet aeroplanes, resulting in a level of sunblock, not noticeable to ourselves. Grass snakes, as cold-blooded animals use a method of body temperature control called thermoregulation. This requires the snake to bask in sunlight for a necessary period and concentration of warmth in order to raise body temperature to around 30c. At this latitude, the grass snake is particularly sensitive to sunblock, which affects its development. The result is that grass snakes of twelve years old for instance, are smaller at that age than they were historically. A smaller snake lays fewer eggs, the direct consequence of this being a lesser number offspring and therefore a shrinking population.

The grass snake is a predator, mainly of amphibians, including newts, toads and frogs. It needs to eat approximately once every three weeks and requires only two or three significant prey items during one entire season. An adult grass snake can dislocate its flexible jaws to open them wide enough to swallow a mature toad. The jaws move to retract prey down the throat in a chewing, rhythmic motion. This is achieved with rows of tiny backward facing teeth, gripping the prey as it is swallowed alive, feet or tail first. This technique is thought to overcome a toad's ability to puff itself up when threatened, as sucking prey in feet-first enables air to be literally squashed out through the mouth of the victim.

When cornered, a grass snake will puff up its body and hiss loudly, sometimes lunging to strike with closed mouth. If captured, it can display a series of dramatic reactive responses. The first reaction to confinement is the release of an intensely foul-smelling, milky liquid from the anal gland. The next option is to feign death, a strategy known as thanatosis, as it rolls over onto its back with mouth wide open and

head lolling to one side. If this does not secure its release, the final flurry of activity is to regurgitate its most recent meal, which might be a half-digested frog!

Unlike other British reptiles that give birth to live young, the grass snake lays eggs. Being cold-blooded, it is unable to incubate its own eggs. Instead, the snake seeks out the warmth of decaying organic matter, like compost heaps or manure piles. The eggs are 3cm in length and pale cream in colour. An average of twenty or more eggs are laid in early June to mid-July. After ten weeks of incubation, the hatchlings use an 'egg tooth' to break out of the egg. At this stage, they are 18cm long and are immediately independent, feeding on tadpoles and invertebrates.

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