



Grass snakes are attractive, harmless animals found throughout much of lowland England. Like all native reptiles, they are legally protected from killing or injury. They move over relatively large areas, or home ranges. Within the home range there are certain habitat features that are especially important to the snakes. These include:

- **Ponds or wetlands to hunt for prey** Grass snakes feed primarily on amphibians.
- **Hibernation sites** Reptiles spend the winter usually below ground, in well-drained spots. Embankments can make useful hibernation sites (sometimes called hibernacula).
- **Egg-laying heaps** Grass snakes lay their eggs in piles of rotting vegetation or manure, so that they are kept warm and moist during development.

Habitat management to help grass snakes could, amongst other actions, involve the creation of egg-laying heaps. These are essentially large compost heaps – with a few modifications. The following recommendations are given based on the construction of successful egg-laying heaps at Anglian Water's Alton Water Reservoir.

A key component of these egg-laying sites is grass cuttings. Long grass, cut from an area managed as a wildflower meadow is ideal. Hence, a grass snake egg-laying site is easily compatible with low intensity grassland management, or management of grassland as a meadow.

To make an egg-laying heap:

- Choose a sunny location, but close to cover - for example on the southern side of a hedgerow or woodland or near a 'wild' area.
- Make a base, or framework, for the heap from a pile of brash.
- Cover this with grass cuttings. The brash creates spaces within the heap to allow easy entry to grass snakes.
- Make the heap large, and replenish every year or two.
- Keep a successful heap in the same location (grass snakes may return to the same sites).
- Do not disturb the heap when eggs may be present (June to September).



Egg-laying heap at Alton Water



Grass snake eggs

Some of the egg-laying sites at Alton Water were covered with sheets of black butyl pond liner, weighted down to keep them in place. These sheets help retain heat. They can also be useful in monitoring the egg-laying site, because as the sun warms the sheet, any visiting (or hatching) grass snake is likely to lie directly under it, being readily visible if the sheet is lifted. Pieces of old carpet or corrugated iron have also been used to the same effect. These covers should extend to the base of the heap to allow easy access to grass snakes.

The ecology of egg-laying

Grass snakes are choosy about where they lay their eggs. So, a female may spend quite a long time around the heap prior to egg-laying. Egg-laying takes place in June or July.

The baby snakes (about 16-20 cm long) hatch out towards the end of August or in September.



Hatchling grass snakes

John Baker (SARG) and Simon Waters (Anglian Water)