

# Creating grass snake egg-laying heaps



RAVON



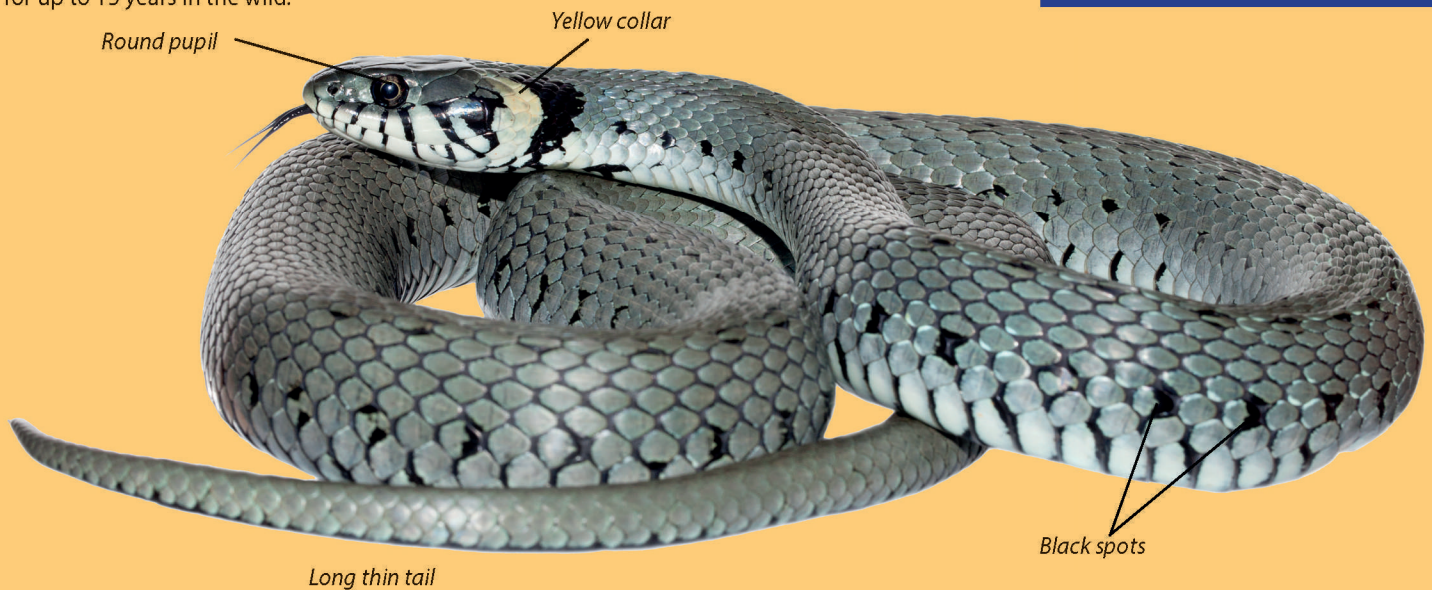
ARG UK



## Identification

The grass snake *Natrix helvetica* is the largest British native snake, and can grow to over 1 metre in length. Grass snakes range from grey to green in colour. They have a distinctive yellow or cream collar, bordered to the rear by contrasting dark markings. There is a series of dark bars running along the flanks and some individuals have dark spots on the back as well. Often found near water, grass snakes can sometimes be spotted swimming, or hunting for favoured prey species, which are mainly amphibians. Grass snakes are non-venomous, but they can exude an unpleasant smelling musk if caught. They can live for up to 15 years in the wild.

## Introduction



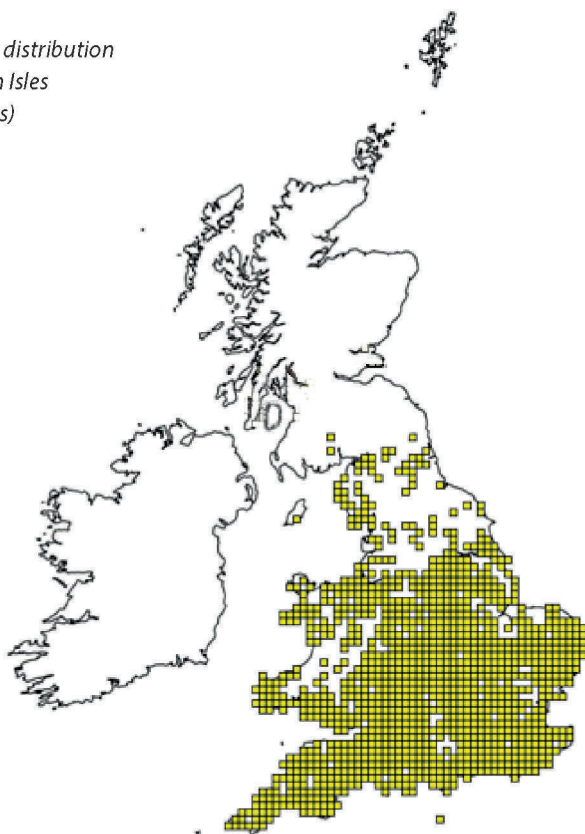
## Life cycle

In common with other native reptiles, grass snakes hibernate over winter from October to March, emerging as the weather warms in early spring to replenish their energy reserves by feeding and basking. During April and May they find a mate, and in June or July females lay 10 to 40 leathery white eggs, often in warm compost, piles of leaves or manure heaps, which helps the eggs to incubate and hatch. Several females may use the same egg laying spot, so it may be possible to find large numbers of eggs in a suitable heap. After 6 to 10 weeks the pencil sized (14-22 cm long) young grass snakes emerge. Hatchlings cut their way out of the egg with an egg tooth, which they lose once they have emerged. It then takes three to four years for the young grass snakes to reach adulthood and sexual maturity.



Hatched grass snake eggs

Grass snake distribution  
in the British Isles  
(© NBN Atlas)



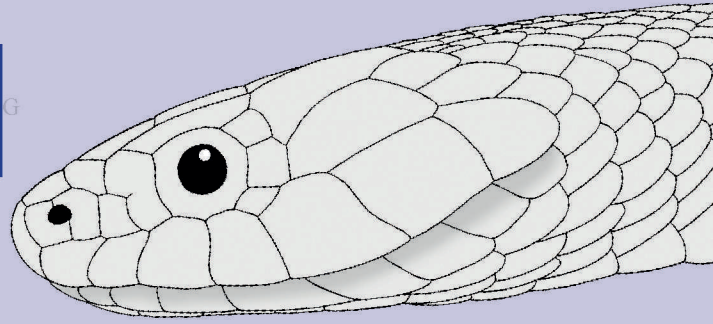
## Distribution and habitat

Grass snakes are widely distributed across much of England and Wales, though they are less commonly recorded in the North East of England, and Scotland. Generally, grass snakes prefer to live near water, where they can readily find their amphibian prey; but two other essential habitat features are egg-laying sites and places to hibernate. Natural grass snake egg-laying sites include heaps of organic material, or rotted tree stumps. Many grass snakes, however, take advantage of human activities and lay their eggs in manure or compost heaps. As a result, grass snakes are sometimes seen near riding stables and allotments during the spring and summer months. Over-wintering or hibernation occurs in dry, frost free and relatively undisturbed locations. Hibernation sites may be located in burrows or holes, heaps of rubble or wood, or dilapidated stone walls or buildings. In some areas, a vegetated earth bank or hedge bank, sea wall or even a road or rail embankment may be used.





# Why create egg-laying heaps?



## How you can help grass snakes

Grass snakes and humans have been intricately linked through livestock husbandry for many thousands of years across large parts of Europe. Historically, grass snakes have made use of manure heaps, and latterly compost heaps, as egg-laying sites, since these structures generate the heat that the snakes need to incubate and successfully hatch their eggs. In previous times this close association led to the grass snake being regarded as a house god in some parts of Europe, the symbol of spring, wisdom and protecting livestock.

However, in common with much of our native wildlife, we are seeing declines in grass snakes as agricultural and livestock husbandry practices change. One factor is thought to be availability of egg-laying sites, since there are fewer suitable heaps of manure accessible to grass snakes in the wider countryside. One means of boosting grass snake numbers may therefore be to create egg-laying heaps. These heaps also provide shelter and overwintering sites for slow-worms, amphibians, invertebrates and small mammals such as hedgehogs, mice and voles.



## How to create a grass snake egg-laying heap



- **Where:** In a sunny spot, adjacent to tall vegetation, away from busy roads and no more than 400m from a water body. Female grass snakes become habituated to using a successful heap for several years, so when refreshing a heap, ensure you always use the same location.
- **When:** Mid-March to late April
- **Materials:**
  - One third fresh horse manure
  - One third vegetation (leaves, clippings) or compost
  - One third large sticks or branches
- **Instructions:**
  - Clear the ground where you want the heap
  - Create a base layer of leaves and clippings
  - Lay the largest sticks/branches on top of this
  - Place half of the horse manure on top of the sticks and branches.
  - Add another layer of smaller sticks.
  - Mix the remaining manure with the vegetation/compost and add this to the heap. Add some branches and smaller sticks to keep these layers well ventilated.
  - Ensure that the egg-laying heap is not too compacted, so the animals can easily get into it, and to prevent it from overheating.





### For more information about grass snakes

Amphibian and Reptile Groups of the UK (ARG UK) - [www.arguk.org](http://www.arguk.org)  
 Amphibian and Reptile Conservation - [www.arc-trust.org](http://www.arc-trust.org)  
 Froglife - [www.froglife.org](http://www.froglife.org)

If you find a dead or diseased grass snake please report the incident to the Garden Wildlife Health Project (GWH) - [www.gardenwildlifehealth.org](http://www.gardenwildlifehealth.org).  
 GWH investigates disease threats to British wildlife.

If you spot a grass snake at any stage of its life cycle (eggs, juvenile, adult), or even a shed skin, please share the information either through Record Pool - [www.recordpool.org.uk](http://www.recordpool.org.uk), or your preferred biological recording scheme.

### ARG UK

The Amphibian and Reptile Groups of the UK (ARG UK) is a network of volunteers committed to the conservation of native amphibians and reptiles. ARG UK is a registered charity (no. 1165504).

### Acknowledgements

**Text:** Angela Julian, John Baker, Ian Kramer, Tariq Stark & Ingo Janssen

**Photo credits:** John Baker, Nicola Devine, Jelger Herder, Tariq Stark, Theodoor Heijerman & Warren Photographic

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