Although amphibians and reptiles belong to two different taxonomic classes, they are often lumped together. Together they share some ecological similarities and may even look superficially similar. Some are familiar garden inhabitants, others less so. Being able to identify the different species can help Garden BirdWatchers to accurately record those species using their gardens and may also reassure those who might be worried by the appearance of a snake.

Only a small number of native amphibians and reptiles, plus a handful of non-native species, breed in the UK. So, with a few identification tips and a little understanding of their ecology and behaviour, they are fairly easy to identify. This guide sets out to help you improve your identification skills, not only for general Garden BirdWatch recording, but also in the hope that you will help us with a one-off survey of these fascinating creatures.
Several of our amphibians thrive in the garden and five of the native species, Common Frog, Common Toad and the three newts, can reasonably be expected to be found in the garden for at least part of the year. There are also a few introduced species which have been recorded from gardens, together with our remaining native species, which although rare need to be considered for completeness.

**Common Toad: (below)**  
*Bufo bufo*  
Has ‘warty’ skin which looks dry when the animal is on land. Prefers large breeding ponds but often uses gardens as summer foraging grounds during the terrestrial stages of the life cycle. Spawn is laid in long strings, not clumps.

**Common Frog: (right)**  
*Rana temporaria*  
Grows to 6–7 cm. Predominant colour is brown, but often variable, including brick-red, orange, yellow and albino. Variable amounts of black spotting on back. Most have a dark ‘mask’ behind the eye. Smooth, moist-looking skin. Spawn is laid in a clump.

**Natterjack Toad: (right)**  
*Epidalea calamita*  
The Natterjack looks similar to the Common Toad but has a pale line running down its spine. It is limited to a few localised sites within sand dune systems, coastal grazing marshes and sandy heaths, so is very unlikely to be found in the garden.

**Smooth Newt: (left)**  
*Lissotriton vulgaris*  
Grows to 10 cm. Breeding males have an undulating crest which runs from the head to the tip of the tail. Females lack a crest and are predominantly brown. Adults of both sexes have an orange belly with rounded dark spots. Compare the tip of the tail and the foot webbing with Palmate Newt.

**Palmate Newt: (right)**  
*Lissotriton helveticus*  
Adults up to 8–9 cm in length. Breeding male does not have a crest. The breeding male tail ends in a filament and has webbed, sooty-coloured hind feet. The female looks very similar to the female Smooth Newt. Newts have four toes on their front feet, while lizards have five.

**Great Crested Newt: (left)**  
*Triturus cristatus*  
Our largest breeding newt, growing to 15 cm. Breeding males have a crest with a distinct break at the base of the tail. The skin has a granular texture. Both males and females have an orange belly with irregular dark spots. The Great Crested Newt is a strictly protected species. Although it is in decline, it is still widespread in England and Wales, so it may be encountered in the garden. Legal protection requires that this species should not be captured or disturbed.
Although less common in gardens than amphibians, one of our reptiles, the Slow-worm, is a resident in some areas. The Grass Snake, our largest and most mobile reptile, is a garden visitor, seeking amphibian prey in ponds or sometimes using compost heaps as egg-laying sites. The Adder is less likely to visit gardens and the Smooth Snake is rarely found outside its heathland habitat in Southern England.

**Viviparous (Common) Lizard: (below)**  
*Lacerta vivipara*  
Adults 13–15 cm. Scaly skin, claws on toes. Lizards are fast moving animals, not to be confused with newts during their terrestrial phase. Most are predominantly brown but colour variations are not uncommon, from yellow through various shades of green to jet black. This is the only species of reptile native to Ireland.

**Slow-worm: (above)**  
*Anguis fragilis*  
Adults 35–40 cm. Generally grey or brown. Small, shiny scales which give the Slow-worm a metallic appearance. Males are grey-brown, females brown with dark sides and a thin line down the back. Slow-worms give birth to live young in late summer. These are very thin, about 4 cm long, with gold or silver backs and with a thin black line down the middle.

**Sand Lizard: (left)**  
*Lacerta agilis*  
18–19 cm. Stockier than Viviparous Lizard, with eye spots on flanks. Males green, at their most intense in April–May. A rare species, confined to heathland in southern England and dunes on the Mersey coast. Very unlikely to be found in the garden.

**Grass Snake: (left)**  
*Natrix natrix*  
Our largest snake and the one most likely to be encountered in a garden. Grows to over a metre in length, but most shorter than this. Various shades of green, from very dull (almost black) to bright green. Black bars on the flanks, some also have spots on the back. Distinctive white, yellow or cream collar, bordered to the rear by black. Harmless.

**Adder: (right)**  
*Vipera berus*  
A stocky snake, growing to approximately 60 cm. Ground coloration variable, generally grey in males, brown in females. Has a distinctive, thick, dark zig-zag stripe running the length of the back. Although widespread, confined to specific habitats and is much less likely to be found in the garden than the slow-worm or grass snake.

**Smooth Snake: (left)**  
*Coronella austriaca*  
Slender, growing to approximately 60 cm. Ground coloration generally brown or grey. Dark crown, or butterfly pattern on head. Dark line running through eye. Pairs of dark spots, sometimes joined as bars, running along back. A rare species confined to heathland in southern England. Unlikely to be found in the garden.
Introduction to Amphibians

Green/water frogs: (left)
Non-native frogs, including Marsh, Edible and Pool Frog. These species can be difficult to tell apart. Most have vivid green coloration and a pale stripe running along the spine. However, Marsh Frogs can be predominantly brown and often lack the dorsal stripe. Green frogs breed in May or early June. Their loud calling continues sporadically throughout the summer.

Alpine Newt: (right)
Mesotriton alpestris
Infrequent but has been found in gardens. Males can be predominantly blue on the back. Females have a marbled pattern. Vivid orange belly, with no spots.

Midwife Toad: (left)
Alytes obstetricans
Usually smaller than 5 cm. Grey or brown, with a rough skin. Vertical pupils (in contrast to the horizontal pupils of the Common Toad). Males carry egg strings wrapped around their hind legs. Secretive. Most likely to be given away by its distinctive call, a single, repeated note like an electronic bleep, given on warm nights in May or June.

OTHER SPECIES
A number of other non-native species have been introduced over the years, some of which may still occur in the wild. As part of its role in monitoring non-native wildlife, the BTO collects records of such species through projects like Garden BirdWatch. You can use either the paper scarcer species form or GBW Online to record any non-native reptiles or amphibians you encounter within your garden.

Watching your pond is a convenient way to keep tabs on amphibians in the garden. Breeding frogs and frogspawn are easy to spot in the early spring. Toadspawn, laid in strings and wrapped around pond vegetation, is not as easy to find as frogspawn, but toads themselves are conspicuous when breeding, at about the same time as frogs, or a little later.

Newts are not as readily apparent as frogs and toads. Most breeding activity is nocturnal, so newt populations can sometimes go unnoticed. If you have a pond (with clear water) then a great way to find newts is by a torchlight survey during their breeding season. If you visit your pond after dark on a warm evening from March to May you might be surprised at what you can find by torchlight. To identify which species of newt you have in the garden it is helpful to focus on the breeding males. All three are very distinctive.

Amphibians spend a great deal of time on land. So, it is quite possible to find amphibians in gardens without ponds. Newts discovered underneath objects or in loose soil are sometimes mistaken for lizards. When on land, outside the spring breeding period, male Smooth Newts and Great Crested Newts lose their dorsal crests, increasing their similarity to lizards. However, lizards are fast-moving animals, with scaly skins and small claws on their toes. They are active during the day and they love to bask in the sun. Newts are much slower with no scales or claws, and they hide away during the day.

This guide has been put together by BTO Garden BirdWatch, in conjunction with the Herpetological Conservation Trust and Froglife. Special thanks are due to John Baker (text), Fred Holmes, Mike Toms and The HCT (images). To learn more about the organisations involved: BTO (visit www.bto.org, email info@bto.org or call 01842-750050), Herpetological Conservation Trust (visit www.herpconstrust.org.uk, email enquiries@herpconstrust.org.uk or call 01202-391319) and Froglife (visit www.froglife.org, email info@froglife.org or call 01733-558960).