Reptiles & Amphibians

of Norfolk

Norfolk & Norwich Naturalists' Society

Adder - *Alan Dixon*

Copyright

Data for maps courtesy of Norfolk Biodiversity Information Service (NBIS)
Based on data received to 30.9.20.

References

Detailed accounts of the reptiles and amphibians of Norfolk were given by John Buckley in a series of articles in the *Transactions of Norfolk & Norwich Naturalists' Society (vols 27-29)*1985-1991.
These are available to download from the Society's website www.nnns.org.uk/publications.

Key to maps

Latest record: ☐ **1961-1980** ■ **1981-2000** ■ **2001-2020**

Compiled by David Richmond, N&NNS – revision date 16.10.20

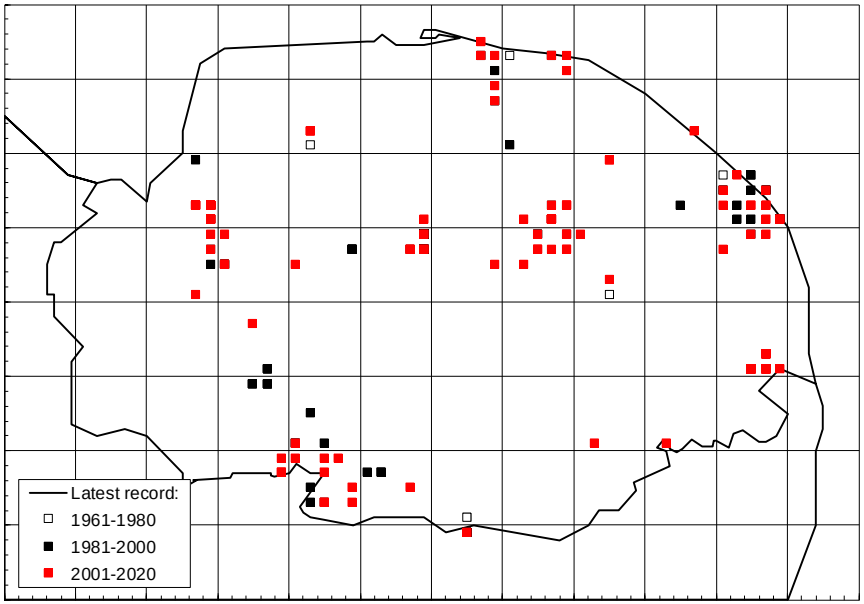
Adder

Vipera berus

The Adder is the smaller of the two snakes occurring in Norfolk, adults averaging 45-55 cm in length. They have a fairly heavy body with a prominent zigzag stripe along the middle of the back. The pupil is a vertical slit (like a cat's) whereas the Grass Snake has a round pupil.

Males emerge from hibernation in mid-March, females 2-3 weeks later. They bask in warm sunshine and at this time of year it is not unusual to see small groups curled up together. Adults shed their skin several times in the year and return to hibernation in October.

Hans Watson



Adders occupy a wide variety of habitats in Norfolk, particularly coastal dunes, sandy heaths, rough commons, the edges of woods and copses, and sunny forest glades.

These preferences are clearly reflected in the distribution map opposite, which shows them in the Thetford Forest area, West Norfolk commons, central Norfolk heaths and the coastal dunes of the north and east coasts.

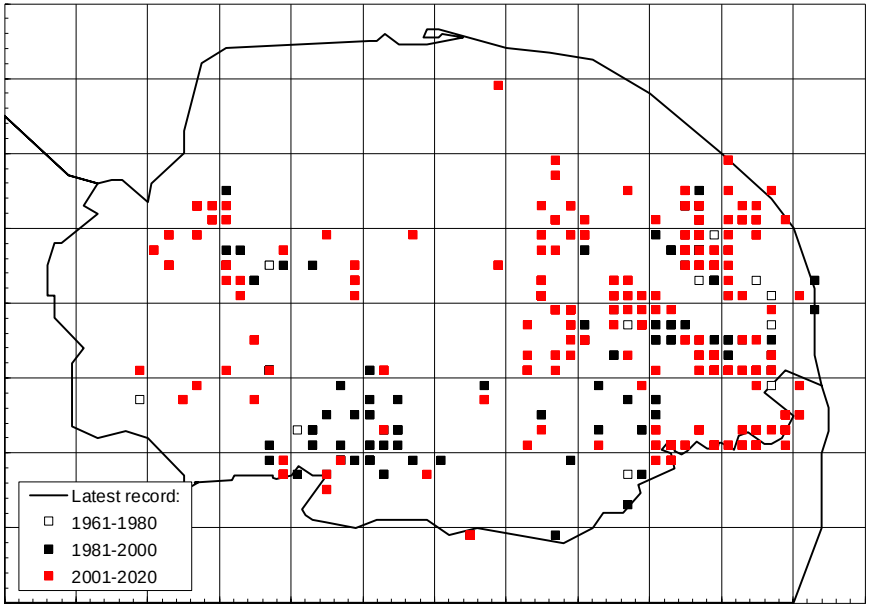
Grass Snake

Natrix helvetica

The Grass Snake is the larger of the two snakes occurring in Norfolk, typically up to 90 cm long. It is olive-green, olive-brown or olive-grey on its upper side, with a distinctive yellow collar. The throat is white or pale yellow.

Unlike the other reptiles in Norfolk, the Grass Snake lays eggs, usually in manure heaps, compost or piles of sawdust where the warmth generated by decomposition will incubate the eggs which hatch in August or September.

David Richmond



It is a species of damp meadows, marshes, stream banks, ponds, ditches and lakes. It swims well with sinuous body movements and usually with its head held above the water surface. It is a predator of frogs and toads taking them on land or in the water.

It is at risk from habitat loss to agriculture, successionary woodland, urban development and gravel extraction.

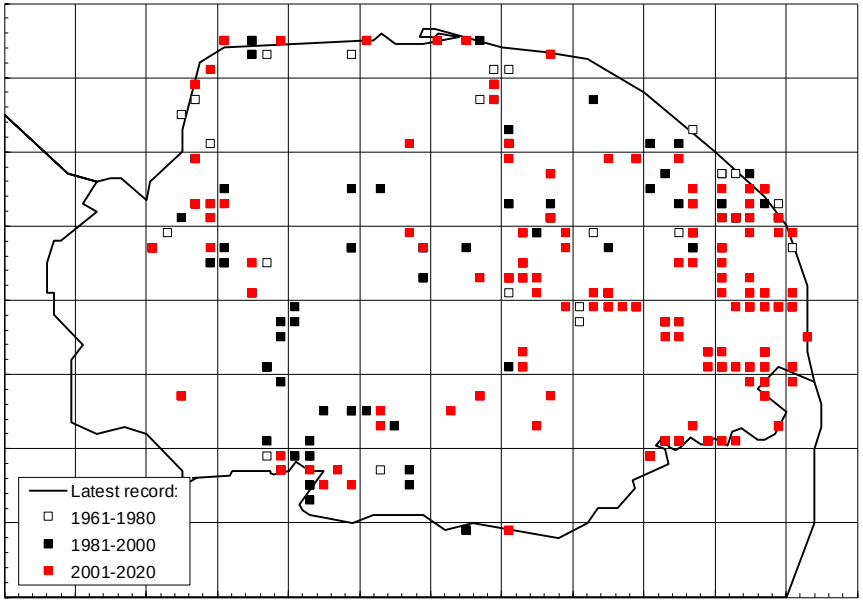
Common Lizard

Zootoca vivipara

Common Lizard is widespread in open places throughout the whole of Gt Britain and Ireland. It is therefore well within its geographical range in Norfolk. Adults range from 140-180 mm in length, half of which is tail. Females retain the developing eggs within their body until they are due to hatch, the young lizards breaking free from the membranous eggs immediately they are laid.

It is active from April to early October, and will readily bask in the sun to achieve its preferred body temperature of about 30°C.

Alan Dixon



It is widely distributed across Norfolk in both dry and damp habitats, and occupies coastal dunes, commons, heaths, meadows, bogs, grassy banks, woodland borders, forest clearings and sunny glades.

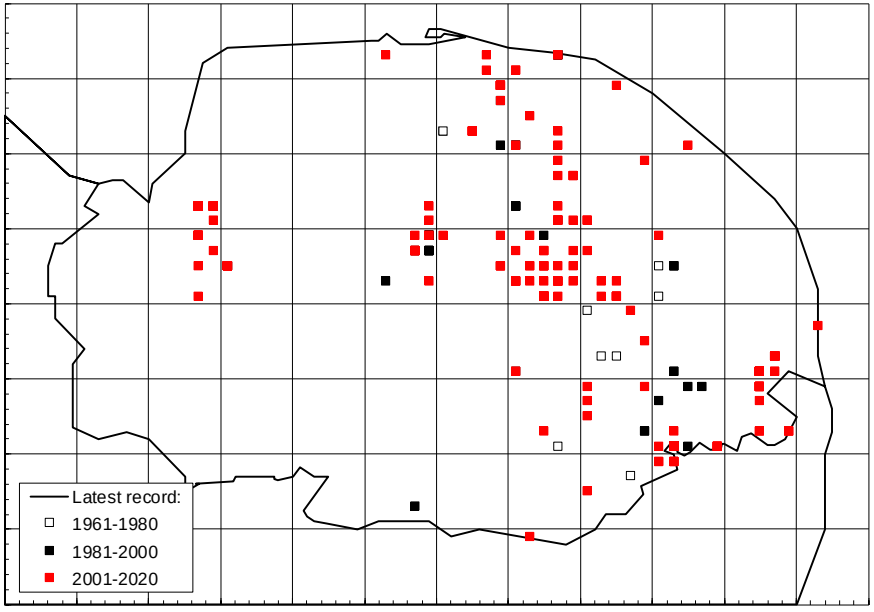
Look for it basking on logs, tree stumps, south-facing banks and nature reserve boardwalks.

Slow-worm

Anguis fragilis

The Slow-worm is a lizard. Unlike a snake it has eyelids and can close its eyes, and has a broad flat tongue rather than the flickering forked tongue of a snake. It is present throughout England, Wales and Scotland but absent from Ireland. As with Common Lizard, the young hatch from their membranous egg as soon as they are laid, being about 75 mm long at birth. They take about three years to mature and can reach up to 180 mm in length. Adults vary in colour from greyish to coppery-brown, the males being more uniform in colour than females.

David Richmond



The Slow-worm is present on the Holt-Cromer ridge and throughout the “ancient countryside” of central and south-east Norfolk, typified by ancient hedgerows and small copses. In the west of the county it occurs on the heathlands and sand deposits south and east of King’s Lynn. It avoids low-lying areas subject to flooding so is absent from the Broads and Fens.

Typical habitats include churchyards and garden compost heaps, where it can burrow underground. It feeds on slugs, insects and spiders.

Common Frog

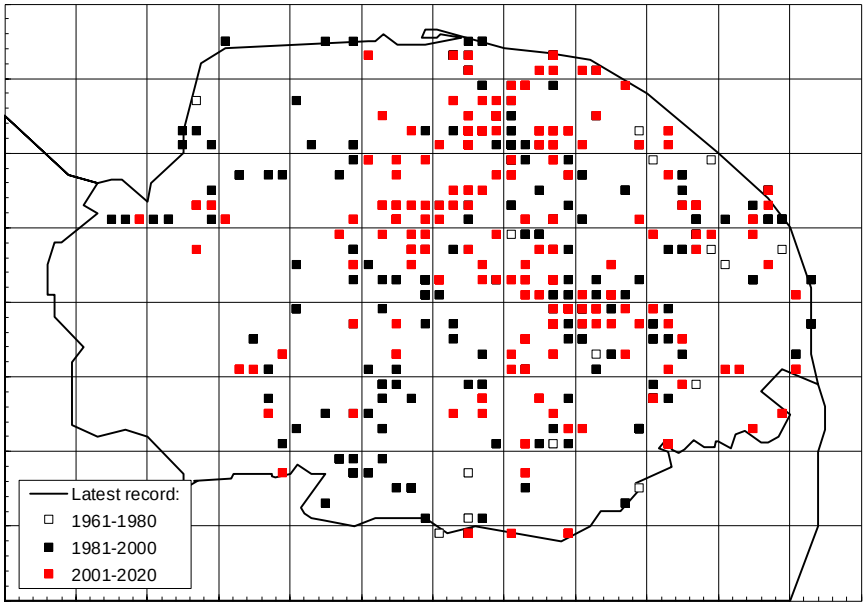
Rana temporaria

Common Frogs live on land in damp places for much of the year, returning to breeding pools in February and March. Spawn is laid in clumps.

Note the dark patch behind the eye, the fold of skin passing from the snout, over the eye and along the length of the body on each side. The eye pupil is round. Body colour can vary from dark greenish-grey to yellowish-brown.

Frogs move by hopping or leaping, unlike toads which walk.

Hans Watson



Widespread across Norfolk in damp places and lush pastures and a common denizen of garden ponds.

Threats are the loss of former grazing marshes to arable farming, the lowering of the water table by drainage causing ditches and ponds to become dry for much of the year and changes in the water chemistry from pollutants.

Pool Frog

Pelophylax lessonae

The Pool Frog has been known in Norfolk since at least 1853, when specimens were collected from the Thompson/Stow Bedon area and deposited at Norwich Castle Museum. The population was still present 120 years later with counts of about forty adults on NWT Thompson Common, but by 1995 the population had become extinct in the wild with the last individual surviving in captivity until 1999.

Genetic research and analysis of sound recordings suggested that the Norfolk Pool frogs were related to North European races (rather than central European races), which together with the discovery of Pool Frog bones at Saxon archaeological sites, pointed to a natural origin of the Norfolk population rather than an introduction by Victorian collectors.

In consequence a decision was taken to attempt a reintroduction programme in the early 21st century using Swedish stock released to a confidential site with subsequent successful translocations back to Thompson Common where they have been calling and breeding since 2017.

Paul Banham

References:

Baker J, 2020 in Norfolk's Wonderful 150, *NNNS Occasional Publication* **18**, 40

Buckley J, 1986, Water Frogs in Norfolk, *NNNS Transactions* **27**(8), 199-211 (download from www.nnns.org.uk/publications)

Elder C, 2015, Few and Far Between, *Bloomsbury*, 174-8

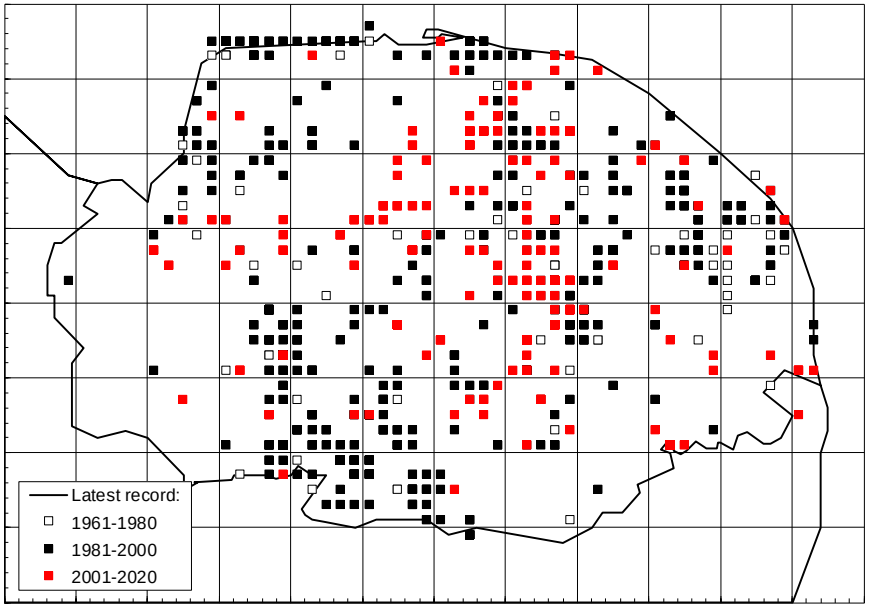
Common Toad

Bufo bufo

The Common Toad has a dry warty skin which is tougher and thicker than that of the Common Frog. They are adapted to life in drier habitats than the frog. Movement is by crawling rather than hopping, though they may hop for short distances in a rather laboured way when alarmed. The pupil is horizontal and the iris a coppery red colour.

Common Toads spawn later in the year than frogs, assembling in great numbers at breeding pools and becoming frequent road traffic casualties on roads nearby. The eggs are laid in long strings.

David Richmond



Widespread across Norfolk though seemingly absent from the Fens. Often present in gardens though rarely breeding there.

Threats are the loss of breeding pools and losses to road traffic, though this can be alleviated by the provision of toad tunnels when new roads are constructed.

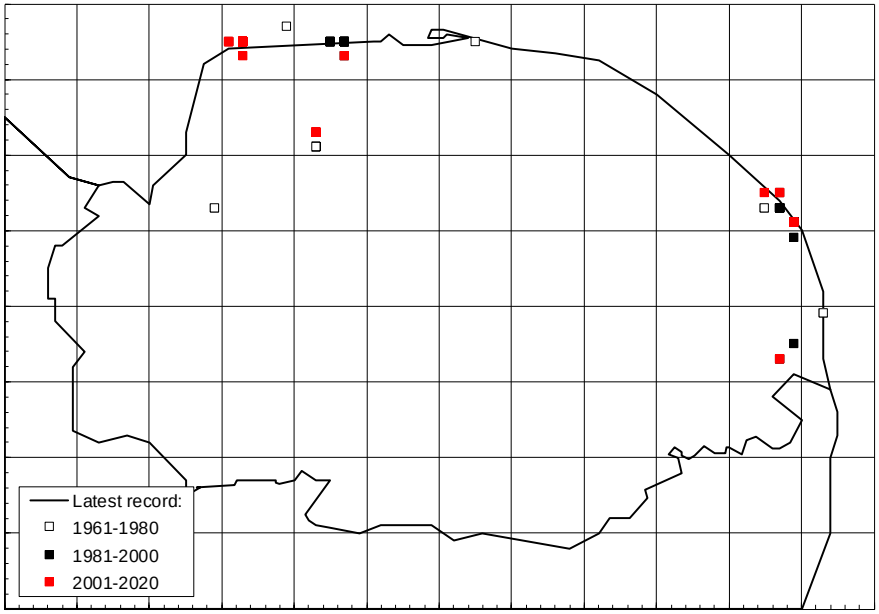
Natterjack Toad

Epidalea calamita

This nationally rare species has very exacting habitat requirements, needing shallower breeding pools than the larger Common Toad. The yellow stripe down the back is diagnostic. It has relatively short hind limbs facilitating the running gait that is characteristic of the species.

Natterjacks prefer to live at a higher temperature than Common Toads. It is at the edge of its range in Gt Britain and is always found on sandy soil with the associated communities of lowland heath or coastal sand dunes.

Hans Watson



Buckley (1985) listed 27 sites where Natterjack was found in the late 19th and early-mid 20th century, but it is now known from only four main sites in Norfolk, all on nature reserves. These are Holme, Holkham NNR, Winterton NNR and Syderstone Common.

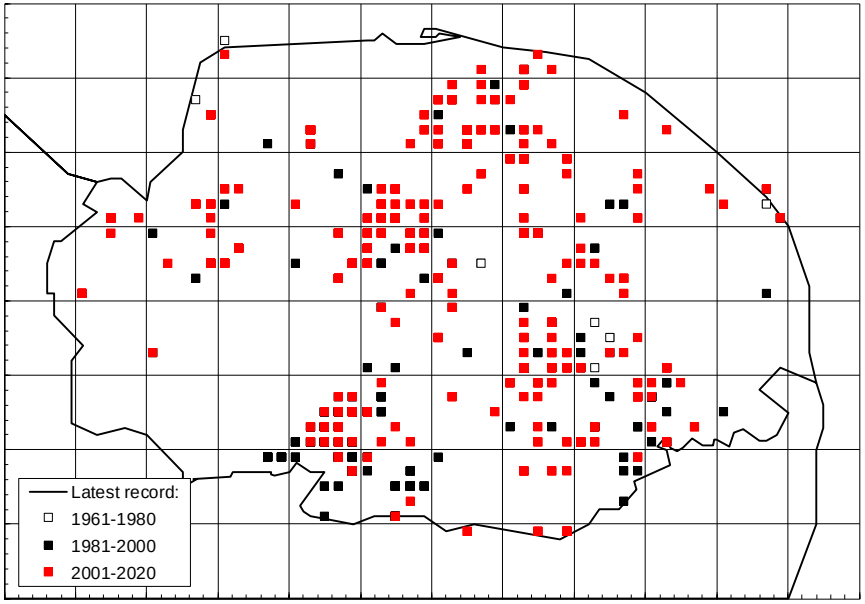
Natterjack Toad is given special protection under the Wildlife and Countryside Act, and it is illegal to disturb them or damage, destroy or obstruct a place where they are sheltering.

Great-crested Newt

Triterus cristatus

The Great-crested, or Warty Newt, is the largest British newt reaching up to 150mm in length. In the breeding season the males develop a high dorsal crest, with a characteristic notch above the base of the tail. The crest is strongly indented over the head and body and smoother over the tail. There is a characteristic silvery-white stripe running along the tail. The belly is yellow or orange, blotched with black. Newts depend on water for breeding but may range widely between seasons. Hibernation sites are usually on land but some may overwinter in water.

Alan Dixon – photographed under licence



Widely distributed across Norfolk, though seemingly absent from the Broads and the Fens. It is a protected species with an uncanny knack of being discovered in pools on developments sites, leading to translocations or mitigation measures.

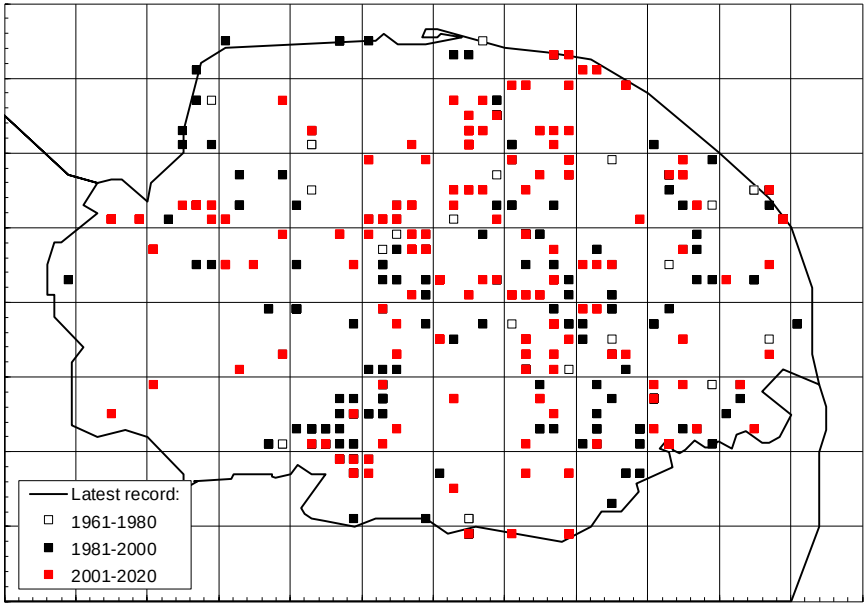
Other threats include changes in land use from grazing to arable and the general loss of ponds in the wider countryside. It rarely uses garden ponds because of their generally small size.

Smooth Newt

Lissotriton vulgaris

The Smooth Newt is the most widespread British Newt. In the breeding season males develop crests which run continuously from head to tail without the notch so characteristic of Great-crested Newt. Outside the breeding season they can be found on land in woodland or lush pasture, or shady parts of gardens. Look for the smooth, soft skin and flattened tail to distinguish them from lizards whose skin is covered in a pattern of scales and whose tail is rounder.

Alan Dixon



Widely distributed across Norfolk and regularly found in garden ponds, where they can become the top predator eating tadpoles and dragonfly nymphs.

In the wider countryside they are threatened by habitat loss and changes in farming practice including the removal of hedgerows and filling in of ponds or old marl pits.

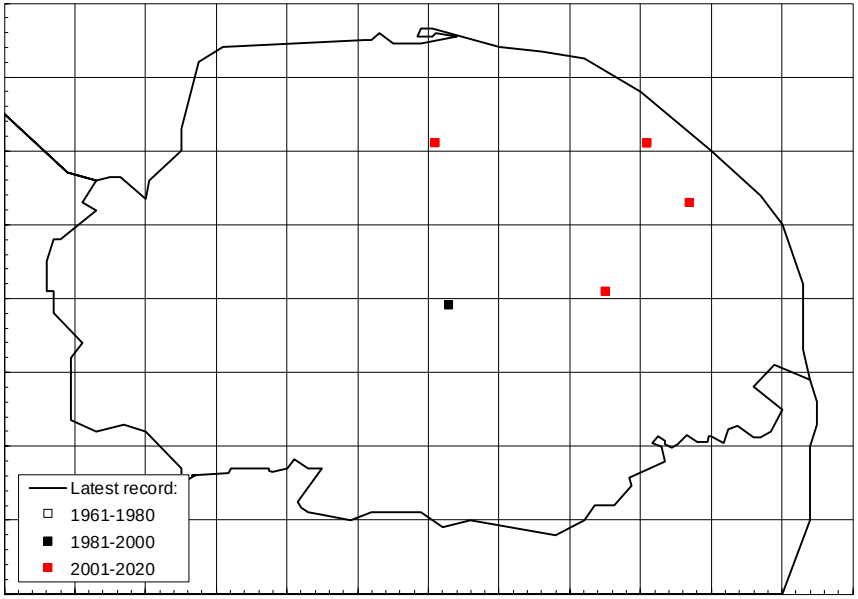
Palmate Newt

Lissotriton helveticus

The smallest British newt, only about 75mm long - but beware of confusion with immature Smooth Newt. Breeding males have webbed hind feet, hence the name, and a low, smooth crest which is most noticeable along the tail which ends in a spiny filament. The belly is pale-straw to mid-orange in colour, with very few spots.

Its status in Norfolk is uncertain and more research is required.

David Richmond



In the early 20th century, Ted Ellis reported this species from Herringfleet, Burgh Castle and Brumstead. Buckley reported it from Calthorpe Broad in 1967 but was unable to confirm it on subsequent visits. The most recently confirmed records are from Swanton Novers Great Wood (where it has been known since the early 20th century) and from Bacton Wood.

Checklist of Norfolk Reptiles and Amphibians

Print out this page to record your sightings of Norfolk Reptiles and Amphibians.

Reptiles	Where	When
Adder		
Grass Snake		
Common Lizard		
Slow-worm		

Amphibians	Where	When
Common Frog		
Pool Frog		
Common Toad		
Natterjack Toad		
Great-crested Newt		
Smooth Newt		
Palmate Newt		

Detailed records of reptiles and amphibians seen in Norfolk may be sent to the Norfolk Biodiversity Information Service:

www.nbis.org.uk

The most important pieces of information to include in any record are:

- **Species name**
- **Site name**
- **Grid reference**
- **Notes on the sighting *(eg number of individuals, habitat)***
- **Date**
- **Observer contact details**