Reptile Atlas
of North-East England.
2016

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Introduction to the atlas, credits, conventions.

This is the fourth edition of the Atlas in this format, replacing the earlier editions of 2008. 2010 and 2013.

The species covered are the four native reptile species found in this region of England; Grass Snake, Adder, Slowworm and Common or Viviparous Lizard. Sand Lizard has been introduced several times in the past, to the Northumberland and Teesmouth dunes, but appears not to survive. Sea Turtles netted offshore are covered.
"Escapes" of more exotic species are regularly recorded, mainly Red-eared Terrapins. Escaped or released snakes include Dice Snakes, Tessellated Snakes, King Snakes, Indian Pythons and out-of-place Adders. The exotics are sometimes reported as native species, usually as Grass Snakes.

The area covered is North-East England, the modern counties of Northumberland, Tyne and Wear, Durham and Tees Valley, plus the part of North Yorkshire adjacent to Tees Valley. The data is sparser in north Northumberland, Teesdale south of the Tees and in Yorkshire.

The records.
All available records, about 2700, have been considered and compiled, from "Recorder", from "The Record Pool", from the Durham BAP 2005 survey and from many individuals' records. Keith Cunningham has processed much of the data that is held on Recorder. The North Pennines AONB Partnership's Wildwatch Project has contributed many records from previously less recorded areas. A large number of people have recorded the North-east's reptiles, the most prolific recorder being Gordon Simpson.

The text and compilation
The records were compiled and the text written by John Durkin.

The artwork
The reptile line drawings reproduced here were drawn by the late Dave Green in the 1980s for a survey of the County's reptiles organised by the North East Reptile and Amphibian Group. Coloured artwork is from out-of-copyright publications, 1850 to 1950, via Archive.org.

The photographs
The photographs were kindly supplied by Terry Coult, Stuart Priestley, John Grundy and Philip Roxby. The cover photograph is by Philip Roxby.

The maps

The maps were drawn using DMAP, from data compiled on Mapmate. Tees Valley/North Yorkshire and County Durham distributions appear on separate close up maps.

The records are mapped as two kilometre squares centred on the grid reference- note that these are not “tetrads”, as in the earlier editions of this Atlas. Records since 2000 are in dark green, 1950 to 1999 in light green and earlier records in yellow. Main areas of distribution were indicated by coloured polygons in earlier editions, but the amount of data in this edition makes this unnecessary.

Where records are doubtful or very old, this is indicated in the text, and a triangle is used for the map symbol.

Photos John Grundy

Conservation

This Atlas is intended as an aid to the conservation of our reptiles. Some are particularly vulnerable to changes in land use, especially the Grass Snakes at Gibside and at Fontburn and the coastal populations of Slowworms and Common Lizards.

Survey tips

Reptiles are easily disturbed, and are one of hardest vertebrate groups to survey. It's best to start by accompanying someone more experienced. You should also-

- Familiarise yourself with the appearance of the local species, especially their sizes.

- Familiarise yourself with their habitats.

- After you have been out with your expert, go quietly and alone. If you are in a small group, split up and cover a section of the habitat alone. No talking, mobile phone switched off, no clothing that rustles, no keys that jangle. Walk where you don't move heather or brambles as you step forward.

- Go first to a well known site where each species is easiest to find.

- Avoid other ways of disturbing wildlife- keep your shadow behind you, don't wear aftershave or perfume. Try to keep off the skyline, as viewed from the ground level.

- Avoid sites that are regularly disturbed by other people. If you have to survey a popular site, try early on sunny mornings, or when the sun comes out after rain.

- Check the air temperature, and the temperature close to the ground. Reptiles are unlikely to be seen at low temperatures, or on very hot days, though the North east is rarely too hot for reptile survey. Adders are exceptional- early in the year they can sometimes be seen around hibernation sites on sunny days with very low temperatures.

- Reptiles in our region are scarcer than they are further south, and their habitats are sometimes different. Bear this in mind. You are, for example, not likely to find Grass Snakes or Slowworms in a domestic garden in North East England.

- Have a look on the internet sites for general advice.

Planning and Development Searches

Planning applications for changes in land use such as wind turbines or open cast mining within the coloured polygons which indicate the main distribution areas should include a suitable reptile survey, assessment and mitigation.

Outside of the coloured areas, reptiles are less likely to occur, but should be surveyed for if there is suitable habitat.

Suitable habitat in North East England includes disused quarries and railways; heathland; rough grassland; coastal habitats such as cliffs and sand dunes; scrub and open woodland; archaeological features such as dry stone walls and buildings such as Hadrian's Wall and Finchale Abbey; and, in the case of Grass Snakes, ponds and riverbanks.

Use

Use of this atlas for research, conservation or planning purposes is welcomed. The source should be acknowledged.

New records are welcome, and can be sent direct to me, at jldurkin@aol.com or to the Record pool, NBN Consultants, or the regional record centre, ERIC.

North East Amphibian and Reptile Group

NERAG was set up in the Autumn of 2007 by members of staff from the EYE project based at the Hancock museum in Newcastle upon Tyne and several other people with a passion for herpetofauna.

The aim of the group is to identify and record existing and new populations of herpetofauna throughout the North East of England. These records will hopefully be accessible to those with an interest in wildlife management, habitat enrichment and conservation as well as developers and land owners.

NERAG is affiliated with ARG UK.

Members come from a variety of different backgrounds such as wildlife trusts, reserve wardens from local councils, herpetologists, ecologists and keen volunteers in the conservation world.

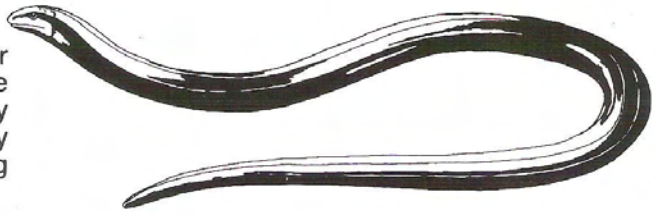
Indoor and outdoor meetings are regularly organised.

Contact by e mail at Nerag@yahoo.co.uk

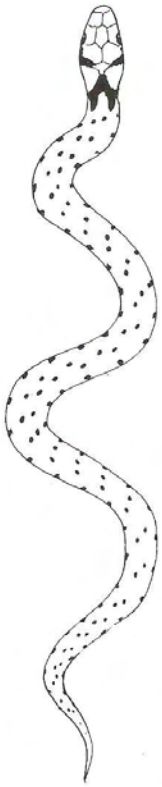
This Atlas is dedicated to Dave Green,
who pioneered the study of amphibian and reptile
distribution in North-east England

VIVIPAROUS LIZARD
Adults usually 10 to 15 cms in the North-East. Distinguish from Newts by scaly skin, hard claws, quick movements. Stripes may be absent. Males have orange belly in the summer.

SLOW WORM
Adults up to 50 cms Brown or Grey. Males may have small blue spots. Females and juveniles may have dark flanks. Juveniles may be silvery or gold above. Being Lizards, they have eyelids.



ADDER
Adults up to 65 cms. Almost always with **Dark Zig Zag along back.** Males off-white or light grey, females brown or light red-brown.

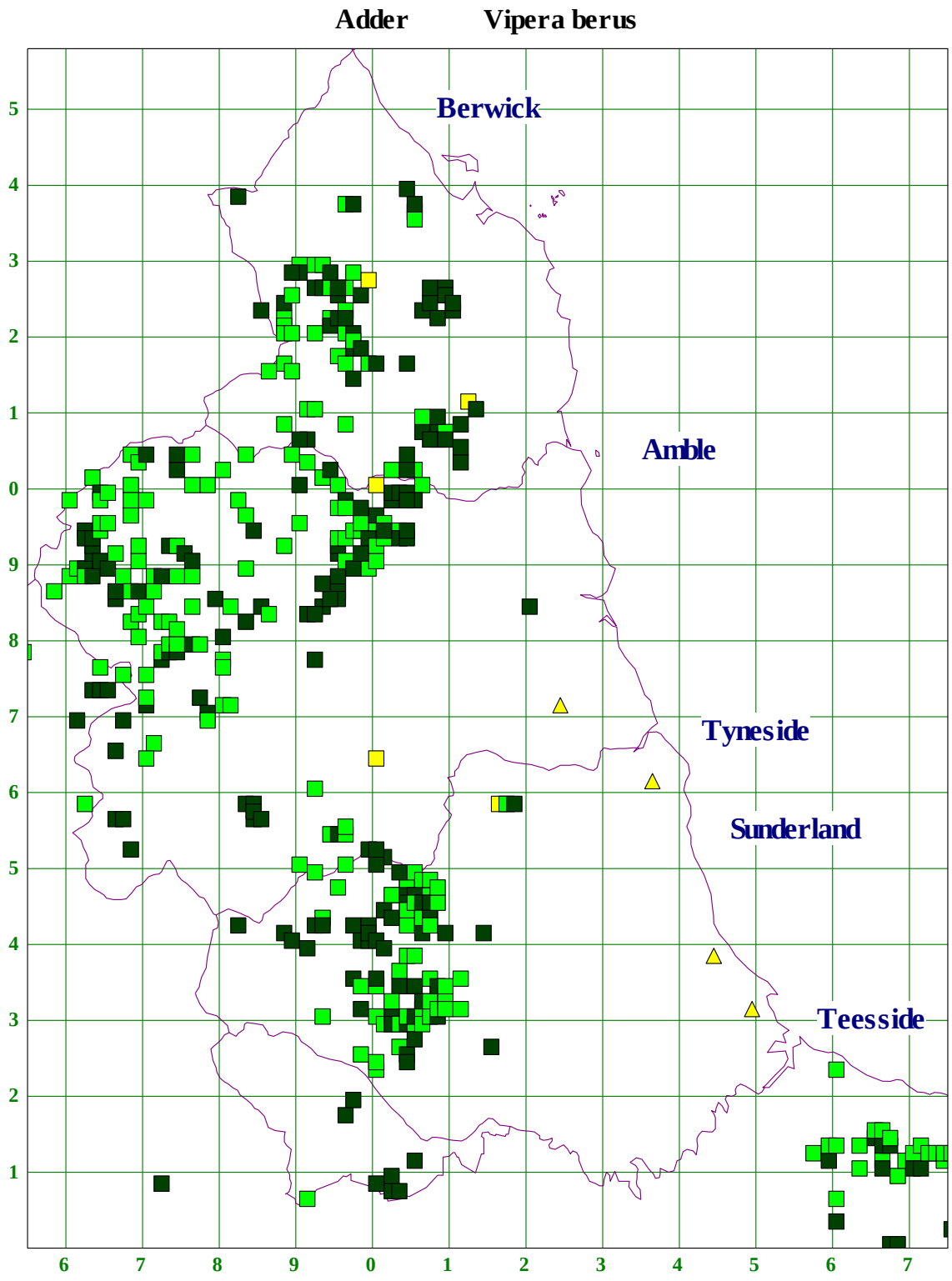


GRASS SNAKE
Our largest reptile. Adults up to 120 cm. Colour varies – often grey but sometimes grey-green or light brown. Dark spots on back and bars on flanks may be present. **Best key feature is yellow collar** with black border on neck. Our only egg laying reptile.

Adder, *Vipera berus*

Main areas of distribution are the Northumberland hills, the “Heart of Durham” between the Derwent and Tunstall Reservoirs, Hamsterley Forest and the North York Moors.

95% of records with dates are between 1st April and 4th September. There are two peaks, in the first sunny weather of the year, and later in the summer after young are born. There are a handful of very early records on sunny days.



Northumberland

The main distribution is in the uplands from Hadrian's Wall to the Kyloe Hills. There is a smaller area south of the Tyne Valley, in the Allendale and Devil's Water fells area. There is a very distinct north-east to south- west edge to their range in mid Northumberland.
The isolated record in NU11 is Lemmington Hall, with several records in the 1920s, and more recently in 2000.

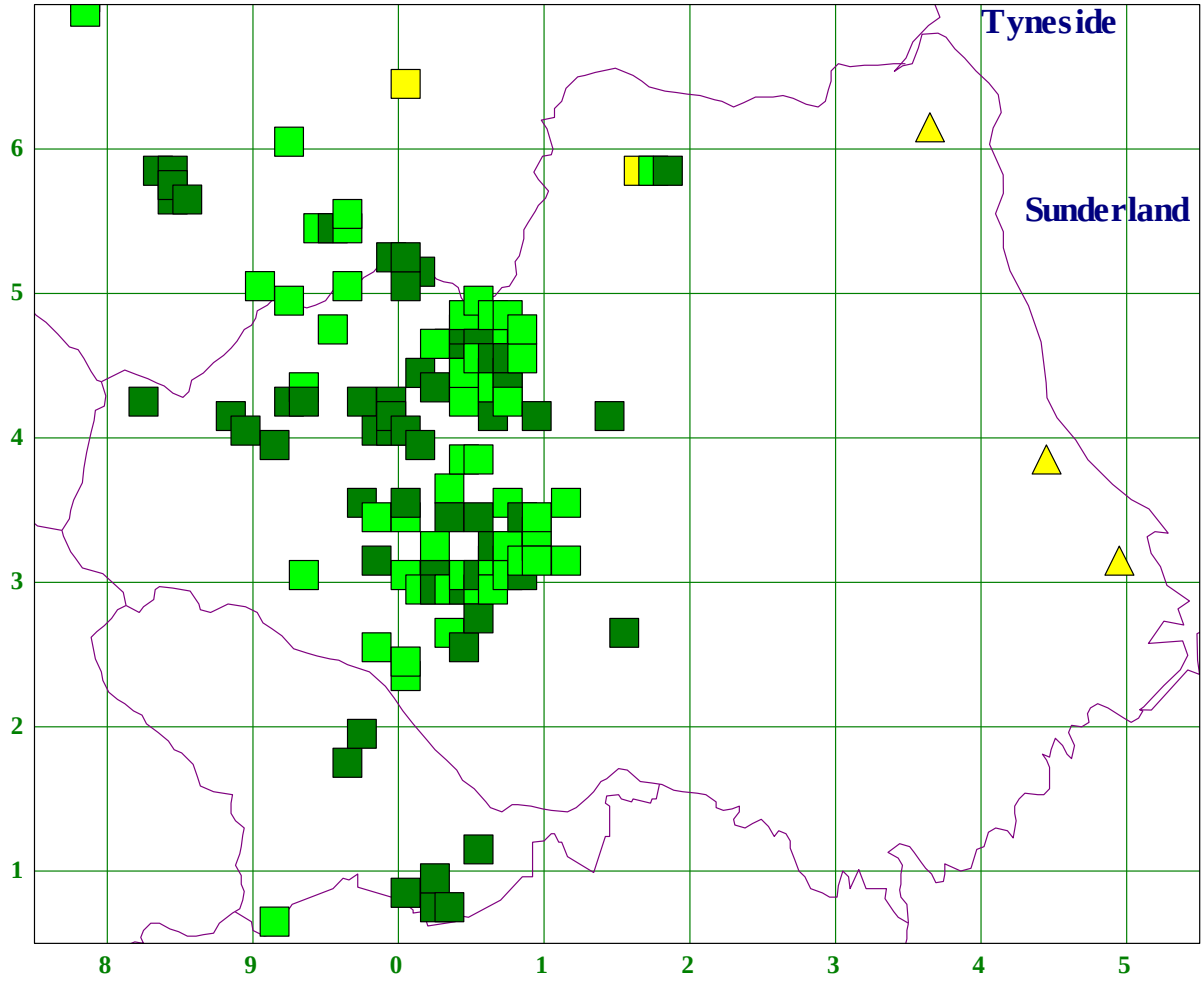
Durham

Adders are mainly found at mid-altitude moorland and afforested sites in County Durham, the general range indicated quite clearly by the map. The range probably extends into Lunedale and the Greta, where there are similar habitats but recording is much thinner. Hamsterley Forest provides the largest proportion of the records, over one third. The other main area is the heathland between the Derwent Reservoir and Tunstall Reservoir, now called the "Heart of Durham" by the Durham Wildlife Trust nature conservation project that has been surveying Adders and other wildlife here.

Most of these coloured-area dots represent multiple records.

There is a small isolated population lower down the Derwent valley, at Gibside, but no records from the apparently more suitable Chopwell Woods. Another isolated population has been recorded at Hedleyhope Fell, NZ14, just east of the main distribution and to the east of the A68. A recently discovered isolated occurrence is at Ramshaw, in NZ12. The three coastal records are almost certainly escapes from captivity.
West of the main distribution, there are no records from the upper dales and moors.

Adder



Tees Valley and North Yorkshire

Adders are well distributed on the North Yorkshire moors, with many records from the Wentworth, Lockwood and Scaling Dam Reservoirs. Most of these records are from Graham Skinner's work in the mid-1990s and more recent Northumbrian Water and Forestry Commission surveys. The North York Moors population is probably far more widespread than indicated by the map. The Hartlepool record is an escape from captivity. The isolated NZ62 record needs further investigation.

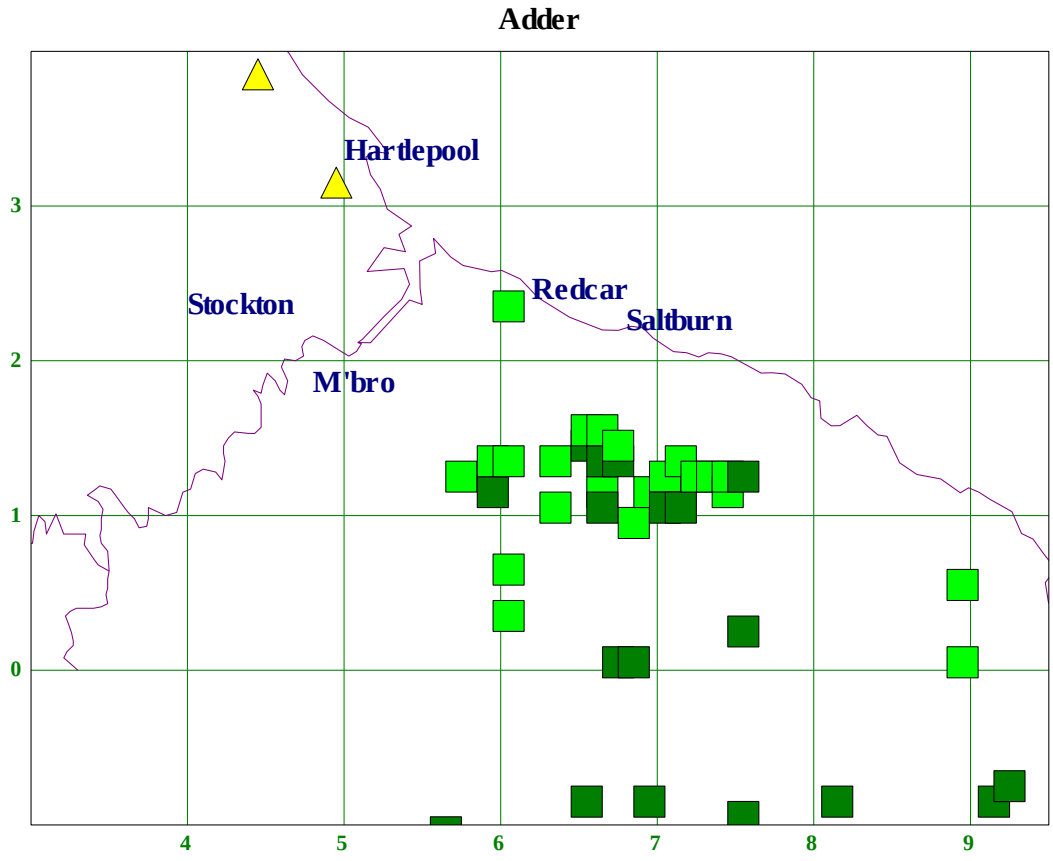
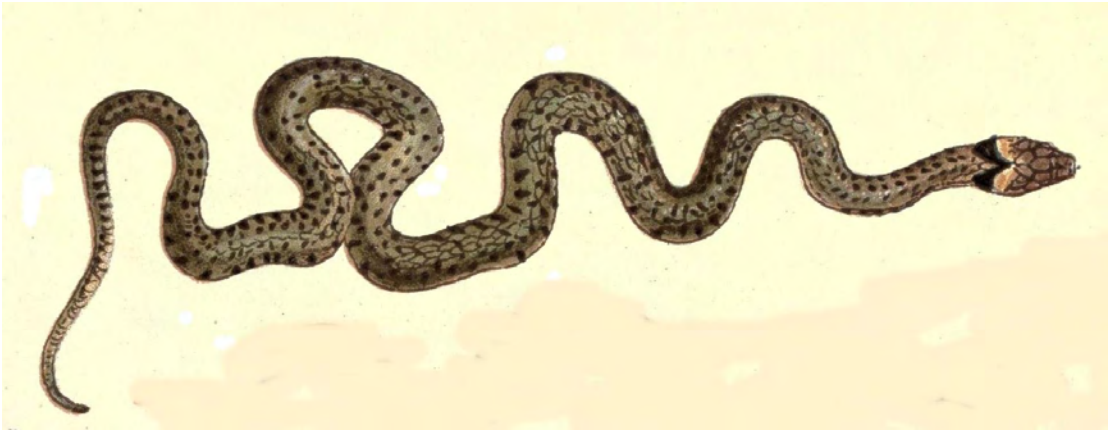


Photo by Stuart Priestley

Grass Snake, *Natrix natrix*



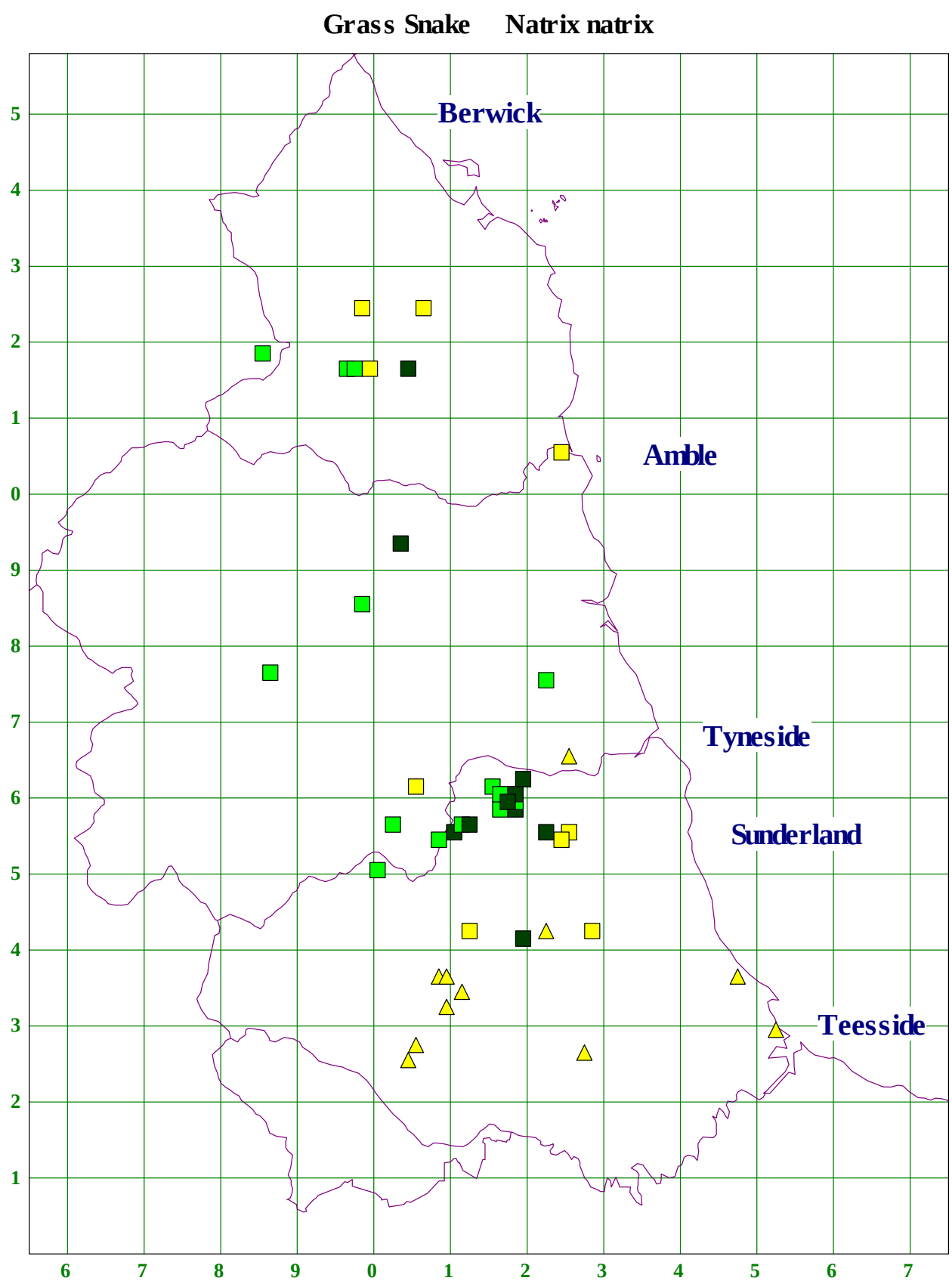
95% of dated records are between 15th May and15th September, the shortest season of our four reptile species.

Grass Snakes are the rarest of our four native reptiles, and the most in danger of extinction. Global warming doesn't seem to be helping, as the variable weather with floods, wet summers and cold, late springs is perhaps more detrimental than the warmer weather is beneficial. The land owners at Fontburn and Gibside are aware of their Grass Snake populations. At both of these sites, there are a variety of wetlands supporting strong amphibian populations.

No Grass Snakes have been confirmed recently in the region. There are plans to launch a re-survey of all of the former sites in an effort to see if any remain.

Northumberland

There are two certain sites in Northumberland, at Fontburn Reservoir and in the Derwent Valley. The Northumberland Derwent Valley records are part of the population based mainly on the Durham/Gateshead side of the river. There are a number of old records from the Wooler area. The Warkworth record (NU20) is a very old one, and the Brenkley (NZ27) record may have been an escaped exotic species.
The split distribution of records is reminiscent of the map for Slowworm.


Grass Snake Natrix natrix
Berwick
Amble
Tyneside
Sunderland
Teesside
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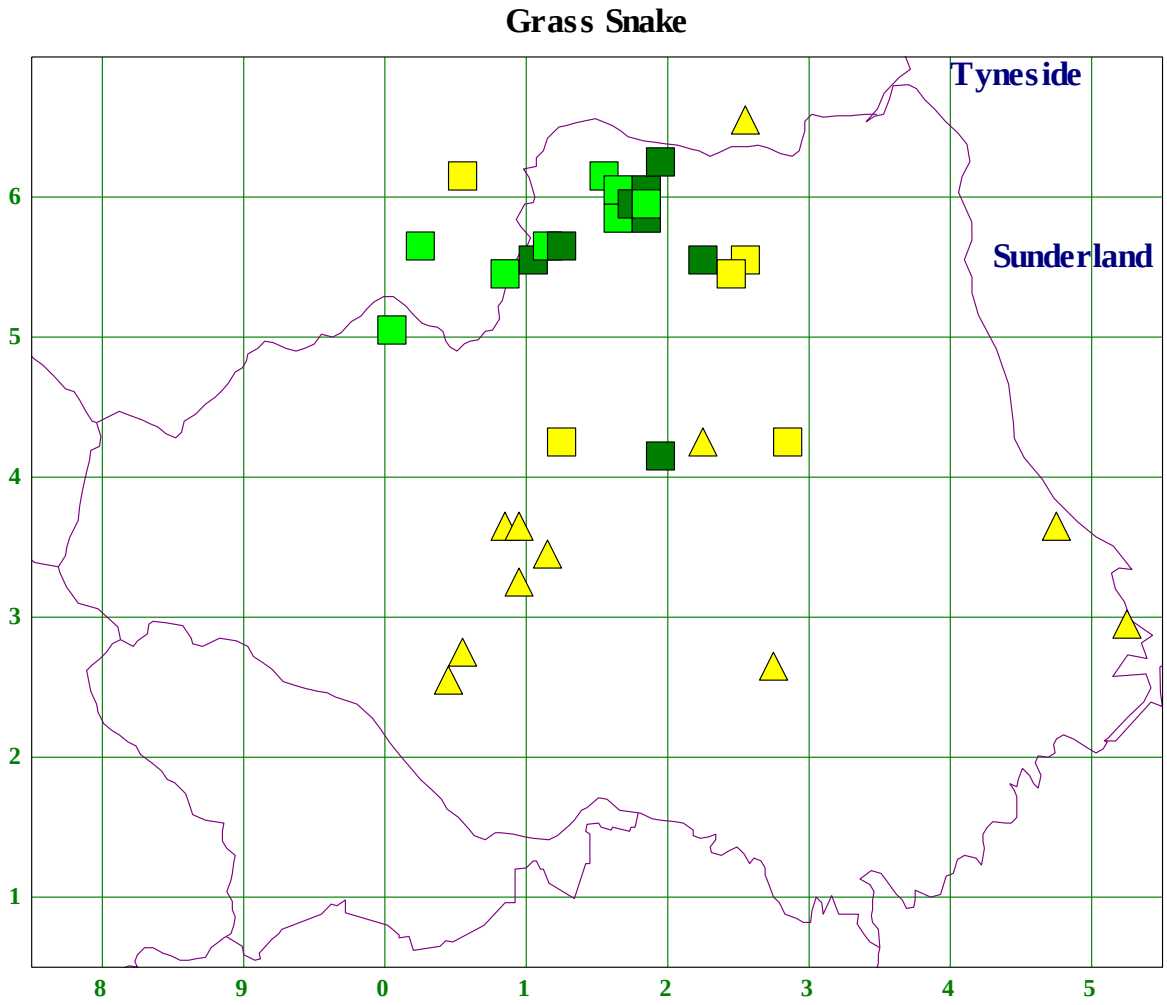
Durham

Grass Snakes are our rarest reptiles, at the northernmost edge of their British distribution. The main population, with two thirds of the records, is in the lower Derwent Valley, centred on the Gibside Estate, now owned by the National Trust. This population is found on both banks of the Derwent, from Shibdon Pond SSSI to Blackhall Mill. There is a nearby or possibly continuous area of distribution at Beamish in the Team Valley.

Recent records from the Wear Valley, indicated on the map, are currently being investigated. The other, isolated triangles on the map are mainly escapes, old records or doubtful records.

In recent years, visitor numbers at Gibside have increased enormously, and this is causing severe disturbance to Grass Snake feeding and basking areas. There have been two SITA Trust funded conservation projects operating to improve habitat conditions for the Derwent Valley populations. These have improved Grass Snake habitats and created new habitats, but the population has not yet increased, and is now at a very low level.



Tees Valley and North Yorkshire

There is only two records, one from Thorpe Bulmer Dene in 1961and a recent record at Seaton Carew, indicated on the Durham map.. Both of these were confirmed as Grass Snakes. The Seaton record is from a large area of potentially suitable habitat, with many ponds and large areas of rough ground.

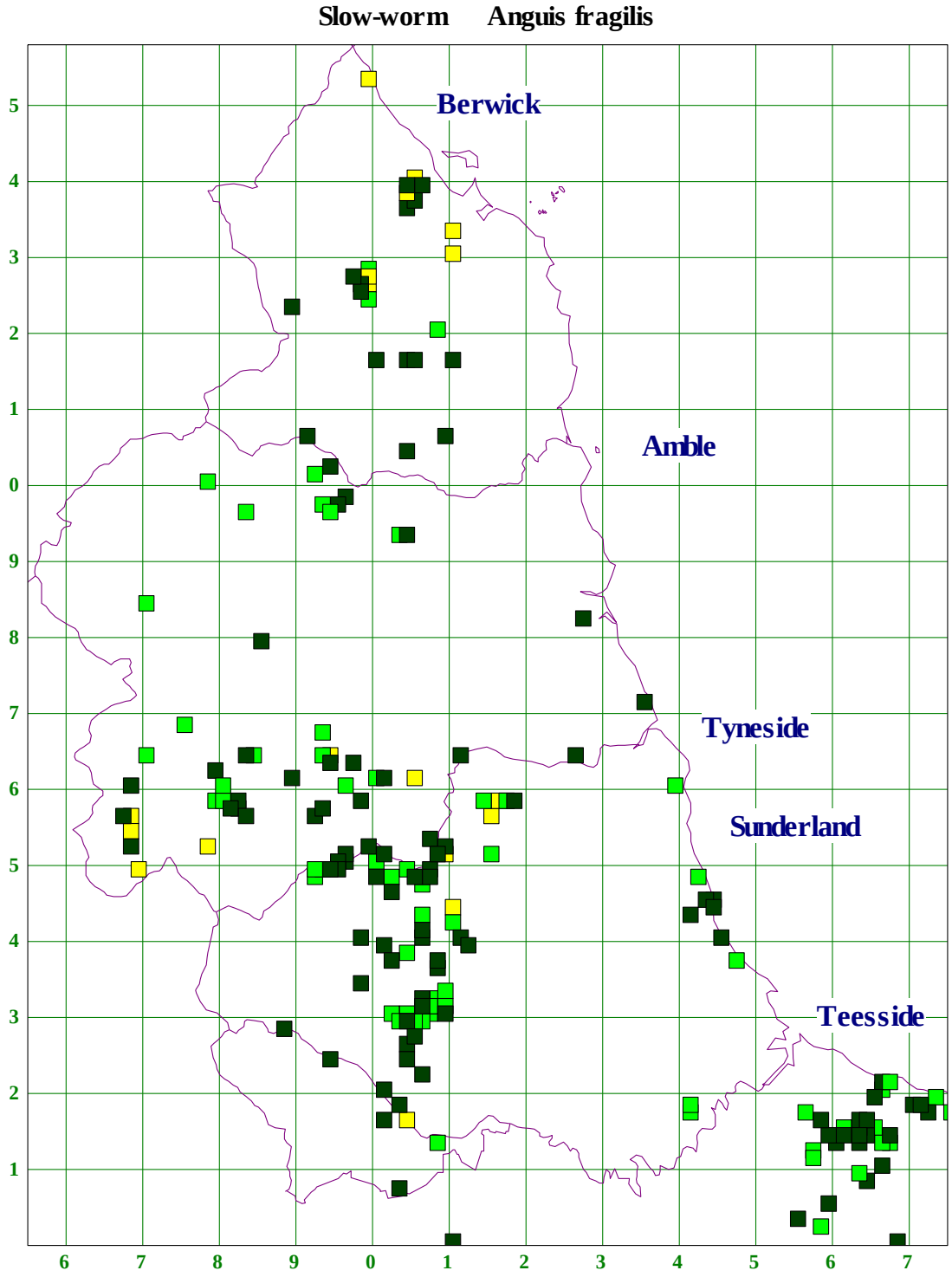
It is surprising that this southern species is so scarce in the south of the region.

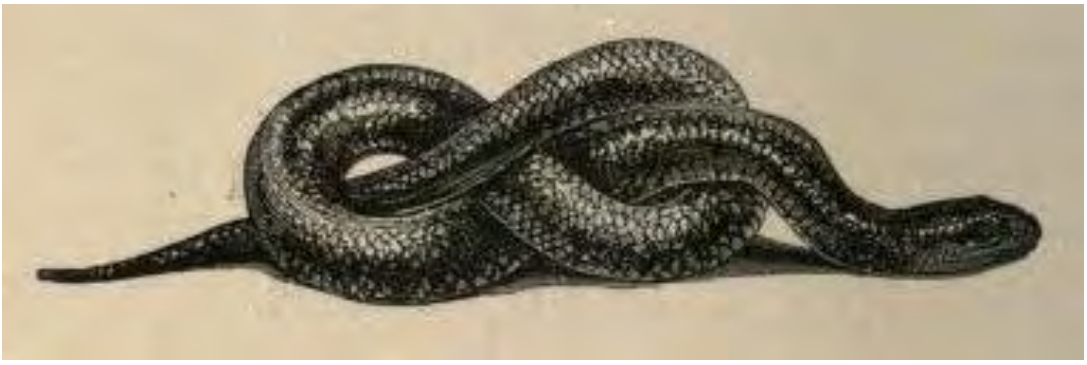
Photo by John Grundy

Photo by Terry Coult

Slowworm, *Anguis fragilis*

Slowworms are well distributed in the Pennines, North York Moors and in some, but not all, of the Northumberland Hills. There are also coastal cliff populations in County Durham and in Cleveland. 95% of dated records are between 15th April and 10th September.





Northumberland

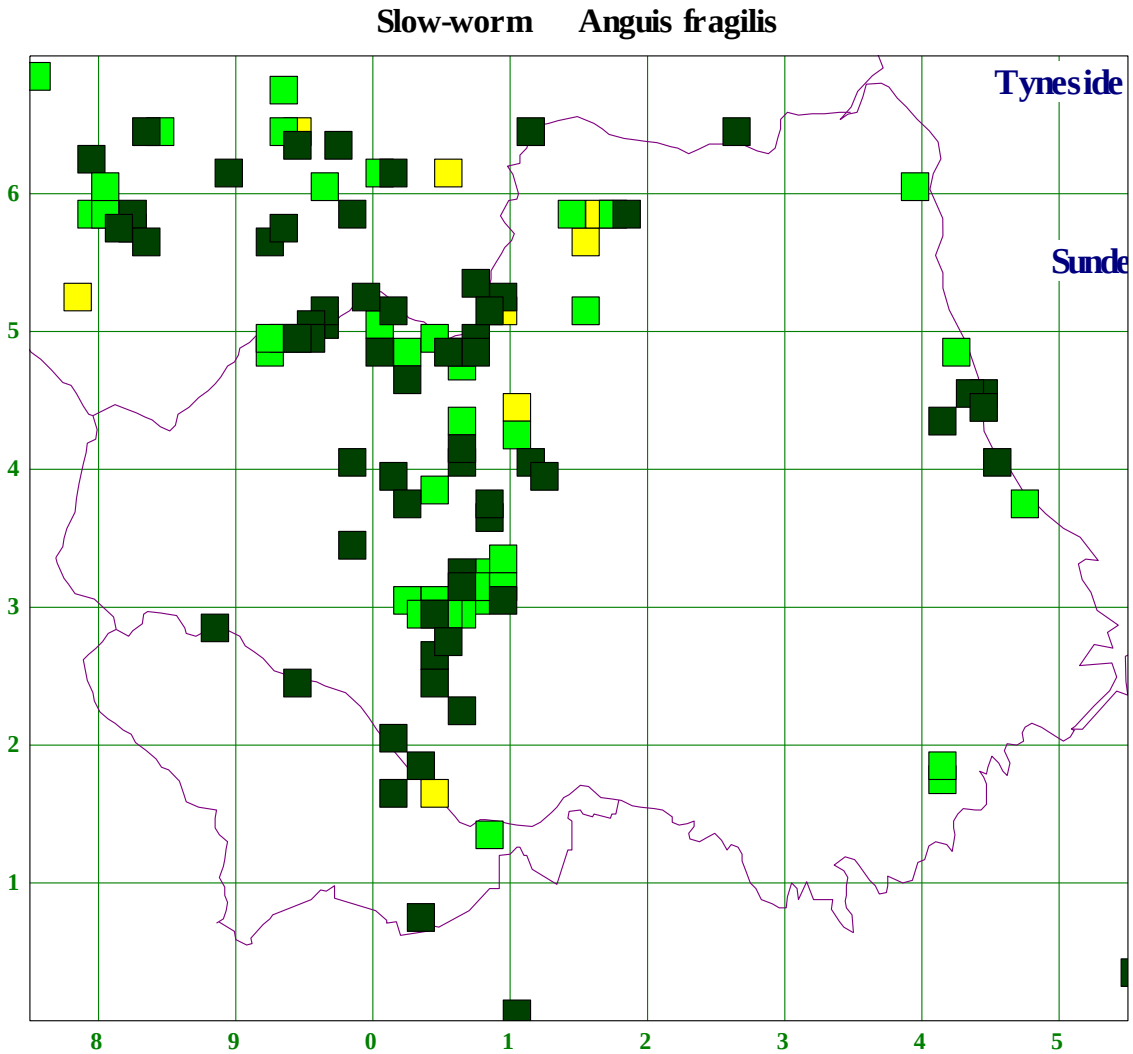
The main distribution is south of the Tyne Valley, with a curious gap with only sparse records north of the Tyne. There is then another cluster of records in the Kyloe Hills area. There are, for instance, no records from Kielder. There may be a coastal cliff population north of Berwick. Urban sites, based on brownfield and railway lines, have been recorded in North Tyneside and in Newcastle. This is a very scarce occurrence in our region.

Photo by Terry Coult

Durham

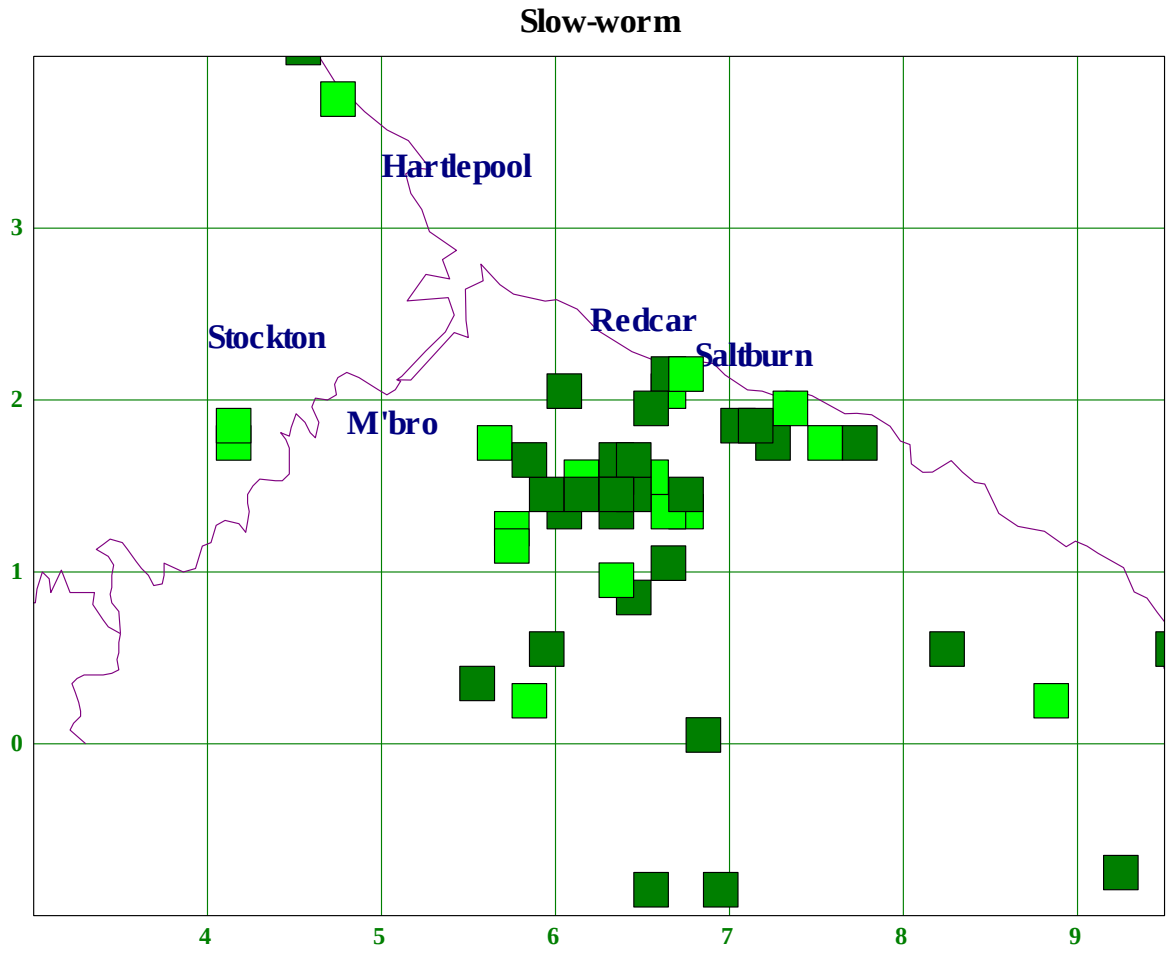
Slowworms have two areas of distribution in Durham, the main one at mid-altitude moorland and afforested sites in the west of the county, and a smaller area along the coast. The main distribution follows the river valleys towards the west of the county, but does not reach the highest moors. This area may extend into Lunedale and the Greta valley, where there are similar habitats but recording is much thinner. Hamsterley Forest has the largest proportion of the records, over one third. As with Adders, the other main area is the heathland between the Derwent Reservoir and Tunstall Reservoir, the “Heart of Durham”.

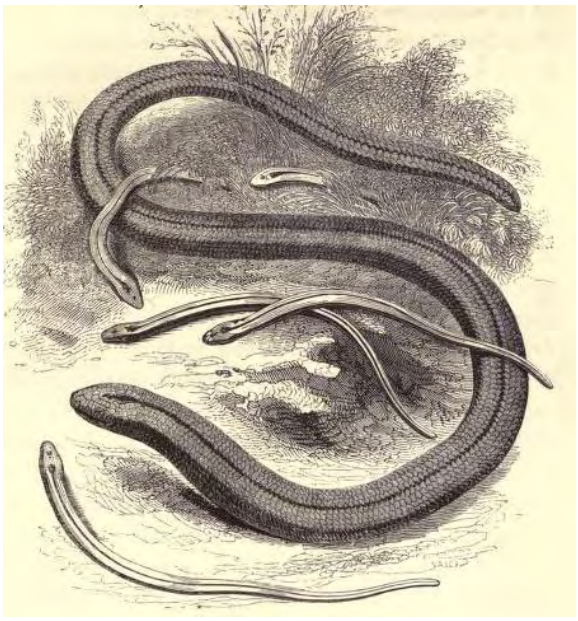
The coastal population is based around Hawthorn, Castle Eden and Crimdon denemouths, and is very vulnerable to fragmentation and extinction.



Tees Valley and North Yorkshire

There are two areas of distribution, in the north where the Durham coast population extends south to Crimdon Dene (a single dot on this map) and in the coastal and upland areas of Redcar and Cleveland. The North York Moors population is probably far more widespread than is indicated by the map. The NZ41 records may refer to a single escaped animal.

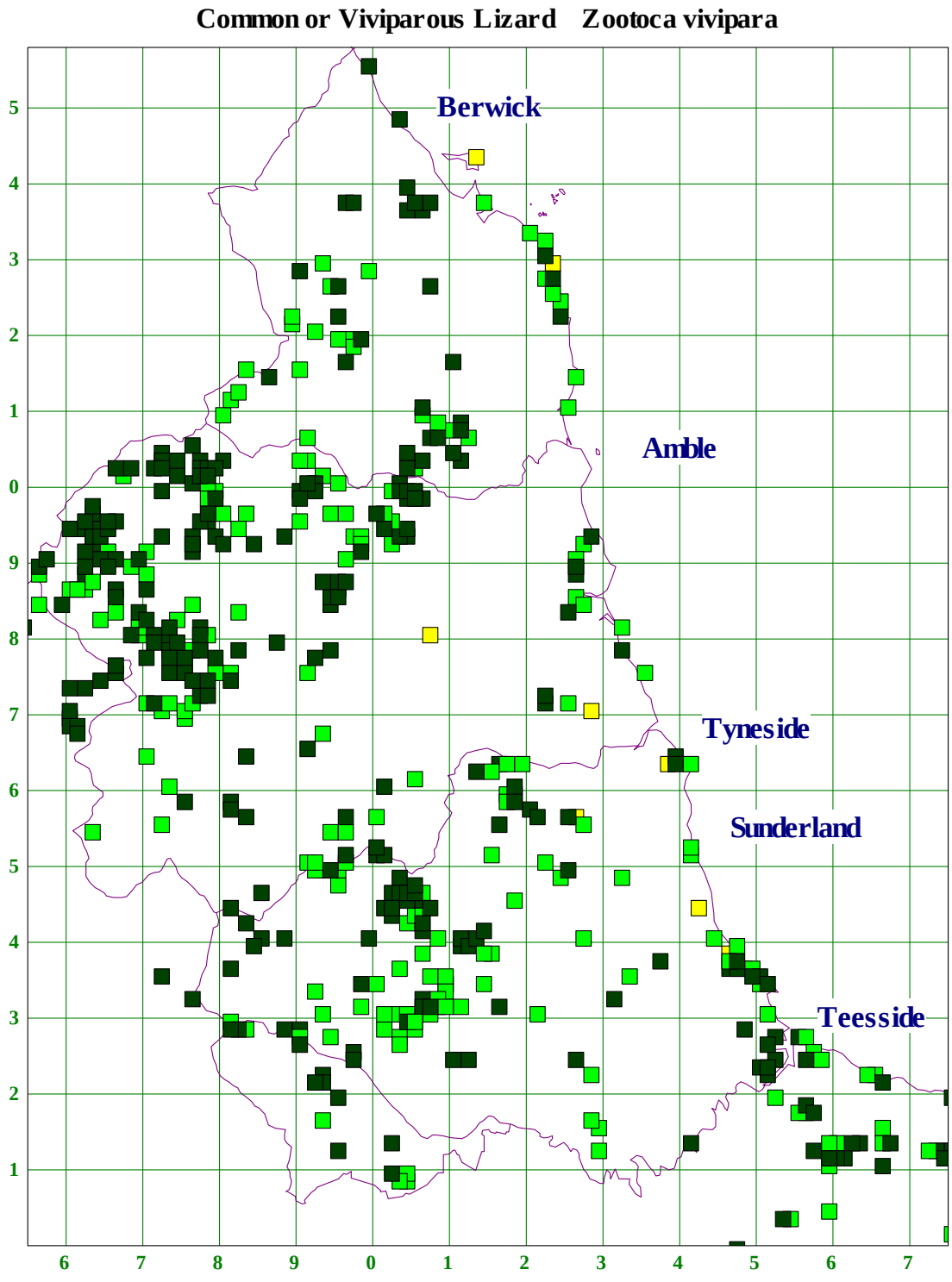




Common or Viviparous Lizard
Zootoca vivipara, formerly *Lacerta vivipara*

Our most widespread reptile, with Pennine and Northumberland hill records extending to higher altitudes than Adders and Slowworms. There are coastal populations, fragmented by the coastal towns, and a scatter of sites in the lowlands.

95% of dated records are between 1st April and 30th September, the longest season of our four reptile species.



Northumberland

The most widespread reptile in Northumberland. Unlike Slowworm, there are records in the North Tyne/Kielder and Simonside Hills areas. There are also a small number of lowland records, from disused railways and heathy areas, and, as in Durham, a coastal population. The coastal population may be much more continuous than is illustrated by the dots on the map. Some individuals on sand dune habitats here are quite green in colour and can be mistaken for Sand Lizards.

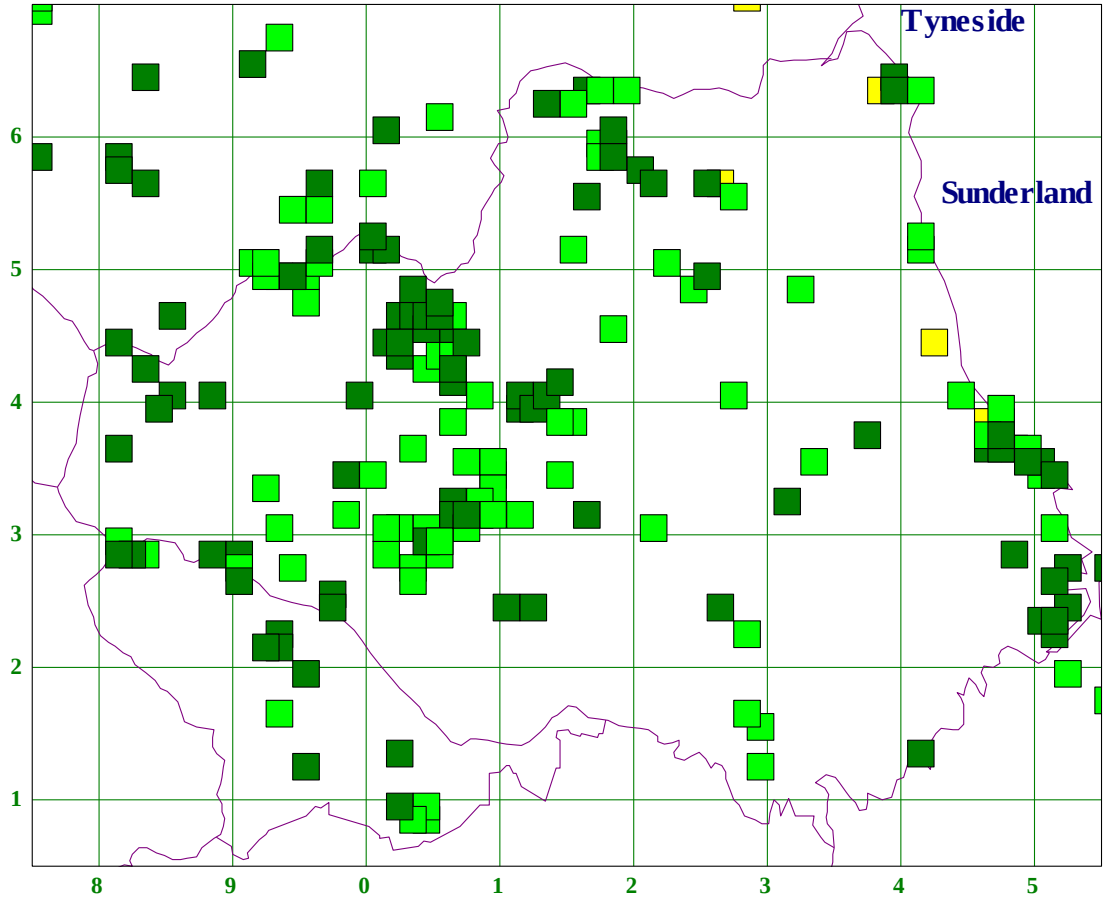
Photo by Terry Coult

Durham

Our most widespread reptile, most records are from the mid-altitude moors, bogs and afforested areas, particularly Hamsterley Forest, which provides 10% of the records. There is also a population on the coastal cliffs and dene mouths, with most recent records around Castle Eden Dene mouth and Blackhall rocks (compare with Slowworm). The Pennine population is likely to extend into Lunedale and the Greta, where there are similar habitats but recording is much thinner.

Unlike Adder and Slowworm, there are a number of lowland records, from a mixture of habitats including disused limestone quarries, disused sand quarries, disused railways, and lowland heaths. There are some "urban" records such as on disused railway tracks in Darlington. Some of these are old records with no modern update. Unlike Adder and Slowworm, there are sporadic records from the highest parts of the county, and lizards are present, for example, at Falcon Clints, in Upper Teesdale.

Common or Viviparous Lizard

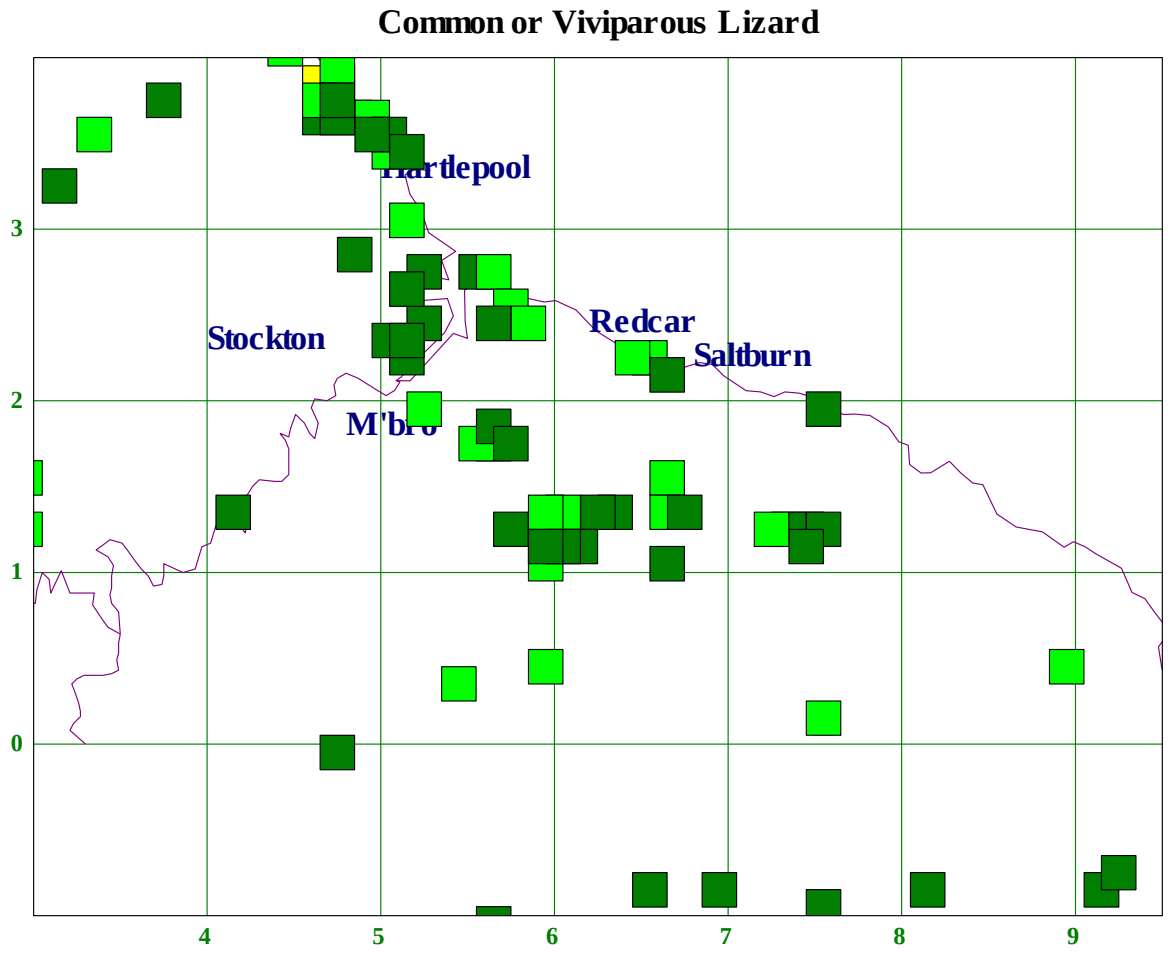


Tees Valley and North Yorkshire

There are three areas of distribution:-

- The Crimdon coast area, which is the southern extension of the Durham coast population.
- Teesmouth, where lizards are found on sand dunes and industrial waste ground on both sides of the river.
- The upland area of Redcar and Cleveland.

The North York Moors population is probably far more widespread than is indicated by the map.



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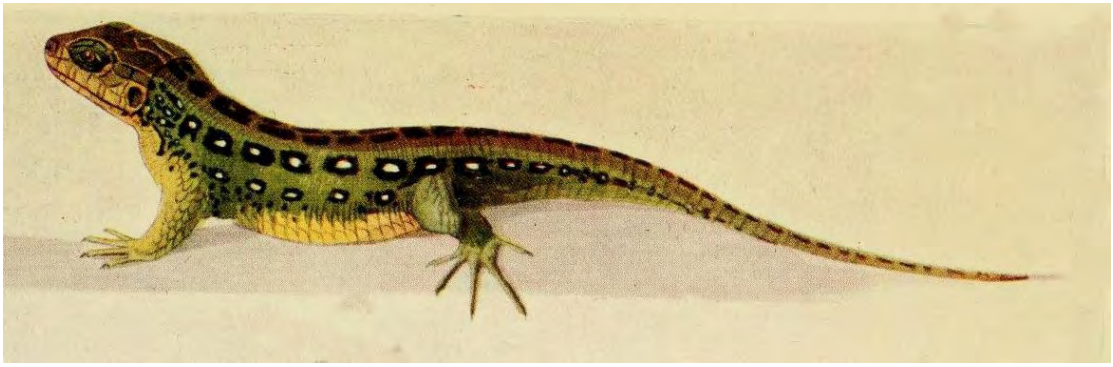
Other Species

Sand Lizard, *Lacerta agilis*

Sand Lizards may have been released at various points on Northumberland's sand dunes and on both sides of the river at Teesmouth at several times, but appear not to have survived for very long. The North-east coast probably has summers that are too short for this species to breed successfully.

Inland records, of which there are several, are almost certainly mistakes for Common Lizard.

Coastal Common Lizards photographed by Derek Hornsby at Annstead Dunes in 2007 showed remarkably large, green specimens.



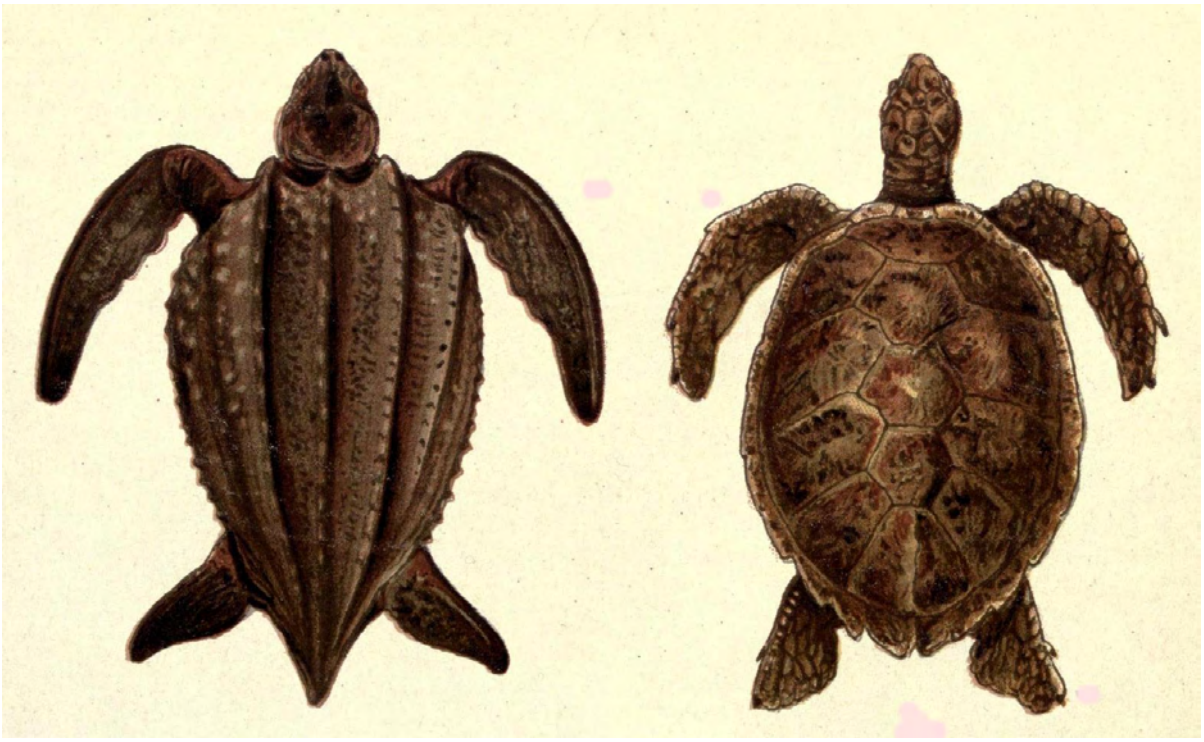
Hawk's Bill Turtle, *Eretmochelys imbricata*

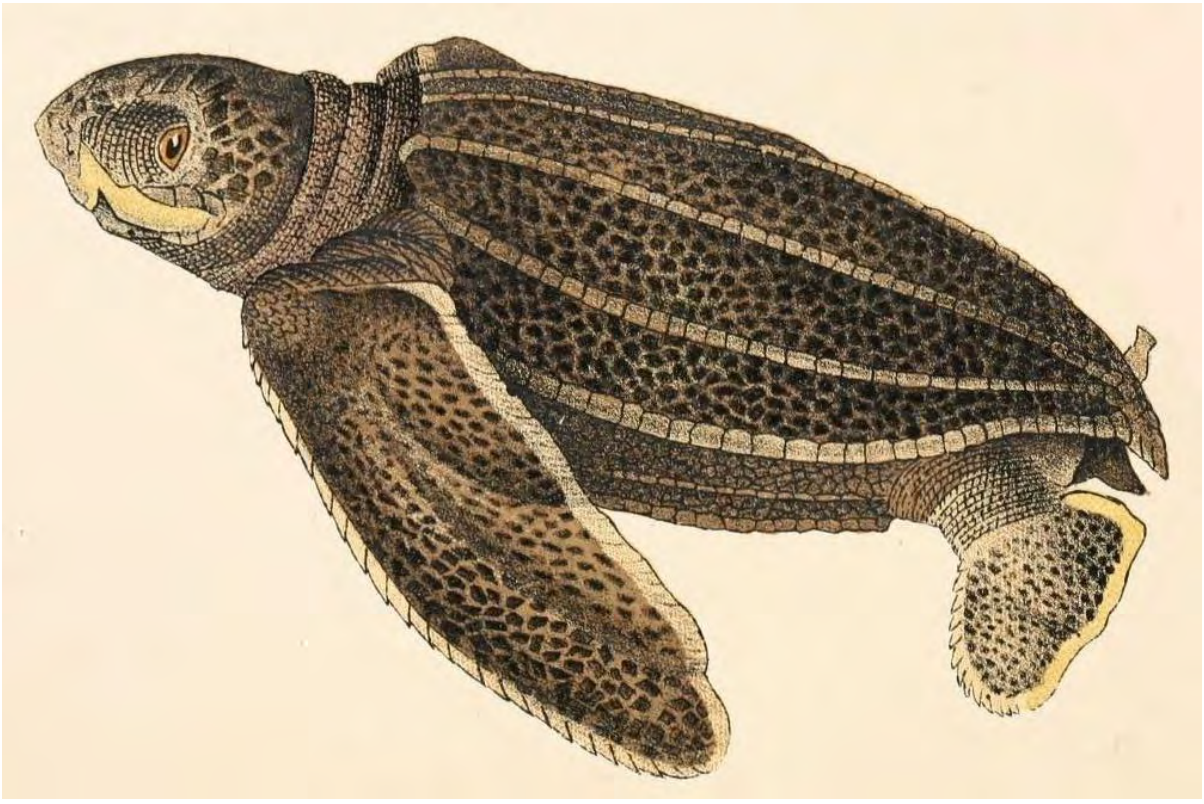
One was caught in fishing nets off the mouth of the Coquet in 1852, exhibited at Berwick, and later sent to London. (Right, below)

Leathery Turtle, *Dermochelys coriacea*

One was caught in the nets of the fishing boat 'Avail' off Berwickshire, Scotland, in October 1980, and landed at Eyemouth. It was taken by lorry to Oban aquarium and later released. (Left, below and larger drawing)

Another was caught off Blyth on 15th September 1990 by Ian Nesbitt of the fishing boat Rising Dawn. Unfortunately the 200 kilo male turtle drowned in the nets. It was taken to the Hancock Museum.
The following week, on 23rd September 1990, another, smaller specimen was drowned in nets off Cresswell Skeers, and cast adrift. On 20th October the body of a male turtle, quite possibly the same one, was washed ashore between Amble and Warkworth.





Red-eared Terrapin, *Trachemys scripta*

Released as unwanted pets, up to 100 of these North American terrapins have been recorded at a number of easily accessible, urban ponds. They survive well, hibernating successfully and living for many years. A female was found laying eggs at Shibdon Pond in Gateshead Borough. They are known to breed successfully at similar latitudes in Denmark and in the Netherlands, but not in Britain.