The return of a Welsh Dragon

The Reintroduction of the Sand Lizard *(Lacerta agilis)* to Wales

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ARC’s work in Wales

- Mark Barber

Pete Hill

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North Wales

- Mandy Cartwright

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Publicity

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Great crested newt *(Triturus cristatus)*

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Habitat restoration & creation; Ponds

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Adder *(Vipera berus)*

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Ride restoration and creation.

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Species reintroductions

- Natterjack toad
- Pool frog
- Smooth snake
- Sand lizard

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Natterjack toad (Epidalea calamita)

Notable natterjack toad populations exist on the sand dunes along the Merseyside coast, the Cumbrian coast and on the Scottish Solway. The natterjack used to be quite common on the heaths of Surrey and Hampshire and also around the coast of East Anglia but sadly only one or two colonies now remain. Re-introduction programmes have now started to restore the range of this animal, including coastal dune systems of North Wales.

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Pool frog (Pelophylax lessonae)

Native pool frogs were presumed extinct in the wild in 1995, but have since been reintroduced at two sites in Norfolk. Northern clade pool frogs are found only in very restricted areas of Scandinavia, Estonia and England. The first reintroduction of pool frogs to England was established using northern clade pool frogs collected in Sweden under special permissions between 2005 to 2008. The second and most recent reintroduction was carried out using stock from the first successfully established population.

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Smooth snake (Coronella austriaca)

As the species is very secretive, we have been cautious with reintroductions. For any potential reintroduction site, we have to assess with reasonable confidence that the species is not present, and this takes several years. Reintroductions are done by translocating wild animals from other sites. To date, we have restored smooth snakes to sites in Surrey, west Sussex and Devon.

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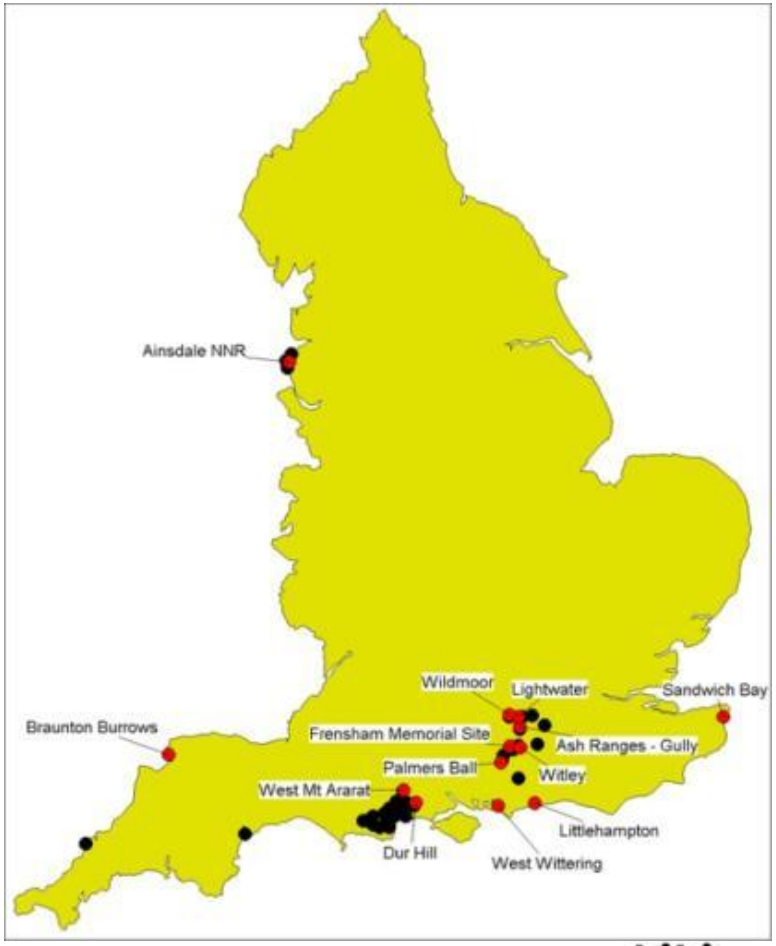
Sand lizard *(Lacerta agilis)*



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- The sand lizard *Lacerta agilis* is Britain's rarest species of lizard.
- In the last century, the sand lizard has lost an estimated 80% of its range in the UK.
- The species was lost entirely from Wales in the 1960s. A collaborative reintroduction programme led by Amphibian and Reptile Conservation (ARC) and Natural Resources Wales (NRW) (and their predecessor organisations) re-established the species on coastal dune sites in North & West Wales in the 2000s.
- Monitoring has revealed encouraging signs that the reintroduced populations have established and in some cases expanded significantly.

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Habitat requirements

The sand lizard has very specific habitat requirements in the UK:

- Sandy substrate
- Slopes facing between southeast and southwest
- Slope angle of c30 – 40 degrees
- Bare sand occupying c5 – 35% of area for basking and egg laying
- Minimal shade from tree or tall scrub cover
- Varying vegetation height, 5 – 100cm
- Presence of dense patches of vegetation cover, especially heathers (*Calluna* and *Erica*) on heathlands, and marram grass *(Ammophila arenaria)* on sand dunes.

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Southern heaths

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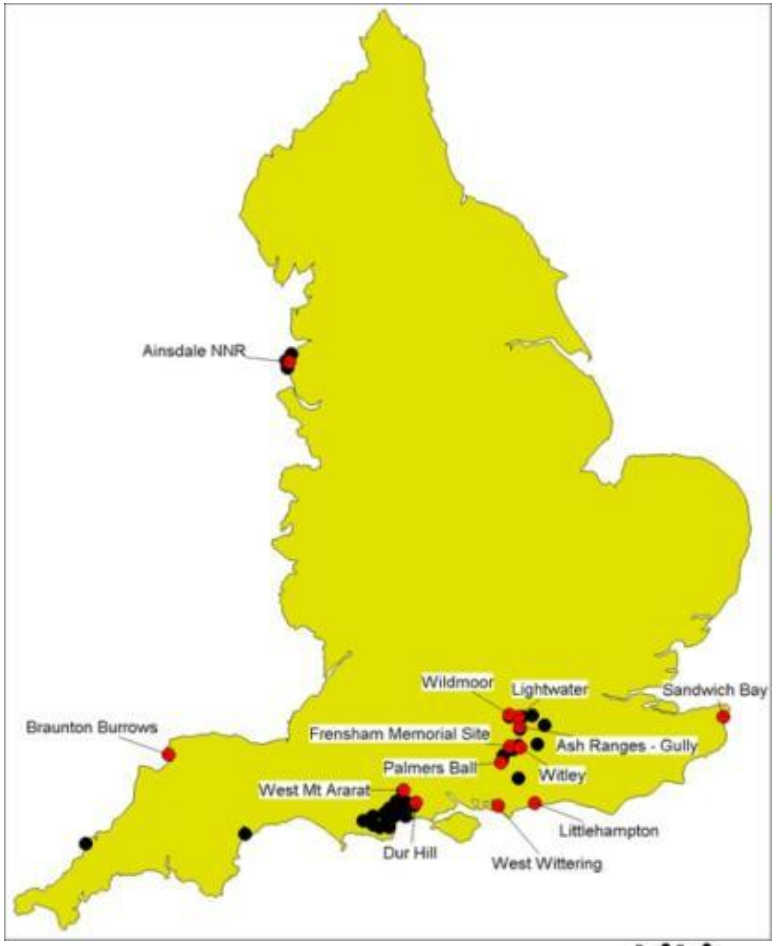
Sand lizard *(Lacerta agilis)*



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Coastal dunes

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Surveying the surveyor

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Detail of sand lizard habitat.

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Emergence

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Ovipositing

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Captive breeding

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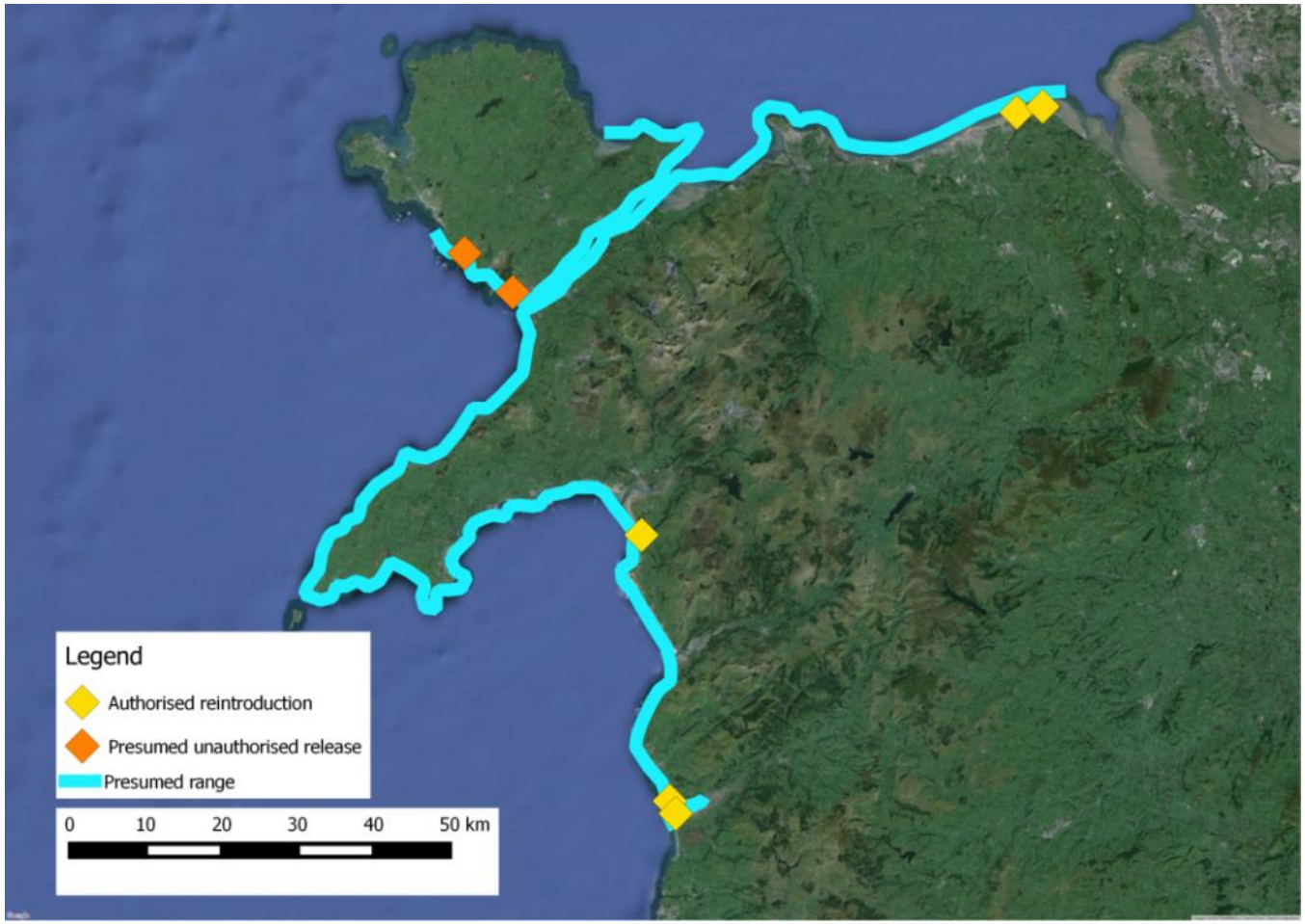

Map 12: Sand lizard populations in Wales. Yellow symbol = authorised reintroduction (n=5). Orange symbol = presumed unauthorised release (n=2). Blue line = presumed former range (note: distribution would have been discontinuous within this range). Presumed range information from Edgar (2007).

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Management

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Back patterns.

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Is it working?

To date there have been 76 sand lizard translocations

(65% have been successful, 15% are ongoing though doing well, 12% have had limited success e.g. damaged by large heath fires/lack of appropriate management, 4% failed and 4% are currently unknown).

The reintroduction programme has successfully re-introduced the species to both heathland and dune habitats in 11 vice-counties in England and Wales (Merseyside, Flintshire, Ceredigion, Denbighshire, Gwynedd, Kent, West Sussex, Surrey, Hampshire, Dorset, Devon and Cornwall). In 7 of these vice-counties the species had been lost (All of Wales, Kent, West Sussex, Devon and Cornwall).

In total c.9000 animals have been released.

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Future work in Wales

Connecting the Dragons –

- GCN
- Adder
- Sand lizard
- Grass snake
- Common toad

Project Objectives;
Great crested newt.

- Recruit, train & mentor volunteer surveyors
- Increase survey effort to inform habitat management on the ground
- Targeted habitat manipulation to increase connectivity of GCN metapopulations

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Project objectives;

Adder

- Recruit, train & mentor volunteer surveyors
- Increase survey effort – identify hibernacula
- Targeted habitat manipulation to increase connectivity of adder populations
- Attitude change campaign – awareness raising

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Project objectives; Sand lizard

- Identify, recruit, train & mentor volunteer surveyors
- Create structured monitoring programme for mid-Wales species reintroductions
- Sensitive habitat manipulation in collaboration with site management

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Project objectives;
Grass snake

- Identify, recruit, train & mentor volunteers to increase survey effort
- Ovi-positing site creation
- Collaborate with communities & land managers to increase egg-laying sites

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Project objectives; Common toad

- Utilize increased volunteer survey effort to identify priority toad conservation areas
- Restoration of breeding ponds
- “Toads on Roads” hot spots

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Connecting the Dragons

- Have you previously volunteered time for conservation effort?
- How likely would you be to get involved with Dragonscapes?

Thank you for listening!

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