



Global Re-introduction Perspectives: 2011

More case studies from around the globe
Edited by Pritpal S. Soorae



IUCN/SSC Re-introduction Specialist Group (RSG)





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Sand lizard translocation in the UK

Nick Moulton¹, John Wilkinson¹, Chris Davis¹, Jim Foster² & Liz Howe³

- ¹ - Amphibian and Reptile Conservation, 655a Christchurch Road, Boscombe, Bournemouth, Dorset, BH1 4AP, UK nick.moulton@arc-trust.org; johnw.wilkinson@arc-trust.org & jowarth@crislis.co.uk
- ² – former Species Specialist, Natural England. jim@crisstatus.co.uk
- ³ - Species Team Leader and Herpetologist, Countryside Council for Wales. L.Howe@ccw.gov.uk

Introduction

In the United Kingdom, sand lizards (*Lacerta agilis agilis*) are listed on schedule 5 of the Wildlife and Countryside Act (1981) and on schedule 2 of the Conservation of Habitats and Species Regulations (2010), designating them "European Protected Species". They are also listed as priority species in the UK Biodiversity Action Plan (BAP). Although most of the species' habitats, i.e. lowland heathland and sand dunes, are now protected, the species status remains classified as unfavourable due to large-scale historical loss of habitat and populations. The main elements of the BAP have been; to legally protect the species' sites, manage and restore the sites' habitats to improve the populations, and to restore the species' range via translocations. The sand lizard naturally remains only in the fragmented heath and dune habitats of Dorset, Surrey and Merseyside. The captive breeding and translocation element of the BAP aims to restore range in England and Wales to c.13 "lost" vice-counties.

Goals

- Goal 1: To re-establish, via captive breeding and translocations, viable sand lizard populations within the species' known and presumed historical United



Male Merseyside "race" sand lizard

© Chris Davis

Kingdom range at country, regional and local levels to restore favourable conservation status.

- Goal 2: Re-establishment of the species in both of its primary habitats i.e. lowland heath and sand dunes.
- Goal 3: Re-establishment of the species to protected nature reserves to ensure that long-term population viability is possible.
- Goal 4: Where possible, via landscape

level and site management, assist range expansion of the translocated populations.

- **Goal 5:** To promote partnerships between all relevant groups and disciplines, to ensure best practice.

Success Indicators

- **Indicator 1:** Establishment of both pre- and post-release monitoring programs.
- **Indicator 2:** Receptor site habitat suitability index and priority translocation process.
- **Indicator 3:** Produce an agreed Translocation and Captive Breeding Plan.
- **Indicator 4:** Establishment of long-term captive breeding vivaria.
- **Indicator 5:** Produce the Captive Husbandry Manual.



**Re-introduction site at Morfa Harlech NNR,
Gwynedd, Wales © ARC**

Project Summary

Feasibility: From historical records and on-going monitoring, we have a good understanding of the species' previous and current range, habitat and niche requirements. The funded Species Action Plan (SAP) has allowed pre- and post-translocation monitoring, translocation priority listings, habitat management at receptor sites and continuation of captive breeding vivaria.

Implementation: The sand lizard "fits" within the basic habitat management requirements of the lowland heath and sand dune BAPs. With prior consent, from Natural England or Countryside Council for Wales, we can undertake monitoring to prove species absence, improve receptor sites for the species by habitat management and then initiate the translocation. We have c.10 outdoor captive breeding vivaria, including at Marwell Wildlife Park and Chester Zoo, which mimic the species' heath and dune habitats. For each completed translocation c.150 juveniles (50 per year) are required. Although previously limited, we are currently (with all partners) undertaking research to improve health screening.

Post-release monitoring: Our current monitoring allows assessment of habitat, breeding and range expansion via site-managers, volunteers and researchers. We are currently trying to improve our monitoring and data systems to allow more accurate and efficient monitoring of the species and its habitats and improve data flow between all partners.

Reptiles



Captive breeding vivaria at Marwell Wildlife Park © Tim Woodfine

Major difficulties faced

- Monitoring: All potential receptor sites require 5 years presence/absence monitoring, to ensure the species is not already present.
- Habitat dynamics: Heathlands are naturally prone to fires, some heathland management practices can be damaging to the species and sand dunes are liable to erosion.
- The coordination,

planning and delivery of targets can be difficult.

- Long-term funding.
- Climate: This can affect captive breeding success, the numbers of juvenile animals available for translocations and, effects on the heath and dune habitats.

Major lessons learned

- The success of the translocation program has been due to long-term and on-going prior planning, liaison and coordination with all parties.
- The large partnership of organisations involved has combined the specialist knowledge required to deliver all phases of this on-going and evolving program.
- Constant funding has allowed consistent delivery of program targets.
- On-going coordinated pre- and post-translocation monitoring will allow efficient delivery of translocation targets and, long term, assessment of conservation status.
- Many factors are beyond our direct control e.g. fires on heathland, change of habitat management regimes, climate change etc. may all affect the translocated populations and their habitats.

Success of project

Highly Successful	Successful	Partially Successful	Failure
√			

Reason(s) for success/failure:

- The species has been successfully translocated to 11 vice-counties in England and Wales.
- The species has been restored to 7 vice-counties where they were previously extinct.

- The species has been successfully translocated to both sand dune and lowland heath habitats.
- From the late 1960s to date, there have been 72 site translocations; 47 sites (65.2%) have been successful, 11 sites (15.2%) are on-going with initial signs of progress, 11 sites (15.2%) failed, (8 by heath fires, 3 by insensitive habitat-level management), 3 sites (4.1%) are currently unknown (access/monitoring restrictions). To date; 8,450 animals have been released (1,836 wild animals and 6,614 captive bred).
- Increased on-going research into monitoring, habitat management, husbandry, health screening, genetics etc. will ensure more successful translocations in the future.

References

Amphibian and Reptile Conservation, Countryside Council for Wales and Natural England. 2010. Sand Lizard and Smooth Snake Species Action Plan. Amphibian and Reptile Conservation, Bournemouth.

Corbett, K. F. & Moulton, N. R. 1997. Sand Lizard Species Recovery Programme project (1994 - 1997). English Nature Research Reports No. 288.

Chris Davis. 2004. The Sand Lizard Captive Breeding Programme Captive Husbandry Manual. Amphibian and Reptile Conservation, Bournemouth.

Moulton, N. & Corbett, K. 1999. Sand Lizard Conservation Handbook, English Nature, Species Recovery, 1999.

Edgar, P., Foster, J. & Baker, J. 2010. Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.