

# Non-native Amphibians & Reptiles in Scotland

[chris.cathrine@caledonianconservation.co.uk](mailto:chris.cathrine@caledonianconservation.co.uk)



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**Chris Cathrine**

**Trustee, Amphibian & Reptile Groups of the UK (ARG UK)  
Member, Central Scotland Amphibian & Reptile Group (CentARG)  
Member, Clyde Amphibian & Reptile Group (CARG)  
Director, Caledonian Conservation Ltd**

**Scottish ARGs Regional Meeting 2021. 30 October 2021, Online.**

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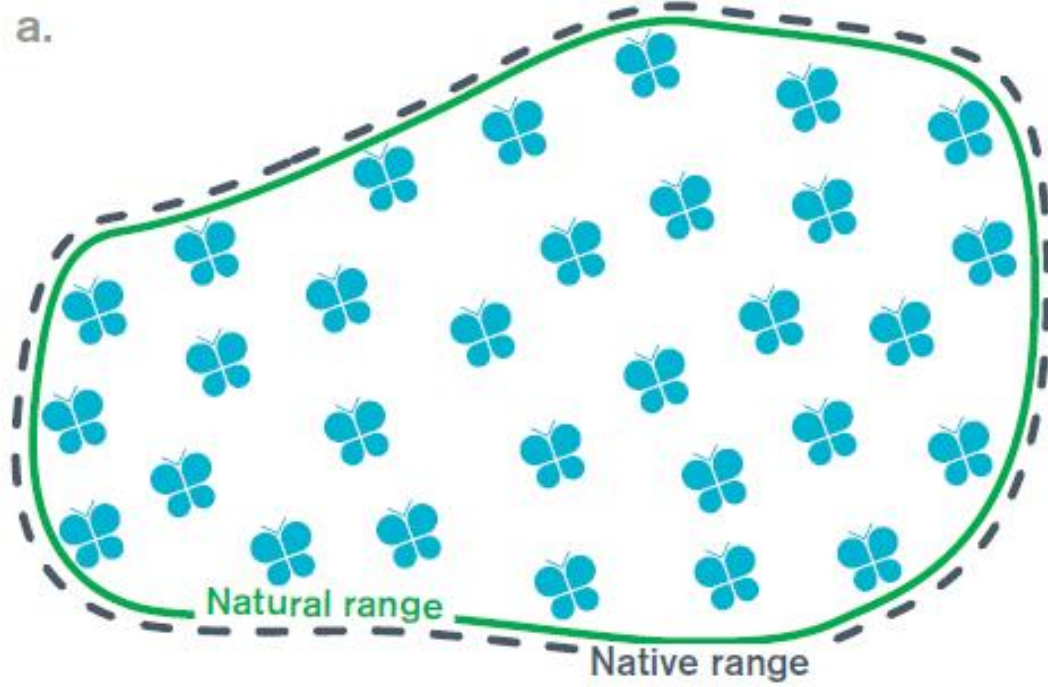
## What is a Non-native Species?

*“Animals and plants that have been imported into a location outwith their **native range** by human action, whether intentionally or not, are considered to be **non-native** in that location.”*

The Scottish Government. 2012. *Code of Practice on Non-Native Species. Made by the Scottish Ministers under section 14C of the Wildlife and Countryside Act 1981.* The Scottish Government, Edinburgh.



Current naturally occurring population. These populations occur in the natural and native ranges.



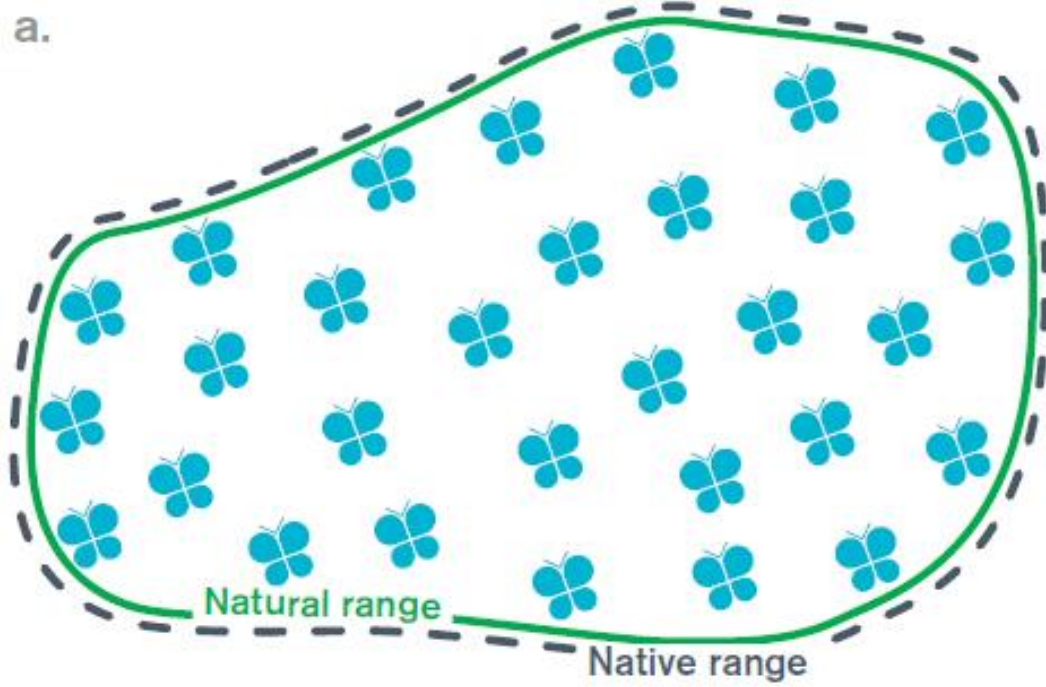




Current naturally occurring population. These populations occur in the natural and native ranges.



Population introduced outwith its natural and native range by human activities. Considered to be non-native.





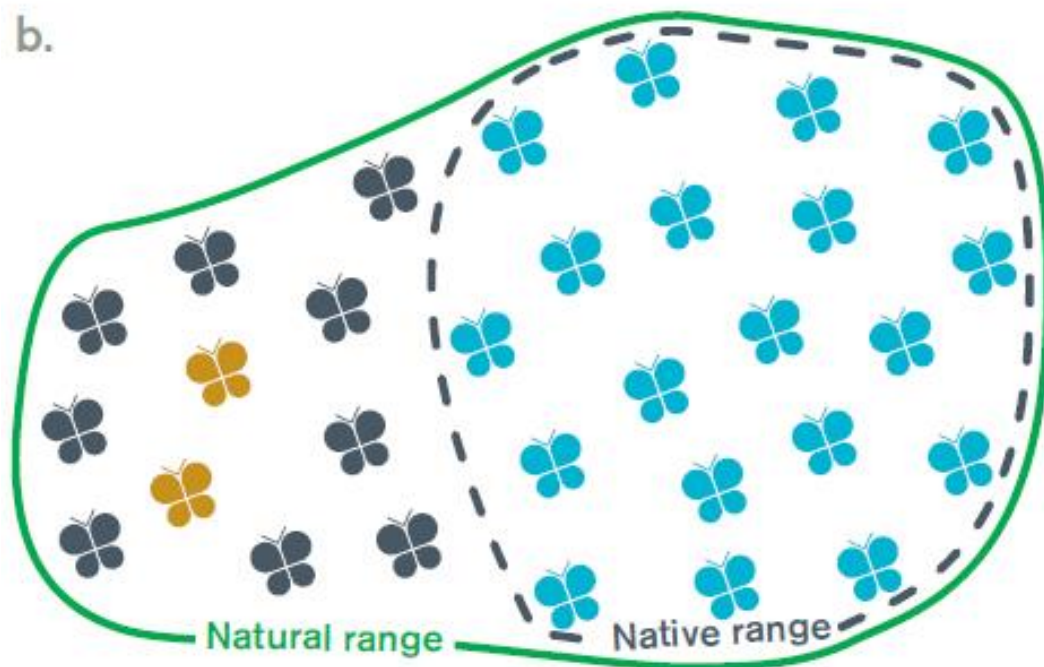
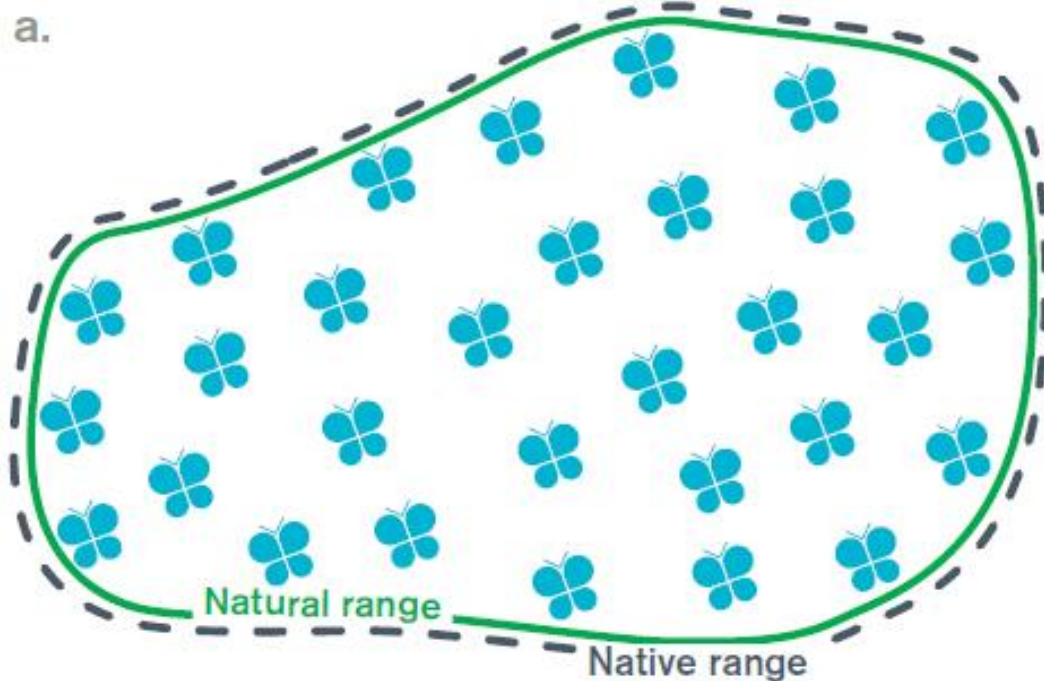
Current naturally occurring population. These populations occur in the natural and native ranges. The natural and native range may be the same as in (a) or the native range may only be a part of the natural range as shown in (b).



Natural population that is now extinct. These populations form part of the natural range but not the native range.



Population reintroduced into natural range (but legally considered non-native and outside of current native range).





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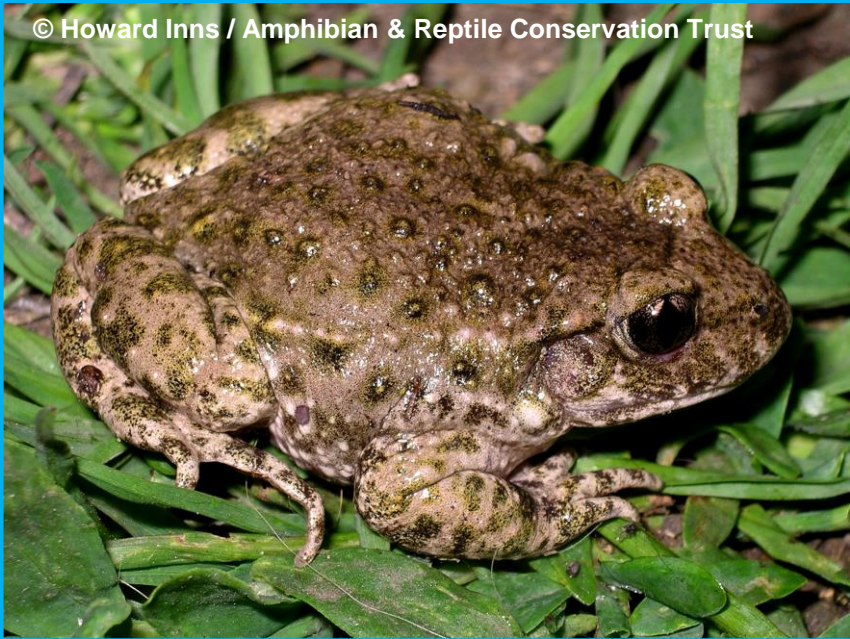


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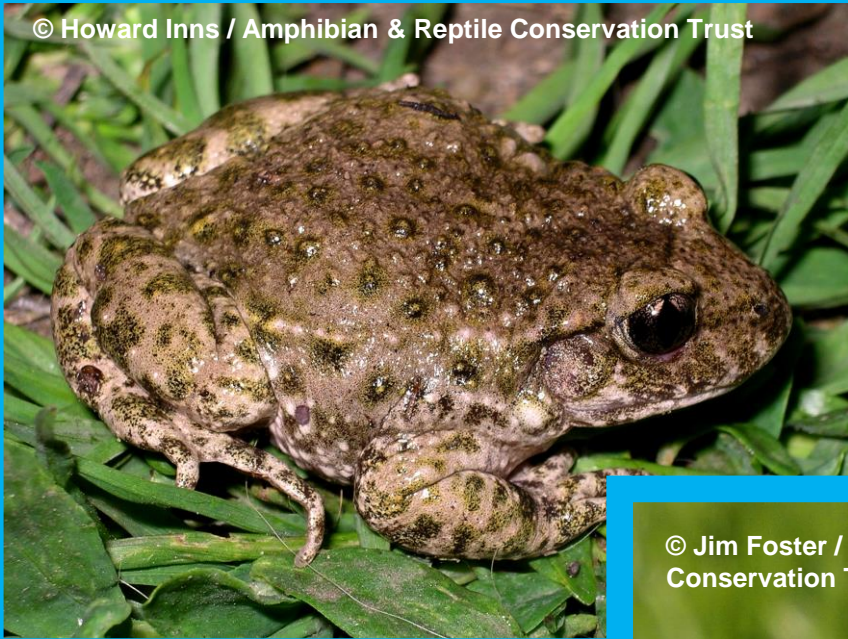


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## Red-eared Slider



© Steven Allain



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[chris.cathrine@caledonianconservation.co.uk](mailto:chris.cathrine@caledonianconservation.co.uk)



## Red-eared Slider





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## Red-eared Slider





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## Red-eared Slider

### Details

- *Trachemys scripta elegans*
- Native to Mexico and southern USA.
- Unable to breed in Scotland due to low temperatures, although highly invasive in warmer countries
- Distribution in Scotland:
  - Stirling
  - Comrie
  - Elsewhere?





# CITIZENS,



# WE NEED YOU!

...to contribute to Hadlow College's National  
**'Turtle Tally' Citizen Science Project**

*Help us collect data on introduced turtle and terrapin species:*

Easy online survey, open all year round, available for  
you to submit your turtle sightings!

Check out our website at: [www.TurtleTally.co.uk](http://www.TurtleTally.co.uk)  
for more information and links to the survey.



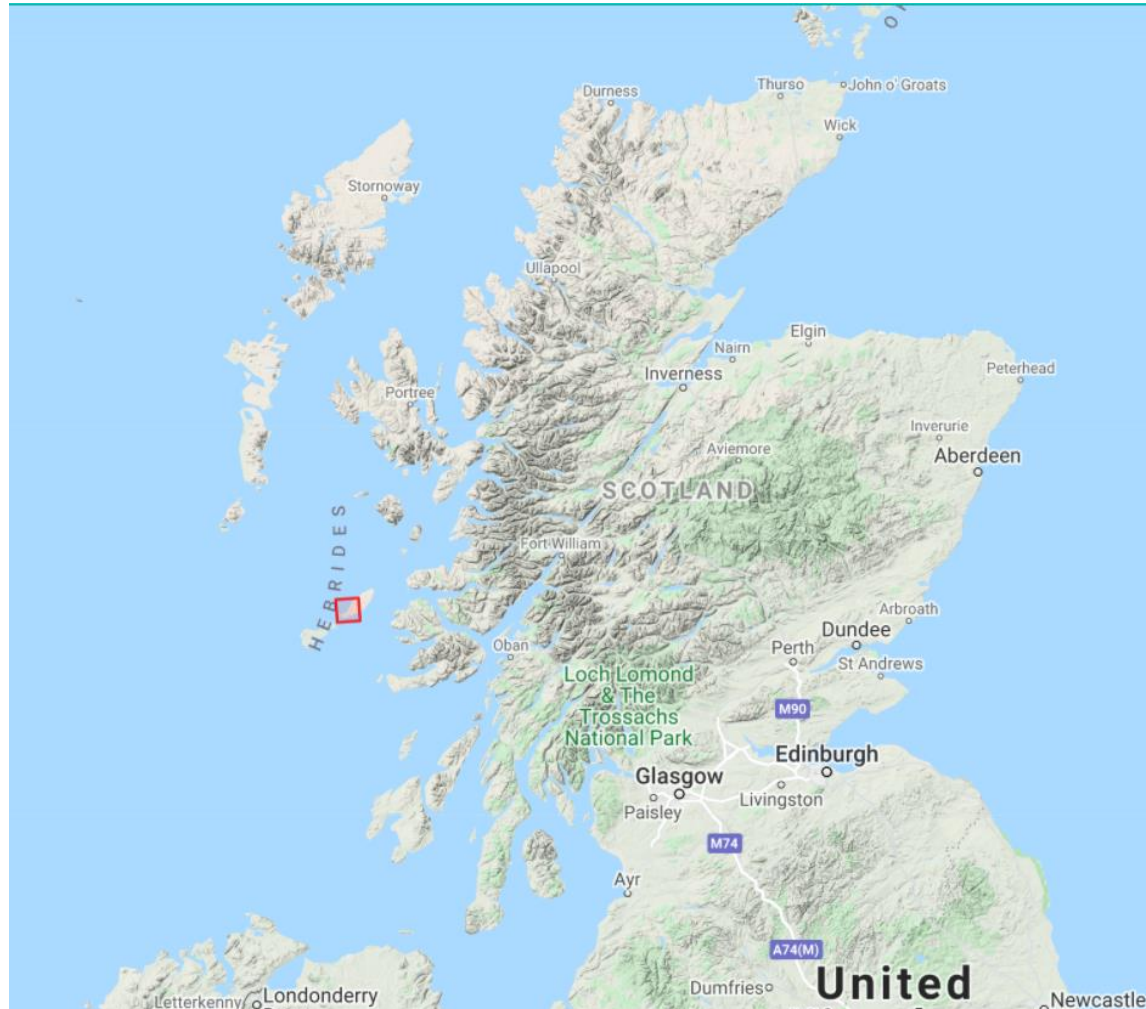


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chris.cathrine@caledonianconservation.co.uk



## Sand Lizard





## Sand Lizard

- *Lacerta agilis*
- Native to England and Wales
- Introduced to Coll
- 39 individuals from Dorset
- 1971
- Breeding & still there today!





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## Grass Snake





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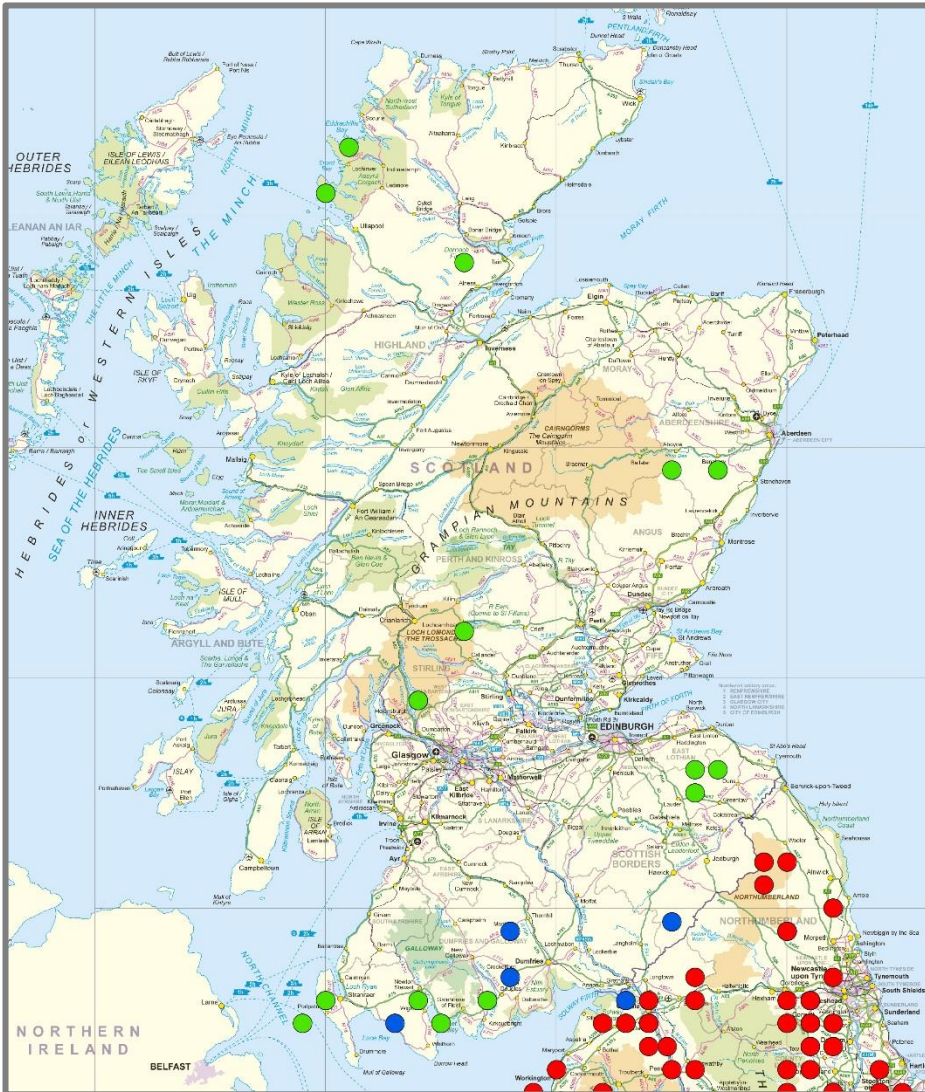


## Provisional distribution of grass snakes (*Natrix* sp.) in Scotland

Chris Cathrine

chris.cathrine@caledonianconservation.co.uk

[www.caledonianconservation.co.uk](http://www.caledonianconservation.co.uk)



Enter your records at:  
[www.scottishgrasssnakes.org](http://www.scottishgrasssnakes.org)



ARG UK



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## Grass Snake

© Kevin Clarke

**NATIVE OR NON-  
NATIVE?**

A close-up photograph of a grass snake (Natrix helvetica) in its natural habitat. The snake is coiled among dry grass and green plants, with its head in the foreground. The background is a soft-focus field of similar vegetation.





## Where did they come from? Origins of Scottish grass snakes

- Possible origins:
  - Recent localised introductions via transportation of agricultural materials (such as hay)
  - Localised introduced populations (deliberate and escaped pets)
  - Recent colonisation (climate change)
  - More established wild resident present in low densities with limited distribution





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## More Information on Grass Snakes in Scotland

- Scottish Wildlife Trust Webinar available at:  
[https://www.youtube.com/watch?v=IUMkIkFMq\\_0](https://www.youtube.com/watch?v=IUMkIkFMq_0)
- Lots of publications freely available at:  
<http://www.caledonianconservation.co.uk/publications/>
- *The Amphibians & Reptiles of Scotland* book

The image shows a screenshot of a presentation slide and a website. The top part is a slide titled 'Amphibians &amp; Reptiles in Scotland' with the contact email 'chris.cathrine@caledonianconservation.co.uk' and logos for CentARG, ARG UK, and Caledonian Conservation. Below the title is a map of Europe and Scotland, with 'Eskdalemuir' and 'Dalsbo' marked. The bottom part is a screenshot of the website 'www.caledonianconservation.co.uk/publications/#reptiles', showing a list of publications under the heading 'Reptiles'. The list includes several entries with titles, authors, and download links. The system tray at the bottom shows the date '2020-10-06 20:09:01' and weather information '11°C: Raining now'.



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chris.cathrine@caledonianconservation.co.uk



Free download: <http://www.glasgownaturalhistory.org.uk/books.html>

## The Amphibians & Reptiles of Scotland

Chris McInerney & Pete Minting



The production of this book has been supported  
by the following organisations:



ISBN 978-0-9561126-8-2



9 780956 112682 >



# Non-native Amphibians & Reptiles in Scotland

chris.cathrine@caledonianconservation.co.uk



## Please Record Scottish Grass Snakes!



### Scottish Grass Snakes

Home Part A : Survey Data Part B : Habitat

#### Have you seen a Grass snake in Scotland?

Please [fill in our simple online recording form](#) and help us learn the distribution of Scotland's largest terrestrial reptile.

Until 2010, it was generally believed that wild grass snakes (*Natrix natrix*) do not occur in Scotland. However, three confirmed records were made in Dumfries & Galloway between 2009 and 2010, and there are other unconfirmed but possible records from elsewhere in Scotland. Research has since shown that grass snakes are present in Scotland, but we do not know if they are recent arrivals or their current range.

Grass snakes are charismatic, but shy animals, but may be seen particularly in areas with water bodies where they can hunt amphibians. Although harmless, they are the UK's largest snake (females may grow longer than 1 metre) and can be easily identified by the pale neck collar.

Your sighting reports will go to Chris Cathrine, Director of Caledonian Conservation Ltd who is currently researching the Grass snake in Scotland. To find out more about the research, take a look at this :

Cathrine, C. 2012. [Scottish Grass Snake Distribution Research Poster](#), Herp Workers' Meeting 2012.

Your records will also populate the [ARG UK Record Pool database](#).



Photos © J Cranfield Herpetologic Ltd 2012



Amphibian and Reptile Groups of the UK  
VOLUNTEERS WORKING FOR THE CONSERVATION OF AMPHIBIANS AND REPTILES



Developed by [Aye-aye Design](#)

# www.scottishgrasssnakes.org



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## Alpine Newt

© Chris Cathrine



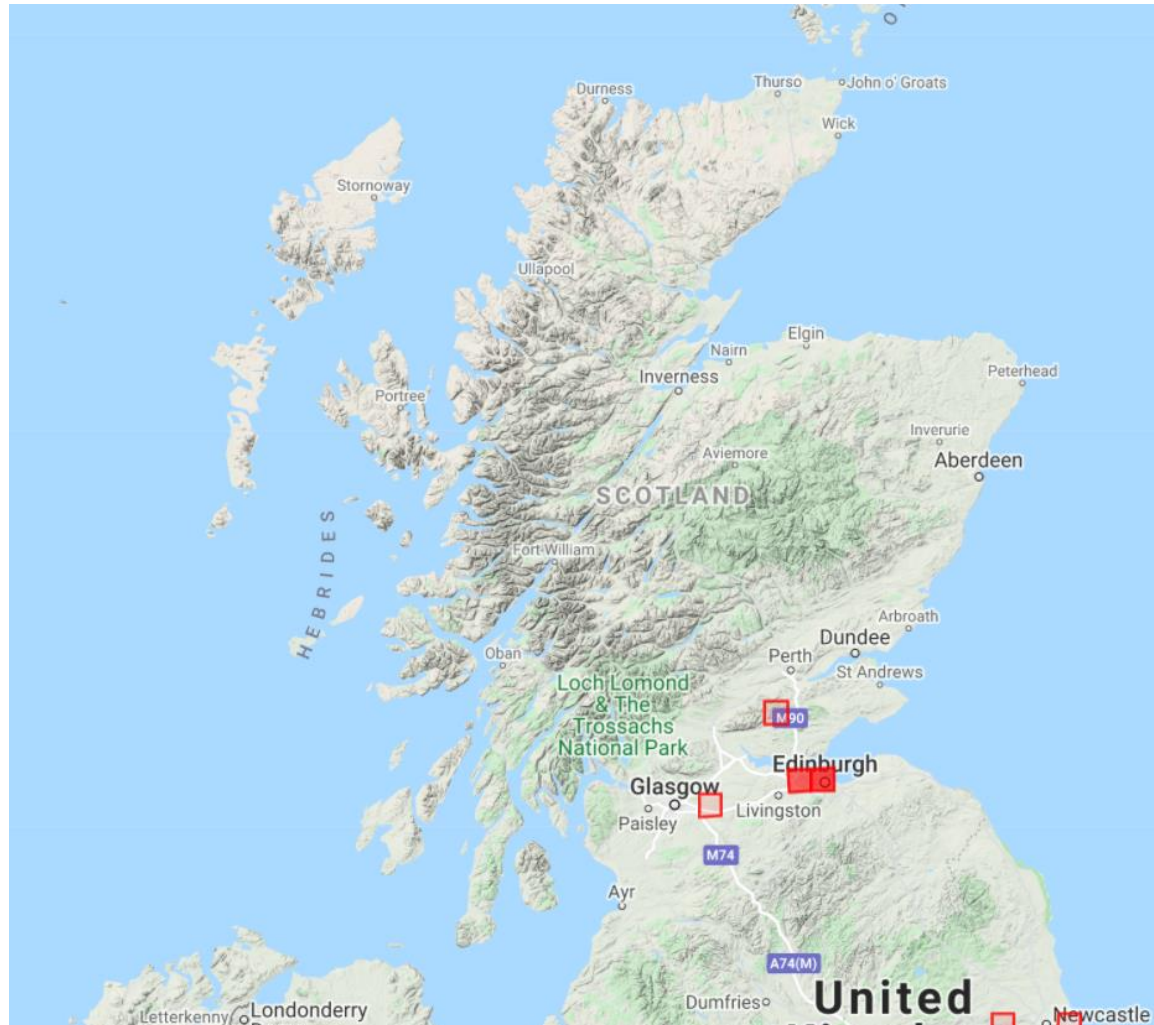


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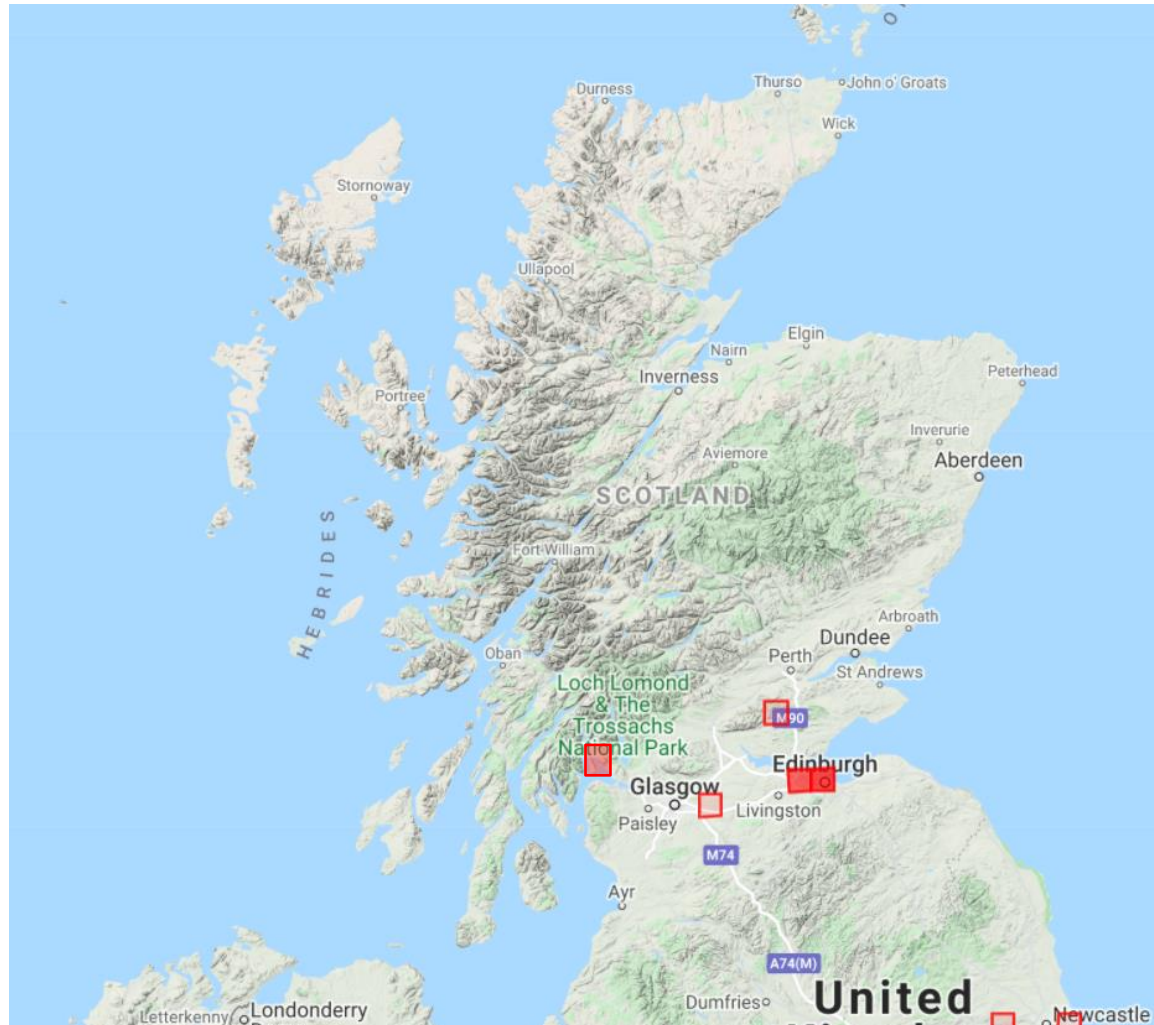


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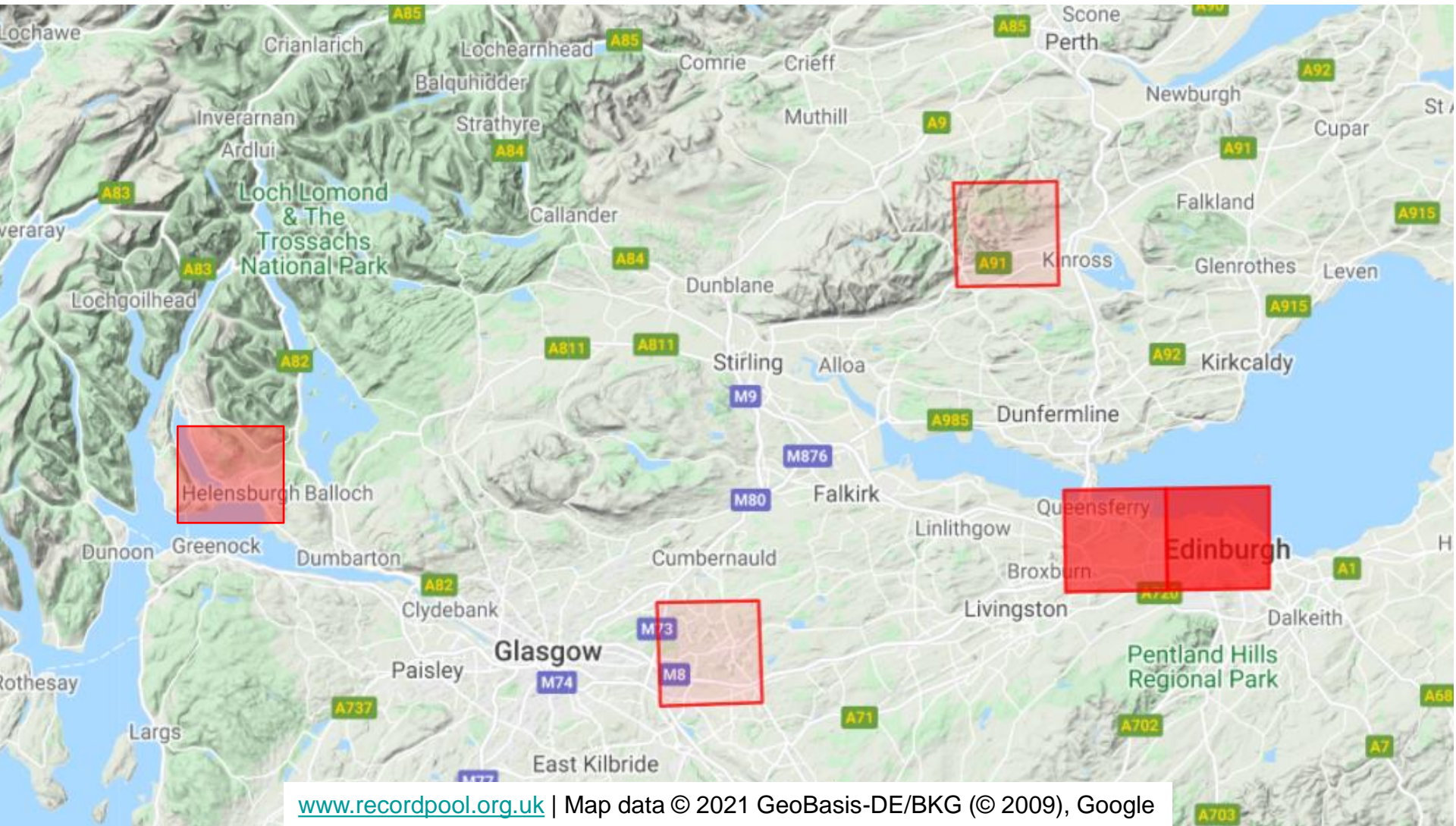


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## Alpine Newt

### Details

- *Ichthyosaura alpestris*
- Native to Central Europe
- Asymptomatic carrier of amphibian disease which can negatively affect native species
- Available to buy in the UK



© Chris Cathrine



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## Alpine Newt

### Populations

- Edinburgh (spreading)
- Newbridge (spreading)
- Helensburgh (contained?)
- Glenboig (new)
- Crook of Devon (new)

Appears to be moving along  
railway embankments

Risk of wide dispersal along  
Union Canal






# Send Your Records To: [www.recordpool.org.uk](http://www.recordpool.org.uk)

Record Pool [About](#) [Record](#) [Data](#) [Maps](#)   [Sign in](#) [Sign up!](#)

A collaborative project from **amphibian and reptile conservation** & **Amphibian and Reptile Groups of the UK**  
VOLUNTARY WORKING FOR THE CONSERVATION OF AMPHIBIANS AND REPTILES

## Welcome to the Record Pool

The Record Pool collects data on herpetofauna (reptiles and amphibians) in the UK and makes it available, locally and nationally, for conservation purposes.



- 34 Species
- 105 Counties
- 3,097 Recorders
- 7,893 Submissions
- 15,123 Records

[About](#) [Record](#) [Data](#) [Map](#)

Find out more about how the Record Pool project works, how you can help and how our data helps:

Tell us about reptiles and amphibians that you've seen to help with conservation on a local and national level:

Have a look at the the data we're collecting, which can be filtered, sorted, exported and used for free:

Play with the data on our interactive map and have a look at our reptile and amphibian atlases:



**RECORD POOL**  
Online Recording for UK Amphibian and Reptile Conservation

**amphibian and reptile  
conservation**





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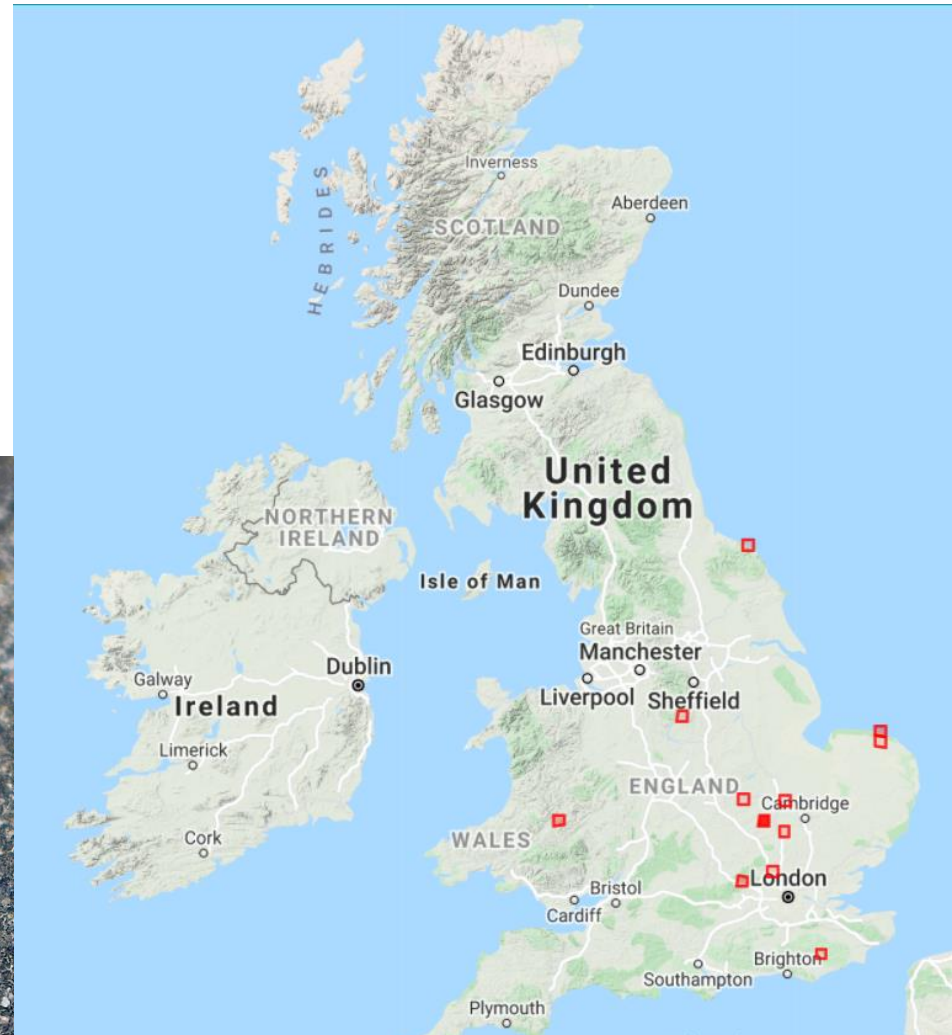


## What's On the Horizon?

### Midwife Toad

*Alytes obstetricans*

Native to Continental Europe





## What's On the Horizon?

### European Tree Frog

*Hyla arborea*

Widespread in Continental Europe

Has been introduced to South  
England e.g.:

- London
- Devon
- New Forest
- Isle of Wight

Increasing focus of rewilding

© Jim Foster / Amphibian & Reptile Conservation Trust





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## Reasons to Care About Non-natives

- Biosecurity
  - Introduce new pathogens in to the wild
  - Asymptomatic carriers of diseases which can have devastating impacts on native species
  - Other associated non-native species (e.g. plants)
- Ecology
  - May compete with native species
  - May disrupt ecological processes in other unexpected ways

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## Legislation

Wildlife and Natural Environment (Scotland) Act 2012 includes the following offences which are relevant:

- Releasing an animal to a place outwith its **native range**
- Otherwise causing an animal outwith the control of any person to be at a place outwith its **native range**
- Planting a plant in the wild at a place outwith its **native range**
- Otherwise causing a plant to grow in the wild at a place outwith its **native range**

*“Animals and plants that have been imported into a location outwith their **native range** by human action, whether intentionally or not, are considered to be **non-native** in that location.”*

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## Chris Cathrine

Director, Caledonian Conservation Ltd

ARG UK Trustee

[chris.cathrine@caledonianconservation.co.uk](mailto:chris.cathrine@caledonianconservation.co.uk)

@CalConLtd / @ARGroupsUK



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