

**amphibian and reptile
conservation**



snakes in the heather

- helping Britain's rarest reptile



Ben Limburn – Citizen Science & Operations Officer



Owain Masters – Public Engagement & Education Officer

SitH project development

- New Forest Smooth Snake Survey (2014-19)
- SitH Development Phase (2017-19)



New Forest Amphibian & Reptile Monitoring & Surveillance (ARMS) Partnership

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Vipera berus

<VU>



Lacerta agilis

<EN>

© Nick Dobbs



<VU>



Natrix helvetica

© Nick Dobbs



Zootoca vivipara

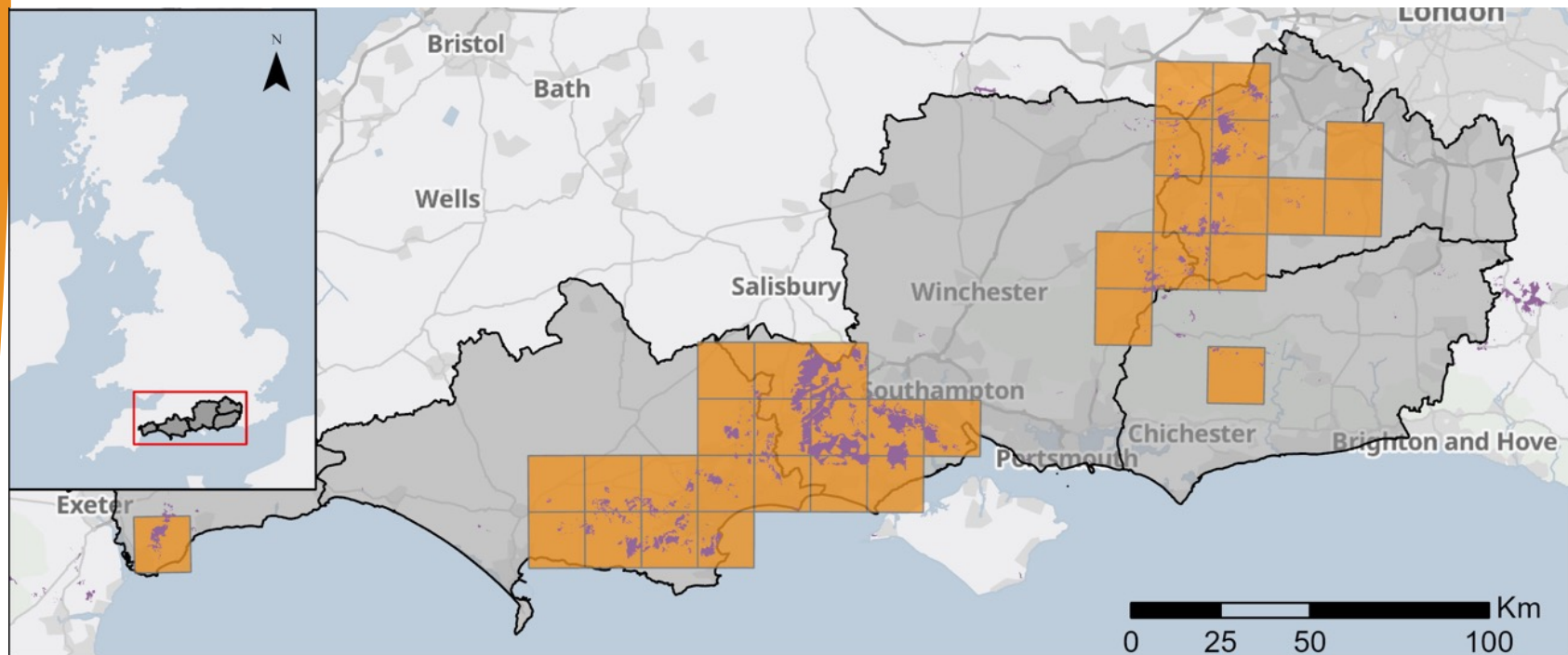
© Nick Dobbs






Anguis fragilis

© Nick Dobbs

Project area



-  Smooth snake presence (10km grid)
-  Delivery region
-  Heathland Extent (RSPB)

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Contains data from OS Zoomstack

Heathland area (hectares)	
New Forest	10,000
Dorset	7000
Devon	4000
Surrey	3500
Sussex	3000

Project aims

Snakes in the Heather aims:

Aim 1:

To raise public awareness of the conservation needs of our reptile and heathland heritage, helping to promote better understanding that safeguards their future

Aim 2:

To promote community relationships, personal wellbeing and life opportunities by providing chances for people to engage as project volunteers, allowing them to gain new skills and knowledge

Aim 3:

To develop guidance and technical support to advance the conservation and ecological resilience of the smooth snake and other heathland reptiles

Outreach



- 50 walks
- 26 talks
- 66 public events
- National media
- 6 conferences
- 7 workshops
- Reptile survey
training programme

Citizen science



Adder (*Vipera berus*)



Sexing – additional information

- Sexing can be difficult as males approach sloughing because the grey colouration turns brown
- Black outline markings on the rostral scale are a reliable indicator of male



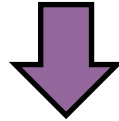
Reptile Surveyor journey

Attend introductory training course (classroom / online)



Join a Group Reptile Survey

Test your classroom training and gain field-craft skills



Receive a protected species survey accreditation



Undertake independent reptile surveys under licence

Participation

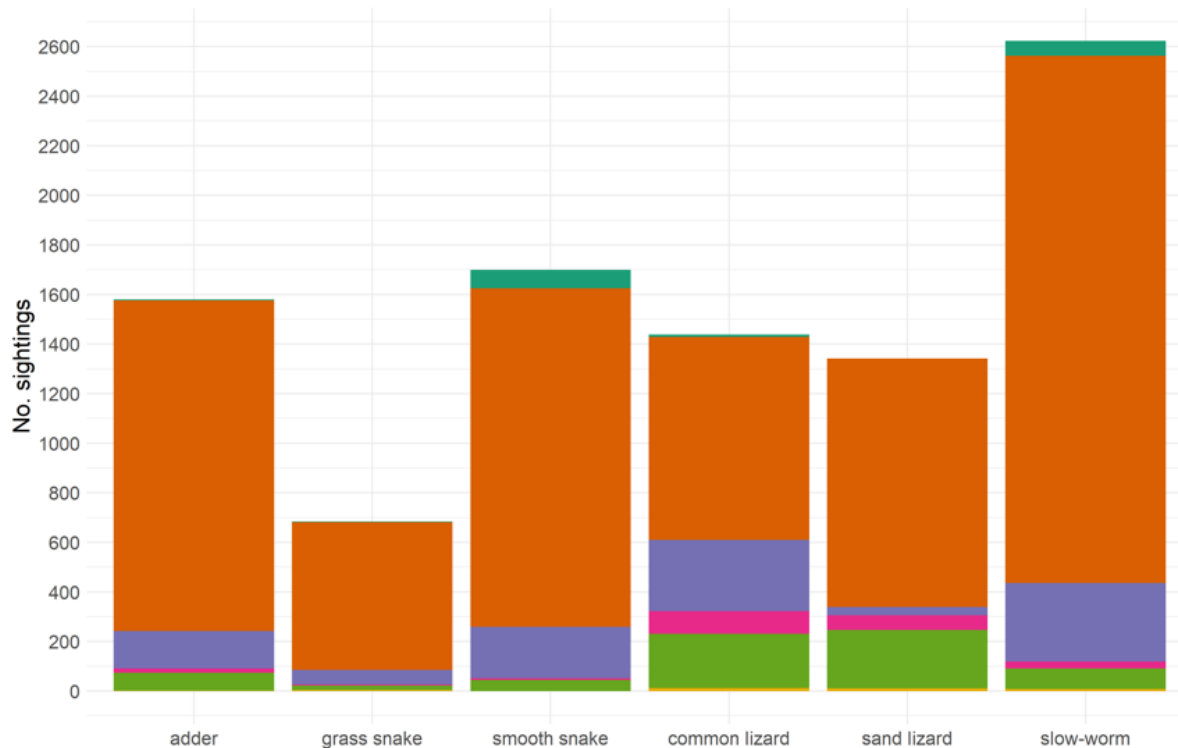
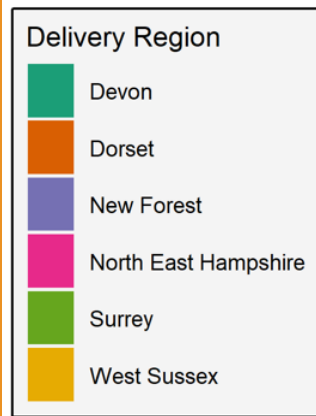
357 people (inc. 124 partners) attended **19** reptile survey training events

389 people participated in **67** Group Reptile Surveys to enhance their field craft skills after training

205 people participated in **1500+** reptile surveys at **120** sites



Reptiles recorded



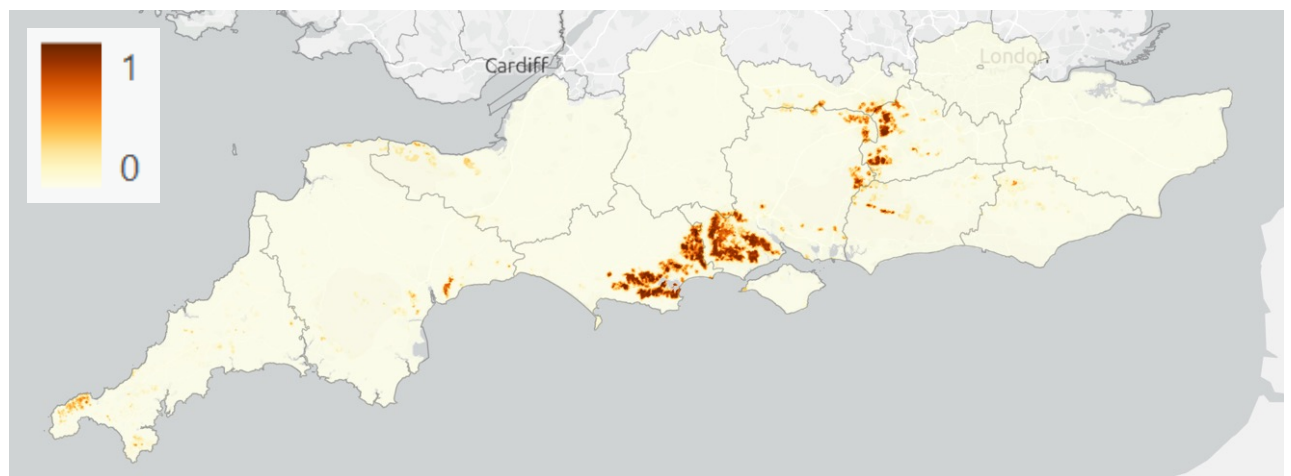
18,000+ records collected in total! **1600** smooth snakes and **1500** adder

Delivery Region	adder	grass snake	smooth snake	snake species	common lizard	sand lizard	slow-worm	lizard species	no records	Grand Total
New Forest National Park	146	55	204	8	289	32	305	23	1675	1987

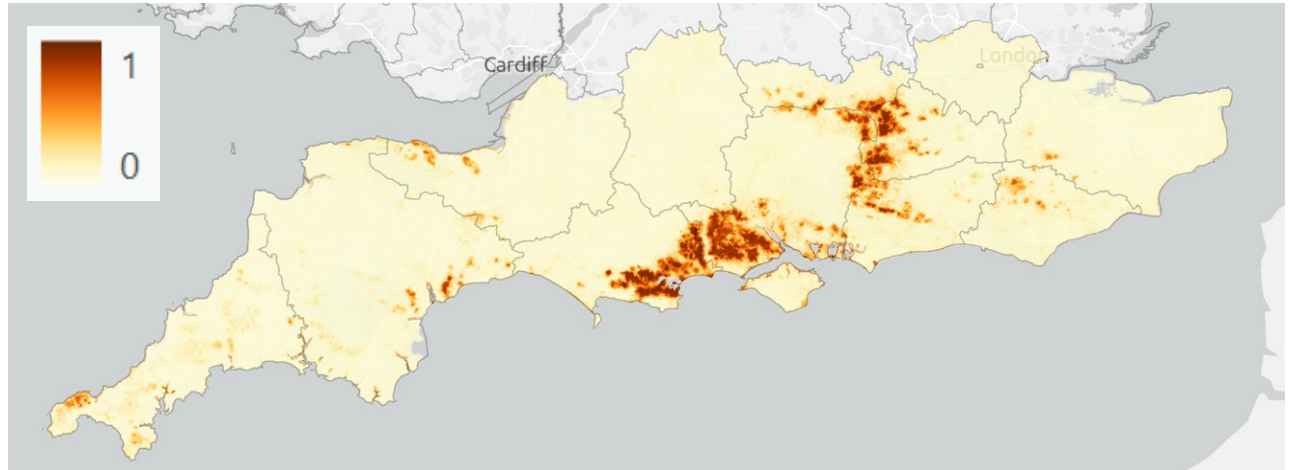
Figures are numbers of reptile sighting records collected on SiTH partner and ARC reserves by SiTH Reptile Surveyors, Aug 2019 to Nov 2023 (inc. ad hoc records).



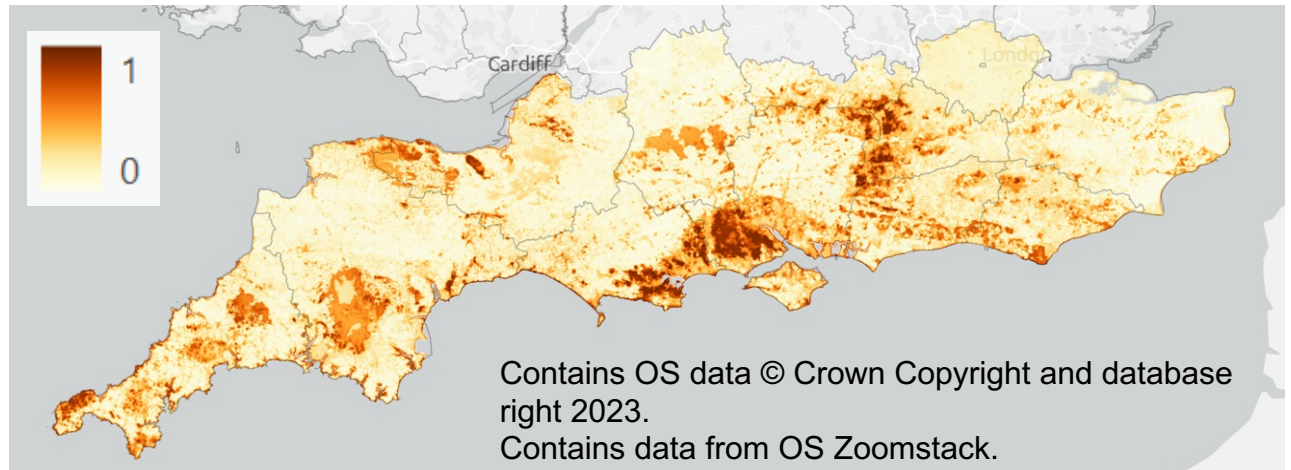
smooth snake



sand lizard




adder




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Habitat features
















amphibian and reptile conservation  Interactive map for Reptile Surveyors


Find address or place



Maxar, Microsoft | Esri Com

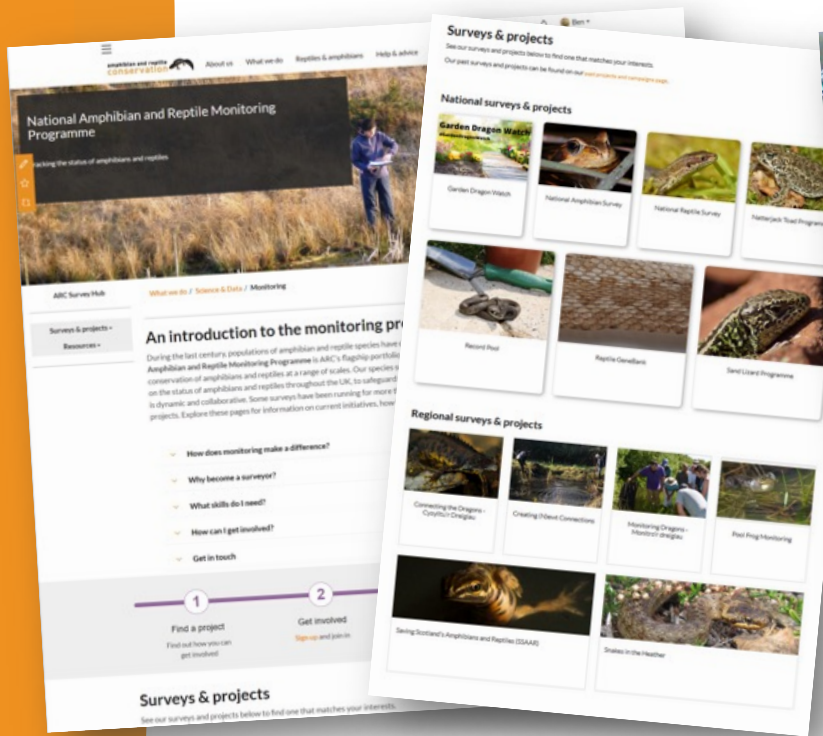
Layer List

- Habitat features
 -  Artificial Cover Object (newly found - existing)
 -  Bank
 -  Bracken stand
 -  Gorse / bramble stand (scrub)
 -  Hibernation site (no defined feature or made)
 -  Log pile
 -  Mammal burrow
 -  Mound
 -  Pit
 -  Rock pile
 -  Roundel (brush-cutter clearing)
 -  Sand feature
 -  Tree - fallen / dead
 -  Tree - live
 -  Tree - stump



ARC Survey Hub

Beyond SitH...



National Amphibian & Reptile Monitoring Programme:

<https://monitoring.arc-trust.org>





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Thank you!

Working in partnership for conservation





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Questions and approaches

Conservation question	Project approach
Where do smooth snakes and adders currently occur?	Habitat suitability model, collating existing data, promoting species recording, targeted distribution survey
Where is habitat currently suitable?	Habitat suitability model, collection of environmental data, targeted distribution survey
How does population status vary?	Structured, repeat visit survey (National Reptile Survey)
What factors influence distribution and population status?	Collection of environmental data, student research projects

Reptiles recorded

Delivery Region	adder	grass snake	smooth snake	snake species	common lizard	sand lizard	slow-worm	lizard species	no records	dartford warbler	nightjar	Grand Total
Devon (Pebblebed Heaths)	4	3	73		9		60		33			182
Dorset	1282	567	1310	24	761	940	2050	96	6865	32	25	13952
New Forest National Park	146	55	204	8	289	32	305	23	1675	2	6	2745
North East Hampshire	16	3	7	1	90	59	26	11	114		4	331
Surrey	69	17	43	1	208	220	82	15	295	1	9	960
West Sussex	1	3			11	7	6	1	16			45
Grand Total	1519	648	1637	34	1368	1258	2529	146	8998	35	47	18219

18,000+ records collected in total!

1600 smooth snakes and **1500** adder

9000 negative records (ACOS lifted with no reptiles found)

Figures are numbers of reptile sighting records collected on SitH partner and ARC reserves by SitH Reptile Surveyors, Aug 2019 to Nov 2023 (inc. ad hoc records).

Observations



Wareham Forest fire, Dorset, May 2020

...over 220 hectares burnt

Observations

