

Strategic challenges and solutions for adder conservation



The Vanishing Viper: Priorities for Adder Conservation

Cheddar, 8-9 October 2016

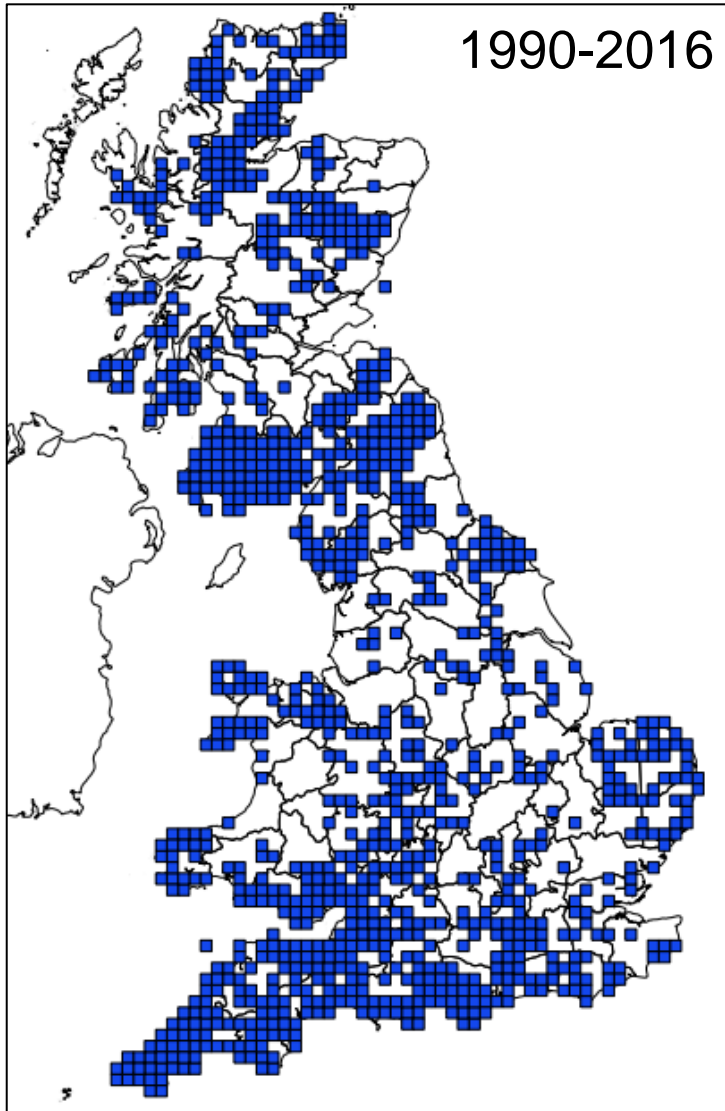
Jim Foster, Conservation Director

Amphibian and Reptile Conservation

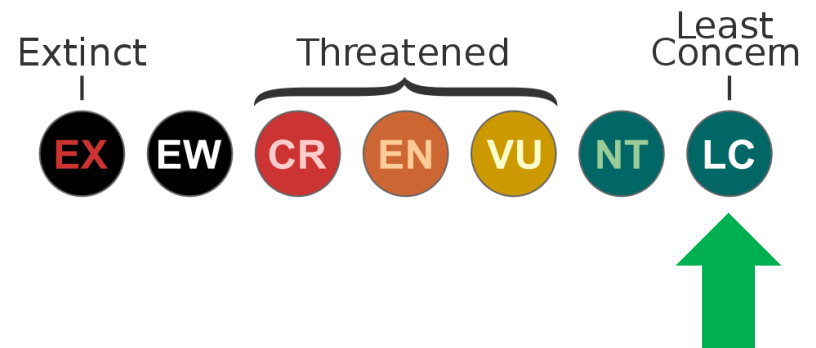
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Adder conservation: what's the problem?



IUCN Red List category

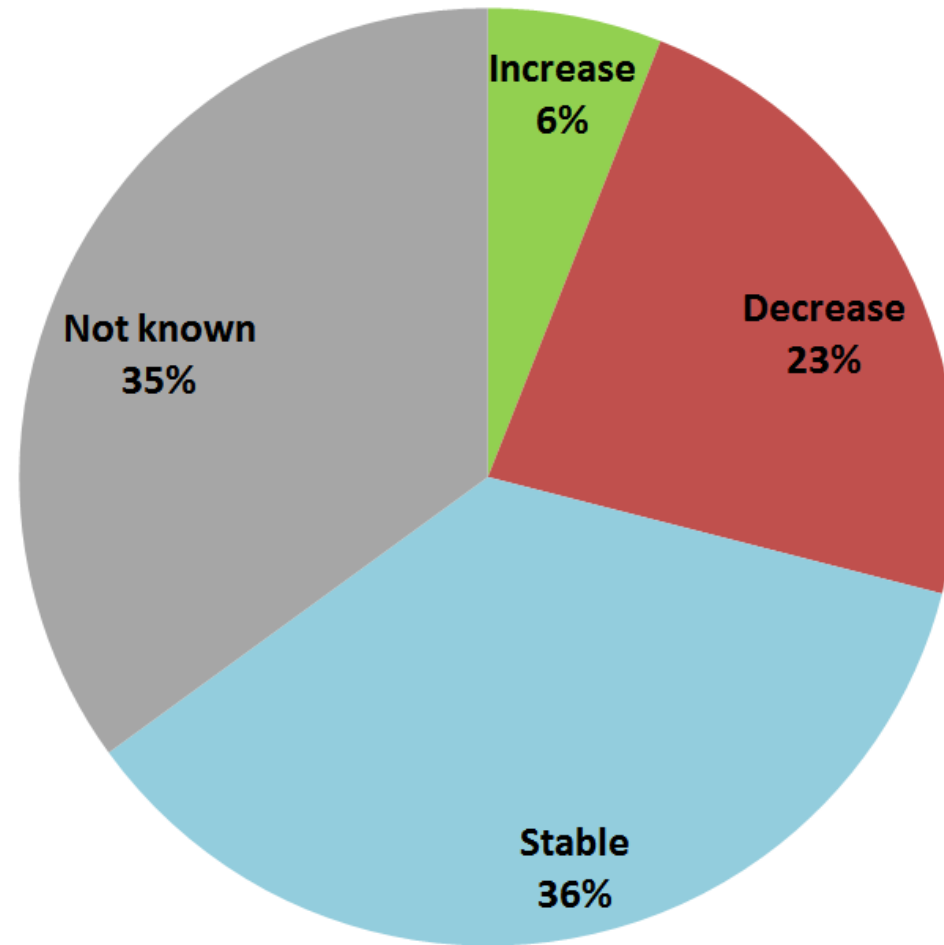


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Yet declines are happening, and plenty of them

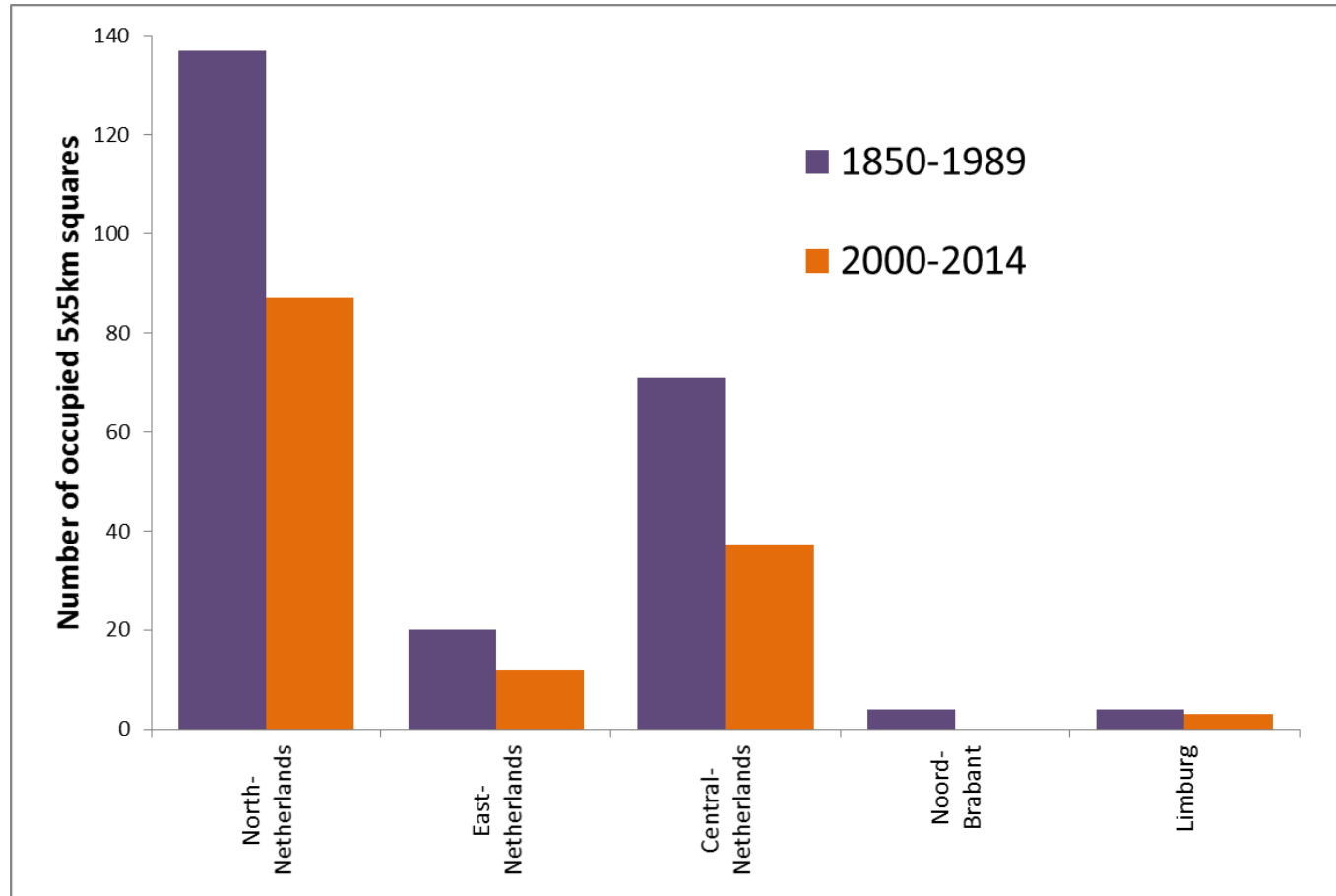


Reported trends in adder populations
(n=162; data re-plotted from Baker et al, 2004)



Part of a broader pattern?

- Mixed picture across global range, but signs of declines in landscapes comparable to UK



Data re-plotted from Van Delft & Janssen, 2015

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Diagnosing decline factors

- A range of factors reported, though causal evidence is lacking for many. Commonly cited factors include:
 - Outright habitat loss and fragmentation
 - Human disturbance
 - Excess mortality via increased predator numbers
 - Reduction in habitat quality via management
 - Reduction in habitat quality via lack of management



- Single prevalent cause unlikely? Factors may interact.
- Remedy decline factors locally?
- Yes, but a strategic approach can help local efforts, and increases chance of wider gains for adders.
- Suggestions for strategic challenges – review after this conference



Strategic challenges to enhance adder conservation nationally

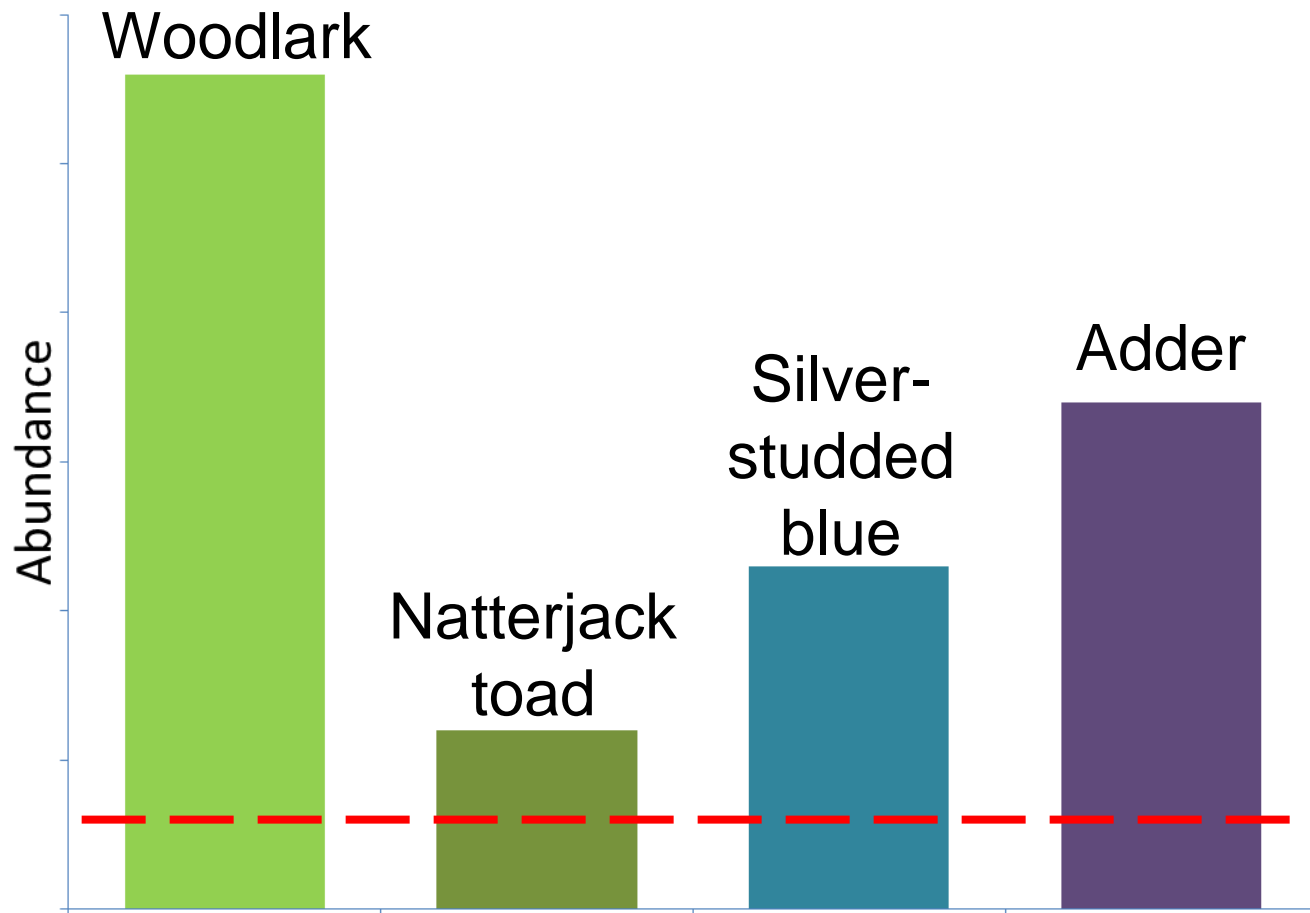
(1) Creating and maintaining suitable habitat

- Mid-successional stage
- Ground-level vegetation structure
- Extent
- Connectivity



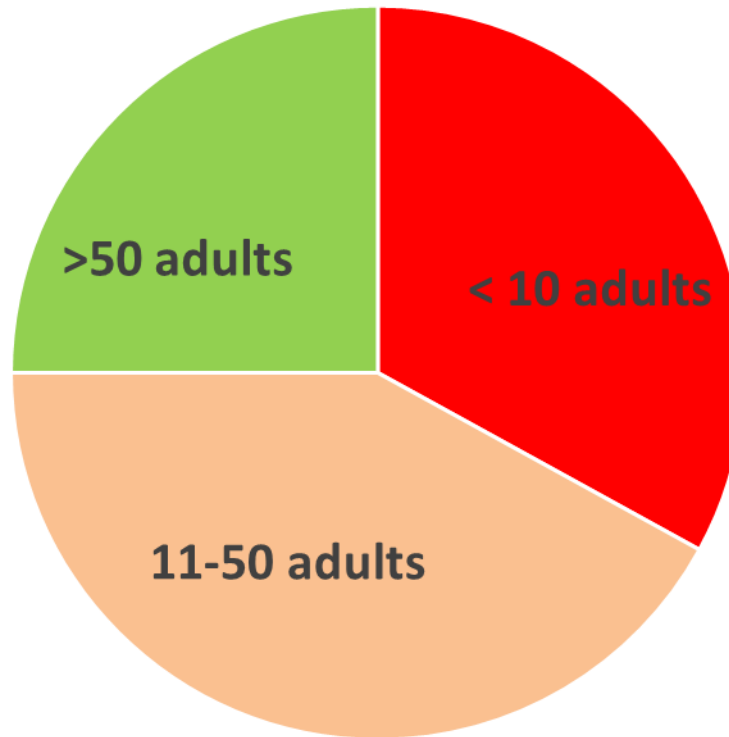
(2) Setting target population levels alongside other site objectives

- How many adders do we want, and where?



(3) Vulnerability of small, isolated populations

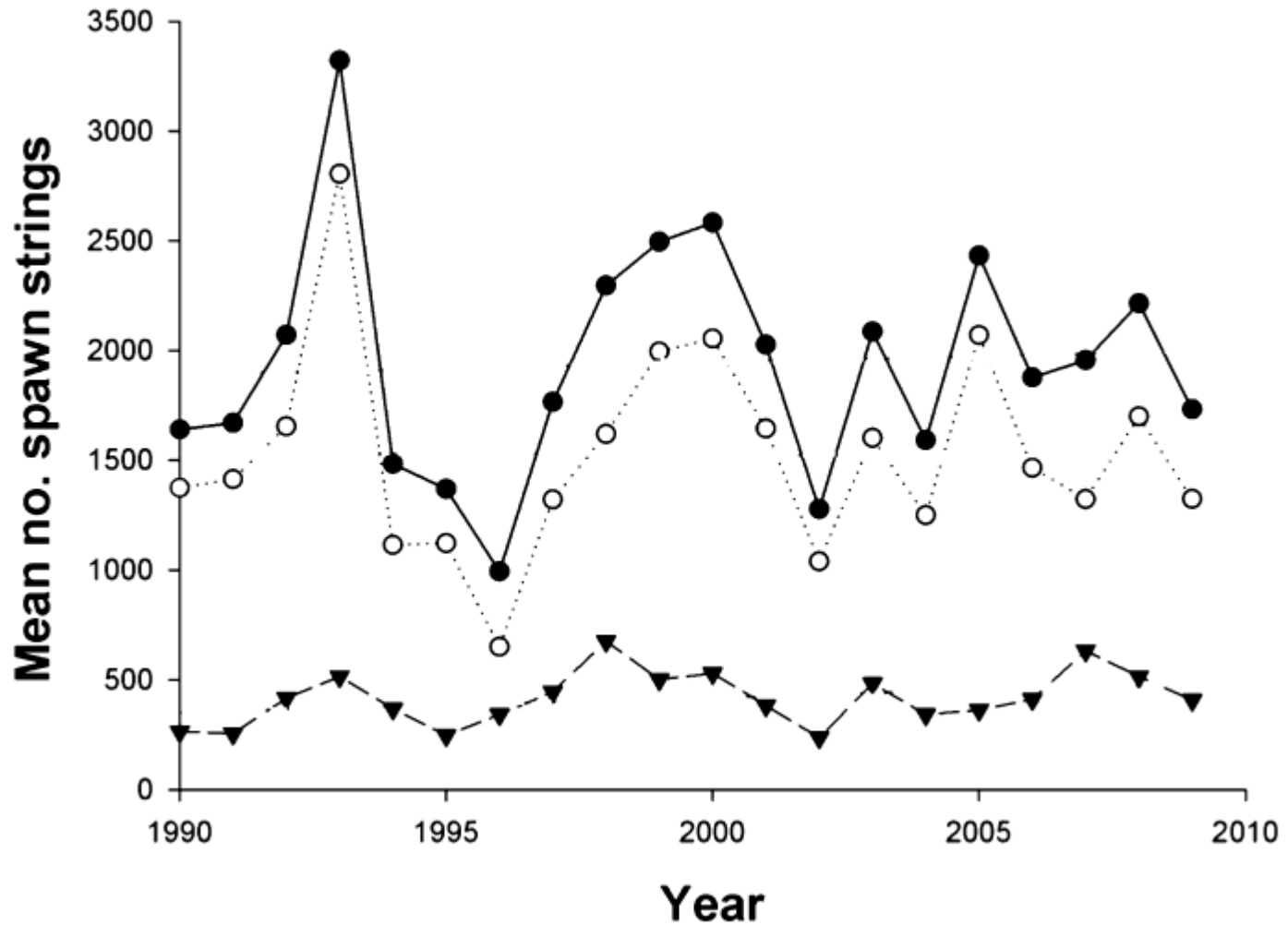
Estimated population size



n=93; data re-plotted from Baker et al, 2004



(4) Inadequate evidence for status and drivers of change



(5) Inadequate awareness of status and needs among conservation managers

- Adders frequently seen as:
 - ubiquitous
 - low conservation priority
- Over-generalised or incorrect understanding of habitat requirements
 - heathland or grassland NVC communities
 - “bare ground”



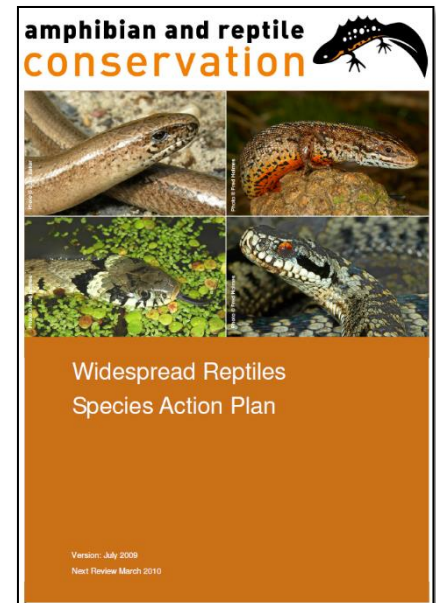
Solutions

(1) Set landscape-scale and national targets for adder conservation



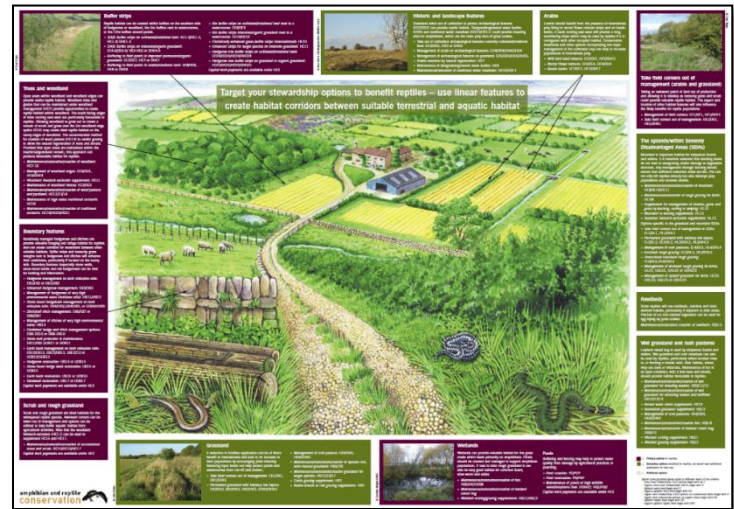
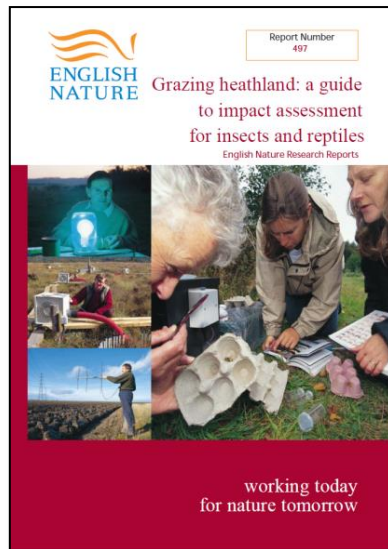
(2) Revise national biodiversity infrastructure

- Explicit outcomes for species
- Re-distribute resources and approaches to address “widespread decliners” – hedgehogs, water voles, common toads, adders
- Embed Lawton principles on protected sites: more, bigger, better, joined up
- Track actions and outcomes



(3) Increase awareness of status and requirements, and advocate good practice

- Advocacy among key decision-makers and land managers. Examine reasons for misunderstandings and lack of awareness. Red list at country level
- Promote existing guidance, fill gaps
- Select influential “cheer-leaders” to champion adders



(4) Target key land management processes

- SSSI, forestry and agri-environment: outcome vs method, conflict reduction, adder awareness
- Initially, focus on certain habitats harbouring declining populations – easier to target groups of managers



(5) Improve understanding of status, drivers of change and key issues

- National and local status through co-ordinated monitoring
- Positive and negative drivers
- Co-ordinate and publish applied research:
...population size in representative habitats, demographic viability, genetic viability, historical status, long-term impacts of habitat management, development impacts, mitigation outcomes, dispersal barriers, disease significance, recovery trialling, public attitude impacts, significance of persecution and disturbance, more...

(6) Engagement with and empowerment of volunteers

- Huge interest in adders. More structured programmes could help channel this interest into even more conservation on the ground.
- This conference is a great example!



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Thank you for listening

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