The Herpetological Conservation Trust

Make the Adder Count 2006

Summary Report

Background

2006 was the second year of *Make the Adder Count* - a project which collates springtime counts of adders with a view to establishing a dataset to be used in assessing national population trends. Locally, the project focuses conservation attention on aggregation areas – often hibernation sites, which are key features of adder habitat that should be protected during site management.

Responses and sites covered

Thirty-eight surveyors (or teams of surveyors) returned data covering 103 sites. Each surveyor, or team, visited between 1 and 25 sites – the greatest number of sites being covered by Chris Monk, as he did in 2005.

Bernard Dawson returned counts for 31 aggregation areas within a single site, in Norfolk. The peak count (greatest number of adult adders counted on one day) for the whole site was 115, surely making this a particularly significant adder population. As the site total is so much larger than counts from other sites, for purposes of this analysis, the data were treated as a single site, and the average peak count for all of the aggregations (4.42, range 1-15, n = 31) taken as the count for the site as a whole.

As in 2005, many of the counts were carried out by a relatively small proportion of the surveyors; more than half of the sites (53%) were covered by four (11%) of the surveyors.

Although the number of contributors to *Make the Adder Count* was similar to 2005, there was a degree of site turnover. Nevertheless, 57 sites from 2005 were revisited in 2006. This is particularly pleasing especially considering that one of the major data contributors in 2005 has moved abroad and so could not visit his count sites (15 of them) in 2006.

The 2005 survey established that between five and six site visits (counts) are needed to be reasonably sure of capturing the peak count at any particular site. Hence in 2006, at least three, and ideally five or six counts, were requested in guidance notes. In practice, surveyors made between one and fourteen counts per site. The average number of counts made at each site was 5 (n = 102), an increase on 2005 (average = 3.6, n = 106). At 50 sites (49%) five or more counts were made.

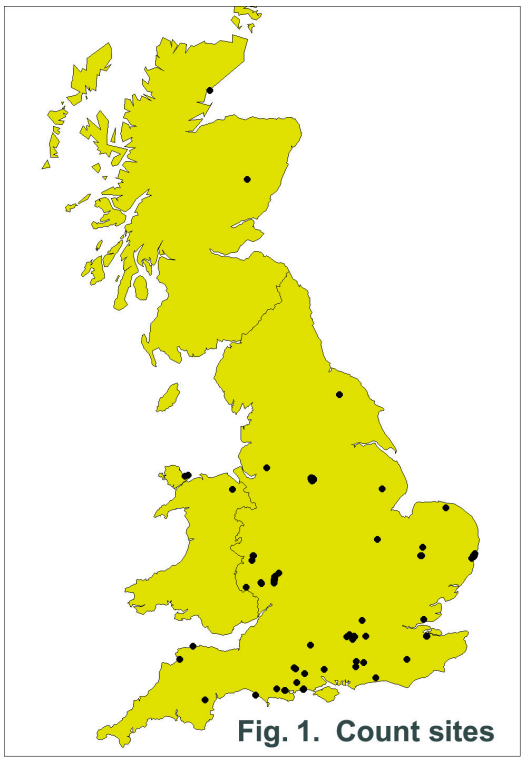
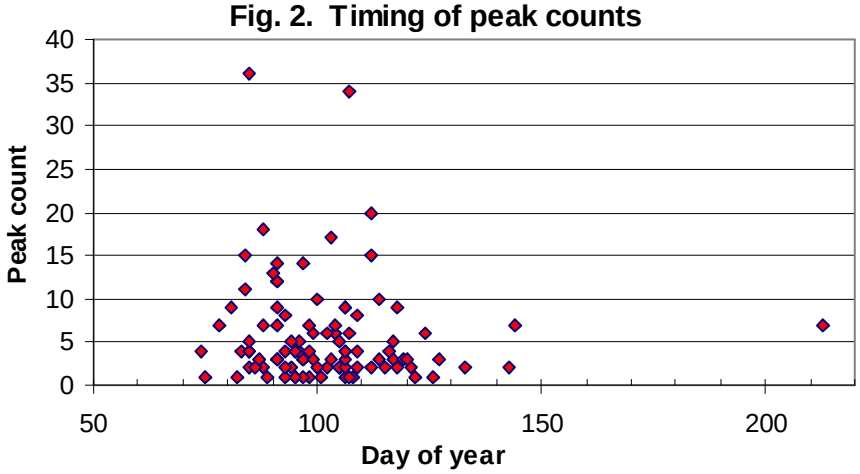


Fig. 1. Count sites

Fig. 2. Timing of peak counts



Timing of first sightings and peak counts

Although cool and wet weather resulted in a 'slow' spring in 2006, a mild spell in mid-February prompted the first sightings of adders. The first was on 8 February, in Derbyshire (Chris Monk), followed by sightings in Dorset on 11 February (Alan Barrett and Chris-Gleed-Owen), South Devon on 15 February (Stephen Block) and Lincolnshire on 17 February (Brian Redman). Adders sometimes emerge under surprisingly poor weather conditions. David and Marion Nesbitt found adders in Hampshire in bright sunshine, but at an air temperature of only 5^{o}C (4 March).

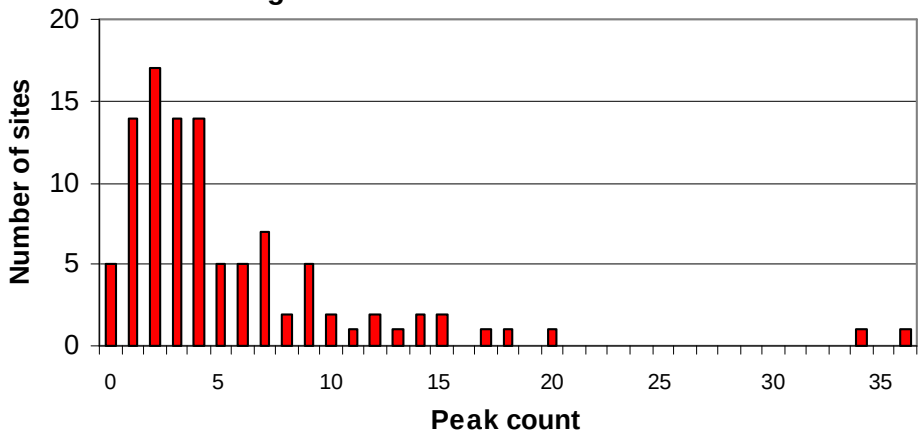
The first peak count of the year was obtained on day 74 (March 15) (by Chris Gleed-Owen in Dorset) and the last one was made on day 213 (August 1). However, most of the peak counts (99%) were made from day 74 to day 144 (May 24).

To determine the median peak count date for the year, counts made after day 151 (the end of May) were excluded, being judged as being after the springtime lying out period. The median peak count in 2006 was made between 7 to 9 April, (depending on the whether all data are evaluated, or only those from sites with many counts). This was 5 to 8.5 days later than in 2005.

Numbers of adders counted

Peak counts ranged from 0 (at five sites) to 36 (Fig. 3). The median peak count was 4.

Fig. 3. Peak counts of adders



The average peak count was 5.46 (n = 103). This is lower than the average peak count from 2005 (Table 1), but this reflects site turnover (different sites being surveyed each year) rather than changes in numbers of adders. When the peak averages from sites that were surveyed in both years are considered, the annual averages are in fact similar. This is reassuring, since adders are long-lived animals with relatively slow rates of recruitment to the adult population. Population stability is the norm, especially in the short-term. *Make the Adder Count* aims to be a long-term monitoring project, in the expectation that any changes that do occur will be evident only over a longer time scale.

	All sites		Sites surveyed both years	
	2005	**2006**	**2005**	**2006**
Average	6.2	5.5	6.6	6.6
Median	4	4	4	4
n	106	103	56	56

Table 1. Average and median peak counts in 2005 and 2006

In spite of the overall consistency in counts between 2005 and 2006, there were relatively large changes in numbers at a few sites (decreases of 8 and 10, but also increases of 8, 10 and 11). Future counts from these sites may determine whether such large differences in annual counts reflect long-term changes in numbers of snakes. Certainly at one site in Suffolk, repeated site visits in 2006 detected only a single snake where a peak count of nine had been made the previous year. Similarly, in Derbyshire, Chris Monk and John Newton could only find three individuals (peak count = 1) at a site where a peak count of 11 had been made in 2005 (Monk, 2007). The reason for the apparent disappearances of these snakes is unknown.

Factors affecting populations

Information on factors affecting populations was given for 97 sites.

	Positive		Negative	
Factor	**n**	**%**	**n**	**%**
Building development			3	3
Agricultural changes	2	2	2	2
Forestry operations	6	6	4	4
Fire	1	1	9	9
Public pressure (disturbance)			48	49
Persecution (killing or injury)			9	9
Predation			10	10
Neglect/succession	0	0	10	10
Habitat management/creation	25	26	25	26
Habitat fragmentation/isolation			10	10
Introduction (development mitigation)	0	1		
Introduction (conservation)	2	2		
Stock trampling			2	2
Total where factors identified	30		65	

Table 2. Factors reported to be affecting populations (2006)

n = number of sites at which factor reported.

- At 32% of sites surveyors reported that no threats were present.
- Positive factors were reported at 31% of sites
- Negative factors were reported at 67% of sites.
- At many sites (28%), both positive and negative factors were identified.
- Among the positive factors, habitat management was the most frequently cited (26% of sites).
- The most frequently reported factor negatively affecting sites was disturbance through public pressure (49%).

- Habitat management was the next largest negative factor affecting sites (26%).
- All other negative factors affected 10% or less of the total number of sites.

It is unlikely that the perceived threats to adder sites will change rapidly over a short period of time. However, it is worth noting that disturbance through public pressure has been the most frequently reported negative factor affecting adder sites in both 2005 and 2006 by a large margin. Notes made by surveyors indicate that this disturbance is primarily due to recreational usage by walkers and especially dog walkers. At one site dog walking is carried out by professional dog walkers, with large numbers of dogs.

Specific examples of habitat management threatening adder populations were the use of heavy machinery for bracken control and the unsympathetic removal of scrub, apparently in ignorance of adder hibernation site locations.

Chris Monk noted a threat from stock trampling at one site and Axel Barlow found a dead adder apparently trampled by horses on Anglesey.

At another site, Peter Scott raised the question of whether the placement of an owl nesting box on a tall pole close to a hibernaculum has been responsible for a decline in adder numbers, not due to owl predation, but the use of the nesting box as a look-out post for diurnal raptors.

Black adders

Although information on the incidence of black (melanistic) adders was not requested, several recorders including John Baker, John Butter, Chris Monk, Mark Rawlins, Alf Simpson and Paul Stevens noted their presence at six sites (approximately 6% of all sites) ranging across England (Cumbria, Derbyshire, Devon, Norfolk and Sussex). Particularly noteworthy were Mark Rawlins' observations from a site in Cumbria where not only are approximately 50% of adders melanistic, but black grass snakes have also been found, although much less frequently.

The future

Make the Adder Count will be repeated annually as a long-term surveillance programme. To take part, or to obtain further information, please contact the project co-ordinator, John Baker. Phone: 01986 872016, mobile: 07884 441521, email: addercount@herpconstrust.org.uk

Reference

Monk, C. (2007). 2006 adder (*Vipera berus*) report. Peak District National Park and Derbyshire. Derbyshire Amphibian and Reptile Group, unpublished report.

Thank you

Make the Adder Count is grateful to the following for their time in the field and for sending in survey forms, reports and photographs: Axel Barlow, Alan Barrett, Stephen Block, David Bradley, Mick Brummage, John Butter, Stuart Croft, Bernard Dawson, Selwyn Dennis, Jim Foster, Chris Gleed-Owen, Nigel Hand, Martin Hartup, Kerry Holmes, Arthur Jollands, John Lloyd-Parry, Dave Mackay, Lee Malpass, Simon Mason, Gareth Matthes, Alistair McGregor, Adrian Middleton, George Millins, Chris Monk, Simon Munnery, Sarah Murray, Dave Nesbitt, Marion Nesbitt, John Newton, Adrian Podmore, Brian Redman, Peter Scott, Alf Simpson, Christopher Slack, Rob Smith, Paul Stevens, Des Sussex, Dave Thomas, Michael Taylor, Joanne Wilkinson and Andrew Woodhouse.

John Baker, February 2007

***Make the Adder Count* is part of the *National Amphibian and Reptile Recording Scheme* www.narrs.org.uk. NARRS is an initiative developed by a partnership of organisations led by The Herpetological Conservation Trust.**