

## VOLUNTEER BOOM

DAVE LEECH, CARL BARIMORE AND HUMPHREY CRICK

*British Trust for Ornithology  
The National Centre for Ornithology  
The Nunnery, Thetford  
Norfolk, IP24 2PU, United Kingdom*

More people than ever are contributing to nest recording for the BTO and, as *Dave Leech, Carl Barimore* and *Humphrey Crick* report. Their efforts are revealing some worrying long-term productivity trends for Kestrels and Lapwings.

### EXPLOSION DE VOLUNTARIOS

Más gente que nunca está contribuyendo al registro del nidos del BTO, y como *Dave Leech, Carl Barimore* y *Humphrey Crick* informan, sus esfuerzos revelan preocupantes tendencias en productividad para cernícalos y avefrías.

It may seem an incredibly simple thing to do, but the value of peering briefly into a nest and counting the eggs or chicks inside cannot be overestimated – information such as this is key to understanding why bird numbers change from year to year.

Thanks to another tremendous response from the Nest Record Scheme (NRS) volunteers, coupled with the launch of the webbased Nest Box Challenge (in collaboration with the BBC), the 2007 breeding season has been incredibly productive in terms of monitoring effort.

Sadly, feedback received from nest recorders and ringers suggests that the year has been less successful for many of the birds themselves, with a general impression that many species, including Great and Blue Tits, had a hard time coping with the incessant downpours during early summer.

### OWLS AND RAPTORS IN 2006

Large between-year fluctuations in breeding success are not the preserve of small passerines, however. Last year, the UK's owl population appeared to have experienced a fairly poor

season and now that 2006's data have been added to the NRS data set (which, for some species, stretches back as far as 1939), it is clear that productivity was indeed below par for several owl and raptor species.

Barn Owl, Tawny Owl and Kestrel, all of which feed primarily on small rodents and particularly Field Voles, produced significantly smaller broods than normal (based on their long-term trends in productivity).

The fact that brood sizes were unaffected for species such as Buzzard, Peregrine, Merlin, Sparrowhawk and Little Owl, which are less reliant on rodent prey, suggests that this drop in productivity was caused by a reduction in vole abundance in 2006.

When looking at productivity changes over time, it is important to put them into context. Vole populations in the UK are well studied, so it is known that numbers fluctuate regularly on a three-to-five-year cycle – a variation that is paralleled by changes in the productivity of those bird species feeding on them. Thus, a decline in breeding success in one year may be compensated for by aboveaverage productivity the following season.

## CAUSES FOR CONCERN

It is when the average number of offspring produced per pair starts to decline over a longer period (for species with stable or declining abundance) that conservationists should start to become concerned (see NRS Data Analysis box).

While the most recent trends for Barn Owl and Tawny Owl indicate that productivity has not changed markedly, it appears that Kestrel brood sizes have declined significantly over the last 15 years, leading to its inclusion on the NRS Concern List (Fig 1). This follows the species' recovery from a previous decline in breeding performance, presumed to be a result of the long-lasting effects of organochlorine pesticides, such as DDT, in the 1950s and 1960s.

The NRS Concern List contains species that are demonstrating simultaneous declines in abundance and at least one aspect of productivity. It is important to exclude species that are increasing in number, as a fall in breeding success may result simply from heightened competition between individuals as they become more common.

## NEW NRS CONCERN LIST

Lapwing is the most recent addition to the list due to a decrease in survival rates of nests containing eggs, caused by a number of particularly bad years since 1996 (Fig 2). Lapwing populations have been in decline since the mid-1980s, due primarily to the loss of the agricultural mosaic, drainage of wetland areas, increased grazing pressure in upland areas and heightened levels of nest predation.

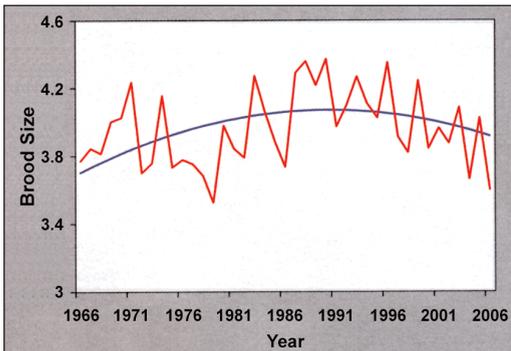


FIGURE 1. Change of Kestrel brood size since 1966.

## JOIN IN NEXT YEAR

If you think that reading about the breeding success of different bird species is fascinating, it really is nothing compared to witnessing it firsthand. While the weather may seem cold and miserable now, it's amazing how quickly spring begins and birds start to breed, so when things start to warm up again remember to keep your eyes open for signs of nesting.

Records of any species, even Robins and Blackbirds in the garden, are incredibly useful as long as you can see what's in their nests. If you do find one, please get in touch with us at [nest.records@bto.org](mailto:nest.records@bto.org) and become part of the national band of nest recorders.

## THANK YOU

We thank all the nest recorders and ringers who have contributed information this year – without your tireless efforts, none of this would have been possible. We are also grateful to Mandy Andrews who helps make the scheme run smoothly, Karen Wright for her help with the database, volunteer Mark Cubitt for the amazing new version of the IPMR home-inputting program introduced in 2006 and to David Glue for his contributions and advice.

The BTO/JNCC Partnership funds the Nest Record Scheme and we are grateful for the help provided by Helen Baker and her JNCC colleagues.

## FIND OUT MORE

For more information on all aspects of the Nest

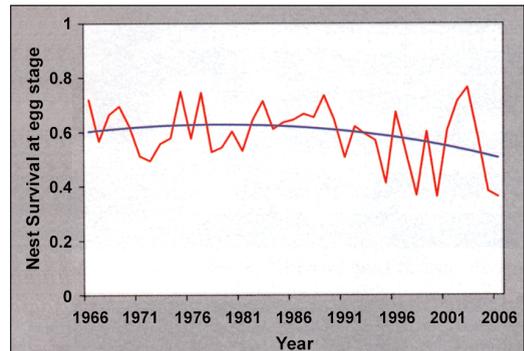


FIGURE 2. Changes in survival at the egg stage in Lapwing nests.

Record Scheme go to [www.bto.org/goto/nrs.htm](http://www.bto.org/goto/nrs.htm)

For information about Red and Amber lists and Birds of Conservation Concern see [www.bto.org/psob](http://www.bto.org/psob)

The Breeding Birds in the Wider Countryside Report can be found online at [www.bto.org/birdtrends](http://www.bto.org/birdtrends)

If you want to be involved with the Nest Record Scheme, e-mail [nest.records@bto.org](mailto:nest.records@bto.org)

### THE NRS CONCERN LIST

Species	Years on list	Significant decline in:
<b>Lapwing</b>	New	NE *
<i>Kestrel</i>	2	B
<i>Tree Pipit</i>	2	NN *
Whinchat	2	NE *
<b>Bullfinch</b>	2	NE & NN
<b>Corn Bunting</b>	2	B *
<b>Spotted Flycatcher</b>	3	C, B, NE & NN
<b>Starling</b>	3	B
Pied Wagtail	4	C & B
<b>House Sparrow</b>	4	B
<i>Grey Wagtail</i>	5	C & B
<i>Dunmoock</i>	9	NN
<b>Yellowhammer</b>	5	B, NE & NN
<i>Yellow Wagtail</i>	8	B *
<i>Willow Warbler</i>	9	NE
<i>Ringed Plover</i>	11	NE
Moorhen	15	C & NE
<b>Linnet</b>	16	B, NE & NN
<b>Reed Bunting</b>	16	NE

C = clutch size      B = brood size

NE = nest survival at the egg stage      NN = nest survival at the nestling stage

\* indicates that the average annual sample size is small (between 10 and 30 records per year)

The inclusion of each species on the Red and Amber Lists of Conservation Concern is indicated by:

Red = **bold**      Amber = *italics*

### NRS DATA ANALYSIS

Each year, NRS data are used to create trends in productivity for more than 90 species, spanning the past 40 years of submitted records. These are made available to browse on-line as part of the Breeding Birds in the Wider Countryside Report ([www.bto.org/birdtrends](http://www.bto.org/birdtrends)).

Species are placed on the NRS Concern List if:

- a) They demonstrate significant declines in some aspect of breeding performance over at least the last 15 years; and
- b) They have been placed on the Red or Amber lists of Birds of Conservation Concern list due to population declines, or if there is some uncertainty over their population status.