



Bittern *Botaurus stellaris* **monitoring and research in the UK:** **Summary of the 2004 season**

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Key Results:

- Number of booming males up from 43 in 2003 to 55 this year, an increase of 28%.
- Seven new sites included in the minimum booming figures this year.
- The first booming in Wales since the mid 1980's.
- First nesting at Titchwell since 1989.
- Large increases in boomers in the Norfolk Broads and the North East of England.

As last year, this year saw another dramatic increase in the number of booming male bitterns, a minimum of 55 were recorded in the UK representing a 28% increase on the 43 counted in 2003. The number of sites used by booming male bitterns had risen to 29 from 24 in 2003.

This report provides a short summary of the provisional findings of this year's bittern monitoring and research programme. The bittern team endeavours to investigate any reports of booming bitterns in the country. If confirmed this will be followed up later in the season with observations to establish whether breeding has occurred. With a fairly large and rapidly growing number of sites scattered far and wide, this task is only made possible with the support of many landowners, site managers, wardens, volunteers and local birders who go out listening and watching on our behalf. We thank them all.

For the past three years, we use a standardized non-invasive method of assessing nesting attempts that provides an estimate of the number of breeding females active during the season.

RSPB and English Nature have jointly funded the work carried out and the RSPB wishes to acknowledge the financial support of English Nature. This report will be widely distributed and therefore contains mention of only a few sites that already well publicized.

UK Population Monitoring

The unit used when counting breeding bitterns is booming (singing) males. With recent new colonisations, it is worthwhile reiterating the criteria to which all records are subject and which define whether one territorial male is considered different from another. This is not always straightforward, particularly when a bird is heard to boom only briefly at new or unexpected sites. Bitterns have been included in the minimum population figure if they meet one of the following criteria:

1. Heard at the same time as other birds in nearby territories
2. With a booming period which overlaps that of birds on nearby sites
3. Where sound analysis of the boom shows the bird is different from those nearby
4. A bird must boom for a minimum of one week

Only reports from reliable observers such as site wardens and county recorders are accepted. Records meeting these criteria have been used to arrive at the minimum population figures.

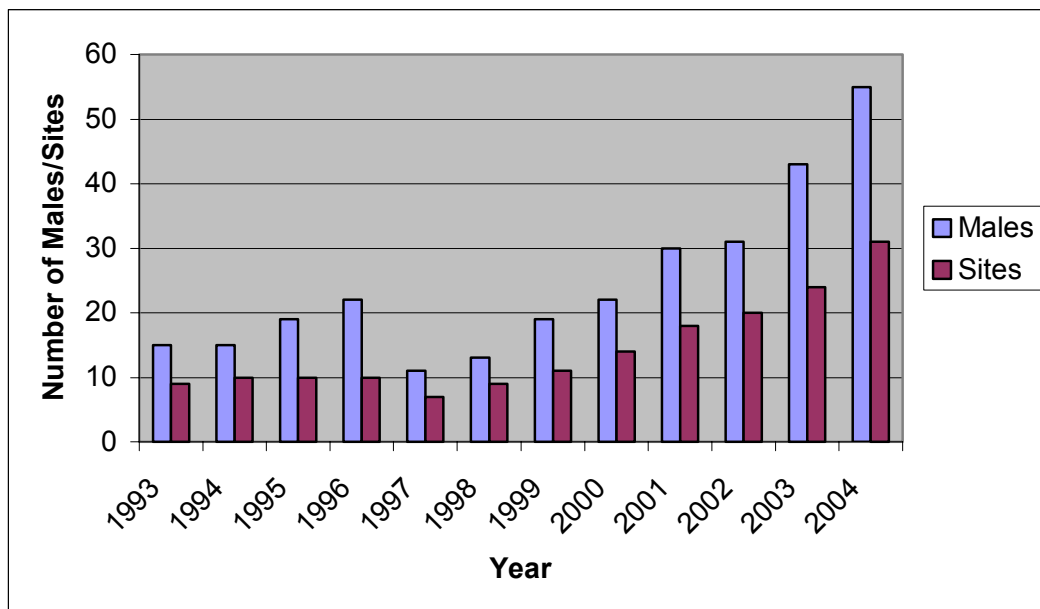
A maximum population figure is also given, which includes the records of other confirmed boomers that did not fulfil any of the above criteria. However it is the minimum figures that should be quoted, as they are the most reliable and comparable with figures from earlier years.

2004 Results

Table 1. The number of booming male bitterns in the UK since 1993 and the number of sites involved; figures in brackets are maxima.

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Males	15(17)	19(20)	22	11(12)	13(18)	19(22)	22(28)	30(33)	31(37)	43(52)	55(65)
Sites	9(11)	10(11)	10	7(8)	9(12)	11(14)	14(16)	18	20(23)	24(29)	31(33)

Figure 1. The number of booming males bitterns in the UK since 1993 and the number of sites involved (only minimum figures are shown)



The graph above illustrates the continuing upward trend in the minimum number of booming males in the UK. This years increase is possibly due to several years of successful breeding at established sites and the colonization of new sites as a result of management work over the past ten years. These new sites are often close to established sites and it is likely that birds have fledged nearby, although several of the boomers are well away from core areas, it is likely that these are continental birds remaining through the spring to boom in this country.

Table 2. The number of booming males since 1993 in each county/region are shown below; figures in brackets are maxima.

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Change
NWEngland	4	4	4	5	3	3	3	2	2	2	1	1	0
NorfolkCoast	4(5)	3(4)	4(5)	3	1(2)	1	1(3)	1(3)	1(2)		1	2(3)	+1
NorfolkBroads	1(2)	2	2	2	2	1(3)	5	5(6)	7	10(11)	12(15)	17(22)	+5
SuffolkCoast	6	6	9	11	4	4(6)	8	10(13)	15(17)	14(19)	18(19)	19(20)	+1
SWEngland				1					1				0
WEngland					1	2	1	1	1	(1)	1	1	0
SEEngland						1	(1)	1	1	2	2(3)	3(4)	+1
NEEngland						1(2)		2	2	2	5(8)	9(10)	+4
CEngland							1				(1)		0
EEngland										1(2)	3	2(3)	-1
Wales												1	+1
Totals	15(17)	15(16)	19(20)	22	11(12)	13(18)	19(22)	22(28)	30(33)	31(37)	43(52)	55(65)	+12

Large increases in booming numbers were recorded in the Norfolk Broads and the North East of England. An increase of 42% was recorded in the Broads and this is almost certainly due to the management work carried out over the past few years. For the first time in six years more than one boomer was heard on the North Norfolk coast.

An increase of 80% was recorded in the North East of England, and booming was heard at three new sites, one of which was at the RSPB reserve of Blacktoft Sands, this is in part due to that for the first time a bittern researcher was based in that region.

There was a slight increase on the Suffolk Coast, at the regular five sites and an incredible nine boomers could be heard at Minsmere! One of these boomers has almost certainly been present now for at least six seasons, he was colour ringed as a booming male in 1998 and was seen several times again this year. In Eastern England there was a repeat of last year with three birds although one of the males failed to qualify for the minimum figures (this bird failed to boom for more than a week). Three males were confirmed in the South East, two of which were at new sites. In the North West just one boomer was located at Leighton Moss. For the second year running a bird was recorded at the newly created RSPB reedbed site of Ham wall in Western England. Finally, a male was booming at a new reedbed site in Wales, the first in this country since the mid 1980's.

Breeding

This year like last year, using non-invasive techniques, we have attempted to record all nesting attempts made at sites where booming was confirmed in the spring. The only time this season when nests visits were made, were when a suspected nest was thought to have failed and confirmation was needed that there was in fact a nest! As in previous years a huge amount of effort and time was put into watching. In line with the booming totals, there are two figures quoted; **minimum** – which includes only confirmed nesting attempts and **maximum** – which includes both confirmed and probable nesting attempts.

Table 3. The number of nesting attempts identified in the UK in 2004. All booming sites were surveyed for the presence of females. The totals for 2001, 2002 and 2003 are provided for comparison.

County/Region	Minimum number of nesting attempts	Maximum number of nesting attempts	Number of sites (maximum in brackets)
NW England	2	2	1
Norfolk Coast	2	2	2
Norfolk Broads	7	7	5
Suffolk Coast	15	16	5
NE England	5	6	5
2004 Total	31	33	18
2003 Total	34	37	14(15)
2002 Total	26	31	11(14)
2001 Total	26	26	11

As in previous years, female nesting activity was not recorded at a large number of the sites where booming was confirmed. Only 18 of the 31 sites (42%) that held males had breeding females. At some sites females were present but no nests were located. It is possible that in some of these cases, nests could have been predated at the egg stage, when nests are difficult to identify and the birds have not re-laid or have been unsuccessful in subsequent attempts. One nest was located at a site where no booming was heard, but two birds were booming only a couple of kilometers away.

As in previous year's the distribution of nests is skewed towards the Suffolk coast, where nest-finding effort is higher than elsewhere. At Minsmere nine active nests were detected. One of these nests failed early on and two of the three late nests were almost certainly re-lays, whilst the other was a double brooding female, it is suspected that either six or seven females were involved. This well known double brooding female is characteristic as she has an obvious kink in her neck and has now bred at Minsmere for at least seven years!! Elsewhere on the Suffolk coast the number of active nests was slightly down.

In the Norfolk Broads there was little change in the number of nesting attempts, and again it appears that success was fairly low. Two nests were located on the Norfolk coast, one of which was at Titchwell the first here since 1989.

Again, the isolated population at Leighton Moss had two nests, but unlike last year it appears that both were successful.

In the North East, nesting was confirmed at the same four sites as last year and in addition nesting was confirmed at the RSPB site of Blackfoft Sands.

No other female activity was recorded from any other sites away from the above that held booming males, despite many hours spent watching.

Radio-tracking

As no active nests have been visited for three years, there are no radio-tagged birds. Last years tagged bird that was wintering in the Lee Valley (Essex), is again thought to have returned to the North East of England to breed, as a bird was seen with an active nest at the same site as last year bearing a leather tag.

NEWS

Sea Level Rise

It has been identified that of the 55 booming males present this season 19 (35%) are on sites that are immediately threatened by sea level rise, of the breeding females this figure is even higher with over 50% in danger. As new reedbed sites are created away from the coast and safe from sea level rise, it is hoped that ultimately birds will colonise these sites and secure a stable future for the bittern.

All Change

Since the outset, the bittern monitoring programme has been run by RSPB research, as from next year this role will now be handled by the RSBP monitoring department. Gillian Gilbert's role will be undertaken by Simon Wotton.

EU Life Bittern 2 Project

The ambitious second LIFE project is developing a strategic network of sites suitable for bitterns, covering work on 19 different sites in England. The project runs over 4 years, is due to end in 2006 and involves a partnership of 8 organisations – the Herts and Middlesex Wildlife Trust, Lancashire Wildlife Trust, Yorkshire Wildlife Trust, English Nature, Broads Authority, Rye Harbour Nature Reserve, Lee Valley Park Authority and RSPB. The project aims are to:

- Increase the number of fledged young produced
- Provide fledglings with suitable sites to move on to
- Provide more suitable sites for wintering bitterns from home and abroad

This year success was had at Titchwell (Norfolk) with the first breeding since 1989, booming again this year at Hamwall (Somerset), increases in boomers at both Minsmere and Walberswick (both Suffolk). Birds were also present during the breeding season at the newly created sites such as Lakenheath (Suffolk) and How Hill (Norfolk).

If you would like to know more, then please contact: Sarah Alsbury, Project Manager on 01767-680551, or email: sarah.alsbury@rspb.org.uk

Contact Us

We are always interested to hear of any bittern seen with metal rings, radio-tags or colour rings away from the main breeding sites. Although there are no longer any birds with operational radios, sightings of these individuals provide useful information on the distances they are moving and the type of habitats they are utilizing - particularly outside the breeding season. Metal (BTO) rings were fitted to the bird's tarsus, the radio-tags are fitted onto the tibia with a leather strap.

With reedbed creation throughout the UK and a rapidly expanding bittern population, we are increasingly reliant on landowners, site managers, wardens and local birders to report booming to us. Please keep an ear out for them next spring, even at sites where they have not been heard for many years. To report an observation or for more information on the best survey methods and when to listen, please contact one of us at the Lodge (address above).

Simon Wotton – 01767-680551 or simon.wotton@rspb.org.uk

David Fairhurst - 07776-367314 or david.fairhurst@rspb.org.uk

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Particular thanks goes to Rosalind Kennerley and Keith Kellet who surveyed Leighton Moss and all those volunteers who helped with co-ordinated watches, especially the RSPB staff at Minsmere and the EN staff at Walberswick.

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