

## **1 Introduction**

This report collates data from the west, Mid Cheshire, South Cheshire and Wirral Barn Owl groups. It is hoped that an East Cheshire group will be set up in late 2005.

## **2 Summary**

There were 76 confirmed breeding pairs in Cheshire in 2004 .with a total of 199 confirmed young hatched (including second broods) -some of which subsequently died .At five of the 76 sites the young were not counted .Using the average number of chicks per pair at the counted sites of 2.80 would give an estimated total of 213 young in 2004.The maximum number of young produced at one site was 6.

The number of boxes installed by end 2004 in Cheshire was 429.

There were only four established Barn Owl groups in Cheshire in 2004 with membership about 75 and 20-25 active volunteers-see above note about a new East group formed in 2005.

## **3 DATA**

Breeding data for 2004

No of confirmed breeding pairs	76
No of pairs with confirmed numbers of young	71
Average young per pair (Of the 71)	2.8
Confirmed young owls	199
Maximum young at one site	6
Estimated total young	213
Boxes installed	471

### Comparison with previous years

Note : there is only patchy data on mortality and number of birds fledged hence it is not included this year.

Year	Breeding Pairs Pp	Young	Young per pair
1998	7	17	2.4
1999	10	32	2.3
2000	19	46	2.2
2001	29	53	1.8
2002	48	110	3.14
2003	61	167	3.1
2004	76	199	2.8

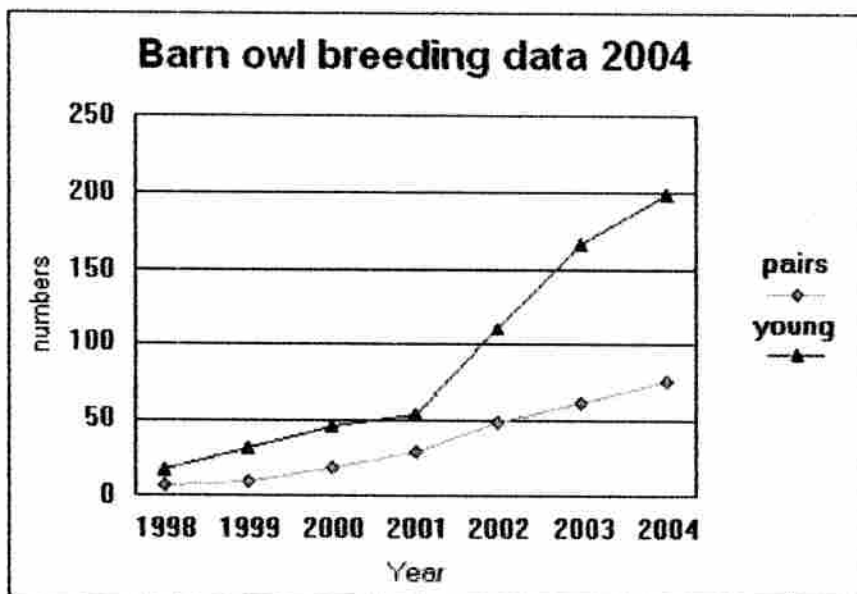
The location of breeding sites is shown below

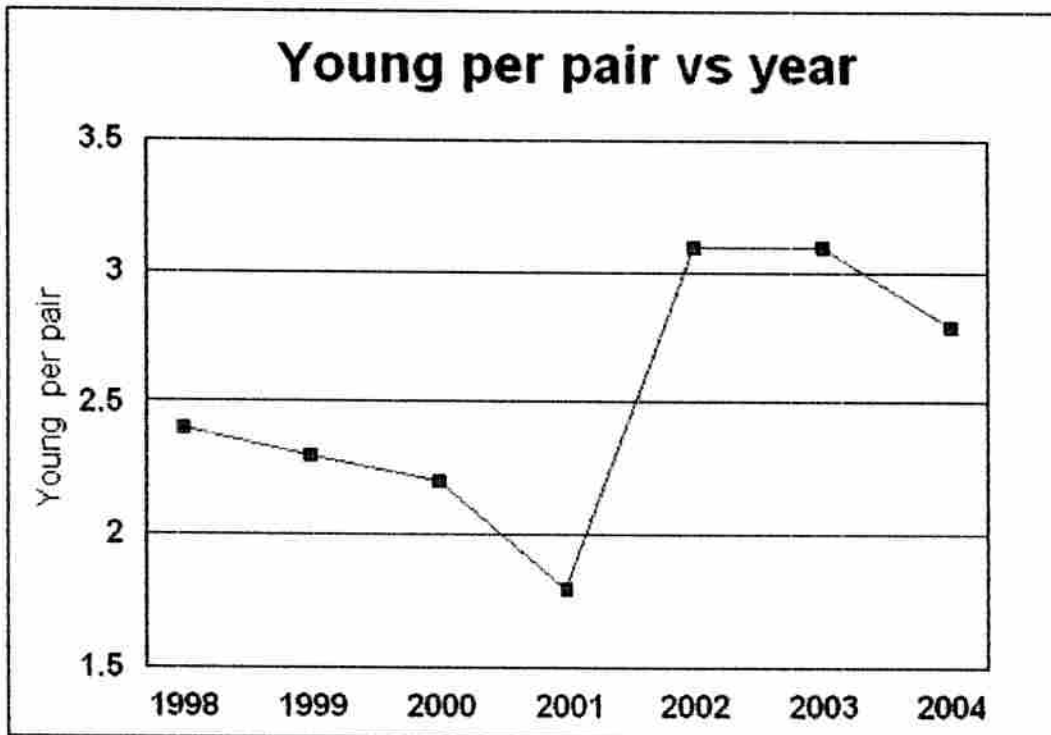
	Tree box	Barn box	Pole box	Building	Tree site	Total
West	4	1	19	0	9	33
Mid	4	8	0	0	0	12
Wirral	7	1	7	3	3	21
South	0	1	2	5	2	10
Total	15	11	28	8	14	76

The number of boxes installed and the take up by Barn owls is shown below

	Boxes installed	Used by Barn Owl	% Utilisation (for breeding)
West	178	24	13.4
Mld	120	12	10
Wirral	90	15	16
South	41	4	10
Total Total	429	55	11.6

Graphs of young and number of pairs for the past seven years can be found below together with the number of young per pair.





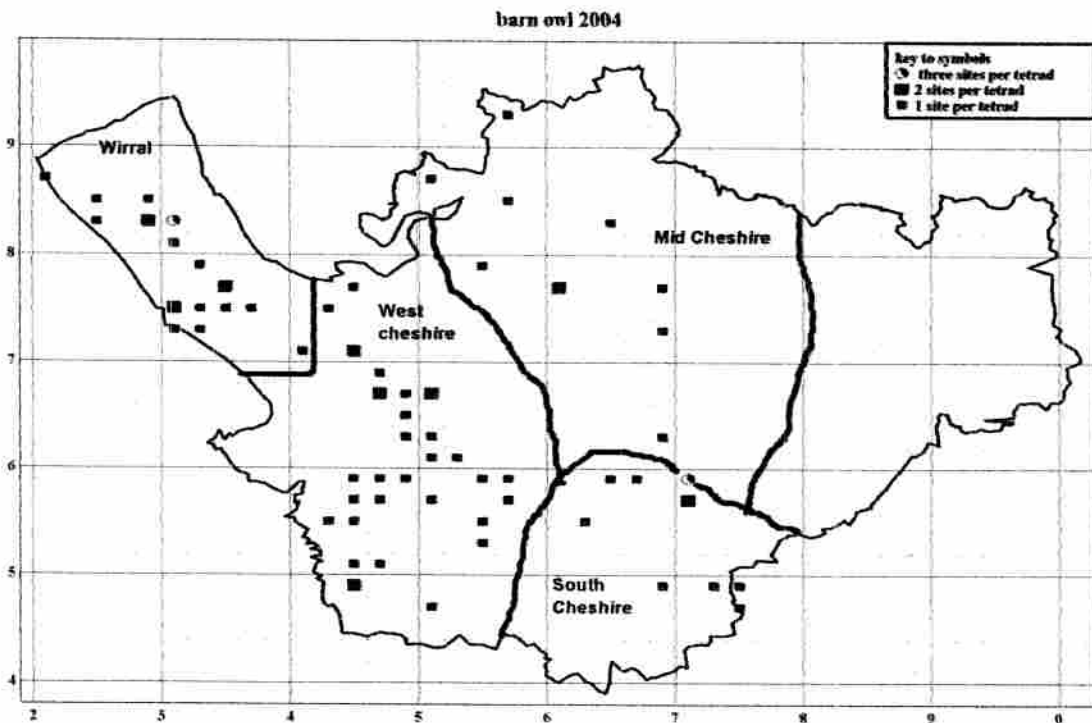
The young per pair figure has fallen this year. This data largely reflects the number of young which have survived to near fledging and thus reflects the ability of the parents to feed them. Voles fluctuate on a three to four year cycle and the reduction in overall breeding success this year probably reflects the reduction in vole numbers.

#### Breeding success in each Barn owl group area.

Group	Pairs	Young	Young per pair
West Cheshire	33	83 (ringed)	2.51
Mid Cheshire	12	14 (5 nests uncounted)	1.16
Wirral	21	73 (56 ringed)	3.47(2.6ringed)
South Cheshire	10	29 (5 sites estimated)	2.9

Note that the data on young is not consistent. It is unlikely that consistent data can be achieved unless more ringing resources are available. Obviously some of the young per pair figures are not accurate and they cannot be compared

## Barn owl distribution in Cheshire



There appears to be a preponderance of sites in the west of the county but this may only reflect the activity of the barn owl groups rather than any real measure of distribution. It is worth noting the very high concentrations in mid Wirral and on the mid - south border where in both cases there are five pairs of Barn Owls within 8 sq.km.

### Discussion

The number of detected breeding pairs has increased yet again from 61 in 2003 to 76 in 2004.

The number of young produced was 199 confirmed and 213 estimated the difference caused by a few natural sites where the young could not be counted.

The continued increase in the number of breeding pairs probably reflects increased knowledge of breeding sites as well as a higher provision of nest boxes. The data certainly gives no reliable indication of population trends.

It is interesting to compare the current data with previous population estimates . The population in 1985 for the whole of Cheshire was estimated as 35 pairs by Shawyer and we now have at least 76 pairs in only part of the county. This would indicate a significant population increase since that date and certainly the 1988-91 Breeding Atlas suggested a brighter future for this species following the reduction in the use of organochlorine pesticides. A more recent survey in the mid nineties gave a total county population in the mid teens . The most probable explanation for the increase seen since these surveys is some genuine population increase coupled with a major and sustained improvement in Barn owl observation by local groups.

It has been suggested that the provision of nest boxes has led to a population increase which may well be the case but as argued in previous reports the ringing data does not suggest a substantial increase from box provision alone.

The data provided from ringing is very interesting . The West group has attempted to trap adult owls in boxes in order to ring them as well as the juveniles by use of a carefully placed blocker over the entrance hole . In 2004 19 adult owls were trapped but only six of these were ringed . This data has been discussed with ringers and the RSPB and the conclusion is that as only one third of the adults is ringed the population of unringed birds i.e. those that have been raised in sites unknown to the ringers ( probably natural tree sites) , is likely to be 2 thirds of the total population. The sample size (19) is too small to be precise about the ratio of ringed to unringed birds in the total population but one can say for certain the at the unringed population is larger than the ringed.

To put it another way we have ringed over 300 birds in west Cheshire over the past three years. If the survivors were the major part of the population then we would expect that the majority of the recovered adults would be ringed . They are not and therefore they are not the major part of the population. These arguments would be invalid if the mortality rate of ringed birds was far higher than that of

unringed birds or that birds bred in natural sites preferred to breed in boxes . Both of these scenarios are unlikely and can be dismissed . In fact it has been suggested that ringed birds which have been largely bred in boxes will tend to breed in boxes . If that is the case then the unringed population is larger than the above estimate . These arguments would also suggest that the provision of boxes has provided additional sites for unringed birds to move into . The data on recoveries of adult owls from natural sites would be of even greater value and would hopefully show some ringed birds using these sites . However this must await the development of some device to block holes at these sites.

Finally the data on second broods is worthy of comment. Second broods were found as late as November on two sites in the Wirral. We do not know how widespread this is but further investigation of selected successful sites later in the year would provide useful information.

J D Wild July 2005