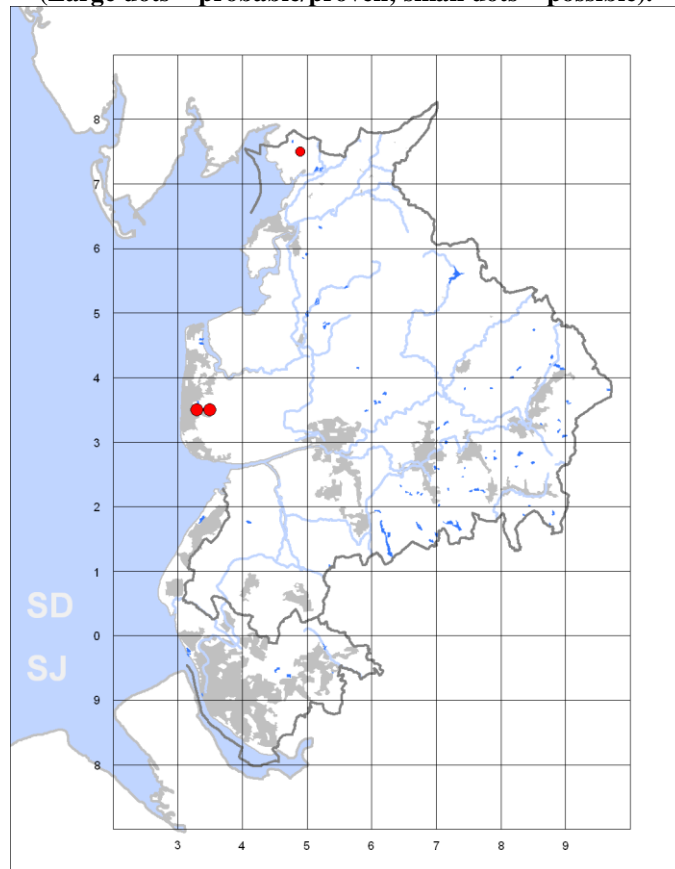


## CETTI'S WARBLER *Cettia cetti*

### Breeding

No Cetti's Warbler was seen in Lancashire until one at Marton Mere in 1990 but, following an increase in wintering records throughout the 1990s at both Marton Mere and Leighton Moss and at two other sites in Fylde and Merseyside in the 2000s, it became increasingly likely that the species was set to colonise Lancashire.

Figure 1. Cetti's Warbler: breeding distribution, 2008-2011.  
(Large dots = probable/proven; small dots = possible).



In early autumn 2009 at least four were at both Marton Mere and Leighton Moss and successful breeding was finally confirmed at Marton Mere in 2010, where five males had been singing in spring. Breeding was

thought probable at Leighton Moss the following year and two pairs were confirmed there in 2012.

It seems likely that around six pairs now breed in Lancashire.

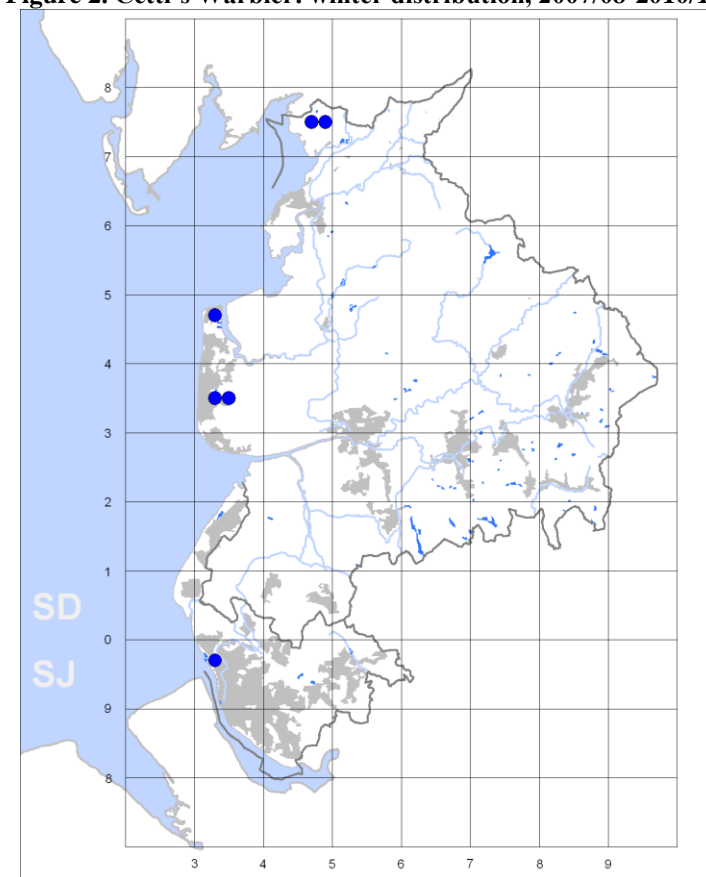
### Winter

Birds were seen annually during 2007/08 to 2010/11 at both Marton Mere and Leighton Moss. There were two additional records: one trapped in the Rimrose Valley, Sefton in November and December 2010 and two trapped at Fleetwood Marsh in November the same year.

In addition, a migrant/dispersing juvenile was trapped at Heysham on 15 October 2011.

SJW

Figure 2. Cetti's Warbler: winter distribution, 2007/08-2010/11.

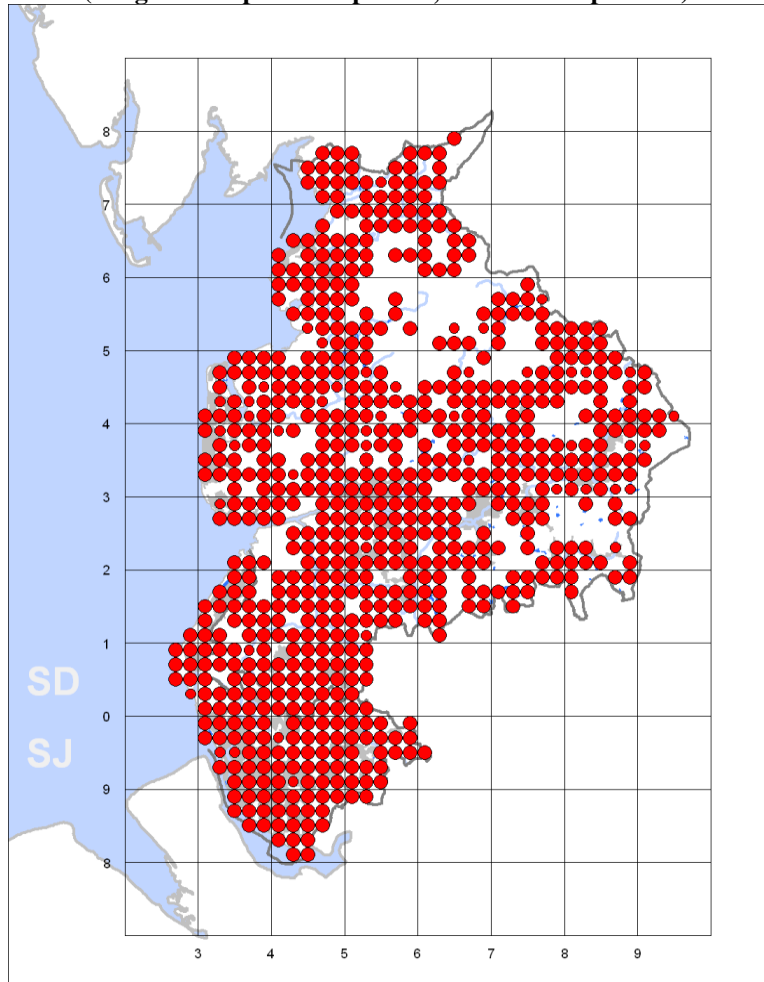


## LONG-TAILED TIT *Aegithalos caudatus*

### Breeding

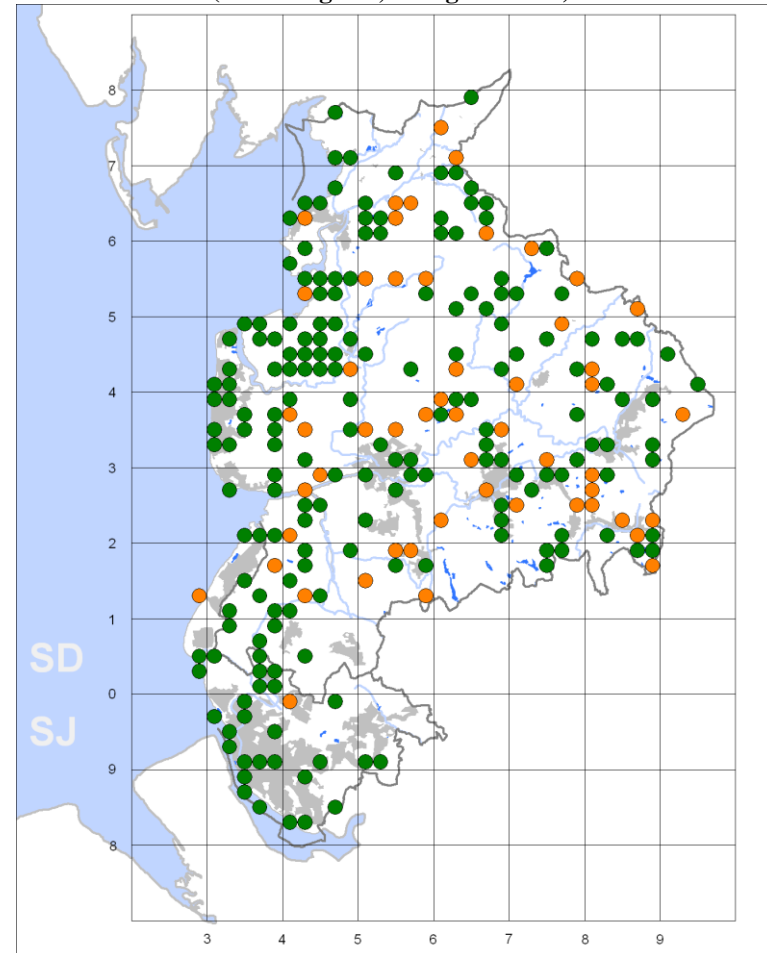
Long-tailed Tits spread rapidly throughout Lancashire during the last decades of the twentieth century, their range increasing by 33% at the 10km square level between 1969 and 2000. This increase has continued in the past decade; birds were located in 722 tetrads during 2008-11, 77% of the county total and indicating a 23% more extensive range than in 2000 (Fig.1).

**Figure 1. Long-tailed Tit: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).



They were absent from the highest ground and from saltmarshes but also from areas of farmland south of the Ribble and in central Fylde. A total of 185 tetrads were newly occupied, mostly in the western coastal strip of Merseyside and Lancashire, while the 53 losses were widespread but somewhat concentrated in the east (Fig.2).

**Figure 2. Long-tailed Tit: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



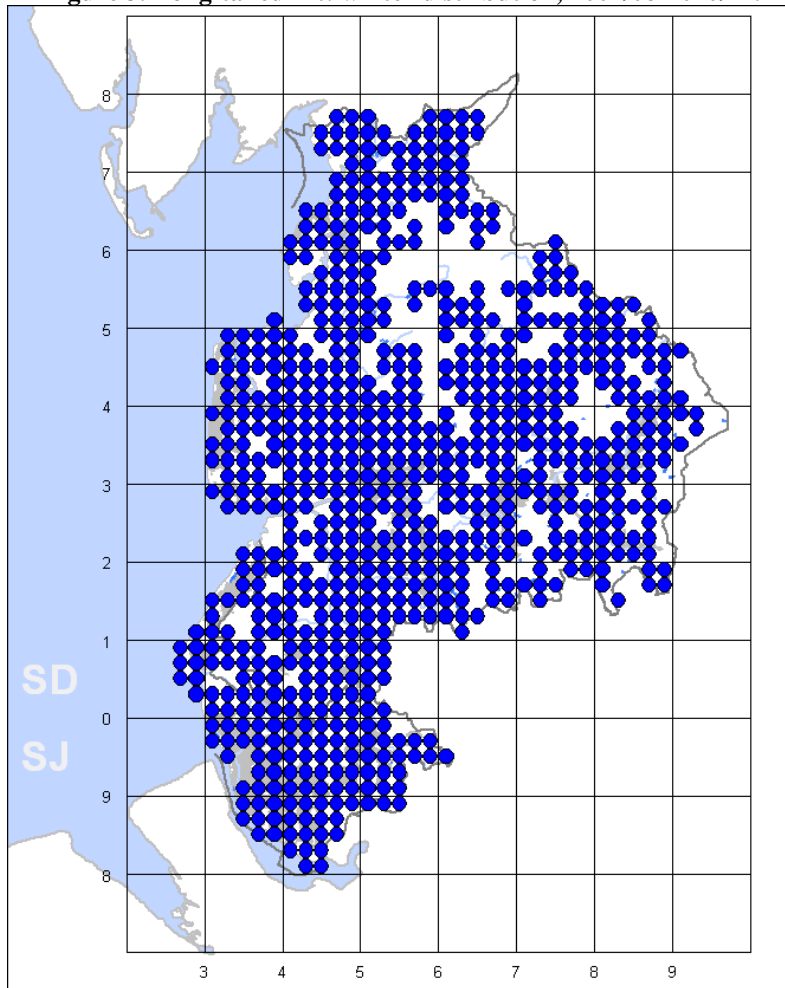
Long-tailed Tits have successfully colonised suburbia and good numbers of 'new' tetrads were in the Liverpool conurbation, Blackpool and Preston; indeed, it appears that only Blackburn of our major towns and cities remains to be occupied fully.

Breeding densities were essentially similar in the east and west of the county but were 30% higher in the south than the north. Tetrad surveyors estimated an average of seven pairs per occupied tetrad, producing a county total of 5000 pairs, 1.5% of the British total.

**Winter**

Birds were slightly more widespread in winter, being found in 765 tetrads, 81% of the county total, but their distribution was essentially the same as in summer (Fig.3).

**Figure 3. Long-tailed Tit: winter distribution, 2007/08-2010/11.**

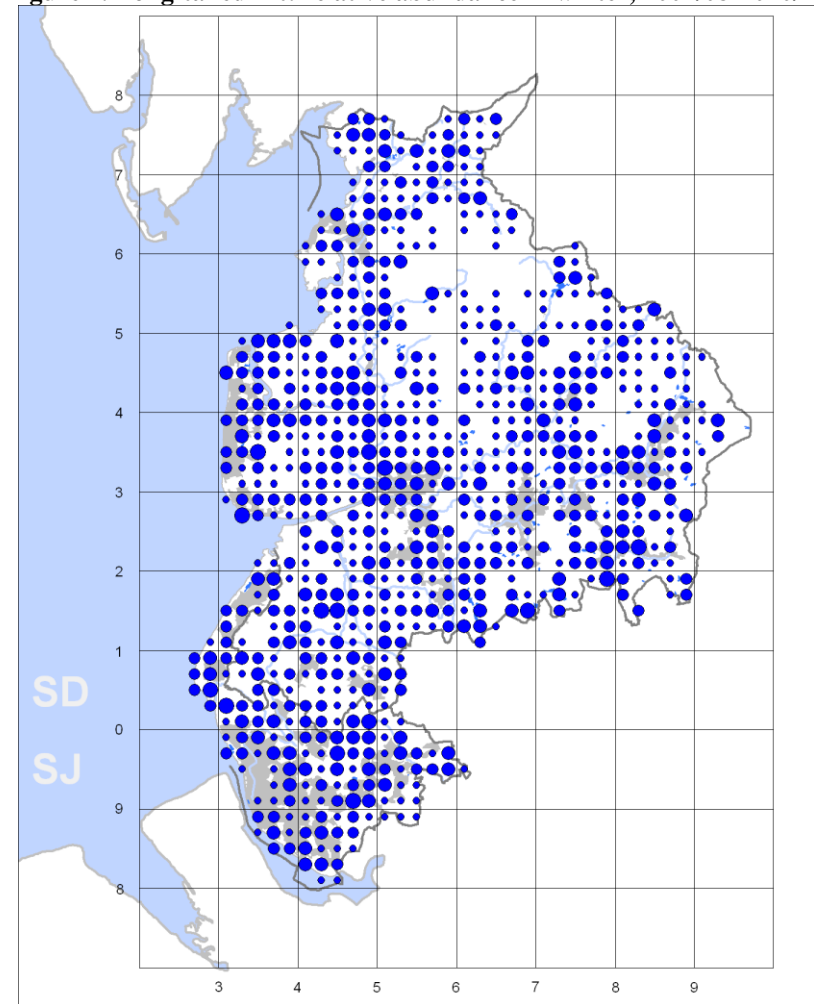


As in the breeding season there were no major differences in numbers between the four quarters of the county, although fewest were found in the north-east and to a lesser extent the north-west (Fig.4). Clusters of tetrads with the highest densities were found in Merseyside, the area surrounding Preston and in Rossendale.

Overall average population density was estimated at 26 individuals per tetrad, indicating a county population of 20000.

SJW

**Figure 4. Long-tailed Tit: relative abundance in winter, 2007/08-2010/11.**



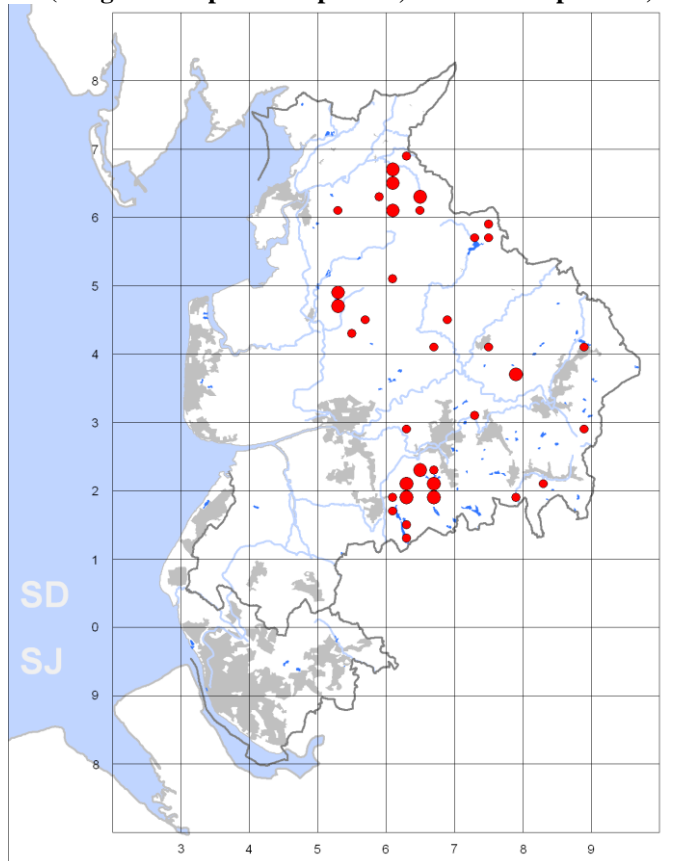
Dot size in descending order: 40-100; 20-39; 10-19; 1-9

## WOOD WARBLER *Phylloscopus sibilatrix*

During the nineteenth century Mitchell believed Wood Warblers to be commoner than Chiffchaffs in Lancashire. Their national population has, however, fallen by more than 60% since 1995 and they are now one of the three most rapidly declining species in Britain and seemingly heading rapidly towards extinction in Lancashire.

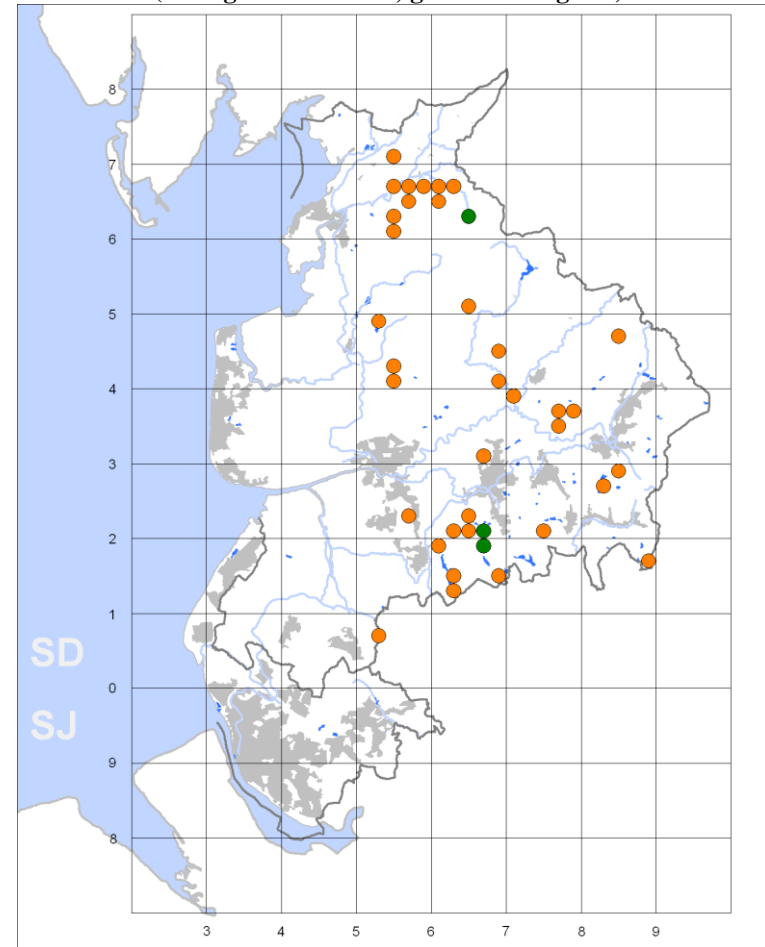
It is unusual to see this species in Merseyside or south-west Lancashire where it is rare as a migrant and long-extinct as a breeder. Nowadays there are two main breeding sites in the county – the tributary valleys of the River Lune (Littledale, Hindburndale and Roeburndale) and the scattered woodlands to the east of Chorley.

**Figure 1. Wood Warbler: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible)



Wood Warblers were thought to be at least possibly breeding in 36 tetrads (64 in 1997-2000) during 2008-2011 but probable or proven in only twelve (36 in 1997-2000); this represents a 44% decline in the past ten years on the wider measure of breeding or 66% on the narrower (Fig.1).

**Figure 2. Wood Warbler: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Orange dots = losses; green dots = gains).



However, it is likely that Wood Warblers did actually at least attempt to breed in several of the 'possible' tetrads, indeed, they were confirmed in one of them, Stocks Reservoir, in 2012.

In the Lune Valley breeding took place in the Mallowdale, Outhwaite, Wray and Lower Thrusgill tetrads and was suspected in four others, while in the Chorley/West Pennine Moors area the White Coppice, Conyries, Brinscall and Darwen Moor tetrads were occupied and was thought possible in a further six tetrads centred on the Rivington/Roddlesworth area. Away from these core sites, breeding was proven in the Grizedale, Oakencough and Barnacre area, and probable near Padiham.

A total of 32 tetrads (all breeding statuses) appear to have been abandoned since 1997-2000, mostly within what were the core breeding areas, notably in the Lune Valley, but also across a huge swathe of east Lancashire and Rossendale, where the species' future hangs by a thread (Fig.2). Set against these losses six tetrads were apparently newly occupied, but all of these were fairly close to past breeding sites and may simply be the result of small shifts or perhaps reflect the difficulties in detecting Wood Warblers as population densities decline.

RJH

## **CHIFFCHAFF** *Phylloscopus collybita*

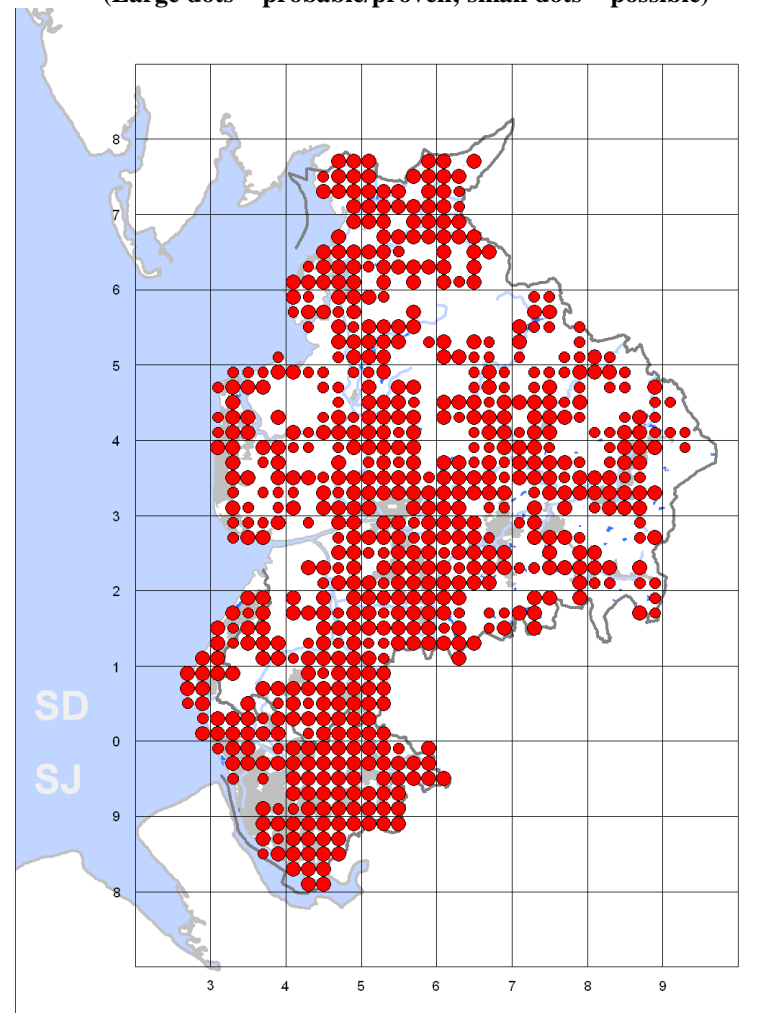
### **Breeding**

Chiffchaffs were regarded as Lancashire's rarest breeding leaf-warbler well into the twentieth century. How times change. Chiffchaffs have been flourishing throughout Britain for many years, their population having increased by 70% between 1995 and 2010.

This national trend was mirrored in Lancashire during 2008-2011, when Chiffchaffs were found in 662 tetrads, an increase in range of 40% since 1997-2000 and including 70% of all the tetrads in the county (Fig.1).

Their distribution was solid in most of the south-west of the county, including the urban fringes, although they were absent from treeless areas, and also in central Lancashire and much of north Lancashire but with some large gaps on farmland in the Fylde. Distribution was much patchier in the east where most of the uplands are avoided.

**Figure 1. Chiffchaff: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible)

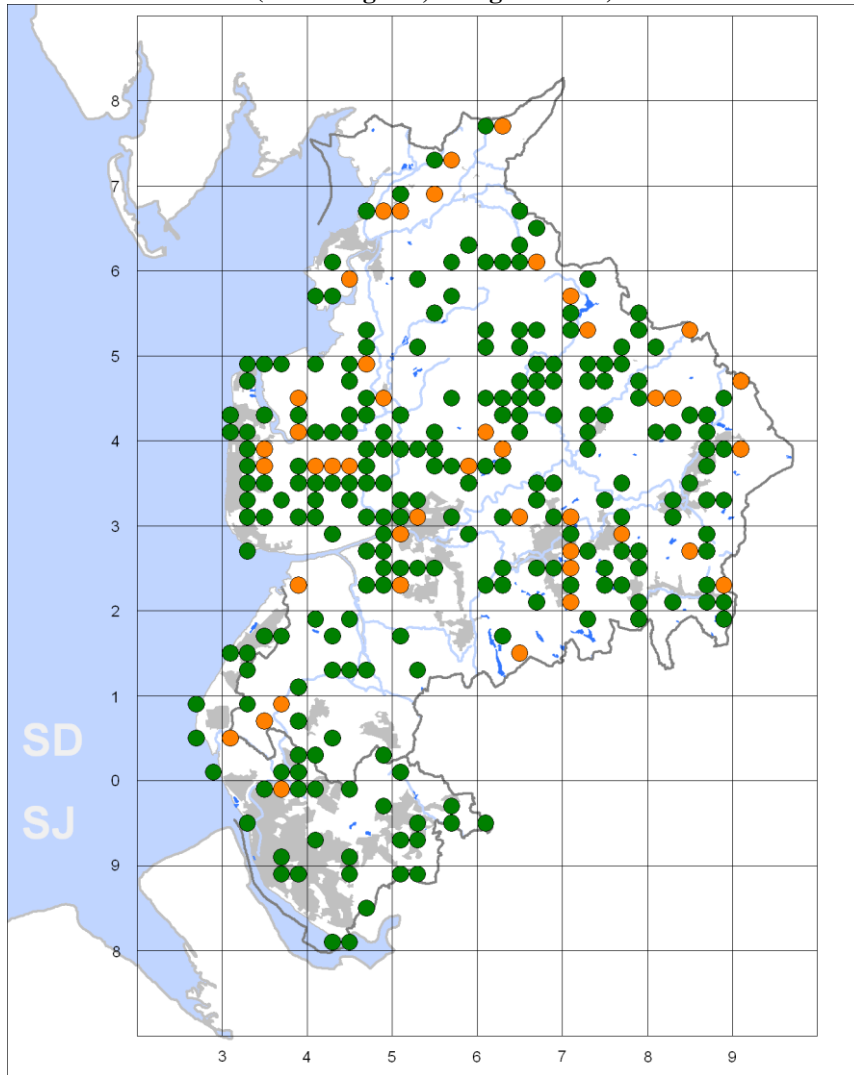


A total of 226 tetrads appear to have been newly occupied since 1997-2000 with only 44 apparently abandoned (Fig.2). Net gains have occurred throughout the county but there were conspicuous clusters in central Lancashire, the Fylde and parts of east Lancashire, while little change was evident in the north.

Breeding densities in occupied tetrads were 40% higher in the west of the county than the east, and highest in the south-west. Peak counts ranged

from a single individual to 22 but most tetrads seem to have supported fairly low numbers of breeding pairs, averaging around five per occupied tetrad, resulting in a county population estimate of about 3500 pairs.

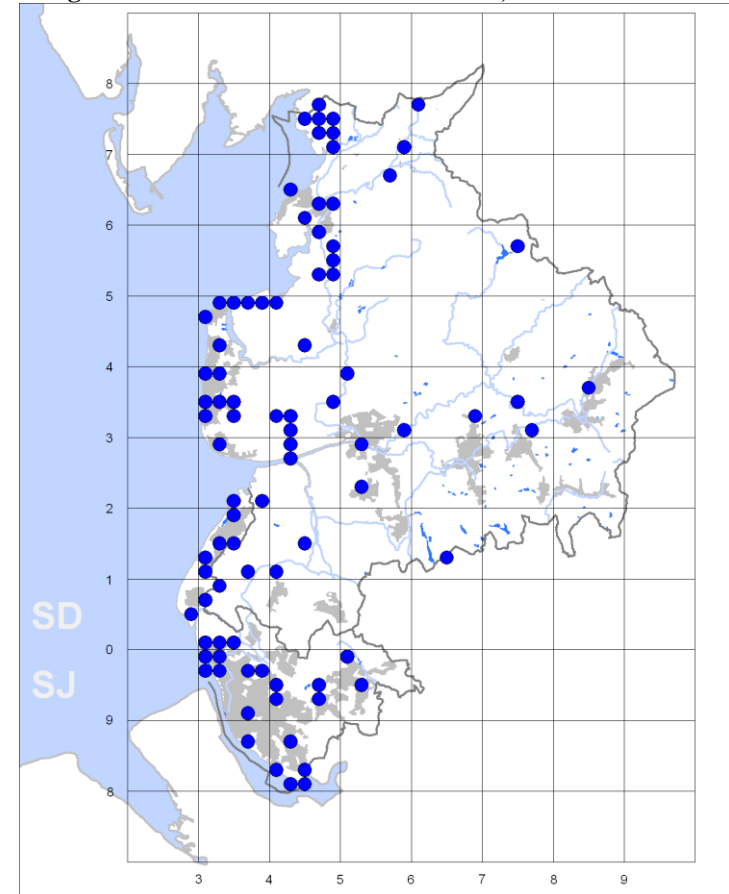
**Figure 1. Chiffchaff: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses)



### Winter

Chiffchaffs were reported from 87 tetrads during 2007/08-2010/11 (Fig.3), but 30 of these records were in November, which have usually been treated as late migrants in the Lancashire Bird Report.

**Figure 3. Chiffchaff: winter distribution, 2007/08-2010/11.**



The overwhelming majority of records came from the western third of the county with a significant proportion of them occurring in urban areas, perhaps attracted by the warmer microclimate or perhaps simply more visible there.

The sub-specific identity and origins of these wintering birds is not known but they are presumably a mixture of British and continental *collybita*, Scandinavian *abietinus* and Siberian *tristis*; there were two accepted records

of *tristis* during the survey – at Knott End in December 2009 and the Rimrose Valley, Sefton in November 2010.

Almost all records were of singles but two were seen in eleven tetrads, and three in Halsall, four in Fazakerley and five in Croxteth Park and at Huncoat, Hyndburn. Winter records published in the county Bird Report averaged 13 during the survey period; the population may be in the region of 20-30 individuals.

RJH

### **IBERIAN CHIFFCHAFF** *Phylloscopus ibericus*

The only accepted record in Lancashire during the atlas period was of a singing male in Devonshire Rock Gardens, Blackpool on 3-5 May 2011.

SJW

### **WILLOW WARBLER** *Phylloscopus trochilus*

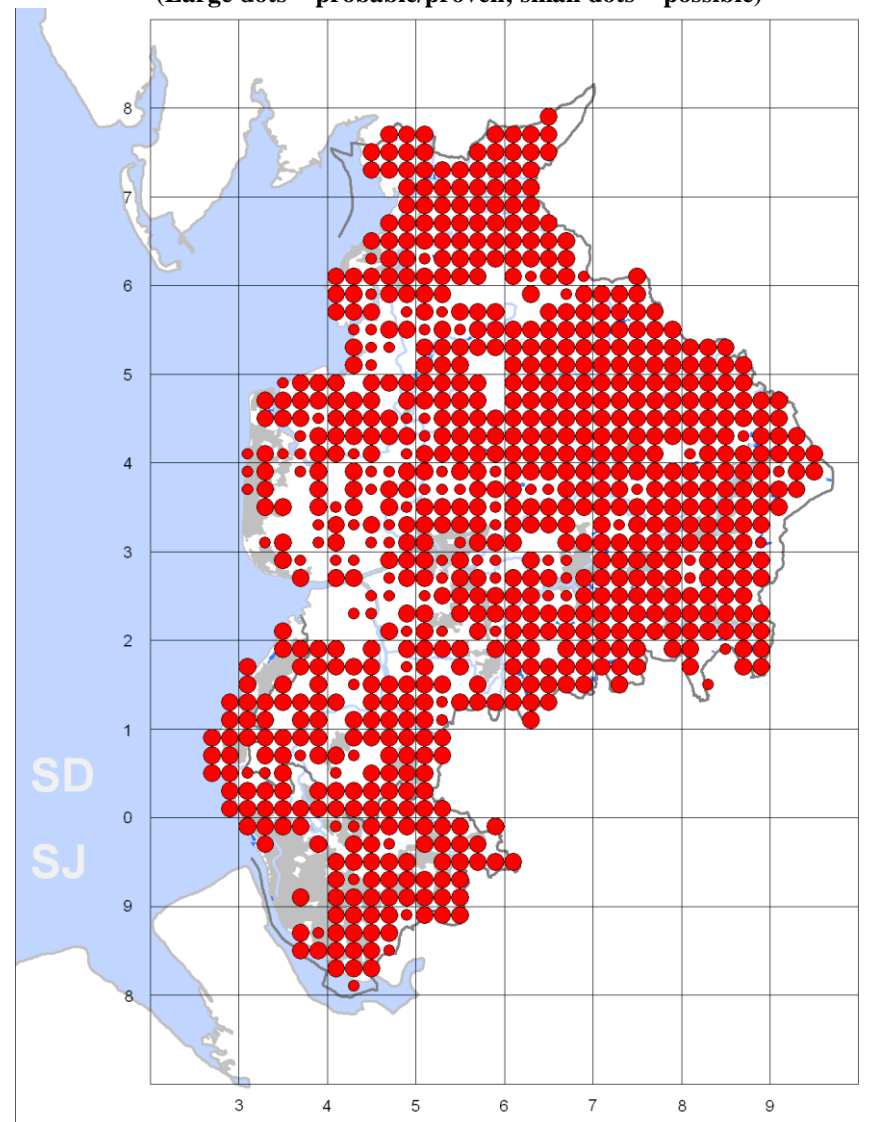
The British Willow Warbler population appears to be at least stabilising after suffering a fall in population since 1970, but population trends remain markedly different in various parts of the country – declining in the south and east but fairly stable in the north and west.

In Lancashire the breeding range remains fairly solid, with birds present on all but the highest ground in the east, but with a patchy distribution on farmland in parts of Merseyside, West Lancashire and south Fylde. During 2008-2011 birds were found to be at least possibly breeding in 797 tetrads, 85% of the county total and essentially the same number as in 1997-2000 (Fig.1).

There was a fairly high turnover, though, with apparently-abandoned tetrads concentrated in the west and newly-occupied ones fairly scattered but with clusters in Bowland and the area around Fleetwood (Fig.2).

Breeding densities in occupied tetrads were 75% higher in the east of the county than the west and 60% higher in the north than the south, with the highest densities in the north-west.

**Figure 1. Willow Warbler: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible)

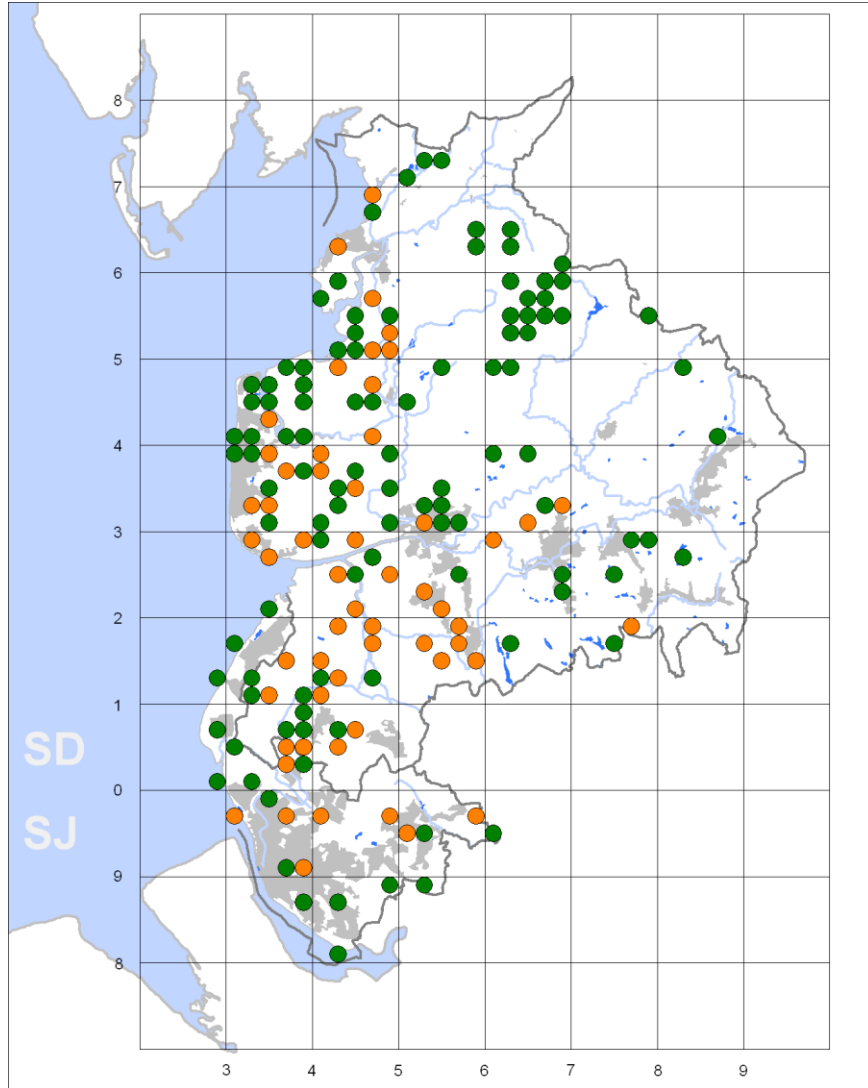


Willow Warblers remain more than twice as numerous in Lancashire as Chiffchaffs, despite the steady increase in numbers of the latter. Tetrad population estimates suggested an average of ten pairs per occupied tetrad

producing a county estimate of 8000 pairs, somewhat less than 0.5% of the British total.

RJH

**Figure 2. Willow Warbler: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses)

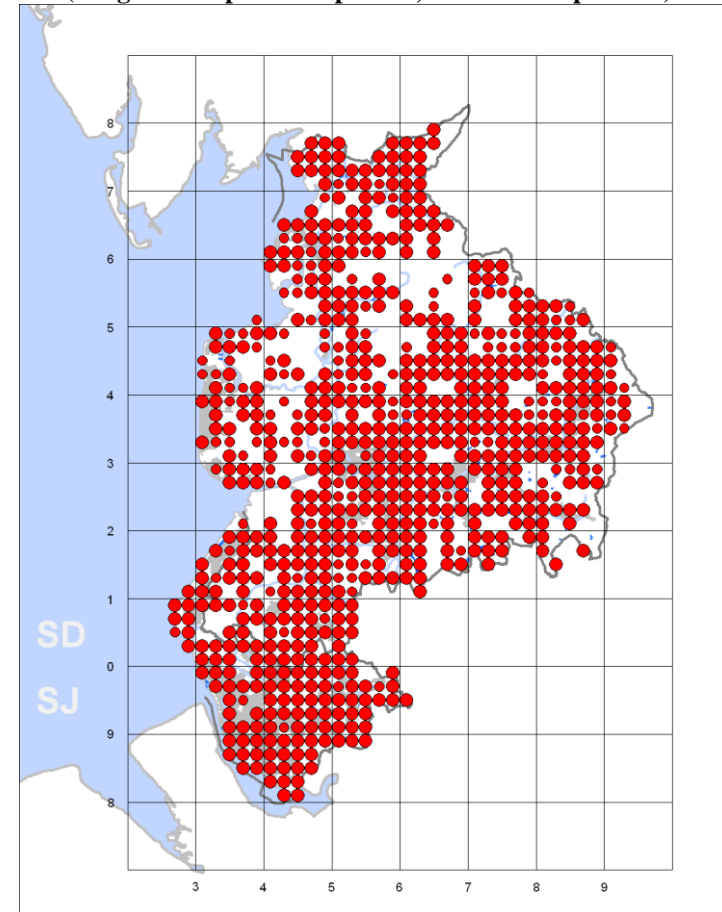


## **BLACKCAP** *Sylvia atricapilla*

### **Breeding**

Blackcaps are the most widespread and numerous of our *Sylvia* warblers although it is thought that Garden Warblers may have been the commoner species until at least the early 1950s.

**Figure 1. Blackcap: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).

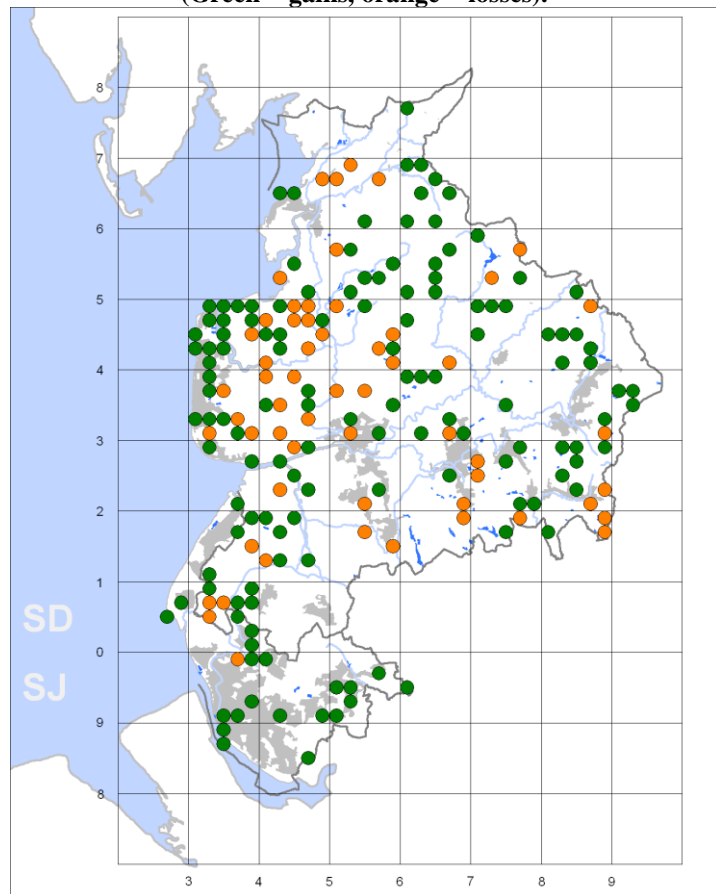


The 2008-2011 survey produced breeding season records in 736 tetrads, just short of 80% of the county total (Fig.1); roughly 15% of records during both atlas surveys were of possible breeding only. This represented a greater



than 10% range expansion in the space of ten years, continuing a trend that began in the mid-twentieth century.

**Figure 2. Blackcap: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



Blackcaps are not particularly choosy in their habitat requirements and will breed in quite small patches of woodland and scrub even within urban areas; they were absent only from the highest ground, the most urbanised areas and featureless farmland. Their range is almost completely solid in North Merseyside and in a broad band north-eastward into east Lancashire, and throughout much of north Lancashire, but is decidedly patchy in a central swathe on farmland south of the Ribble, throughout the Fylde and north-eastward through Bowland.

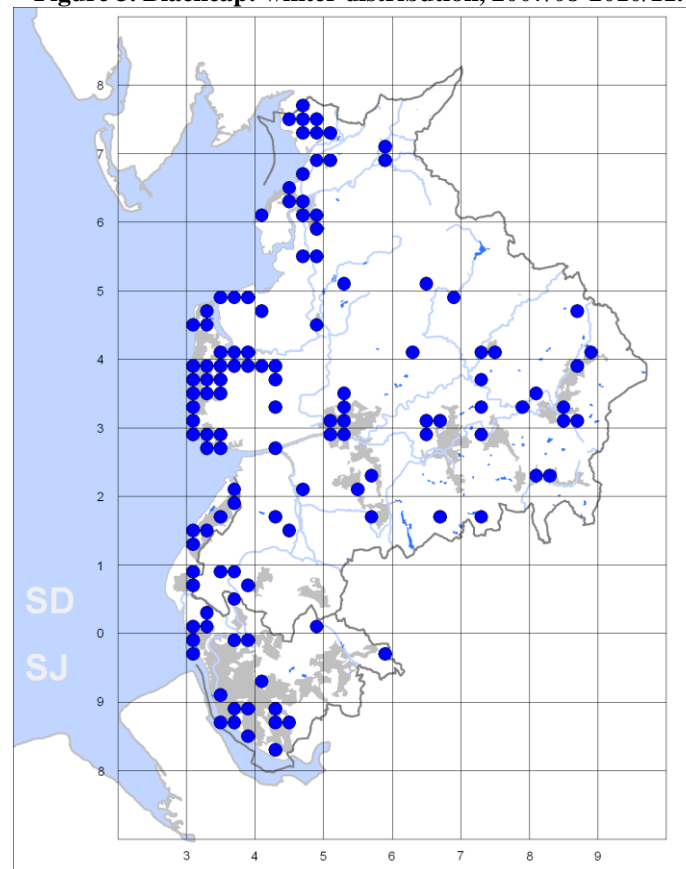
Compared with 1997-2000 Blackcaps were located in 136 new tetrads with losses in 58 (Fig.2). Losses were spread fairly randomly throughout Lancashire but there were none in Merseyside, while gains were clustered on the Fylde coast and to a lesser extent the Liverpool conurbation and parts of east and north Lancashire.

Breeding densities in occupied tetrads were more or less identical in the north and south of the county but were 20% higher in the west than the east.

### Winter

Numbers of continental-breeding Blackcaps wintering in Britain began steadily to increase from the 1960s but a little later in Lancashire, most obviously during the 1990s.

**Figure 3. Blackcap: winter distribution, 2007/08-2010/11.**



Two areas had been extensively monitored prior to the atlas survey. Ringing studies on the Birkdale dunes, where Blackcaps feed mostly on sea-buckthorn berries, suggested a wintering population there of 40 or more in 2000 and 2003, while a detailed survey in the Lancaster & District Birdwatching Society area located birds at 21 sites in 1995/96.

Both these areas continued to support wintering birds during 2007/08 to 2010/11 but Blackcaps were recorded in many other areas in a total of 123 tetrads (Fig.1). However, 25 of these records were in early to mid-November and were probably late migrants. Almost all definite winter records were in gardens or parks, the main exception being on the Sefton Coast, and this was reflected in good numbers being seen in urban areas, especially in and around Blackpool, in south Liverpool and in Preston.

Most records were of singles but with counts of five or more in both Birkdale and Silverdale. Winter totals of between 59 and 80 were published in the county report during the atlas period but given the likely high level of under-reporting from gardens the county population is perhaps as high as 150.

SJW

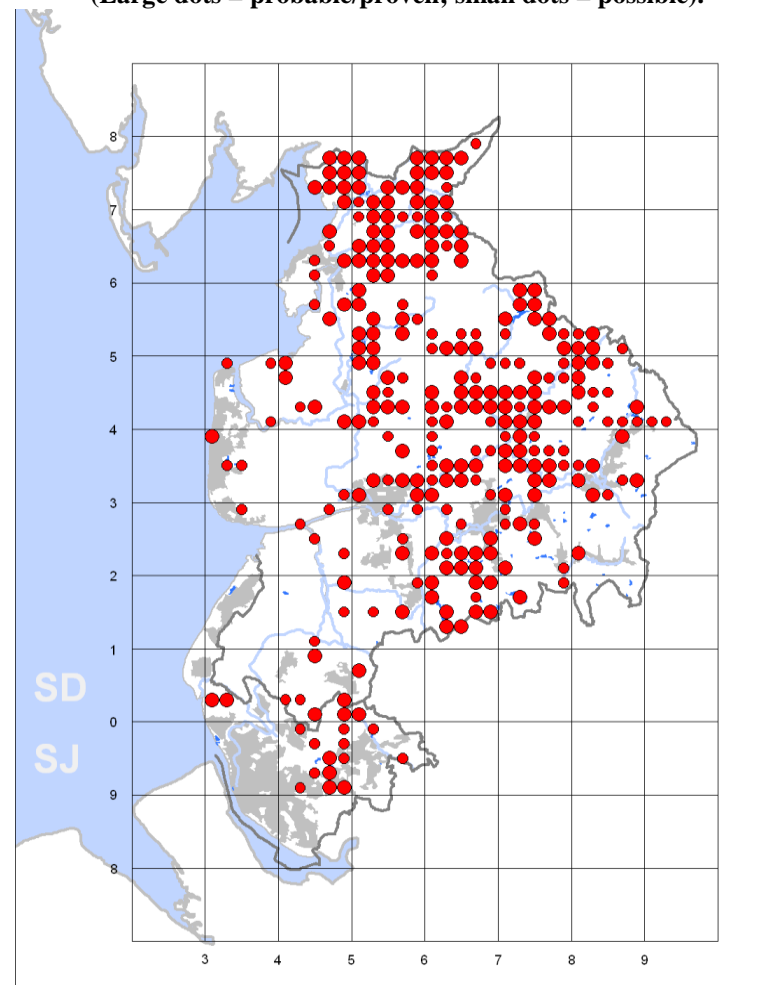
## **GARDEN WARBLER** *Sylvia borin*

### **Breeding**

The breeding range of this summer visitor has changed little over the past decade; nesting was proven or considered likely in 286 tetrads, 30.7% of the county total and indicating an insignificant range contraction of 3.7% (Fig.1). The species remains significantly more widespread in the north and east of the county, where its favoured habitat of brambly scrub and scattered trees is more plentiful than further west. There are significant breeding clusters throughout north and east Lancashire away from the higher fell country;

Despite the apparent stability of their overall range the breeding distribution of Garden Warblers within the county has changed very significantly. A total of 121 tetrads (more than 40%) that were occupied during 1997-2000 had apparently been abandoned during 2008-2011; these were more or less balanced by 111 newly-occupied tetrads (Fig.2).

**Figure 1. Garden Warbler: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).



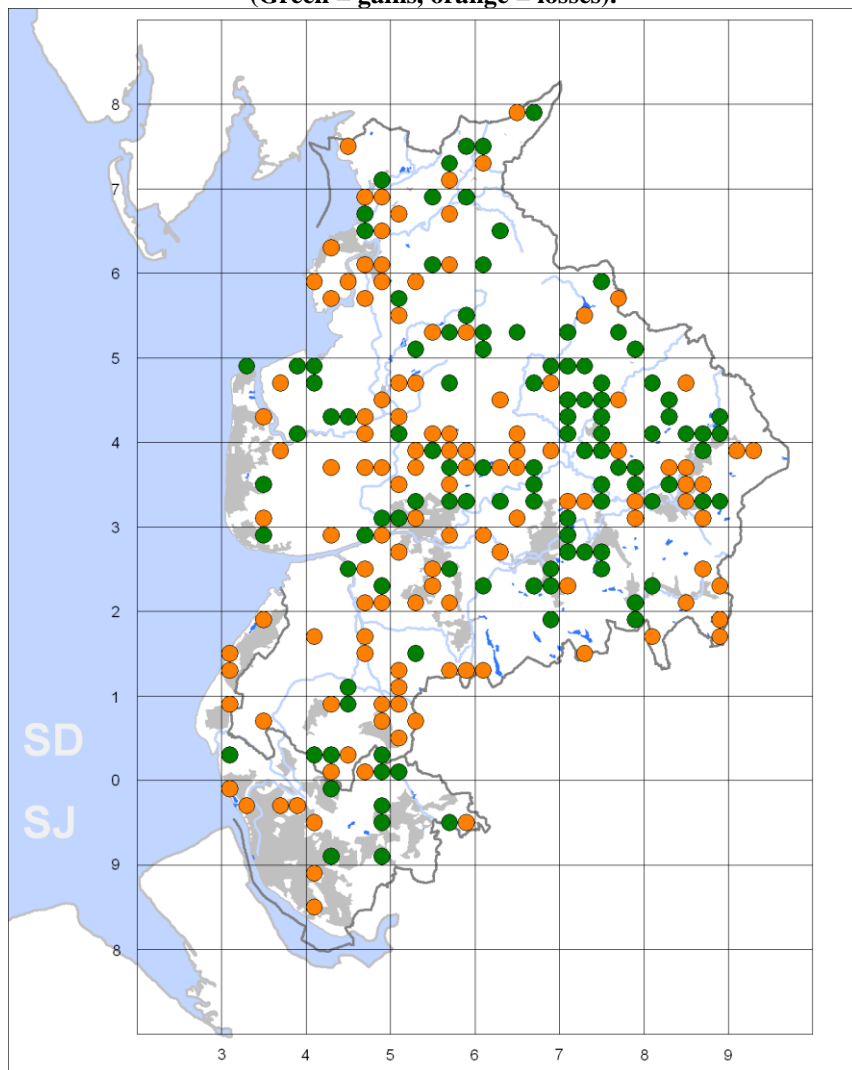
The lost tetrads were overwhelmingly in the western half of the county (most noticeably in Merseyside, to the south of Lancaster and in Rossendale), where numbers have probably always been lower and where almost all of the rather few gains were adjacent to previously occupied tetrads.

In the east, however, losses were far outnumbered by gains, which showed three prominent clusters between Blackburn and Accrington, to the

north-east of Burnley and in the Clitheroe area. In short, a significant eastwards shift in the breeding range appears to have taken place in the last ten years.

Average densities in occupied tetrads were almost twice as high in the north of the county as in the south. The breeding population was estimated at 850 pairs, around 0.5% of the British population.

**Figure 2. Garden Warbler: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



## Winter

A very small number of Garden Warblers have been recorded in Lancashire in winter, all on or near the south-west coast; the single record during the present survey period is consistent with this pattern, a bird on the Birkdale Dunes during December 2011. It is estimated that fewer than five individuals overwinter with us in any given year.

BM

## LESSER WHITETHROAT *Sylvia curruca*

Lesser Whitethroats are a very difficult species to monitor accurately, due to their short singing season, inconspicuous behaviour when breeding and the regular habit of males singing on migration.

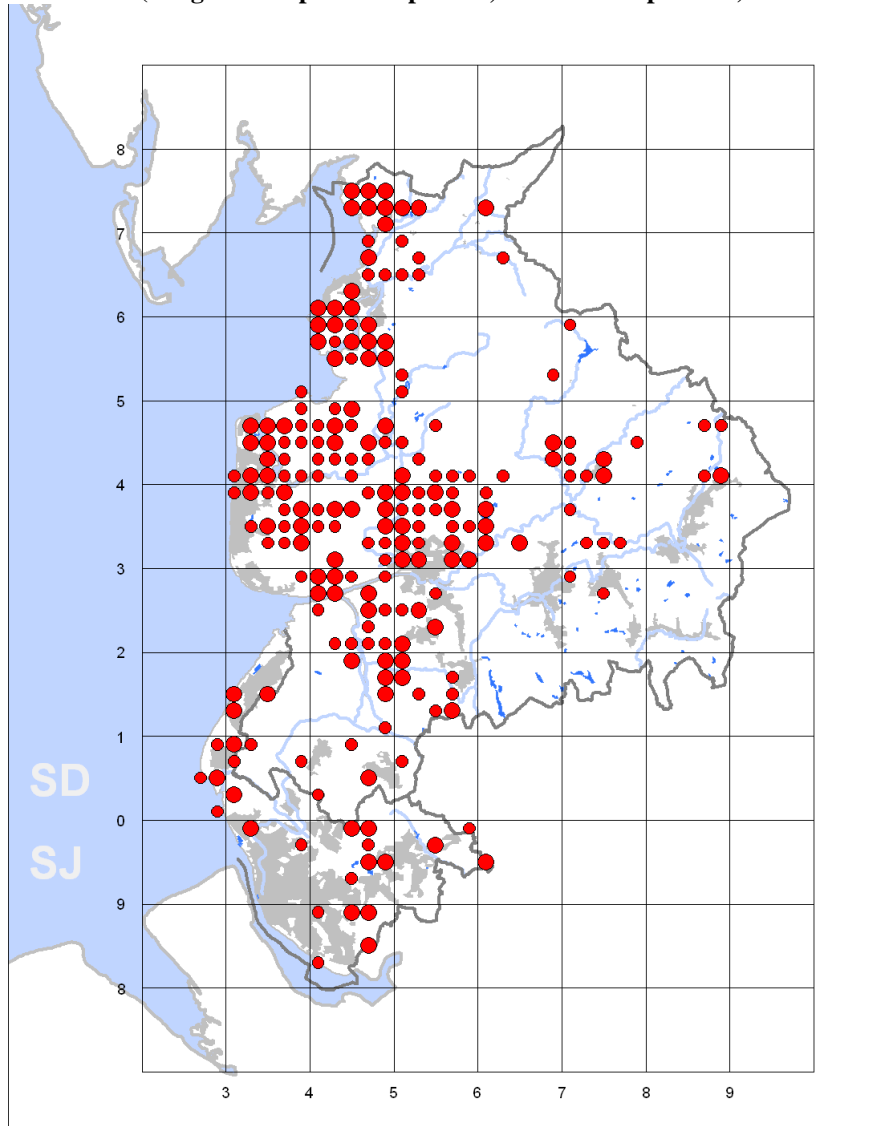
This is reflected in the very high proportion of breeding season records during 2008-2011 that were logged as possible breeding only, 113 compared with 103 probable or proven records (comparable figures during 1997-2000 were 80 and 72).

Birds were found in suitable breeding habitat in 216 tetrads, covering 26% of the county and representing an apparent 40% increase since 2000 (Fig.1). However, for the reasons above the extent of this range expansion needs to be treated with caution, although the 20% increase in probable/proven records from 80 to 103 over the last decade suggests that there has been some real increase.

Their distribution remains overwhelmingly western with just 30 records (eleven probable/proven) in the east of the county, mostly in the Ribble Valley to the east of Preston and in the Bashall Eaves and Clitheroe areas. In the west birds were found predominantly north of the Ribble with only 15 probable or proven records in Merseyside and a further 13 south of the Ribble.

Although newly-occupied tetrads outnumbered those that were lost the difference was not large. The losses were scattered throughout the county but gains were concentrated in the species' heartland in the centre of the county and north Lancashire (Fig.2).

**Figure 1. Lesser Whitethroat: breeding distribution, 2008-2011.**  
 (Large dots = probable/proven; small dots = possible).

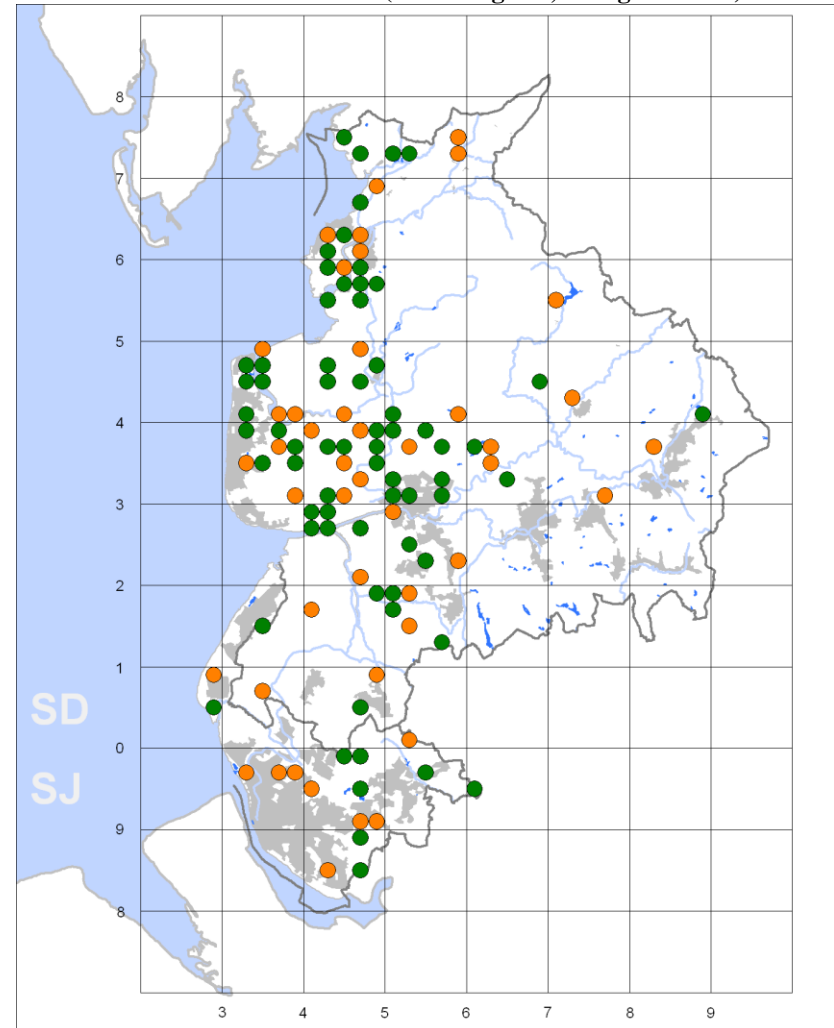


A combination of survey difficulties and low population densities probably contributed to the low numbers seen throughout the county with an average of little more than one bird per tetrad seen on timed visits.

Tetrad population estimates provided by surveyors indicated an average of 1.5 pairs per occupied tetrad, suggesting a county total of around 300 pairs, around 0.4% of the British population – but like most aspects of this species this estimate is rather uncertain.

SJW

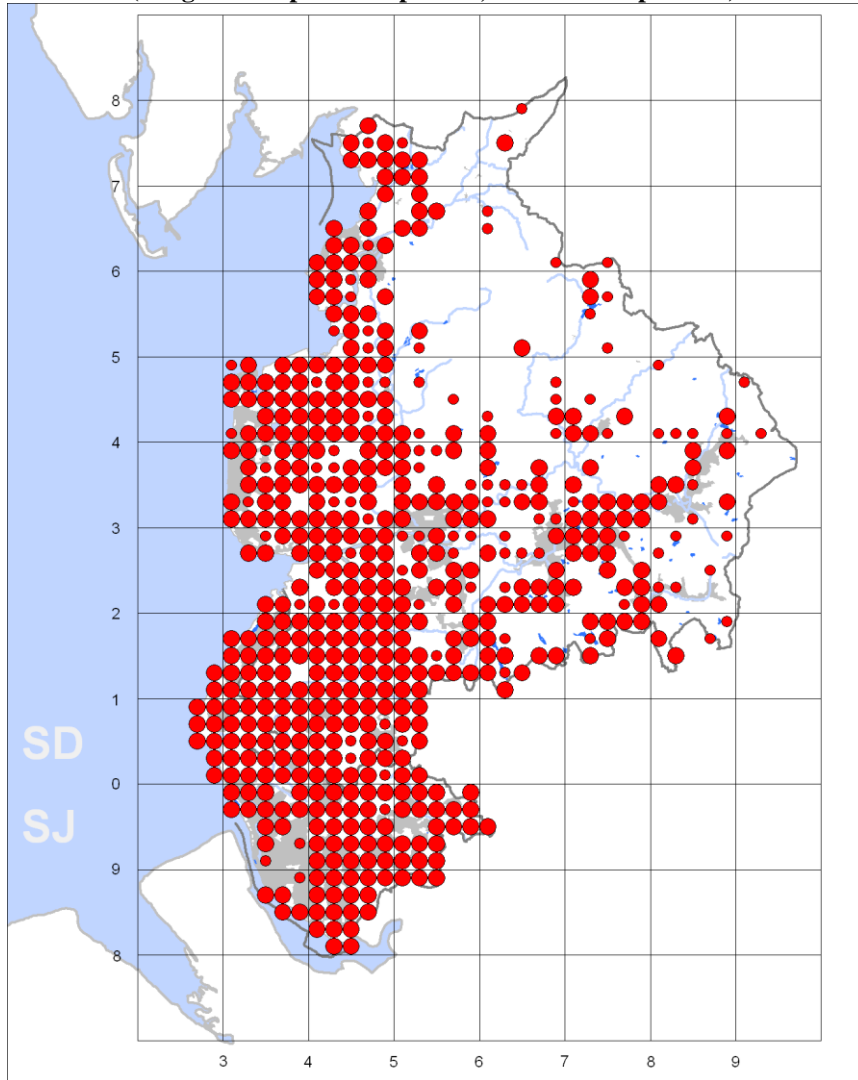
**Figure 2. Lesser Whitethroat: changes in breeding distribution, 1997-2000 to 2008-2011.** (Green = gains, orange = losses).



## WHITETHROAT *Sylvia communis*

The British Whitethroat population underwent a 75% decline in the late 1960s due to the Sahel drought but has steadily recovered since both nationally and locally.

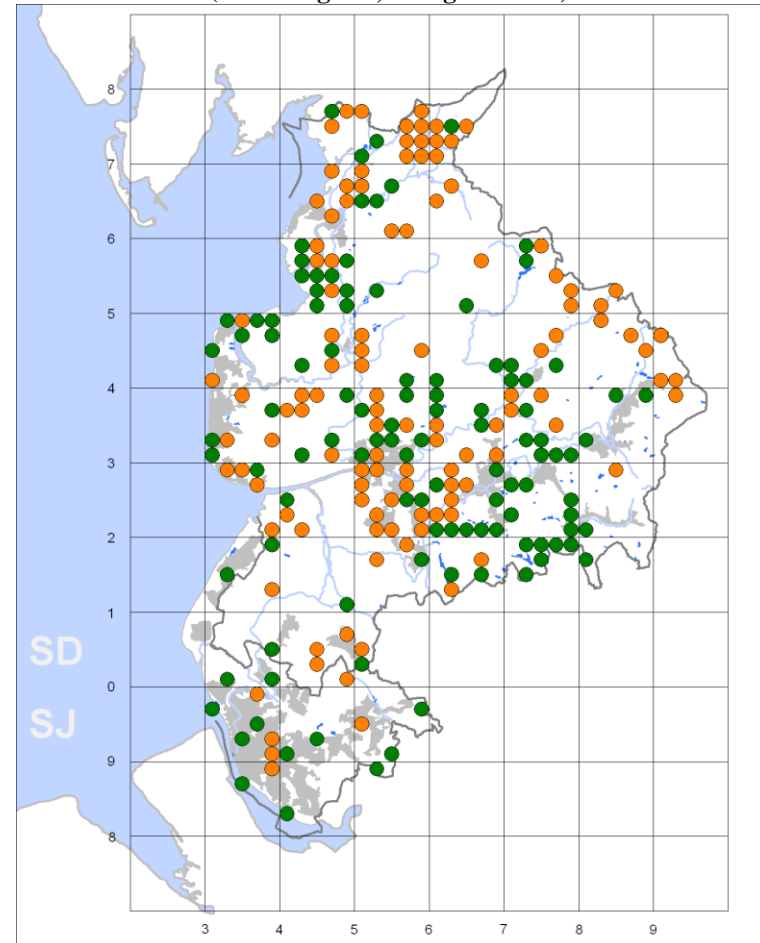
**Figure 1. Whitethroat: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).



The species was located in 559 tetrads in Lancashire during 2008-11, covering 49% of the county total and indicating a 7% increase in range since 1997-2000 (Fig.1).

Whitethroats are essentially a lowland species and their Lancashire distribution is overwhelmingly western; breeding is also relatively frequent in the south-east but decidedly sparse in the remainder of the east. Virtually every tetrad was occupied in the south-west of the county but fewer in the north-west. Although they do breed on scrubby sites on the edges of the cities and towns they are absent from the main urban areas.

**Figure 2. Whitethroat: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



Breeding densities in occupied tetrads mirror differences in distribution: they were 160% higher in the west than the east and 60% higher in the south than the north.

A total of 104 tetrads were newly occupied with clusters in SD45, Rossendale and Burnley; there were no losses in these last two areas, pointing to a significant colonisation there in the past decade (Fig.2). The 67 losses were distributed more widely but with fairly clear-cut clusters in the area between Chorley, Preston and Blackburn, and in the north-east of the county.

Tetrad population estimates provided by surveyors averaged six pairs per occupied tetrad, producing a county total of 3500 pairs, somewhat less than 0.5% of the British population.

SJW

### **GRASSHOPPER WARBLER** *Locustella naevia*

Grasshopper Warblers enjoyed the second largest range expansion of any passerine in Lancashire between 1997-2000 and 2008-2011, surpassed only by Stonechat which slipped back very sharply after two hard winters toward the end of the survey period.

Birds – almost entirely singing males – were found in 198 tetrads, 21% of the county total and indicating a range extension of 122% (Fig.1). They were present throughout the county but records were concentrated in the West Pennine Moors, North Merseyside, east Lancashire south of the Ribble and the Fylde coast.

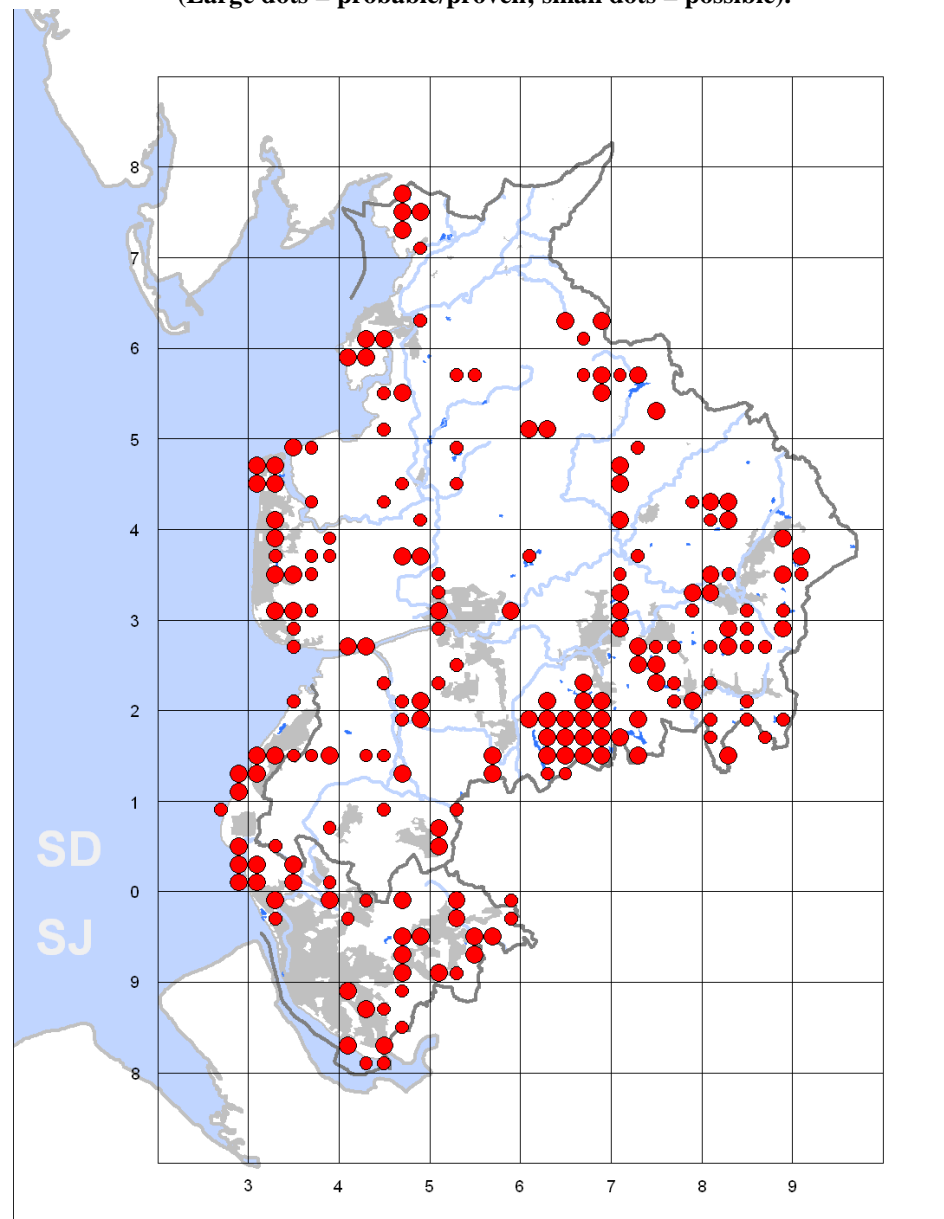
A total of 151 tetrads were newly occupied between the two surveys and 49 apparently abandoned (Fig.2). Gains were registered throughout the county but especially in the West Pennine Moors, southern areas of east Lancashire and the Sefton Coast. Losses were clustered in Knowsley, St. Helens and northern areas of east Lancashire.

Most records were of ones or twos but larger counts included seven at Heysham, six at Birkdale and Cabin Hill/Altcar Rifle Ranges, and five at Blundellsands Dunes, Hightown Dunes, the Mersey Estuary at Speke, Knowsley Park and Eccleston Mere.

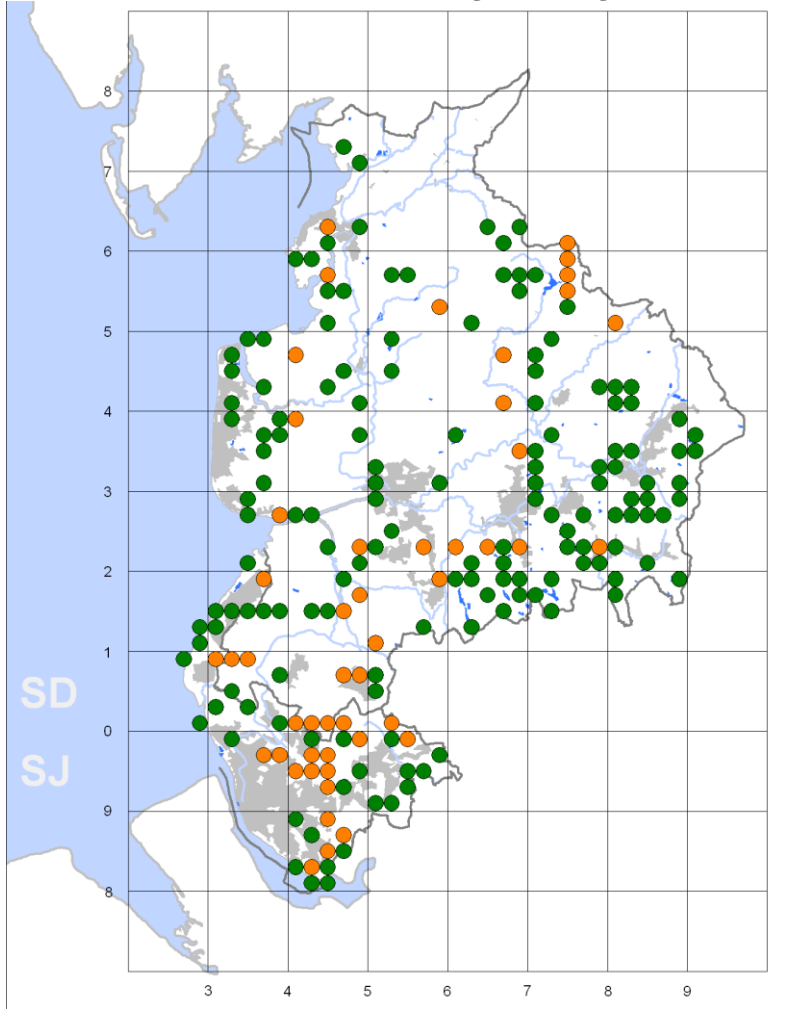
Overall, densities did not vary significantly but from the list above it seems highly likely that the highest are to be found in Merseyside. The county population was estimated at 350 pairs, around 2.5% of the British total.

SJW

**Figure 1. Grasshopper Warbler: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).



**Figure 2. Grasshopper Warbler: changes in breeding distribution, 1997-2000 to 2008-2011. (Green = gains, orange = losses).**



**MELODIOUS WARBLER *Hippolais polyglotta***

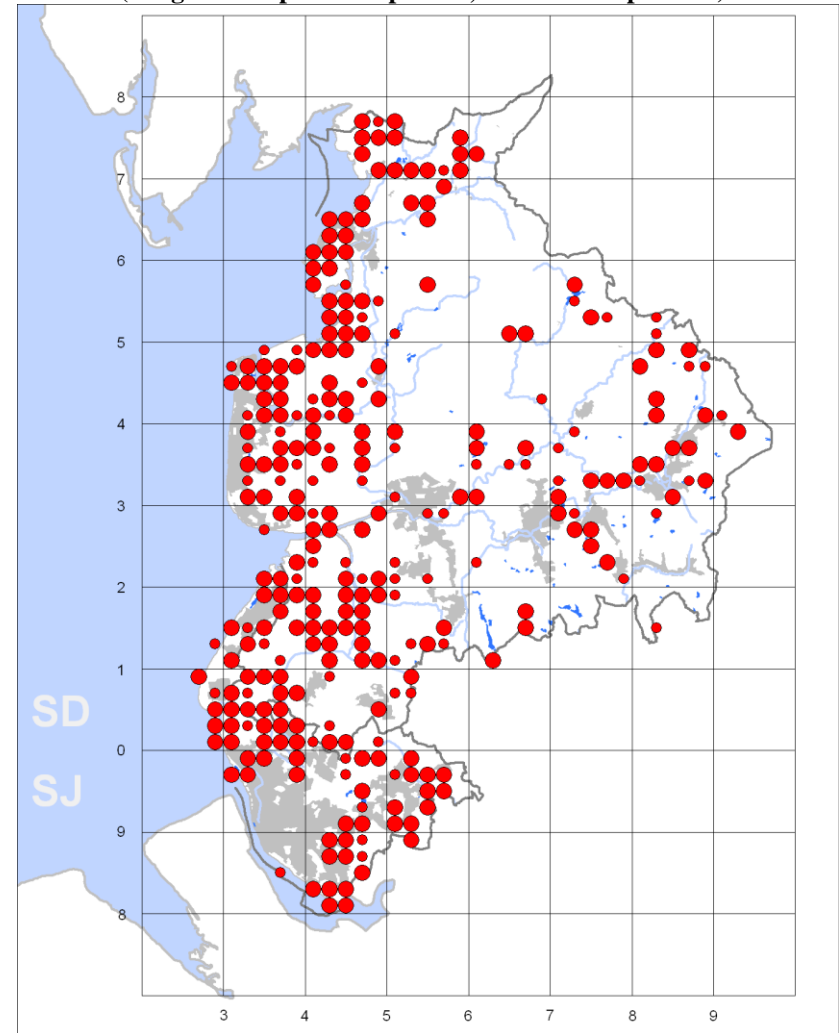
A singing male was at Jackhouse Reservoir in Oswaldtwistle from 7-21 June 2008.

SJW

**SEDGE WARBLER *Acrocephalus schoenobaenus***

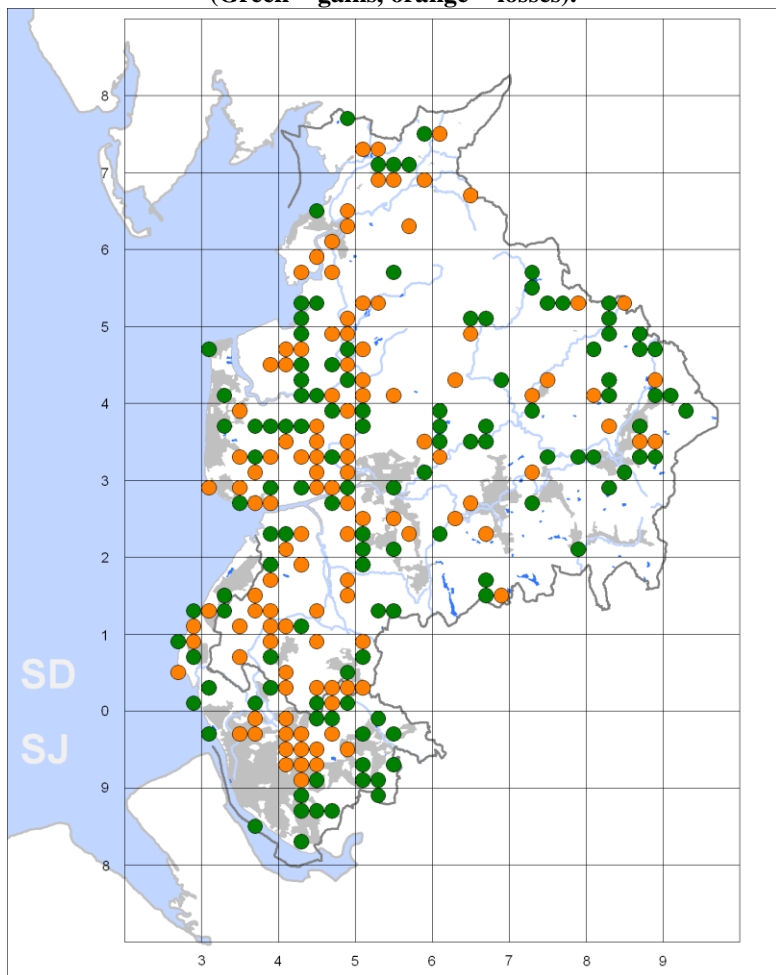
After experiencing a dramatic decline during the 1970s and 1980s due to a prolonged drought in their winter quarters, Sedge Warbler numbers in Britain have been recovering ever since, with an upward trend continuing until 2011 at least.

**Figure 1. Sedge Warbler: breeding distribution, 2008-2011. (Large dots = probable/proven; small dots = possible).**



The results of our present survey, however, give rise to doubts as to whether this remains the case in Lancashire although the evidence is not conclusive. Indeed, the county avifauna first raised the possibility that the county's breeding population may have begun to decline in the mid 1990s, against the national trend.

**Figure 2. Sedge Warbler: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



Sedge Warblers were present with some evidence of breeding in 290 tetrads during 2008-11, covering 31% of the county total (Fig.1). This was so

little different from the situation in 1997-2000 that it is clear that the species' overall breeding range has remained unchanged.

However, their distribution within that range has altered dramatically in the past ten years and this may have had a significant impact upon population size. These distributional changes between the two surveys were huge, with 118 newly-occupied tetrads more or less balanced by 116 apparently abandoned ones (Fig.2).

Although the gains occurred throughout the county they outnumbered losses in the eastern half by 38 to 19, while the western half of the county – and especially the species' traditional stronghold in the western third – suffered significantly more losses than gains. These losses appear to have been particularly concentrated in the Knowsley/St. Helens area, the south-west mosses and the Fylde. There therefore appears to have been a major proportional shift towards the east.

The reasons for this are unknown but it seems unlikely that habitat losses or changes in the west could account for it over such a short period of time. In itself these changes would not be cause for concern but population densities remain 130% higher in the west than the east so it seems probable that Sedge Warblers are being lost from high-density regions and gained where breeding numbers remain relatively low. There was no difference in breeding densities between north and south.

Tetrad population estimates suggested an average of five pairs per occupied tetrad and a county total of 1500 pairs, roughly 0.5% of the British population. This is only half of the 3000 pairs estimated in 1997-2000 but that was probably an overestimate at the time. However, given that losses have been greatest within the breeding stronghold of the western lowlands there is little doubt that this decline is real.

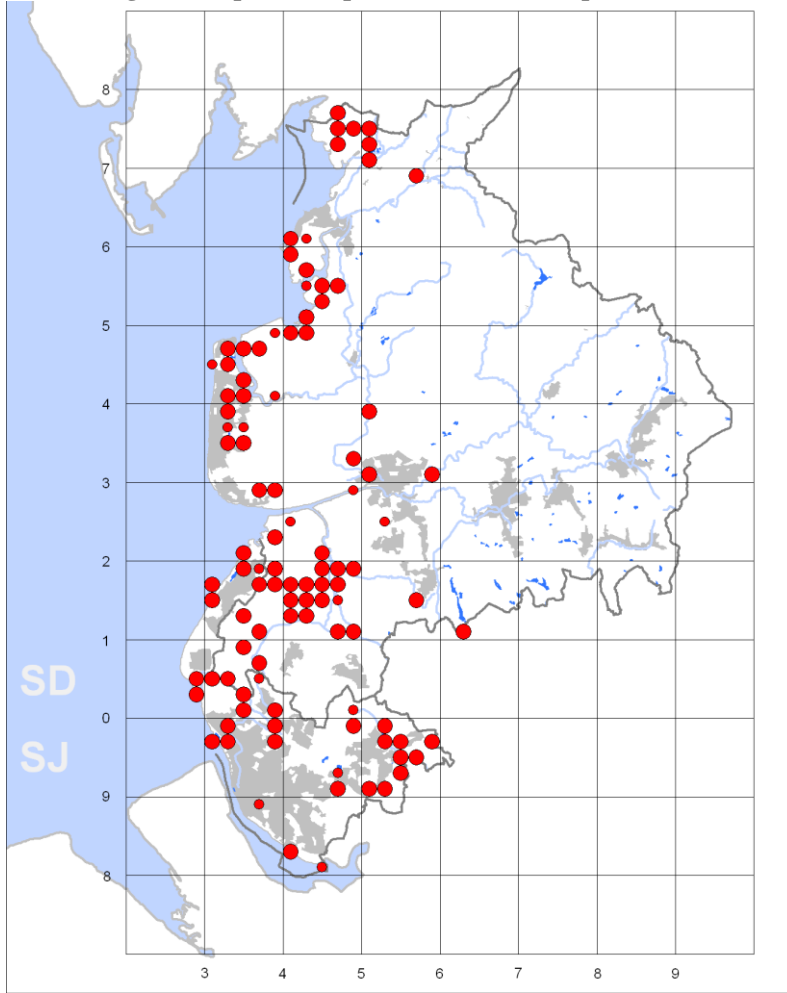
SJW

### **REED WARBLER** *Acrocephalus scirpaceus*

The breeding range of Reed Warblers remained largely restricted to Leighton Moss and Haweswater, the Fleetwood area and the Sankey Valley in St. Helens for much of the twentieth century, before increasing almost fivefold between 1991 to 2000 from four to 19 10km squares as new sites were colonised and existing ones expanded.



**Figure 1. Reed Warbler: breeding distribution, 2008-2011.**  
 (Large dots = probable/proven; small dots = possible).



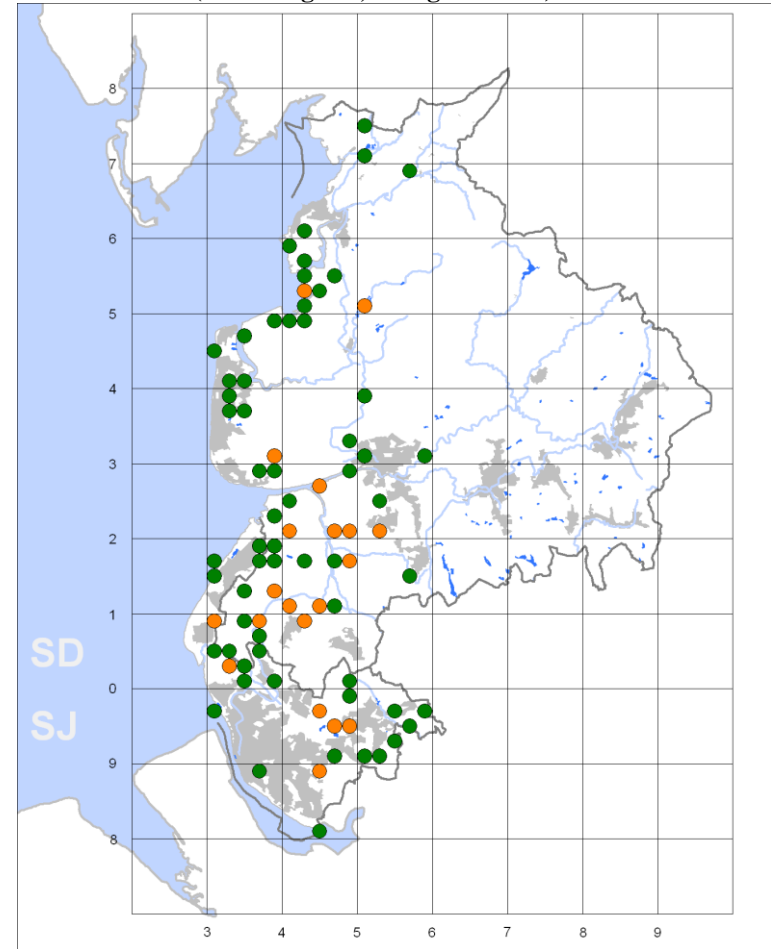
This local increase coincided with a 36% increase in breeding pairs nationally between 1995 and 2010.

The species has continued to expand its breeding range throughout the twenty-first century, increasing by 79% from 61 to 109 tetrads between the 1997-2000 and 2008-11 surveys, and now covering around 12% of the county's tetrads (Fig.1). Breeding birds are found almost exclusively in the

western, lowland half of the county with just one probable/proven tetrad in the east at Rivington.

Although most occupied tetrads are in the southern half of the county this is in part a reflection of the predominance of linear habitats alongside rivers and canals there compared with the north.

**Figure 2. Reed Warbler: changes in breeding distribution, 1997-2000 to 2008-2011.**  
 (Green = gains, orange = losses).



A total of 68 tetrads became occupied in the years between the two surveys and 20 were apparently abandoned (Fig.2). The gains occurred mainly throughout the south-west quarter of the county and on the Fylde coast, while all but two of the losses were in the south-west.

Peak counts of breeding pairs during 2008-11 included 375 at Leighton Moss, 51 at Martin Mere, 42 at Brockholes, 25 at Marton Mere and 20 in the Sankey Valley, while a further ten sites held ten or more. Away from the above sites population estimates provided by surveyors averaged five pairs per occupied tetrad which, when added to those at the major reedbeds, gives rise to a county population estimate of 1050 pairs, roughly half of which were found on the four major sites. This figure amounts to a little less than 1% of the British population.

SJW

## **WAXWING** *Bombycilla garrulus*

Waxwings appeared in 243 tetrads during the four winters of 2007/08 to 2010/11 (Fig.1). Significant invasions took place during 2008/9 and 2010/11, while very few were seen in the other two winters. As usual it was difficult to keep track of what are sometimes extremely mobile flocks but an effort to do so has been published in the county bird reports and is not repeated here.

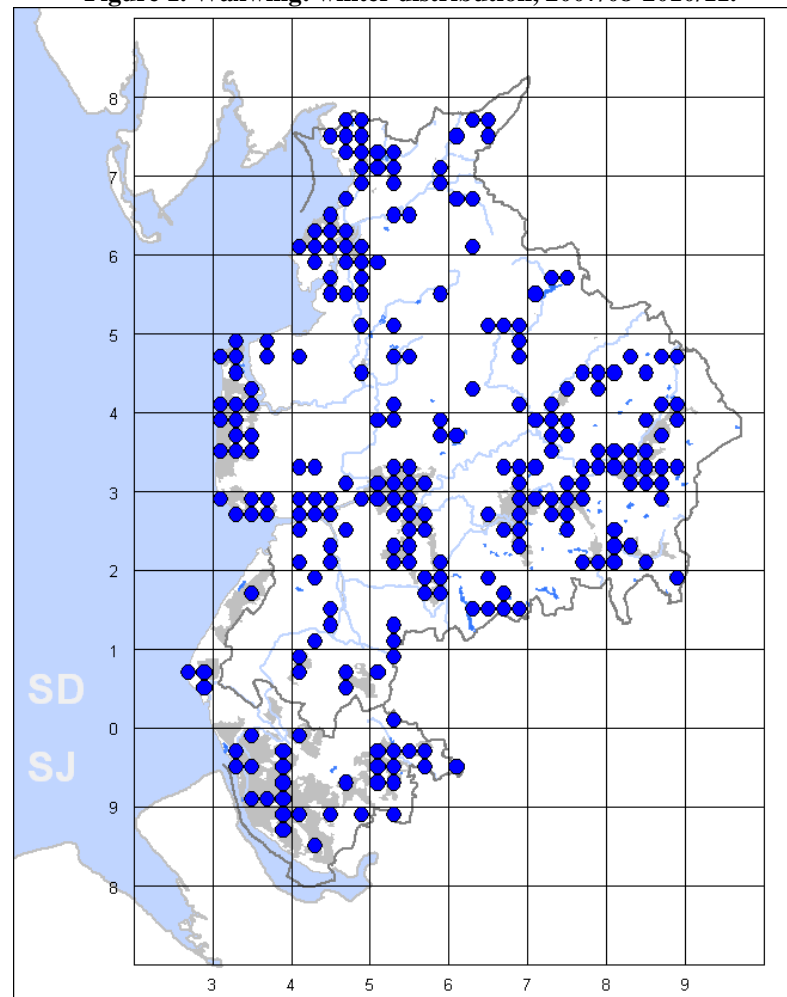
Typically, their distribution was almost entirely focussed on urban areas although small numbers were seen in the wider countryside. Numbers were divided more or less proportionately between the eastern and western halves of the county but with a slight northern and eastern bias with relatively few records in Merseyside.

The largest counts in 2008/09, when few were seen in the Fylde or the south-west, were 120 in Preston, 90 in Clitheroe, 80 or more in Blackburn and 70 in Darwen, with a peak in Rossendale of 44 at Helmshore. The 2010/11 invasion followed a different pattern with far more flocks recorded in north Lancashire and Merseyside, and to a lesser extent the Fylde coast. Peak counts during that winter included 200+ in Preston and in Liverpool, 180 in Burnley, 150 in Darwen, 140 at Leighton Moss, 118 in Barrow, 100 in St. Helens and Chorley, 80 in Lower Darwen and 50 in Accrington.

Attempting to put an in any way accurate figure on the size of the county population of a species that is so mobile within, and so variable between, winters is impossible, but it was thought that at least 1000 birds were involved in the 2010/11 invasion – some 10% of an equally uncertain national population.

SJW

**Figure 1. Waxwing: winter distribution, 2007/08-2010/11.**



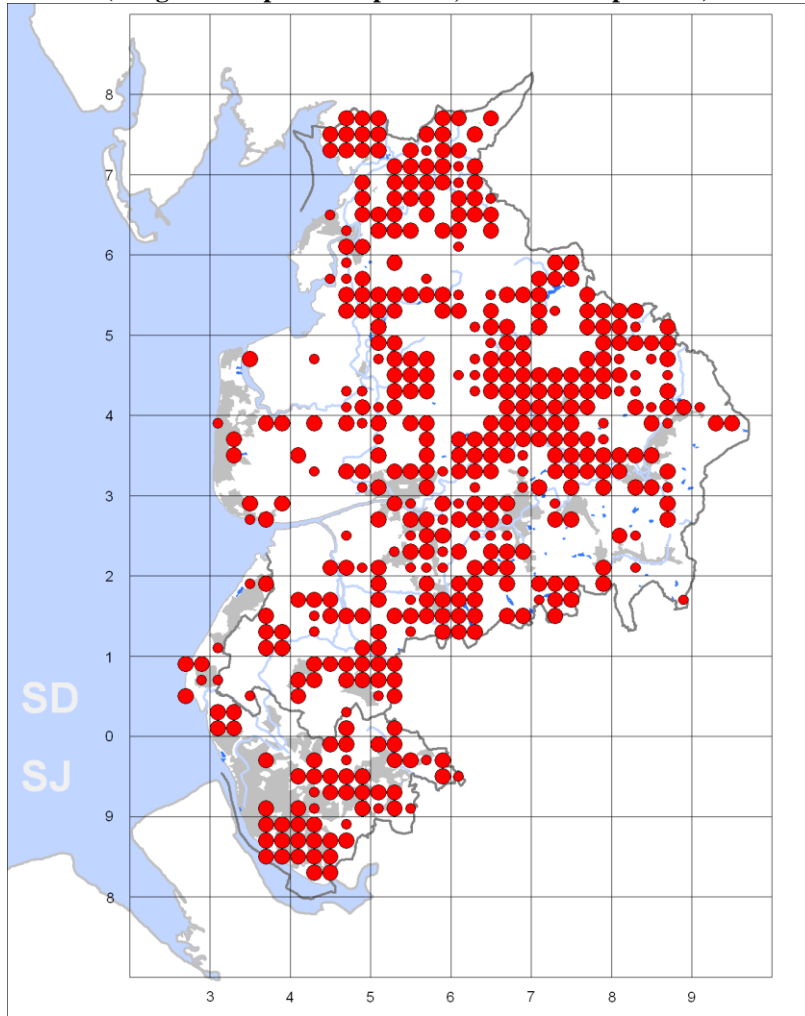
## **NUTHATCH** *Sitta europaea*

### **Breeding**

The expansion of the Nuthatch's range since the early 1980s in Lancashire, as in most regions of lowland Britain, is one of the recent success stories of our avifauna, with the pace of the spread here increasing even further during the early years of the present century. The total British population increased by 232% during 1970-2010 and by 80% between 1995 and 2010.

The 1968-72 atlas recorded confirmed nesting by Nuthatches in only one 10km square in Lancashire, with presence in another nine; by the 1988-91 New Atlas the confirmed breeding range had increased to 20 squares, with the species present in a further eight, while the 1997-2000 Lancashire Atlas recorded breeding across 40 10km squares.

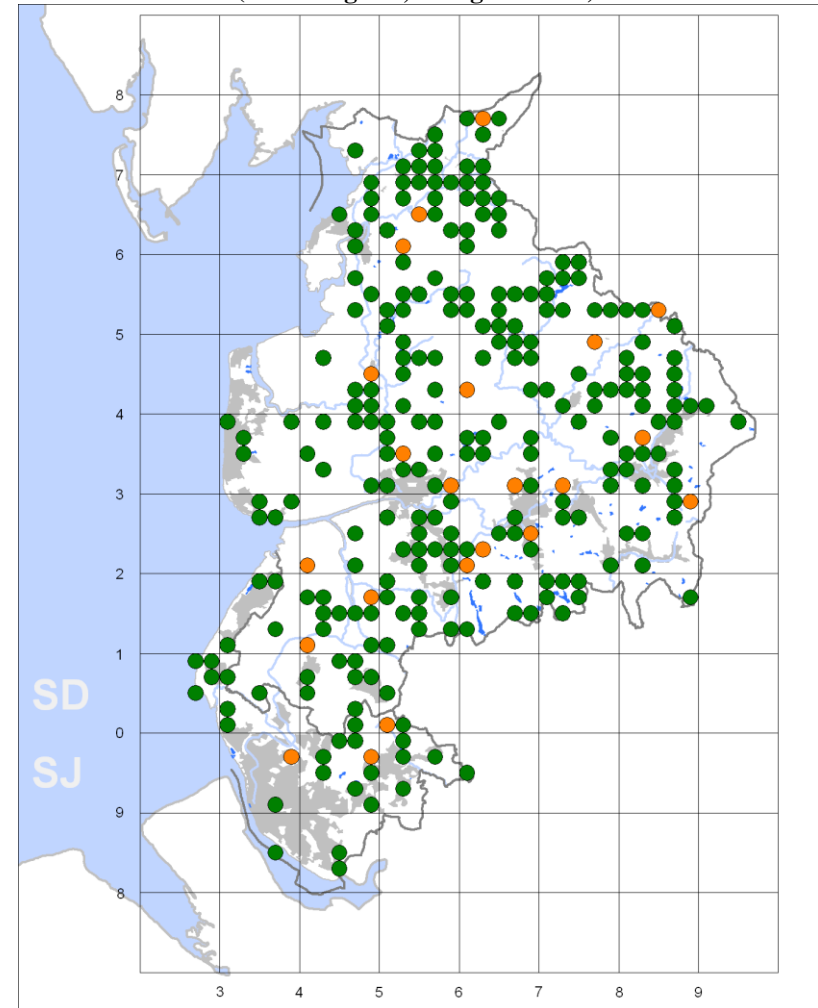
**Figure 1. Nuthatch: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).



The present survey found breeding Nuthatches in 436 tetrads, 46.8% of the county total, a range expansion of 110% in little over a decade (Fig.1).

Their true breeding range may in fact be considerably larger than this as Nuthatches, a highly sedentary species, were located in a total of 547 tetrads during winter and summer.

**Figure 2. Nuthatch: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



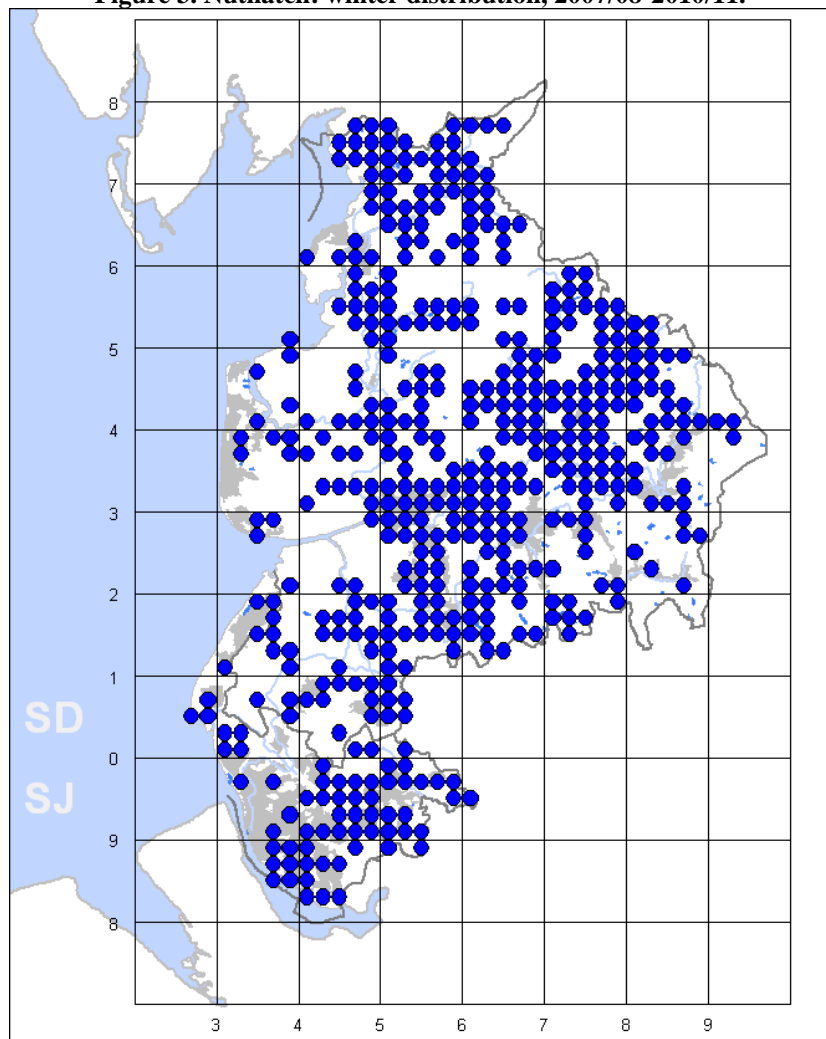
A total of 251 tetrads were newly-occupied during the 2008-2011 breeding seasons compared with 1997-2000, and just 22 were apparently abandoned (Fig.2). The breeding change map shows this extension to be county-wide, particularly dramatic in the original footholds of the north and

east but evident also, though more localised, in the Fylde and the south-west. Even in these relatively poorly-wooded regions Nuthatches have now reached the coast on a broad front with breeding pairs in the urban parks of Liverpool, Southport and Blackpool.

The population was estimated with moderate confidence at 1600 pairs, roughly four per occupied tetrad.

## Winter

**Figure 3. Nuthatch: winter distribution, 2007/08-2010/11.**



Once established in a breeding territory Nuthatches are highly sedentary; the winter distribution map matches that for breeding very closely with presence in 467 tetrads, 49.4% of the total (Fig.3).

Comparison of the two maps shows a slight but clear tendency for Nuthatches to be found in winter in ‘new’ tetrads adjacent to those in which breeding was recorded; it is tempting to surmise that these winter records involve to some extent the offspring of nearby breeding pairs, in the process of continuing the species’ range expansion.

The population estimate was of 4800 individuals, derived by multiplying the total of breeding pairs by three.

BM

## TREECREEPER *Certhia familiaris*

### Breeding

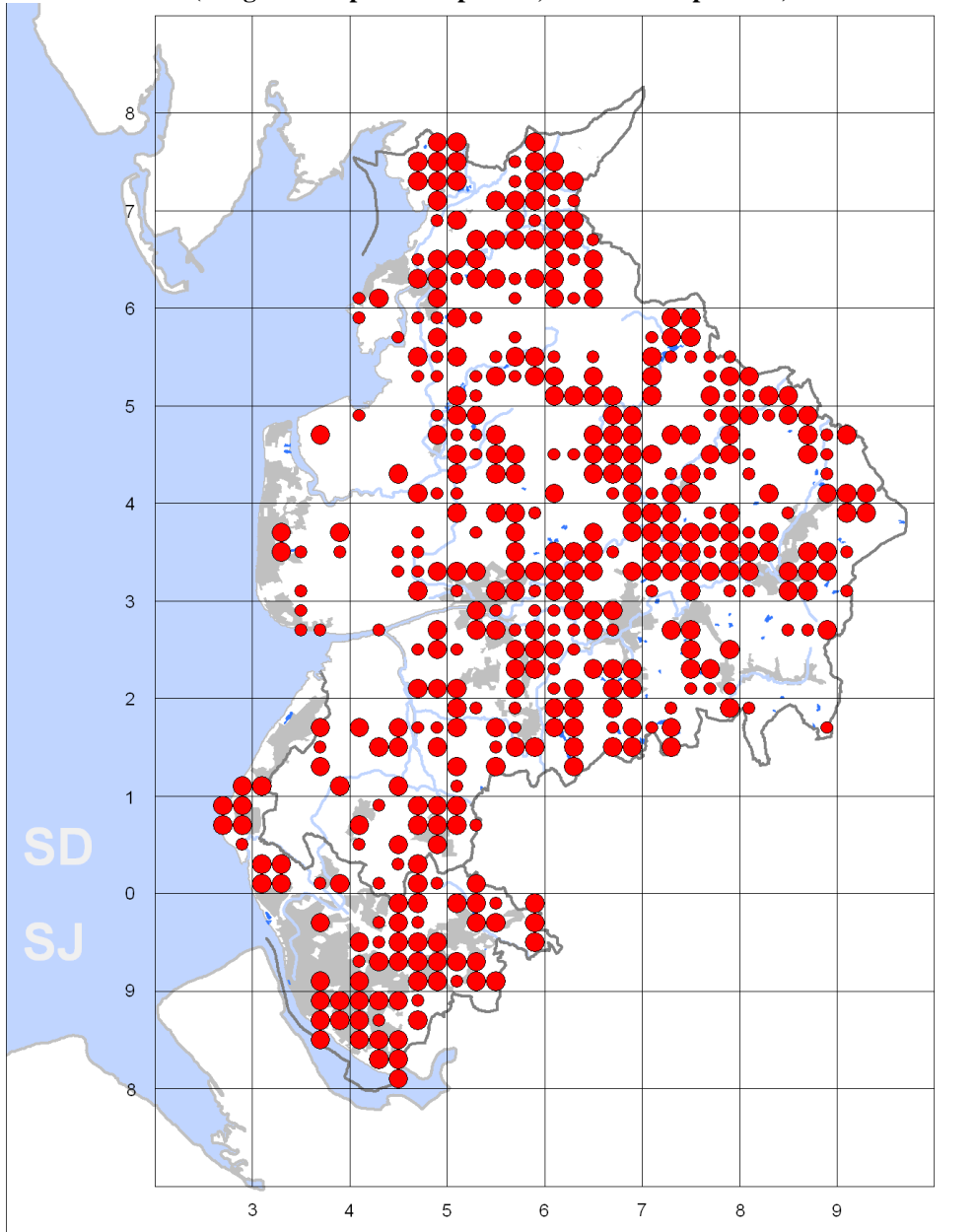
Treecreepers were found in 433 tetrads during 2008-11, extending to 46% of the county’s tetrads and indicating a 14% increase in breeding range since 1997-2000 (Fig.1).

However, the real figure is likely to be higher than this; the species is highly sedentary with only a handful recorded on migration in Lancashire, and the combined breeding season and winter range uncovered during the current survey confirmed presence in 490 tetrads.

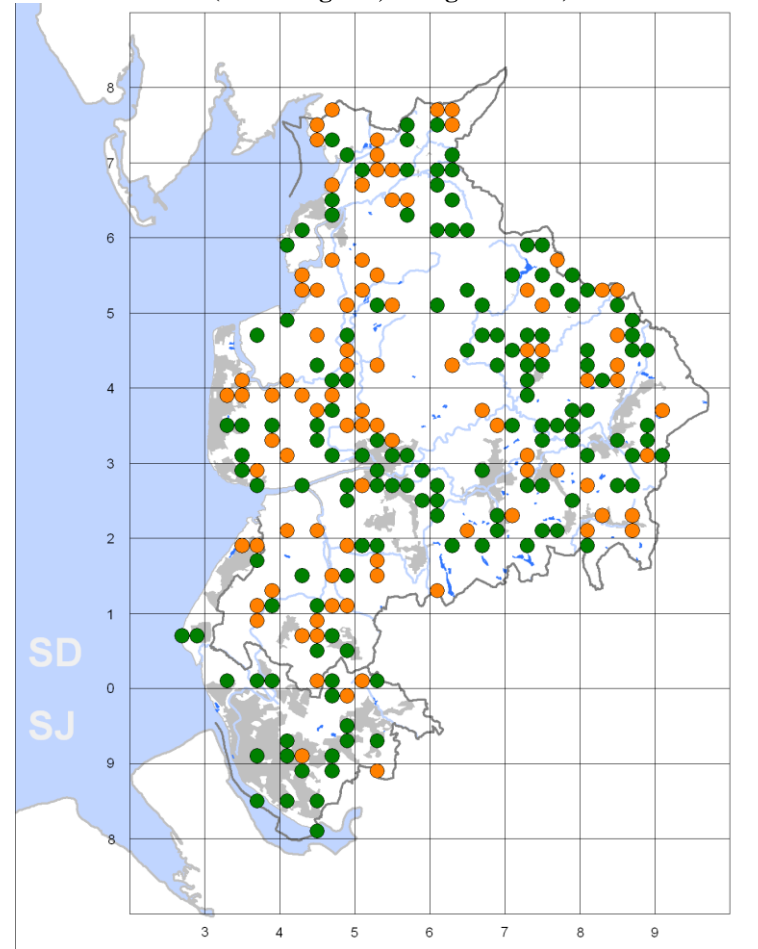
Although birds were present in all areas of the county, their distribution reflected that of suitable woodland habitat with most in the eastern two-thirds of the county and additional clusters in Merseyside and north Lancashire; Treecreepers were scarce in the Fylde and absent from most of the agricultural plain and from the uplands.

Newly-occupied tetrads outnumbered those apparently abandoned by 143 to 92 (Fig.2), a very high level of putative change, perhaps supporting the idea that the breeding range was closer to the higher of the two figures suggested above. Losses were scattered throughout the county, as were most gains with the exception of one cluster to the south of Preston.

**Figure 1. Treecreeper: breeding distribution, 2008-2011.**  
 (Large dots = probable/proven; small dots = possible).



**Figure 2. Treecreeper: changes in breeding distribution, 1997-2000 to 2008-2011.**  
 (Green = gains, orange = losses).



There was little variation in numbers recorded anywhere in the county and breeding density was estimated at an average of 3.5 pairs per tetrad, indicating a county total of 1500 pairs, a little less than 1% of the British population.

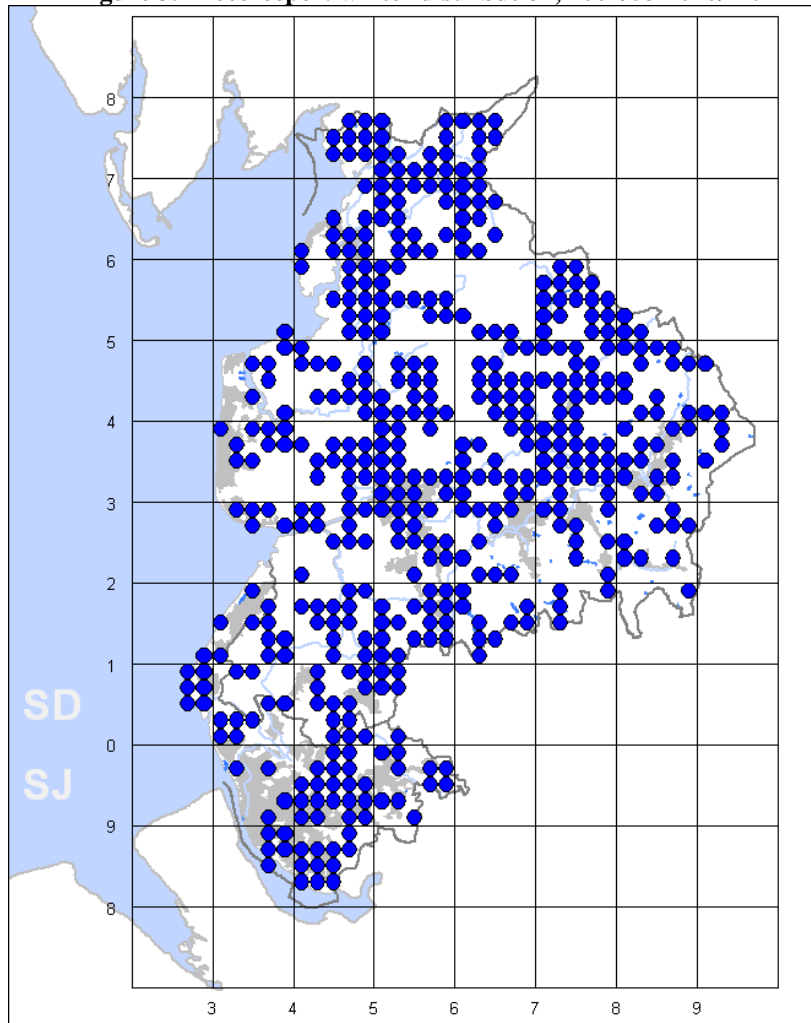
**Winter**

The range and distribution of Treecreepers in winter was – unsurprisingly for such a sedentary species – essentially similar to that of summer, although

they were found in 478 tetrads covering 50% of the county, slightly more than in the breeding season (Fig.3).

Numbers in different areas of the county varied very little with only two double-figure counts – 13 in woodlands at Cow Hill, Preston and ten at Gibbs in the Ribble Valley. The county population was estimated at 4500 individuals, based upon the estimated breeding population plus one surviving juvenile.

**Figure 3. Treecreeper: winter distribution, 2007/08-2010/11.**



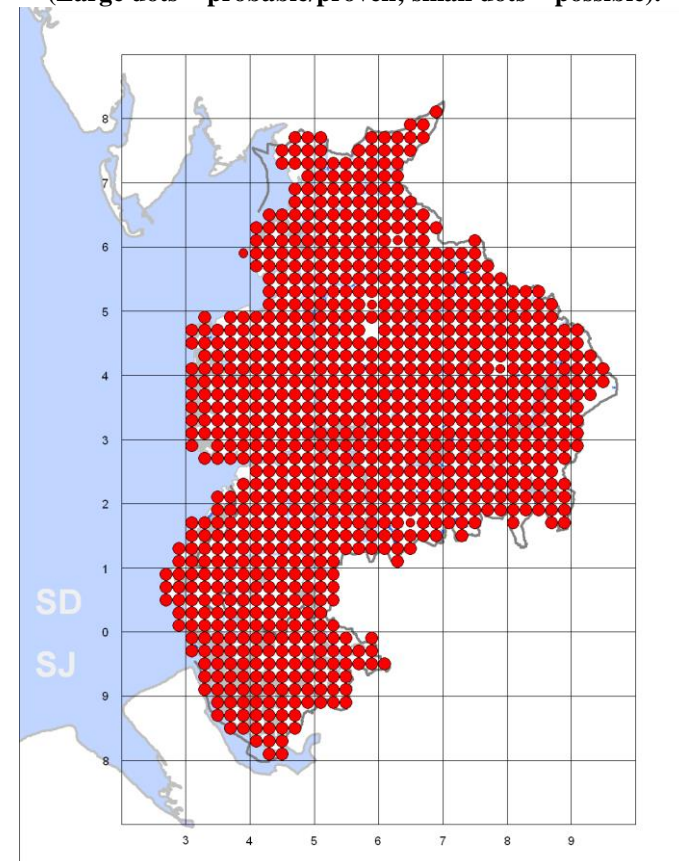
## **WREN** *Troglodytes troglodytes*

### **Breeding**

As in the country as a whole, Wrens have long been the most widespread and numerous species in Lancashire. During 2008-11 they were present in 922 tetrads, 99% of the county total (Fig.1).

In consequence, rather than describing their distribution it is easier to say where they were not breeding: Banks Marsh, Knott End, Carnforth Slag Tips, Fairsnape Fell, Crossdale Grains, Cross of Greet, Lad Law and Brinks End Moor and Ashworth Moor. However, Wrens were present in four of these tetrads during winter and were perhaps simply missed during the breeding season.

**Figure 1. Wren: breeding distribution, 2008-2011.**  
(Large dots = probable/proven; small dots = possible).

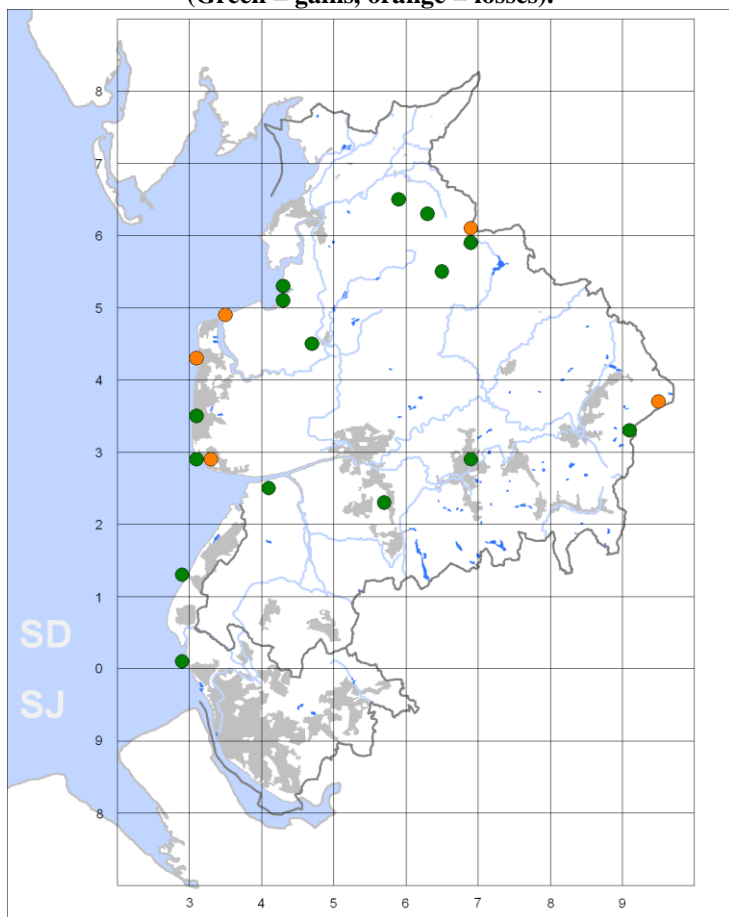


The handful of both gained and lost tetrads were all in very marginal habitats (Fig.2).

Variations in population densities were relatively small: 25% higher in the west than the east and 15% higher in the south than the north.

Too few tetrad population estimates were made by observers so the size of the county population can only really be guessed at 0.5% of the British total – in line with Robin and other widespread passerines – or very approximately 40000 pairs. This would mean that Wrens make up about 7% of all breeding species in the county.

**Figure 2. Wren: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



## Winter

Birds were present in 909 tetrads during 2007/08-2010/11, 96% of the county total and implying a modest withdrawal from some marginal areas during winter (Fig.3).

The highest densities were largely confined to the western third of the county, especially in south Fylde and on the Sefton Coast, but with a few larger counts in the Blackburn area and the West Pennine Moors (Fig.4)

Population size can only be estimated on the basis of breeding numbers – which themselves were largely guessed at – which would imply a total of 120000 individuals or about 5% of all birds wintering in Lancashire.

SJW

**Figure 3. Wren: winter distribution, 2007/08-2010/11.**

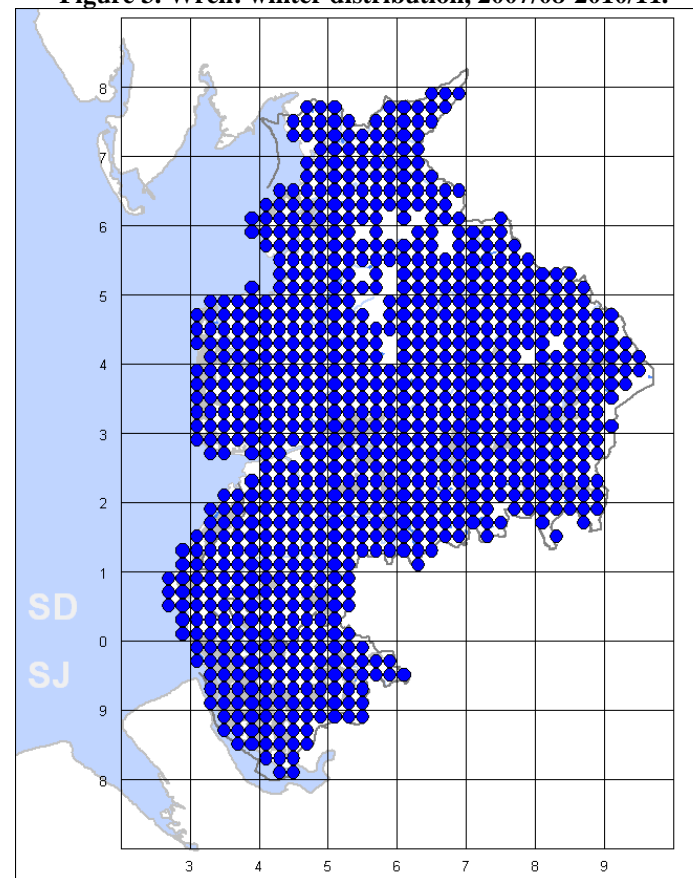
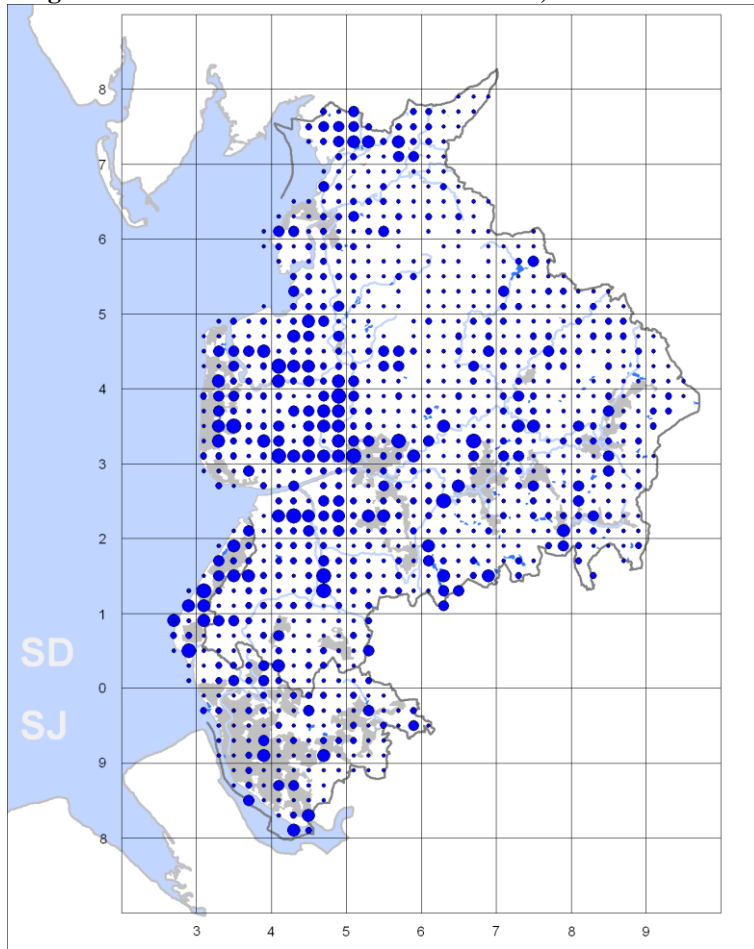


Figure 4. Wren: relative abundance in winter, 2007/08-2010/11.



Dot size in descending order: 25-81; 15-24; 10-14; 5-9; 1-4

## STARLING *Sturnus vulgaris*

### Breeding

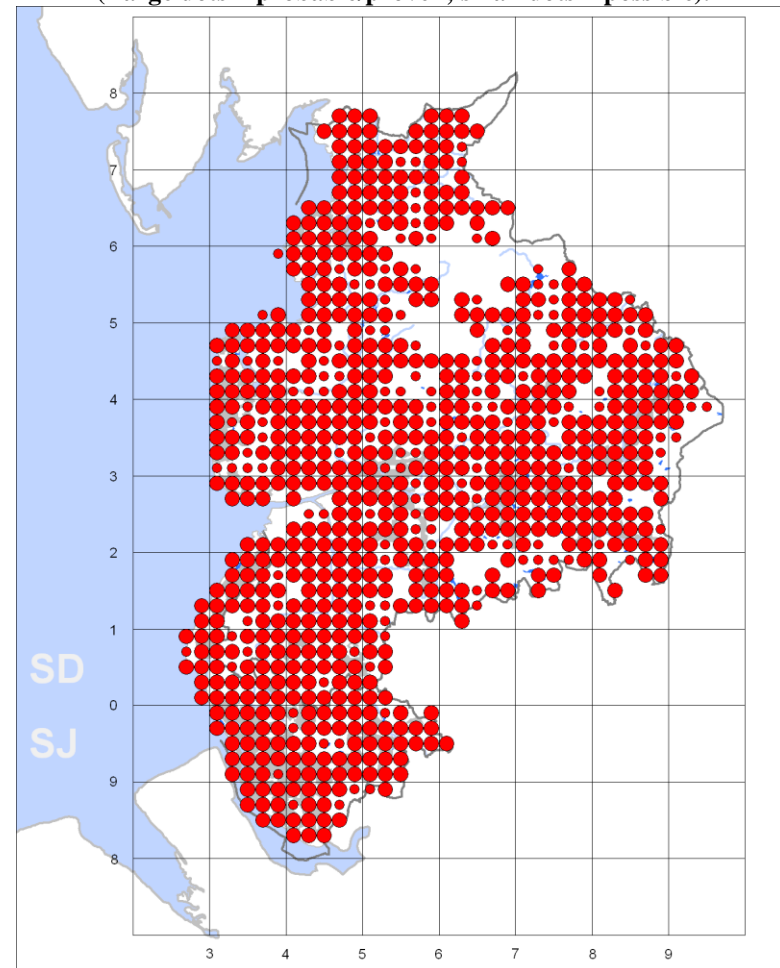
Starlings were present in 839 tetrads covering 90% of the county total and an insignificant 1% fewer than in 1997-2000 (Fig.1). They exhibited the familiar distribution of most passerines within that range, being absent from high ground and saltmarshes, but also from a handful of lowland tetrads in

Merseyside, West Lancashire and the Fylde – rather more if possible records were excluded.

Twenty-three tetrads, scattered throughout the county, were newly-occupied since 2000, while 50, notably in the north-east, appeared to have been abandoned (Fig.2).

Differences in density in occupied tetrads were not significant between the north and south of the county but were 40% higher in the west compared with the east and 70% higher in the south-west than the north-west.

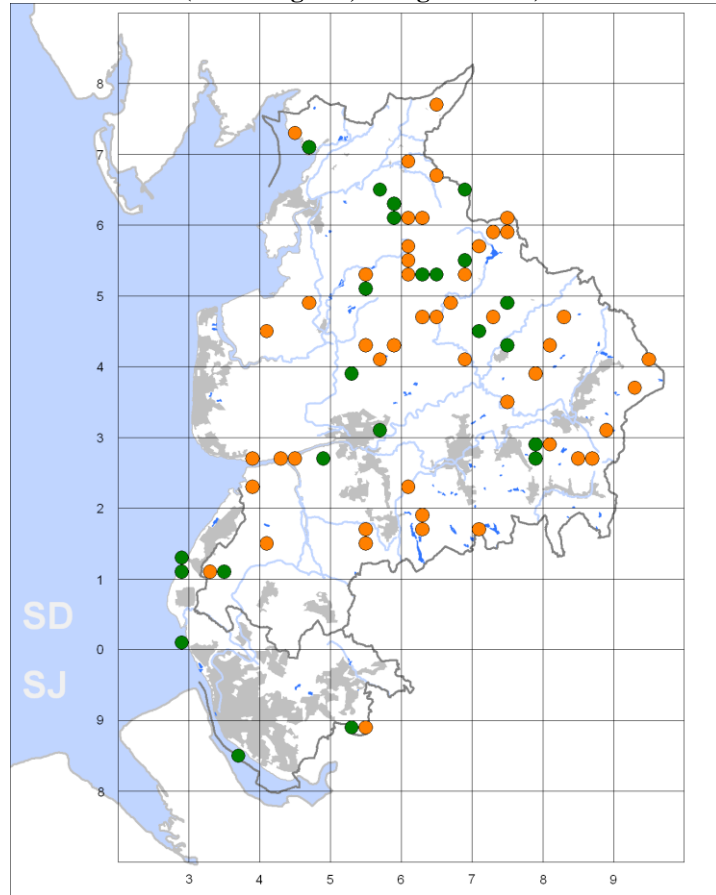
Figure 1. Starling: breeding distribution, 2008-2011. (Large dots = probable/proven; small dots = possible).





Tetrad population estimates provided by surveyors averaged 14.5 pairs per occupied tetrad, suggesting a county total of around 12000 pairs, roughly 0.5% of the British population, but this needs to be treated with some caution as some post-breeding flocks were undoubtedly included.

**Figure 2. Starling: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



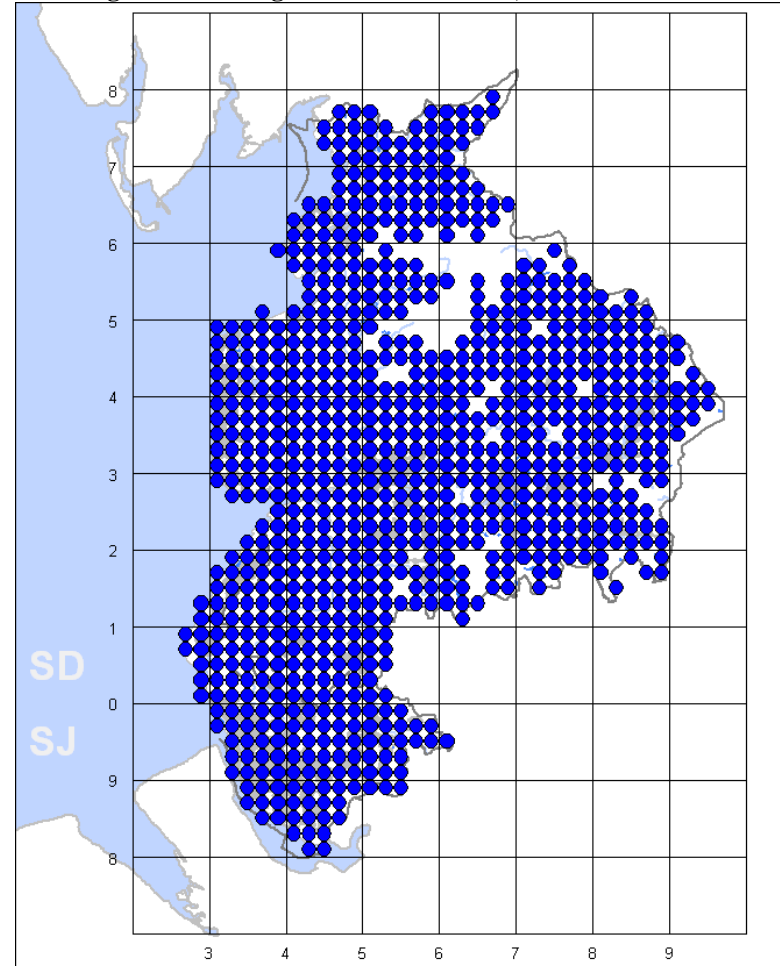
### Winter

With continental immigrants joining resident birds the Lancashire population swells considerably in winter. Starlings were found in 866 tetrads covering

92% of the county – only a small increase in range compared with summer (Fig.3).

They were present in all tetrads in the western third of the county and some absences in lowland tetrads in the Chorley, Preston and Blackburn areas seem more likely to have been due to limited survey effort rather than to genuine absence.

**Figure 3. Starling: winter distribution, 2007/08-2010/11.**



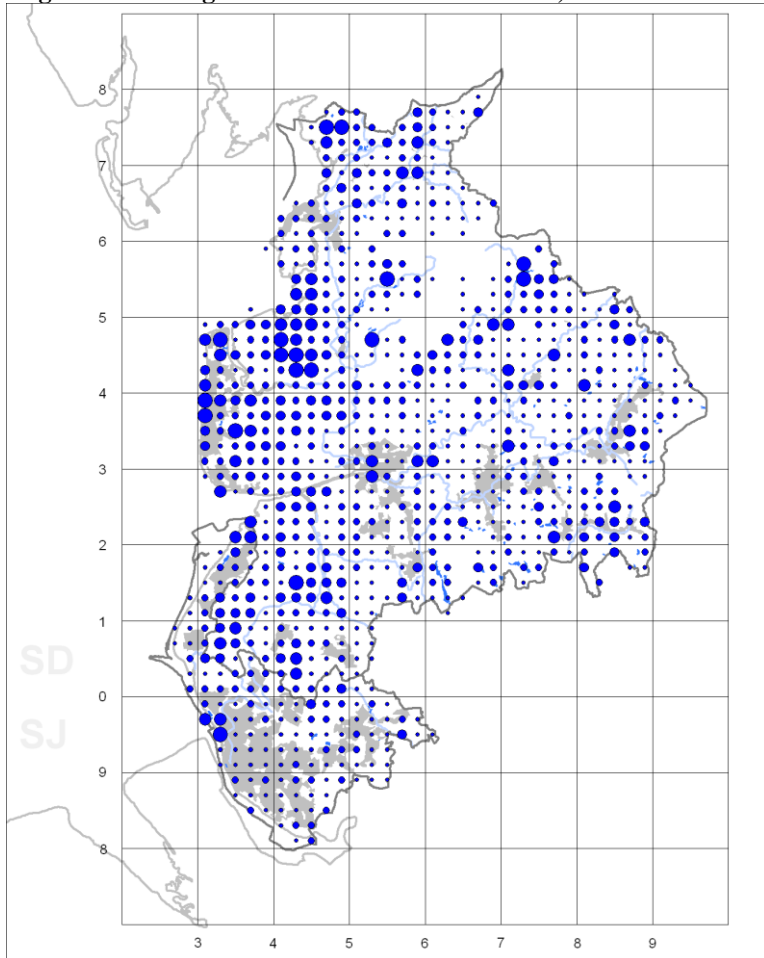
Tetrads holding the highest densities were almost all in the western half of the county (Fig.4); 17 tetrads held roosts of 10000 or more, just one of

them, Stocks Reservoir, in the east. The largest were 200000 at Marton Mere, 80000 at Leighton Moss and 50000 at Blackpool North Shore and Stocks Reservoir. A further 47 tetrads recorded 2000 or more birds.

Almost a million Starlings were counted during the winter atlas period and in some years the Lancashire population almost certainly exceeded 500000 but the average was probably closer to 300000, 13% of our total bird population.

SJW

Figure 4. Starling: relative abundance in winter, 2007/08-2010/11.



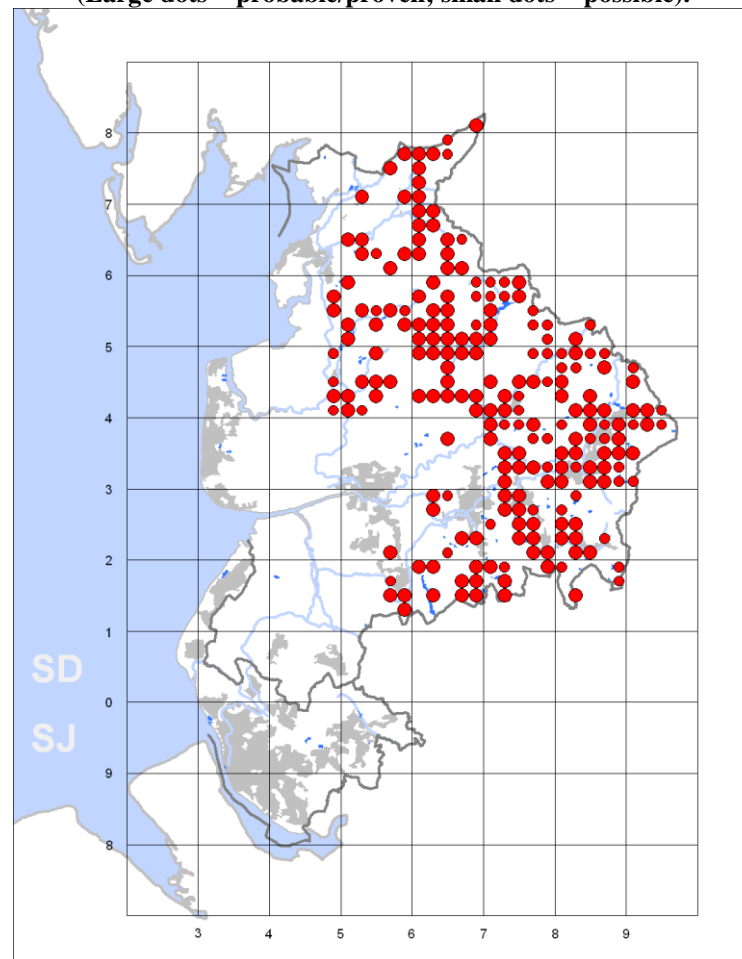
Dot size in descending order: 9000-200000; 2000-8999; 500-1999; 100-499; 1-99

## DIPPER *Cinclus cinclus*

### Breeding

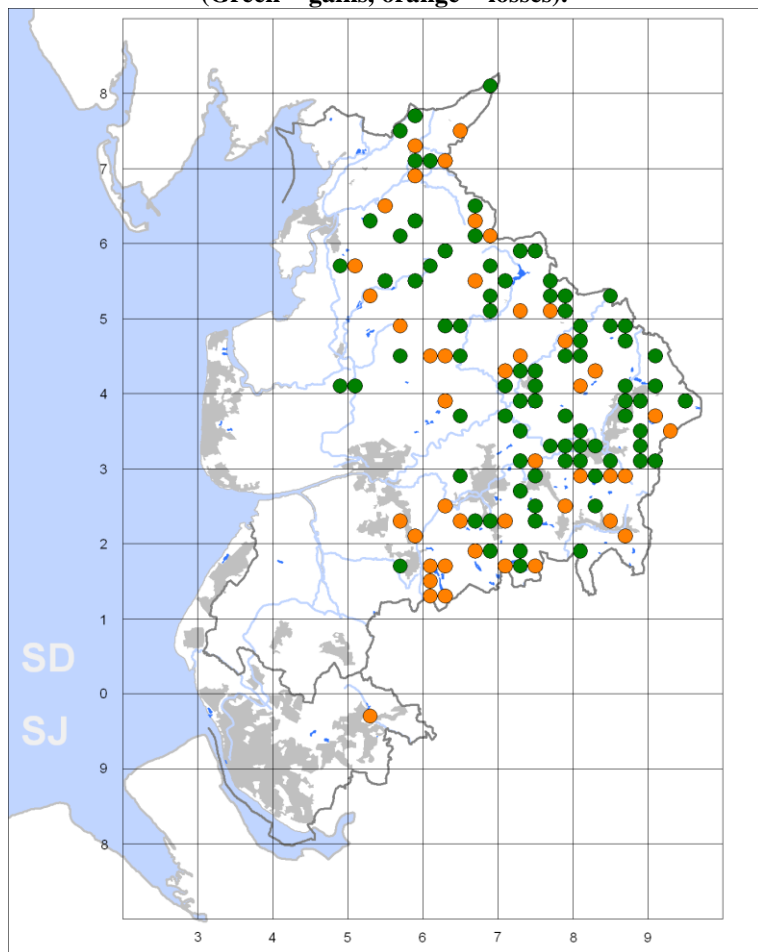
Dippers have very specific requirements which limit their distribution to their preferred habitat of relatively fast-flowing streams and rivers with beds that are stony and break the surface. This is a feature of upland streams and they therefore avoid deep, slow moving rivers with fine sediment on the floor that are more typical of lowland areas.

Figure 1. Dipper: breeding distribution, 2008-2011.  
(Large dots = probable/proven; small dots = possible).



There is, however, a plentiful supply of such habitat in eastern Lancashire and Dippers were present in 218 tetrads during the summers of 2008-2011, amounting to 23% of the county's tetrads, although these – as in our previous survey – may include some sites used only for feeding (Fig.1). The national population declined by 36% between 1995 and 2010 but it appears that Lancashire's has not only bucked this trend but moved in the opposite direction, since the breeding range has increased by almost 25% in the past decade.

**Figure 2. Dipper: changes in breeding distribution, 1997-2000 to 2008-2011.**  
(Green = gains, orange = losses).



Dippers are badly affected by polluted and acidified water and their apparent resurgence in Lancashire may be in large measure due to successful efforts to improve water quality. Newly-occupied tetrads hugely outnumbered those that were apparently abandoned (Fig.2).

Losses were scattered throughout the county, many of them adjacent to current territories implying only small distributional shifts, but with one cluster in the Anglezarke/Rivington area. New tetrads were within the core eastern areas but with a southerly bias, especially apparent in the Burnley area, testament presumably to improved water quality in the industrial lowlands.

The population was estimated at 270 pairs, a little less than 1.5 pairs per occupied tetrad and about 2% of the British population.

### Winter

Dippers were found in 222 tetrads, 23.5% of the county total (Fig.3).

Although this was very similar to the breeding distribution, there were some subtle differences with birds moving downriver in winter, for example on the Rivers Wyre and Conder; the number of occupied tetrads in SD63 to the north-east of Preston increased from one in summer to ten in winter.

These changes were probably related to a combination of juveniles moving to less favourable niches or birds seeking out short-term food supplies during freezing conditions. Further evidence of winter dispersal was provided by the presence of one on the eastern fringe of Merseyside at Prescott Reservoirs, in an area well outside of the breeding range.

More than half of winter counts were of singles but three or more were recorded in 25 tetrads with the largest counts eight in the Langden Valley and six at Altham and Slaidburn. The population was estimated at 800 birds.

GH

Figure 3. Dipper: winter distribution, 2007/08-2010/11.

