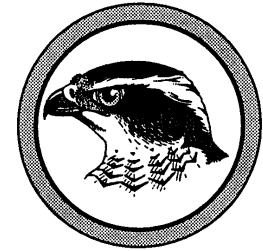
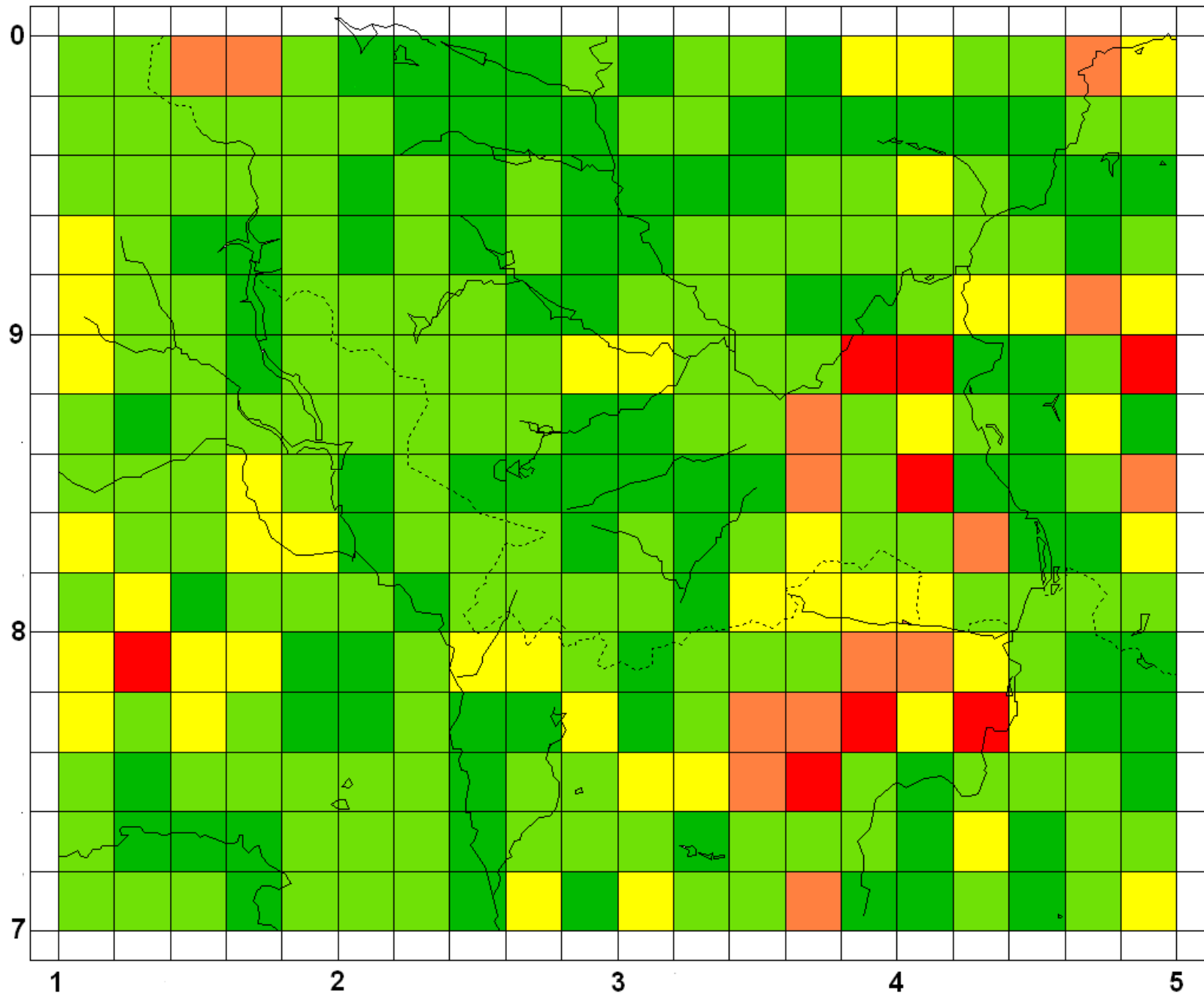


Breeding Atlas Update



- To be published as a hardback book, A5? c.300 pages
- Intro chapters on:
 - Methodology and overall coverage
 - Land use and changes
 - Weather
- Species accounts:
 - c.110 @ 2-3 pages each, with national and local comparisons over time; colour map and colour photo/ illustration (?)
 - c.20 @ 1 page each (scarce breeders, e.g. Common Tern)
- Summary/ Conclusions
- Formalities (contributors, bibliography, index, etc)

Atlas Coverage



Cuckoo *Cuculus canorus*

National status

Amber listed: 25% decline 1980-2005 (CBC/ BBS).

Decline of 5.1% between BTO Atlases of 1968-72 and 1988-91.

Local status in our 300 tetrads

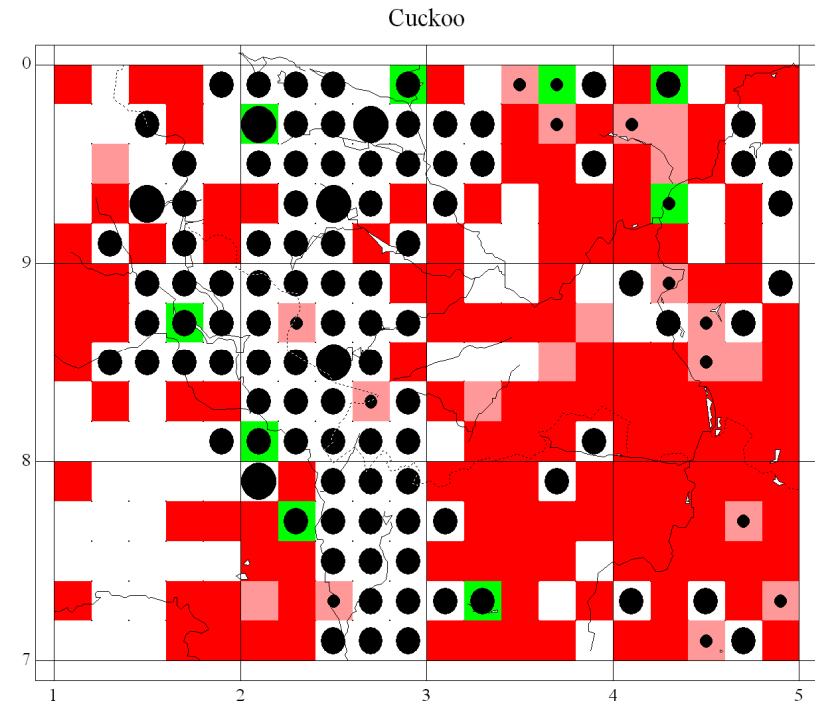
1975-80: Occupied 240 (80%)

2003-08: Occupied 114 (38%) % change **-52.5**

The British Cuckoo population suffered a rapid decline between 1980 and 2000, with a 25% decline in English CBC/BBS results over the period 1980-2005. This decline has apparently slowed in the last decade in England, and the period 1995-2005 saw a rise of 14% in Scotland, as recorded by BBS. A widespread fall in numbers across Europe has also been noted since 1980. The apparent disparity of these figures with the modest decline recorded by the BTO Atlases may be explained by the fact that the national Atlases recorded at the level of 10-kilometre squares, while the other surveys cited record at a much smaller scale, thereby detecting contractions of range more accurately. If recording solely at a 10-km scale, Cuckoo would be seen to have declined in the Sheffield area by 8.5%, having disappeared from one of our 12 squares.

The decline in breeding Cuckoo populations is thought to be related to declines in some of the key host species: Meadow Pipits declined by 44% across the UK between 1980 and 2005, while Dunnock declined by 12% over the same period. The Sheffield Atlas found declines of 17% and 7% respectively for these species, and the decline in Cuckoo population is thus indirectly linked to habitat change, which has affected both of these host species in the form of improved grasslands and loss of woodland scrub. Another factor in the decline is thought to be a decrease in moth populations, attributed in part at least to climate change, which has had an impact on the availability of caterpillars, the Cuckoo's main food source.

BOTSA describes the Cuckoo as 'widespread throughout the area', the only exception to this being the carboniferous limestone plateau of the White Peak (SK17), where Meadow Pipit populations were less dense than elsewhere in the Peak District. Cuckoos were also noted to be less numerous on the lowlands to the E of Sheffield, but nonetheless occupied at least two-thirds of tetrads in every 10-kilometre square except SK17, with 100% occupation of SK47 in the SE of the area. Elsewhere on the lowlands this species has also undergone a marked decline. The 2005 and 2006 annual reports record sightings at 59 and 60 locations respectively, with an average of 22% of these sites on the lowlands. However, the great majority of these lowland records related to single birds on a single date, presumably on passage. The decline in numbers is also evident on the upland strongholds, where max counts in both 2005 and 2006 were of 3 on several occasions in late April - early May. Counts of c.30 on Beeley Moor on 28th May 1978 and 14 at the same location in July 1980 are impossible to imagine now.



Comparative distribution of breeding Cuckoo in the Sheffield area 1975-80 and 2003-08.

As can be seen from the distribution map above, Cuckoo was absent from SK17 in the 2003-08 Atlas, and present in only 6 tetrads in SK47, where it had previously been ubiquitous. A clear pattern emerges of this species disappearing from areas in which it was formerly less numerous, as might be expected. Indeed, on the lowlands on the eastern edge of the recording area (SK47, 48 and 49), at average elevations of around 100 metres asl, the Cuckoo has declined by 70%, with a decline of 73% in the eastern half of the recording area. It is to the east of Sheffield that arable production is concentrated, and the intensification of agricultural practices in recent decades (not to mention the building of new towns to the East of Sheffield) has reduced densities of Meadow Pipits in such areas, with knock-on effects for the Cuckoo population. To the west of Sheffield, by contrast, the decline is much less marked. The anomalous status of the limestone plateau has already been mentioned, but beyond SK17, the western half of the recording area, dominated by moorland and rough pasture on millstone grits, has seen a decline of 25%.

A further clear pattern emerges here of Cuckoos becoming largely restricted to a core of moorland and moorland fringe habitats, where densities of Meadow Pipits remain at their highest.

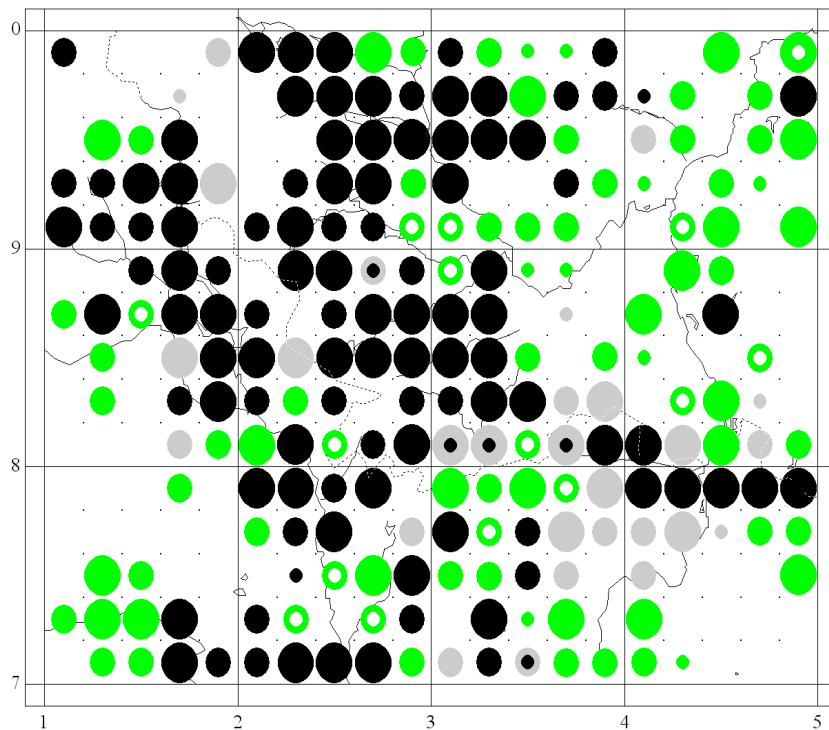


Goldcrest: habitat connections

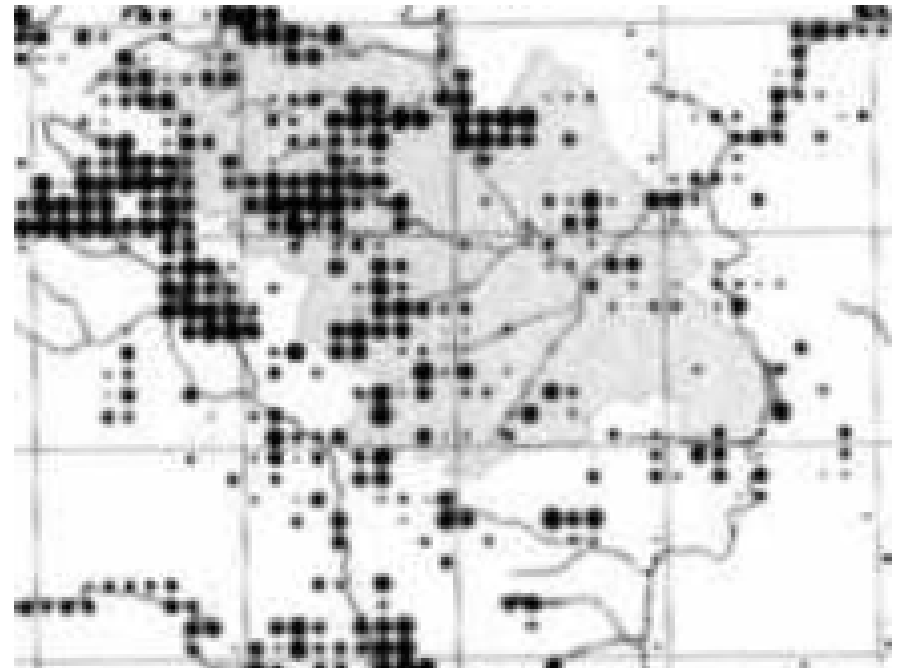
Breeding distribution and change

(green = gains; grey = losses;

black = steady state)



Coniferous woodland: 1km squares with >20% canopy cover of mature trees, with >80% of the canopy being native and non-native conifers



What can you do?

- Tetrads 'mopping' in the next few weeks
- Sponsor a species
- Funding applications (this summer)
- Breeding images (this season)

