Pilley bridge spring bird survey – conclusions and statistics

- Average (mean) species per week – 13 (13.2)
  - Highest = 17 (week 2)
  - Lowest = 10 (week 13)
- Average (mean) birds per week – 58 (58.4)
  - Highest = 72 (week 2)
  - Lowest = 47 (week 1)

Patterns and Trends

In most weeks, there is a link between the number of birds and the number of species. When the number of birds go up, the number of species go up as well and so on. For example, in week two, both the number of birds and the number of species increase quite a lot. Week 7 is an anomaly, as although the number of species increases quite a bit to the second highest number overall, there is a large drop in the overall number of birds, which does not match the trends shown by the rest of the survey.

The number of singing birds starts to go up for the first few weeks, but then starts to drop consistently after week 4 and continues this trend for the rest of the survey, as the birds will have already set up territories and found mates at this point in the year so fewer will be singing.

The patterns shown by the number of individual species does not show strong correlation with each other or the other graphs, but some do show some interesting trends themselves. The number of blue tits rises from around 6-7 each week up to around 11-12 each week after week 9, which will have been caused by blue tits fledging at around this time, which is around the time that blue tit broods would fledge (late May – early June).

The reason birds like wrens or chiffchaffs seemed to decline later in the survey but birds like great tits did not is because the wrens and chiffchaffs tend to be spotted because of their song, but are otherwise quite secretive, so later in the year when they do not sing as much they are not seen and therefore not counted, although they are probably still there, whereas great tits are a lot more conspicuous and therefore still counted.

Conclusions

From the data I have gathered I can now start to predict the number of offspring produced this year for each species. All the birds that have been measured are ones that would be expected to be breeding in the reserve and not just there temporarily, like magpies, who were seen but probably didn't breed. The method I will use to work this out is:

The average number of birds in a species[1] / 2, the result multiplied by national average success rate. (Avg. birds/2) x Nat. Avg.

- Woodpigeon = (11/2) x 2 = 11
- Blue Tit[2] = (8/2) x 6 = 24
- Great Tit[3] = (4/2) x 5 = 10
- Wren = (4/2) x 6 = 12
- Dunnock = (4/2) x 7 = 14
- Chiffchaff = (4/2) x 6 = 12
- Robin = (3/2) x 5 = 7.5 (8)
- Blackbird = (8/2) x 6 = 24

I had to estimate the averages sometimes when there was not a value ready.

Other fledged birds

- Jay = 2 juveniles seen fledged
- Coal Tit = 5 juveniles seen fledged
- Bullfinch = 4 – 12 fledglings possible (estimated = 8)

1 = Rounded to the nearest whole number

2 = The avg. birds' value was taken from before week 9 as after this the birds will have already fledged

3 = The avg. birds' value was taken from before week ten as after this the birds will have fledged