

## **New-for-the year adult Reed Warblers again**

This analysis compares the proportions of new-for-the year adults in catches at the Wicken Reedbed in 2011 and 2012.

2012 was a bad year for Reed Warblers. Fewer adults returned, and fewer were caught. When breeding did finally get underway productivity was very poor. The number of adults caught, however, was sufficient for some comparisons to be made between the two years.

In 2012 there were 248 captures of 179 different adults at the Reedbed, compared with 302 captures of 214 different individuals in 2011.

Any catch potentially comprises a mix of birds caught and ringed for the first time, and birds already carrying rings. The latter will be birds carrying rings from a previous season (new-for-the-year on their first capture this year); and newly-ringed birds caught earlier in this season and thus no longer new-for-the-year.

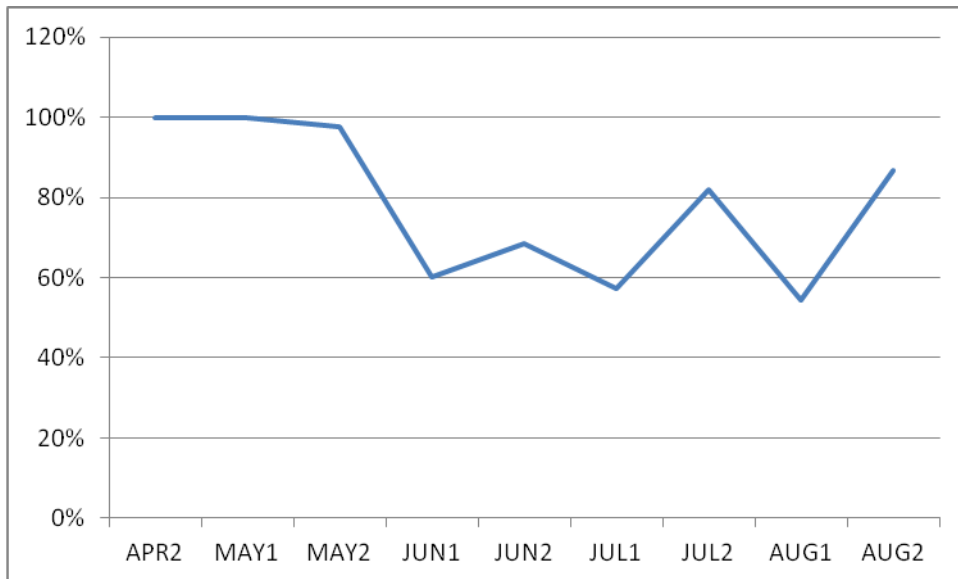
The first catch will obviously comprise 100% new-for-the-year birds. If the catching were effective and the catching area contained, then you might expect that proportion to decline progressively over subsequent catches. In theory, you might reach a late-season stage where just before migration all the available different resident birds had been caught, and the new-for-the-year percentage had fallen to zero.

Last year's data showed (and data from other sites has shown) that until early June all birds pretty much are new-for-the-year. This proportion then drops, as would be expected. What is not as expected is that the proportion of new birds in individual catches hardly ever drops below 50%, and that there is a second peak in mid to late July when the new-for-the-year proportion rises again above 60%.

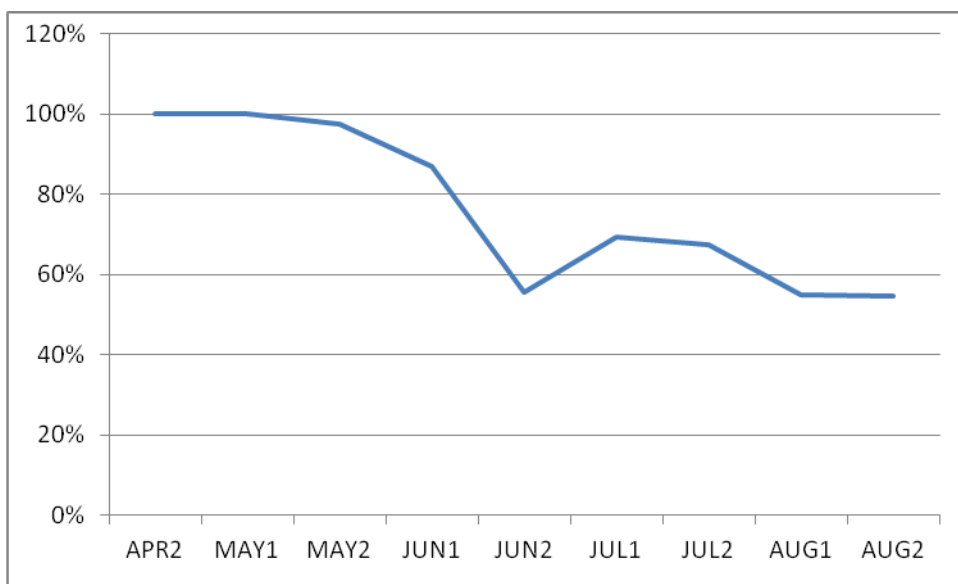
The charts below shows the data for 2011 and 2012.

This time I have aggregated catches by two-week period, with any duplicates within that two-week period removed. For these charts APR2 denotes Weeks 18-19 and MAY1 Weeks 20/21 and so on.

### 2011 Season



### 2012 Season



The lowest individual proportion catches (8 birds total or more) were:

2012 44% 8/18 12 July

2011 50% 5/10 9 July

and the highest late-period proportion catches were:

2012 67% 8/12 24 July

2011 76% 26/34 19 July      72% 31/43 22 July

This shows an arrival of new birds – consistent over both years – in July, at about the time that most first broods are becoming independent. The extreme peak in 2011 was 87 new birds out of 106 in Weeks 30/31 – that is 18-31 July. My personal theory is that these are adults – with a high proportion of 'returners' – which breed elsewhere but use Wicken on passage. If 2012 was an exceptional year for some reason, a chart for 2013 may hopefully help to show whether this 2011 peak is more the norm.

The season-long high number of 'new' adults and the July peak could represent several things. We probably catch all the immediately local birds, breeding within the Reedbed catching area, but birds breeding at some distance may only visit rarely (and very rarely when the nets are up), thus providing a steady supply of 'new' birds. They may visit more frequently when feeding young, or when moving around with dependent young.

It's equally possible that there might be an almost continual arrival and departure of adult birds – with late arriving adults; or adults from other overcrowded reedbeds; or unmated birds – all merging with early departing adults which had failed and were trying their luck elsewhere; or even with early finishers/migrants.

We don't know how many unpaired birds are naturally within the population, or how many birds there are which don't breed in their first year and just wander about rather randomly.

Comments welcome.

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