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# CHNS 2020 Phenology

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DR CHRISTIAN HANCE



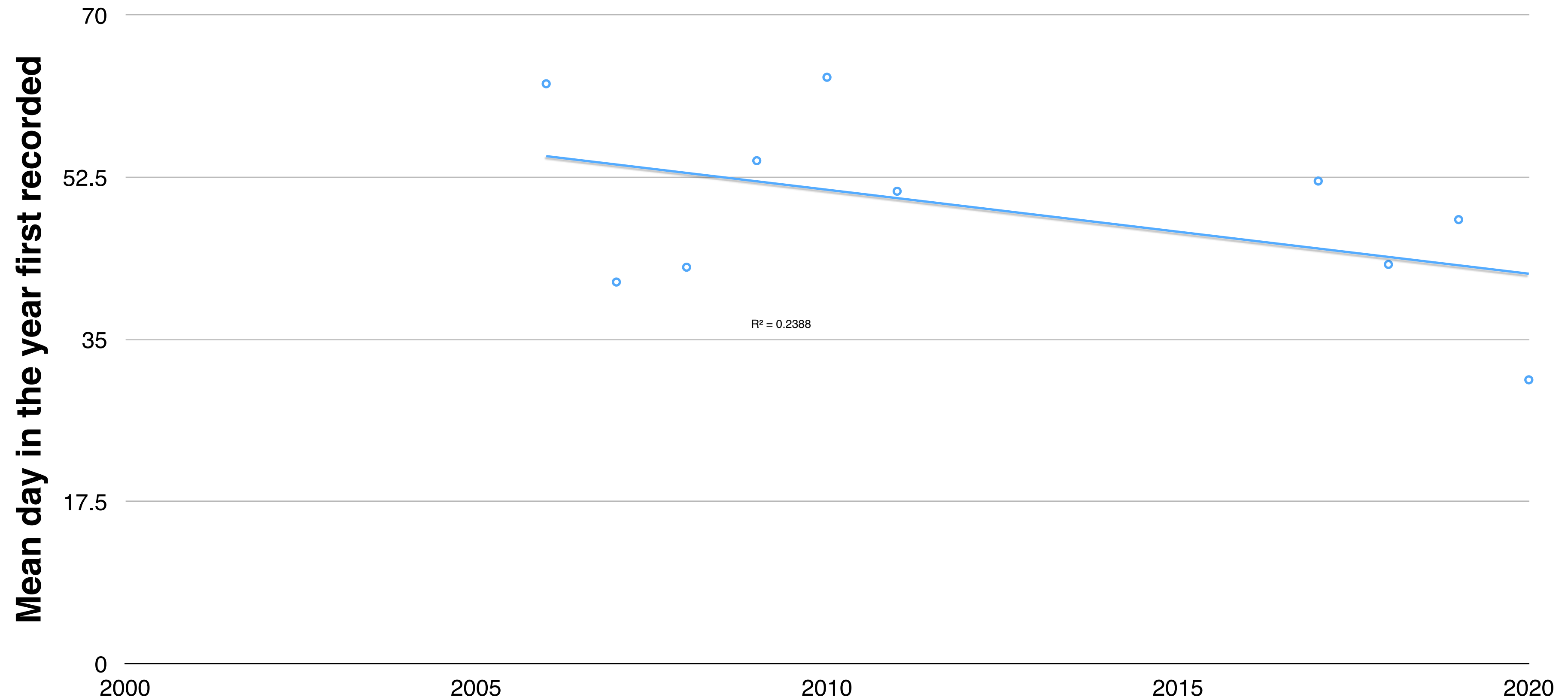
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# Introduction

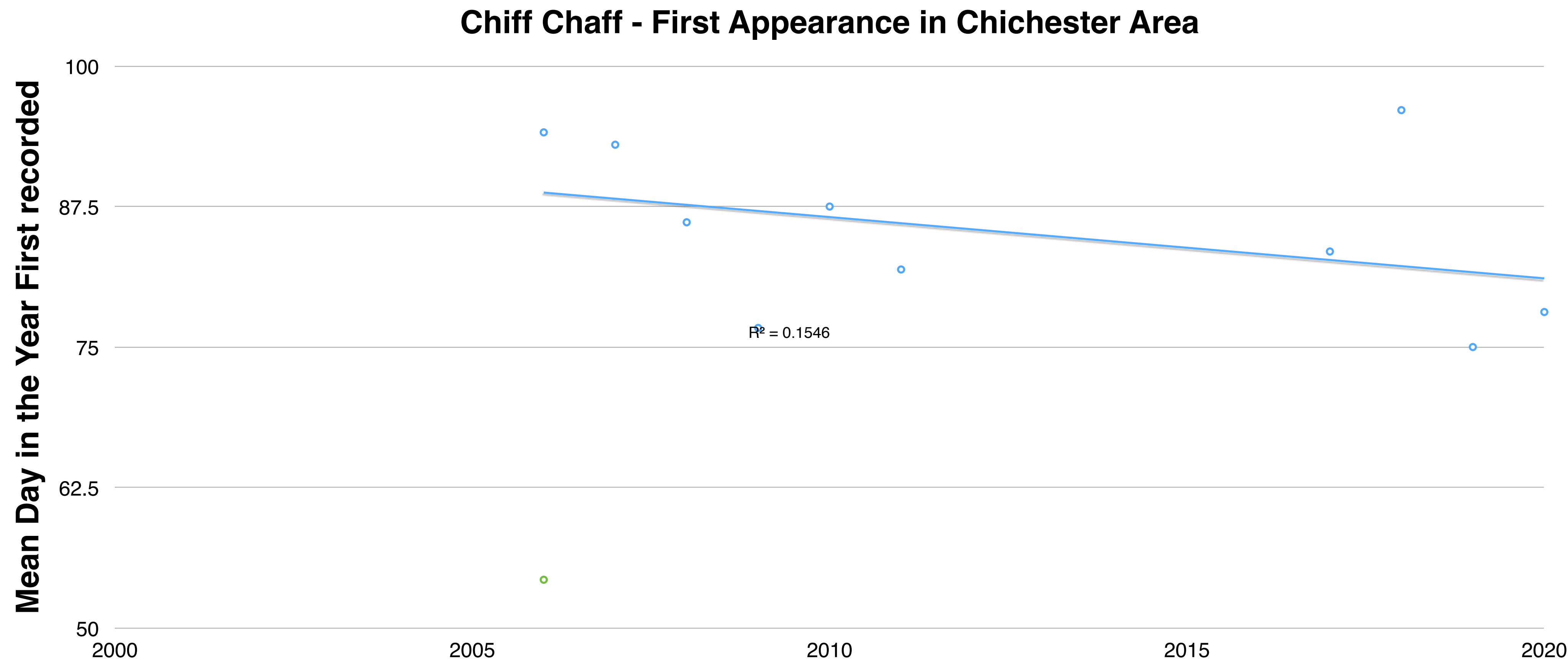
- This presentation shows the 2020 update to the CNHS Phenology results, obtained from members recordings.
  - For each of the 12 indicator species a graph is provided.
    - Each graph shows the mean day of first observation, for each year sampled.
    - A regression line, non of which were statistically significant, has been added to each graph to show a possible long term trend. Therefore, if a species is generally being observed earlier, the line will slope down from left to right. If the line is sloping up from left to right, then the species is generally being observed later.
    - The presentation concludes with a view on the 2020 spring climate compared to previous years and some general comments on the trends observed.
  - Many thanks to the 21 members who submitted observation data.
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# Primrose

First appearance of Primrose in Flower in Chichester Area



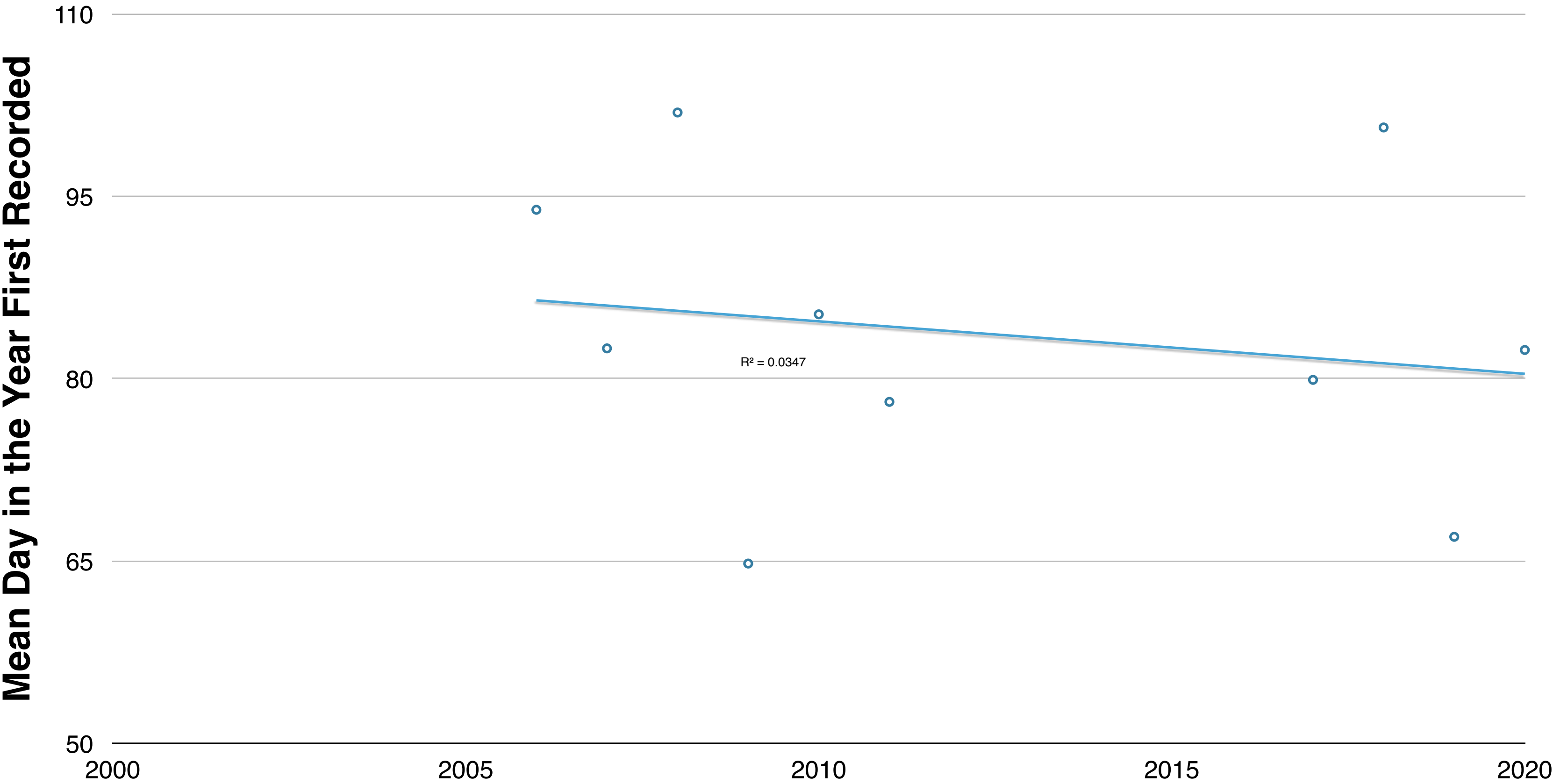
# Chiff Chaff





# Brimstone Butterfly

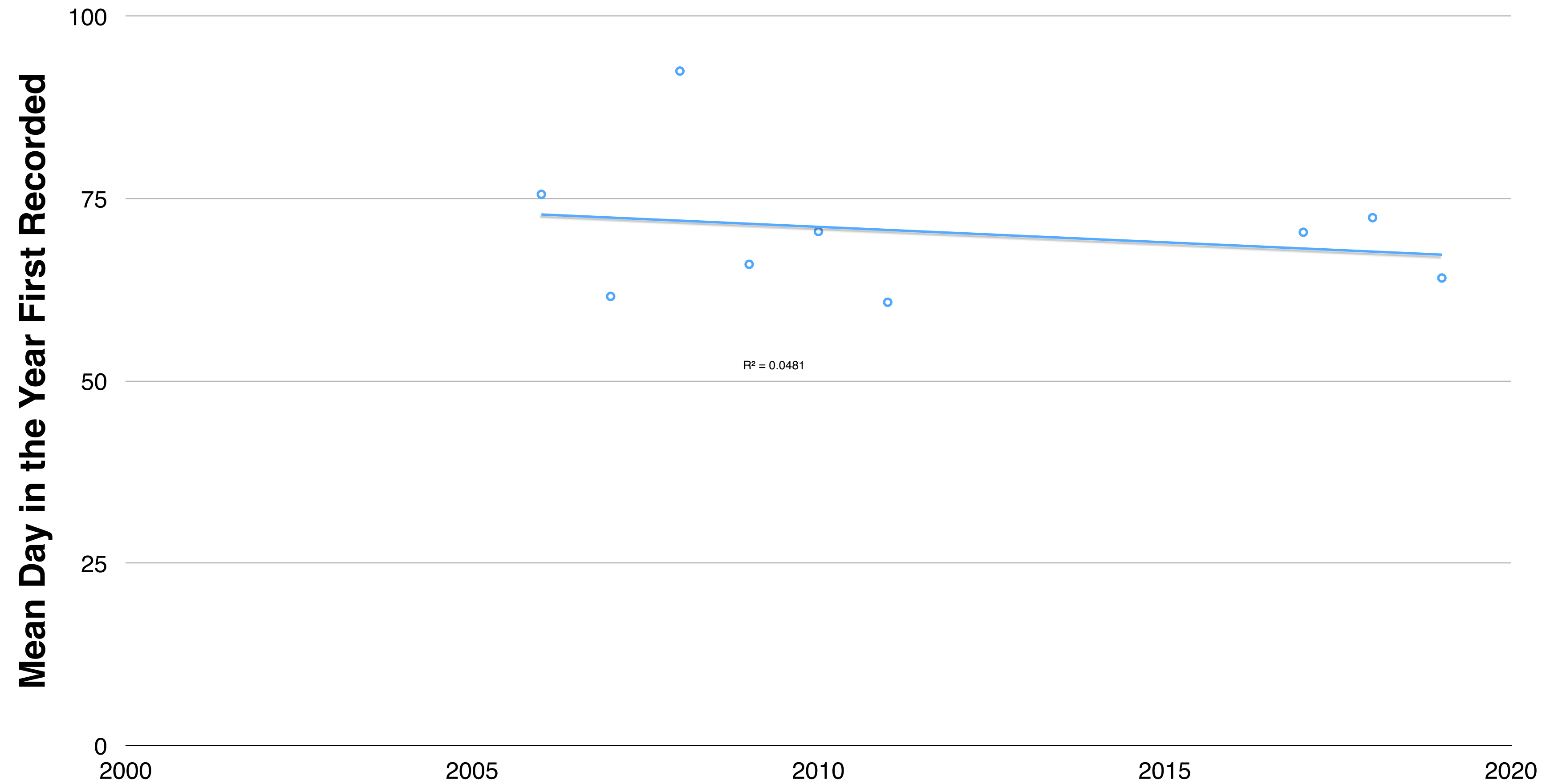
Brimstone - First Appearance in Chichester Area





# Honey Bee

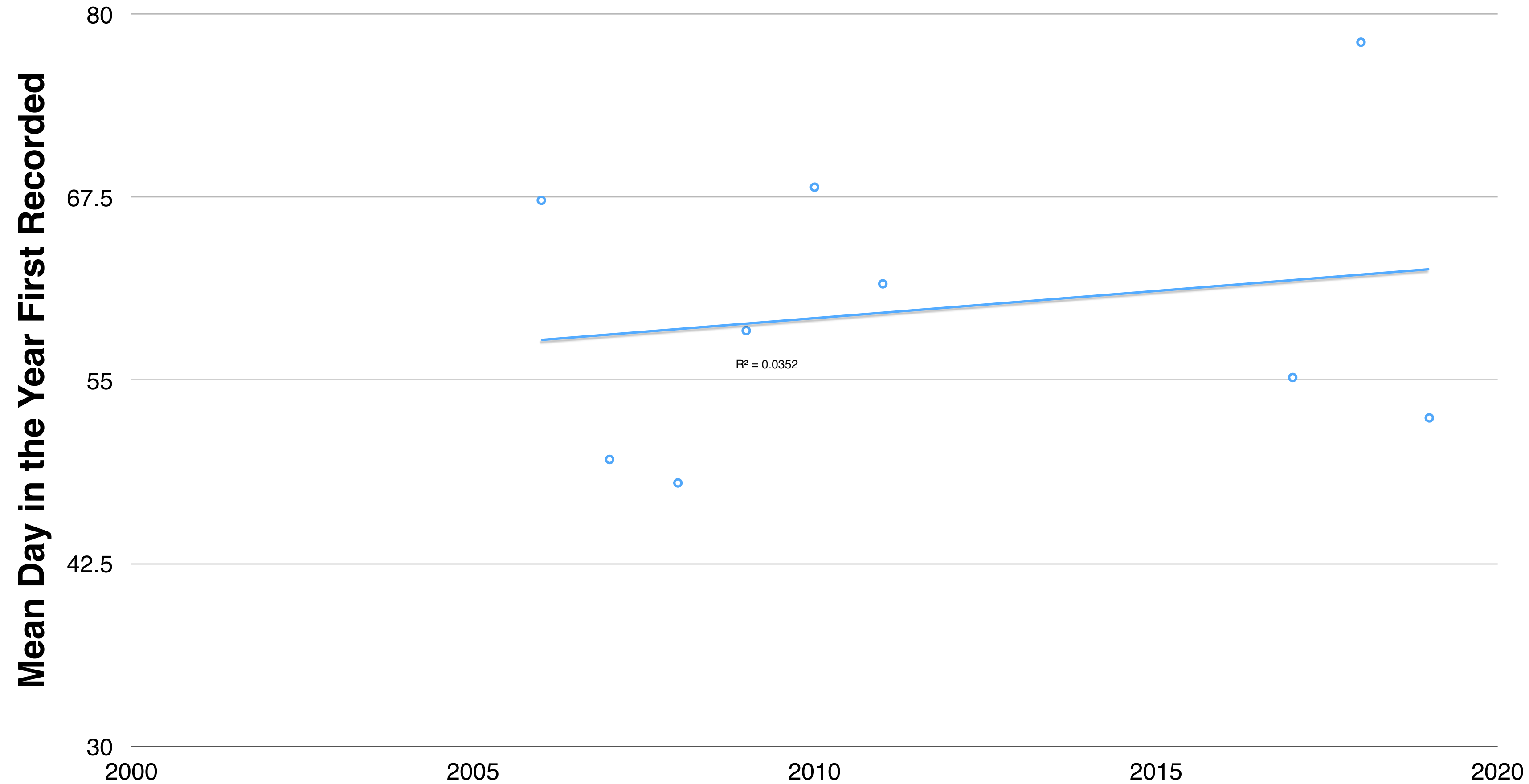
First appearance of Honey Bee in Chichester Area





# Frogspawn

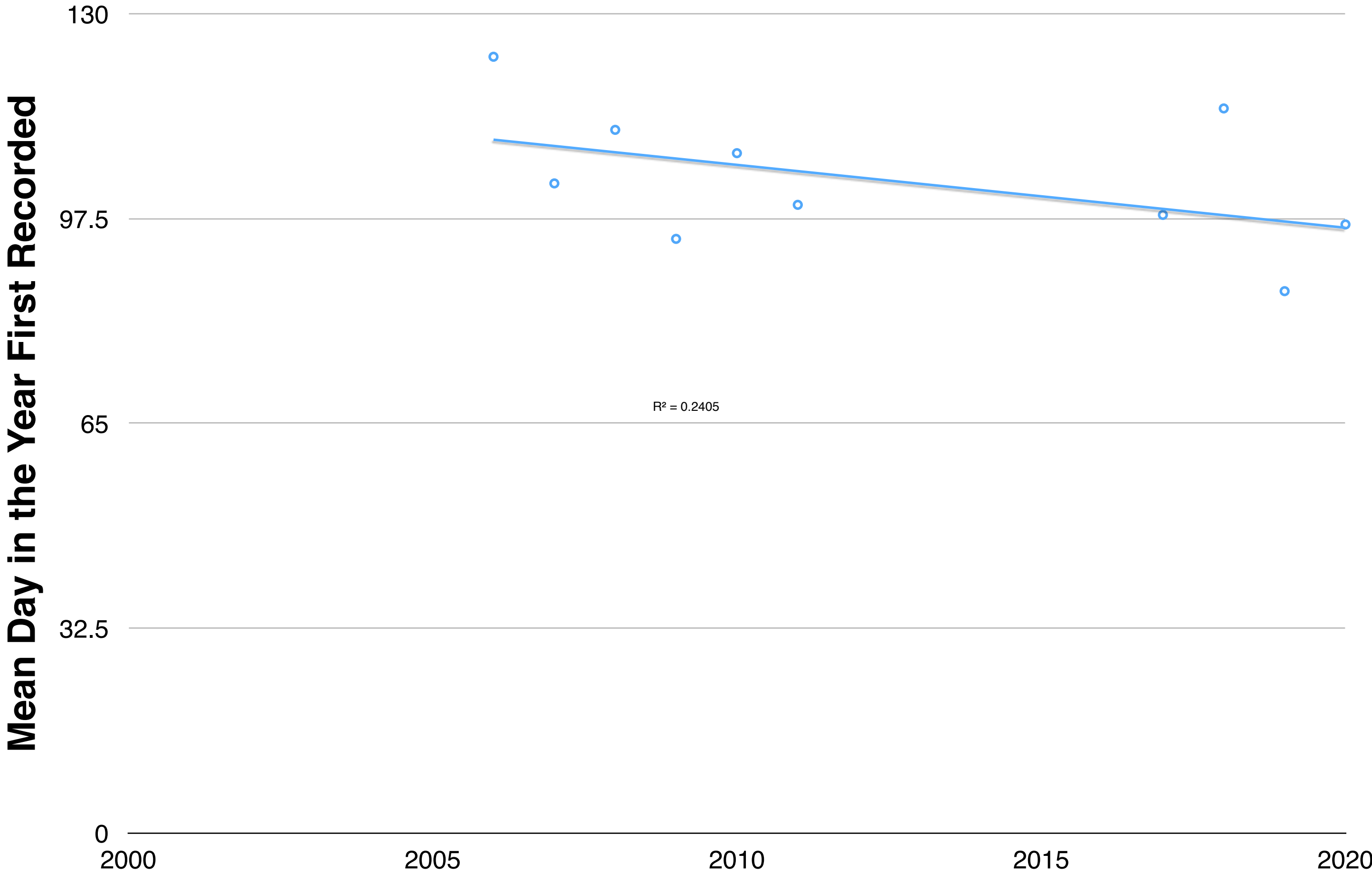
## First Appearance of Frogspawn in Chichester Area





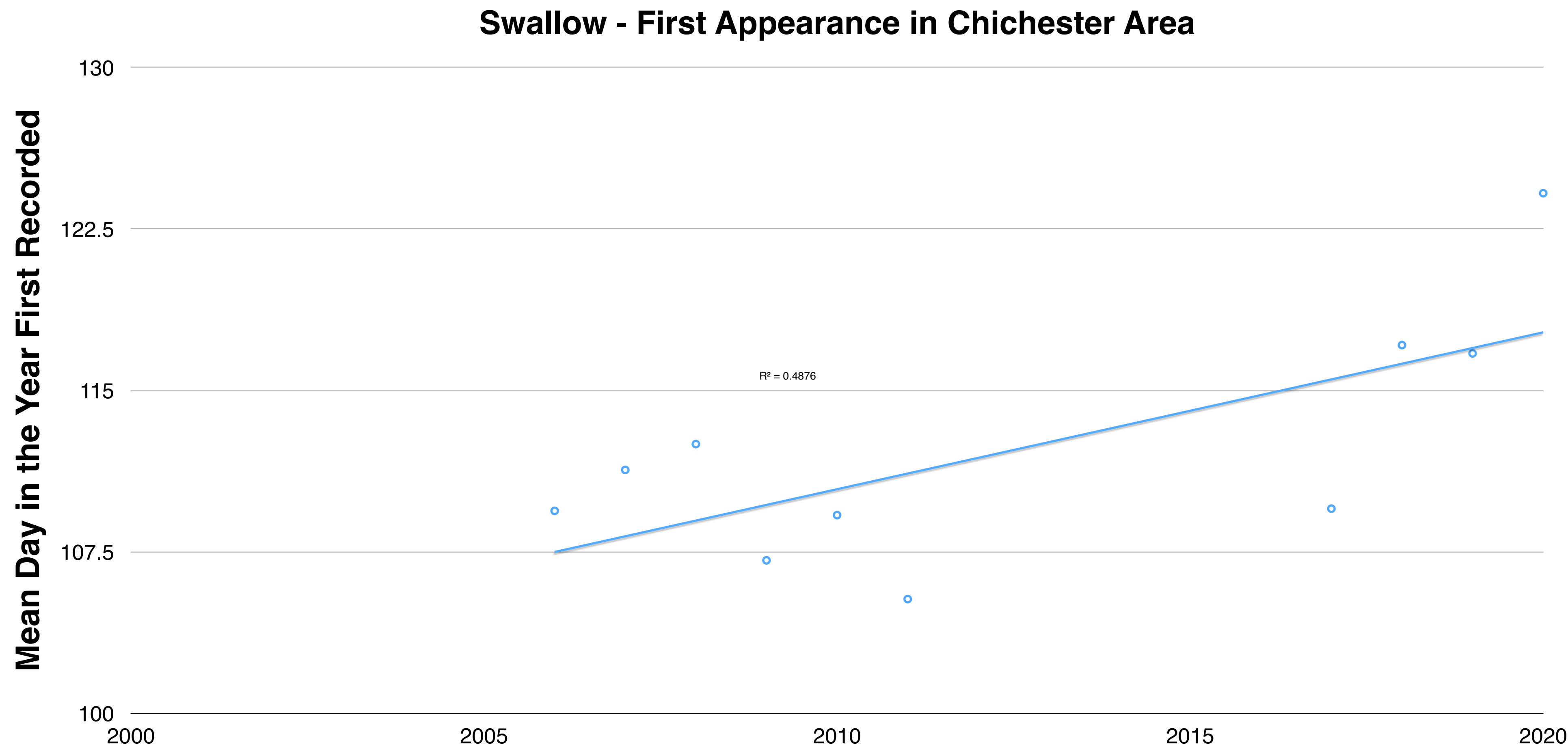
# Orange Tip Butterfly

Orange Tip Butterfly - First Appearance in Chichester Area

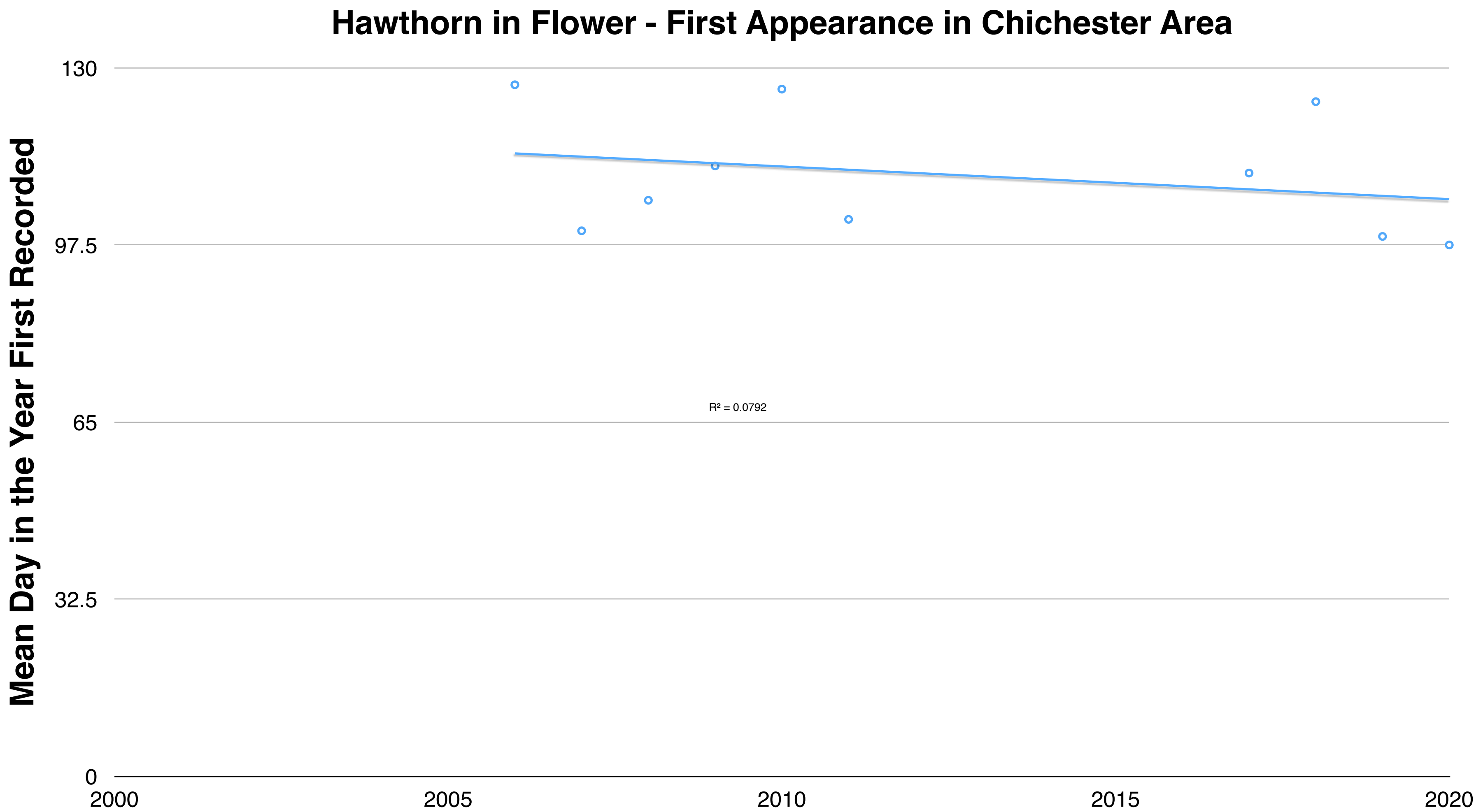




# Swallow

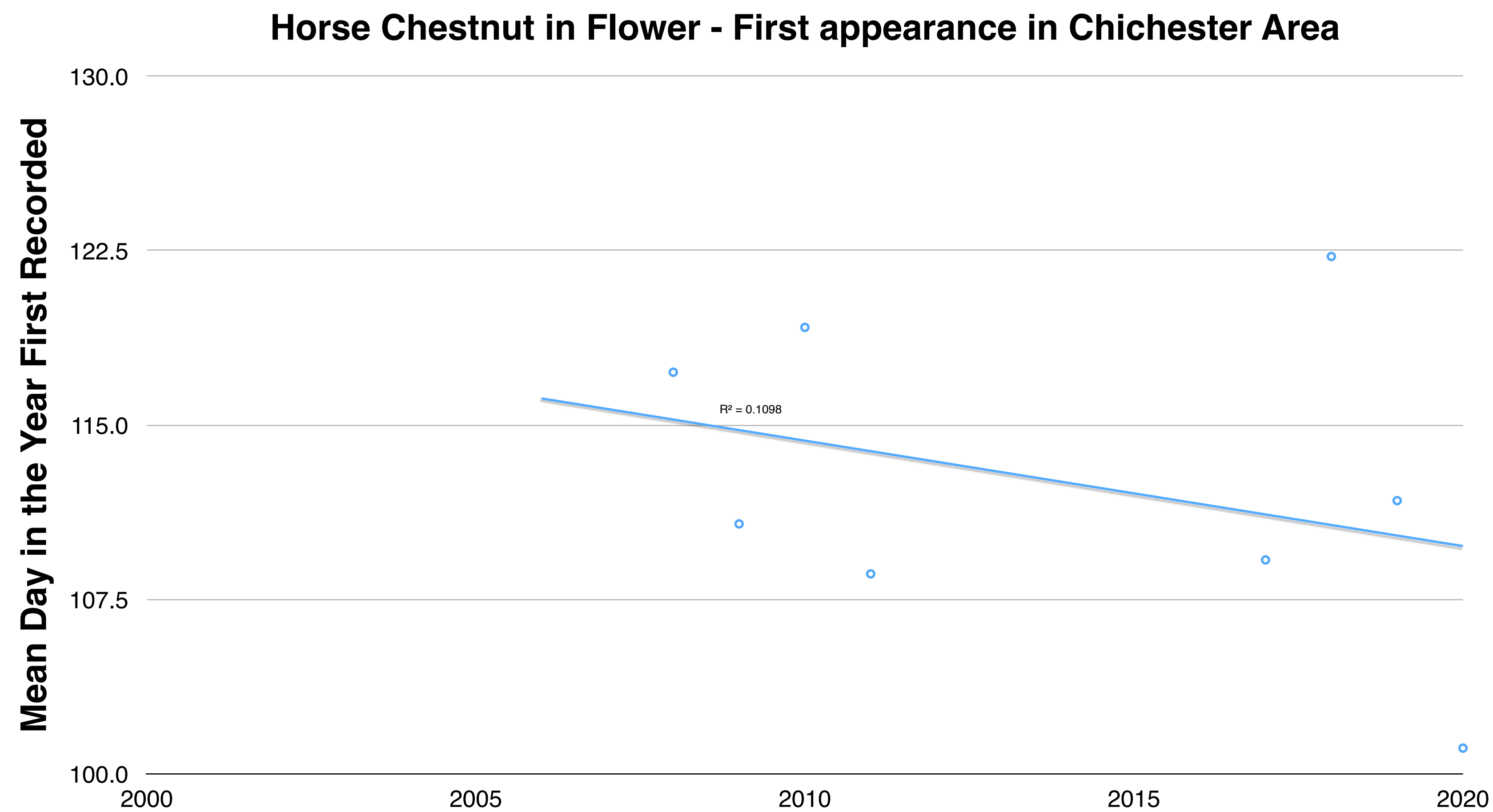


# Hawthorn in Flower



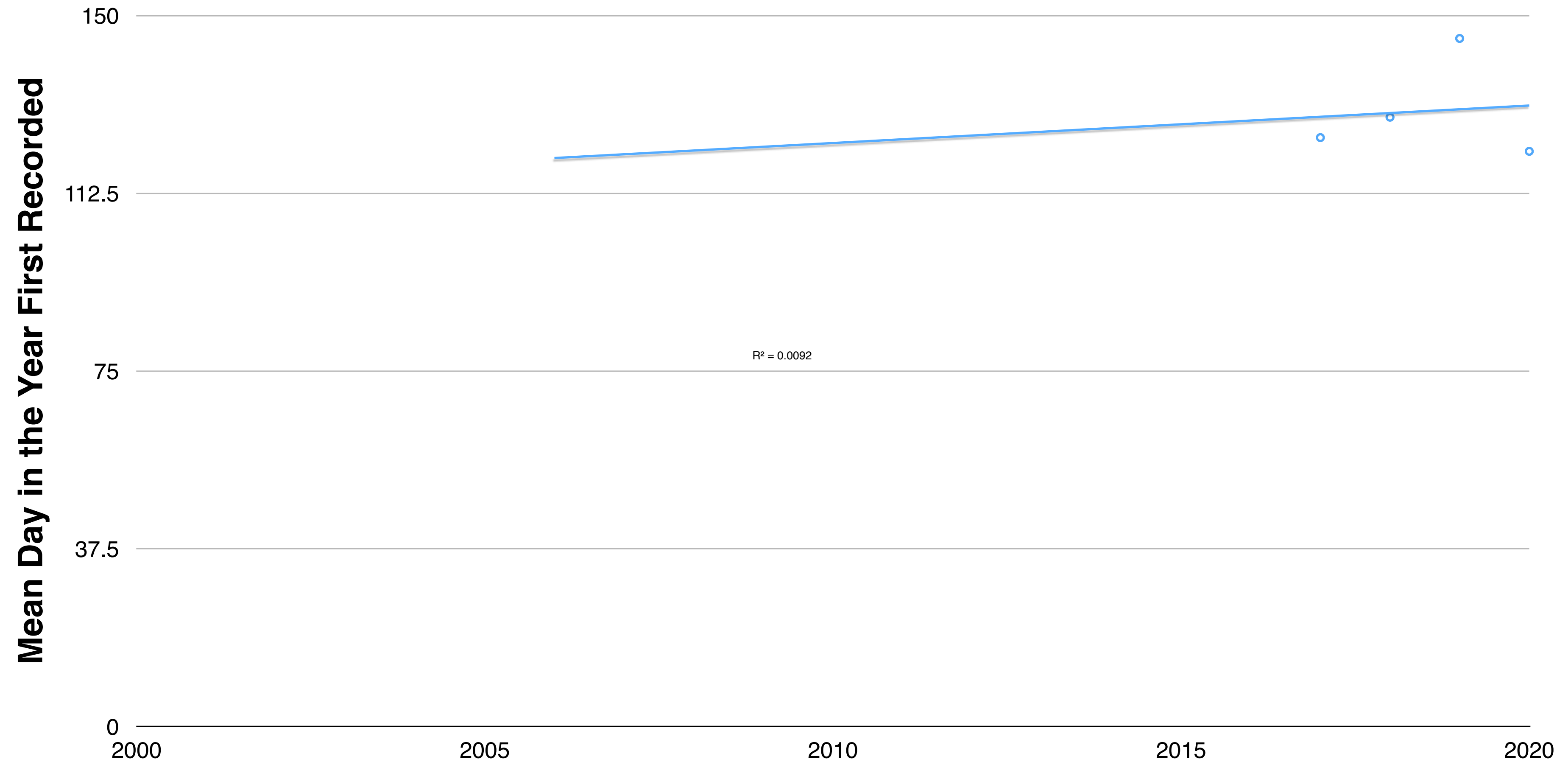


# Horse Chestnut

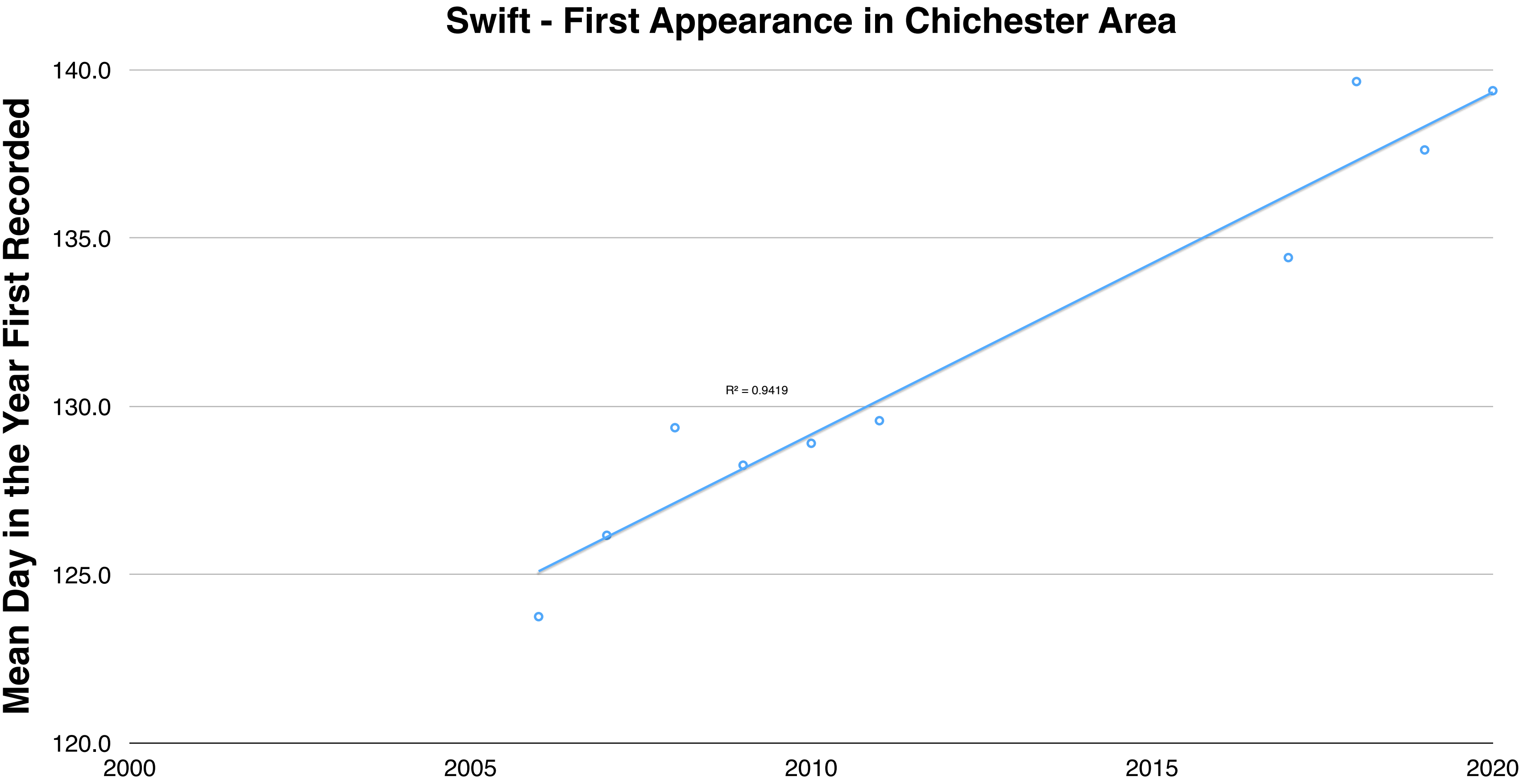


# Large Red Damselfly

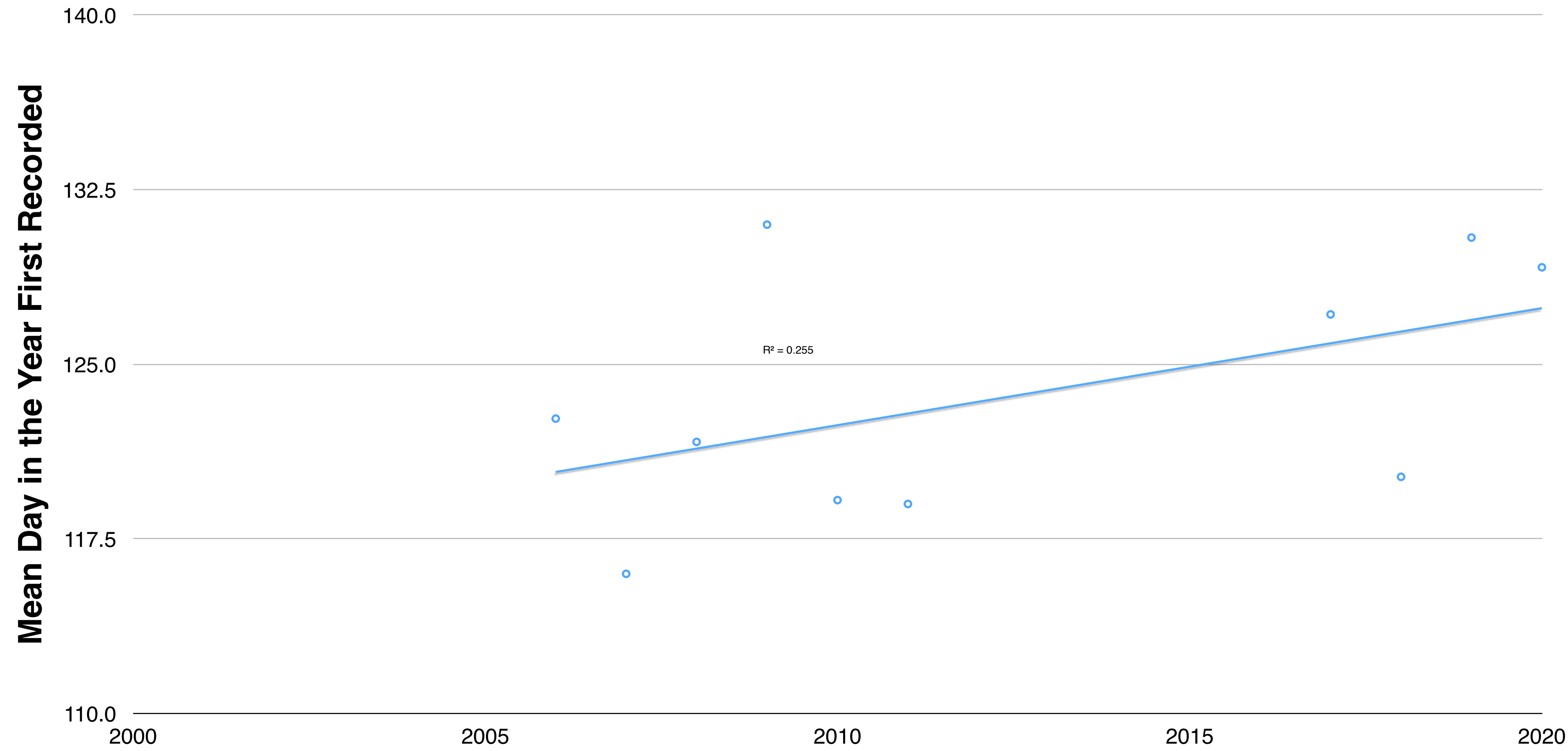
Large Red Damselfly - First Appearance in Chichester Area







Cuckoo - First Appearance in Chichester Area





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# 2020 Spring Climate

- What do the records show for the climatic conditions in early 2020 ?
  - The 2020 mean spring temperature in Southern England was 1.1 °C warmer than the mean for the period 1961-1990 (Met Office). Whilst warmer than the long term average, this variation was less than in the previous year e.g. in 2019 it was 2.7 °C warmer.
  - It was the sunniest spring on record and the 5th driest (Met Office).

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# Conclusions

- The ability of the Society's members to make recordings in 2020 was impacted by the COVID 19 restrictions. This may have introduced some variability into the data.
- When compared to 2019 only a few species were seen earlier. This may be due to the Spring of 2020 being cooler than 2019.
- The long term trends (whilst not statistically significant), tend to show that 5 species continue to be seen earlier each year, 3 do not appear to be changing and 4 are appearing later. These 4, Cuckoo, Swift, Swallow and Frogspawn, are all being observed less frequently and this may be influencing the time of first observation.
- Primrose Flowering, Hawthorn Flowering and the first appearance of Orange Tip Butterfly. Over the course of the study, these indicator species are appearing, on average, over 26 days earlier.



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# What's next ?

- The longer we can build a record for - the more valuable will be the data.
- 2021 Phenology sheets will be made available on the Web-site to download.
- We encourage all members to participate. Even one species recording will help us, therefore please don't think you have to be an expert, able to identify all the species listed.