



CHNS 2023 Phenology

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CHNS Phenology

- Phenology is the study of the timing of life cycle events at the population level.
 - This is especially important with climate change impacting our wildlife.
 - Since 2006 Chi Nats members have recorded Phenology Data of 12 lifecycle events.
 - For each of the 12 indicator events 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.
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Which lifecycle events are recorded ?

- First appearance in local area of :
 - Chiff-chaff
 - Brimstone butterfly
 - Honey bee
 - Frog spawn
 - Orange tip butterfly
 - Swallow
 - Large red damselfly
 - Swift
 - Cuckoo
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Which lifecycle events are recorded ?

- First flowering of :
 - Primrose
 - Hawthorn
 - Horse Chestnut



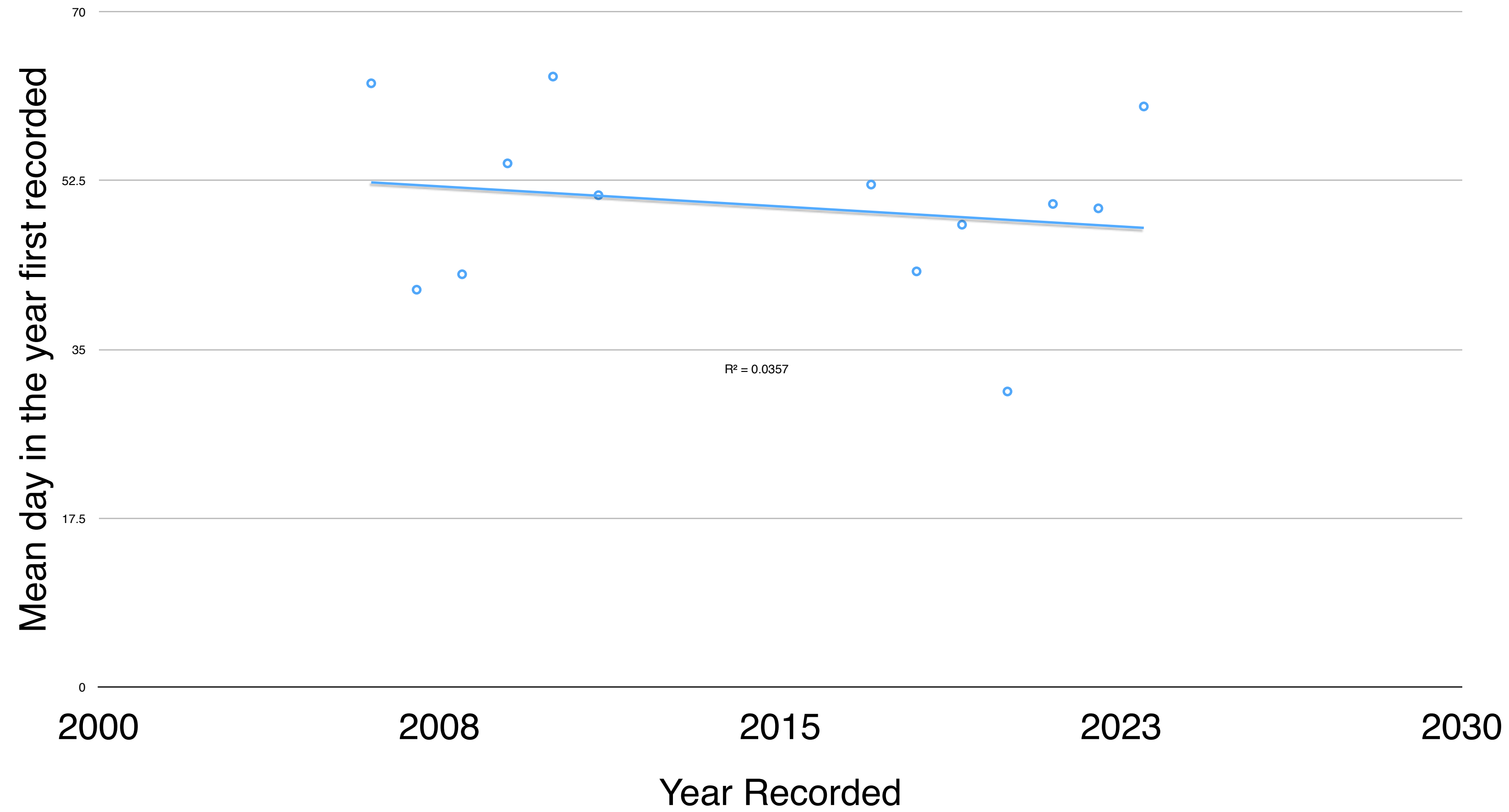
2023 Notes

- Only 6 sheets were submitted.
- Trend lines are included on each graph, however none of them are statistically significant. Although the trend of Swifts appearing later is the closest to becoming significant.

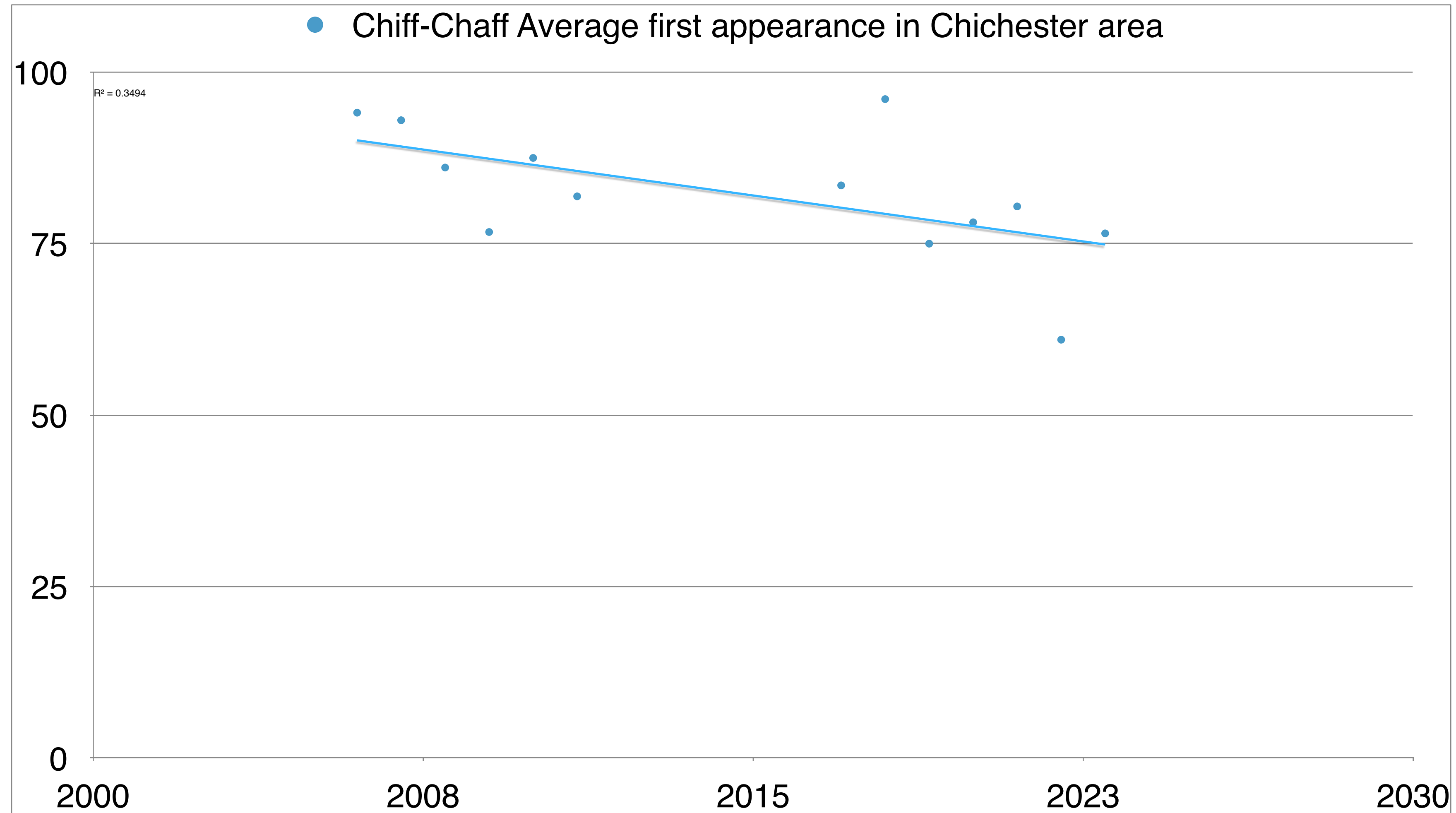


Primrose

First appearance of Primrose in Flower

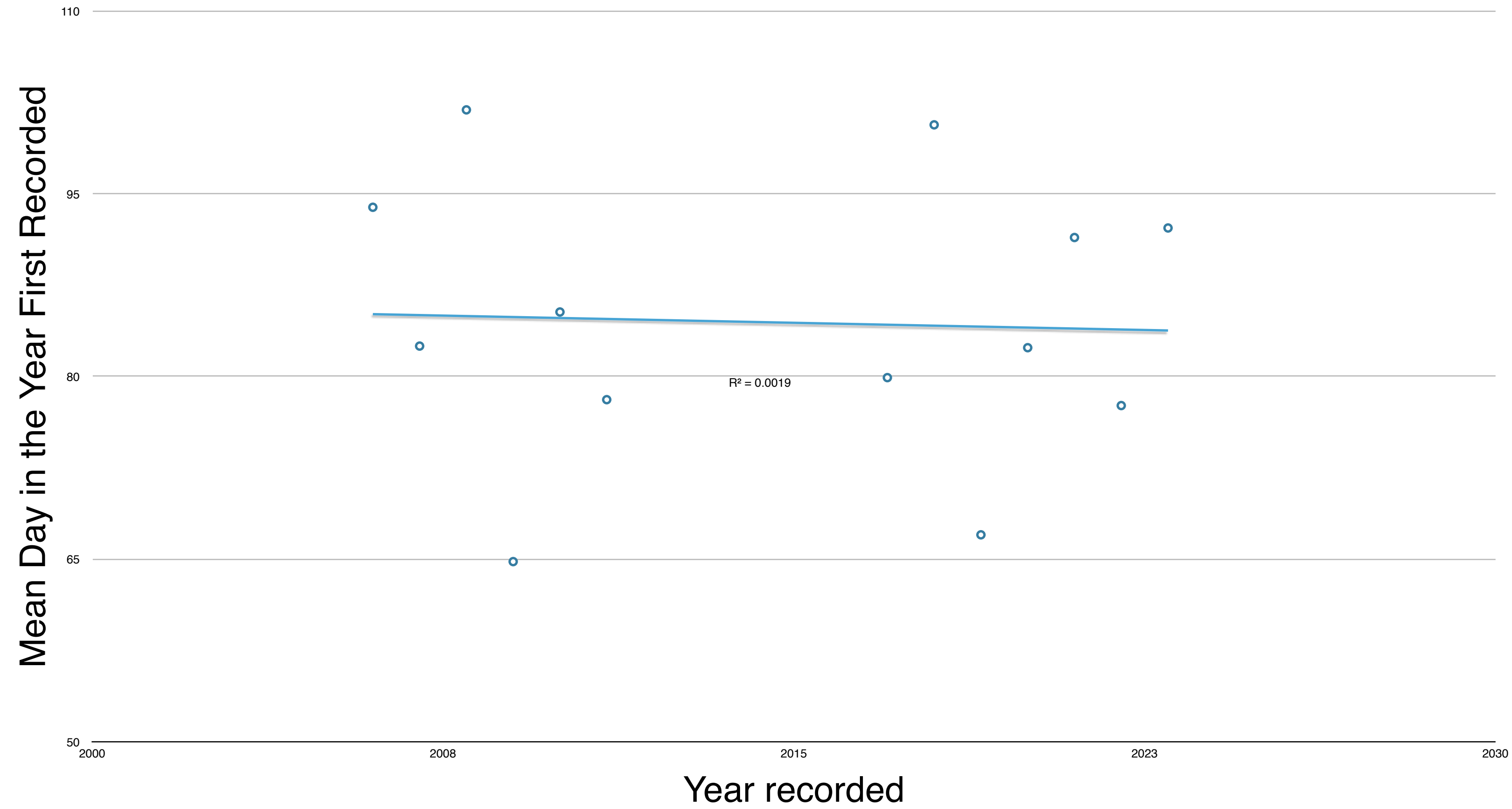


Chiff Chaff



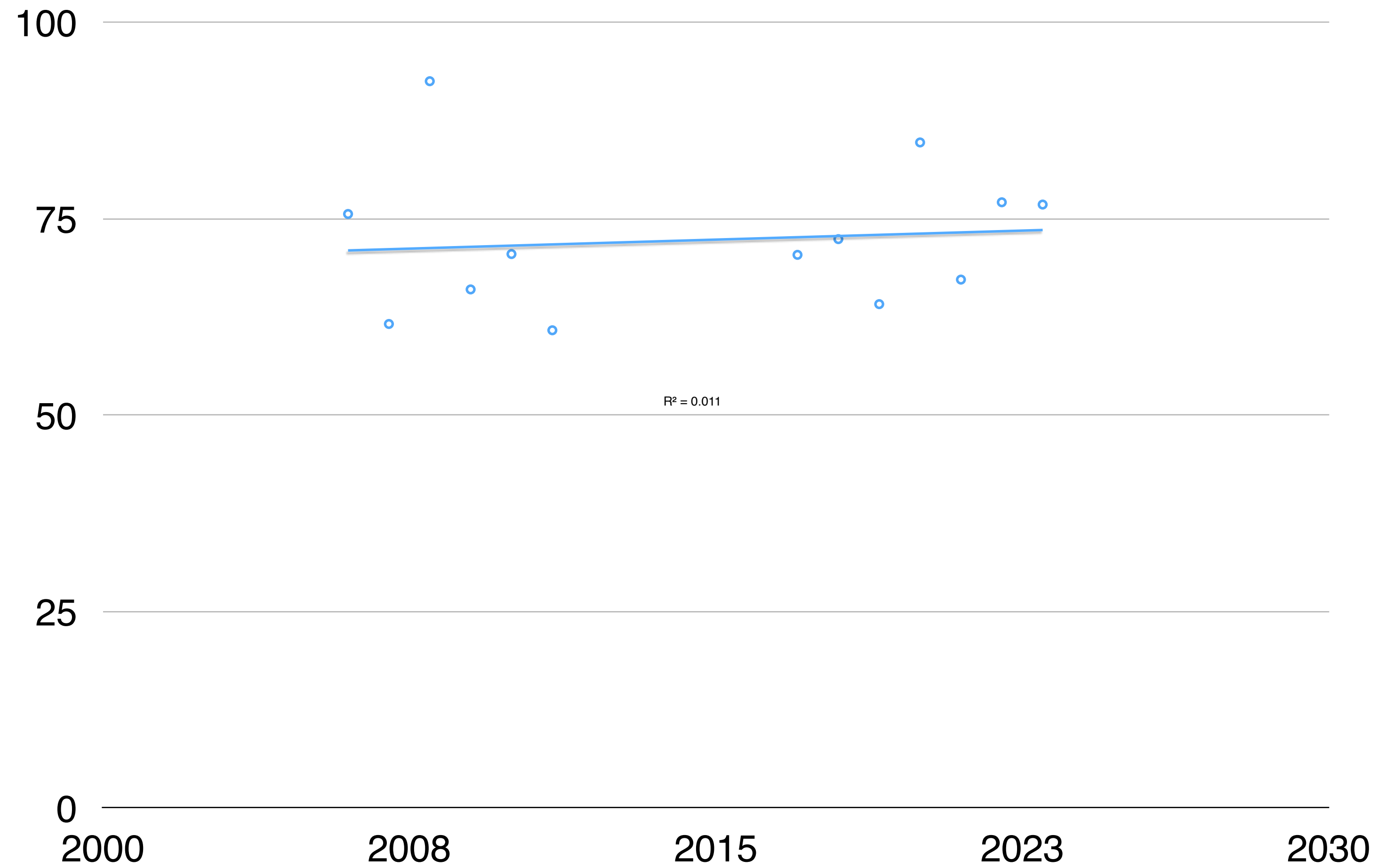
Brimstone Butterfly

Brimstone - First Appearance in Chichester

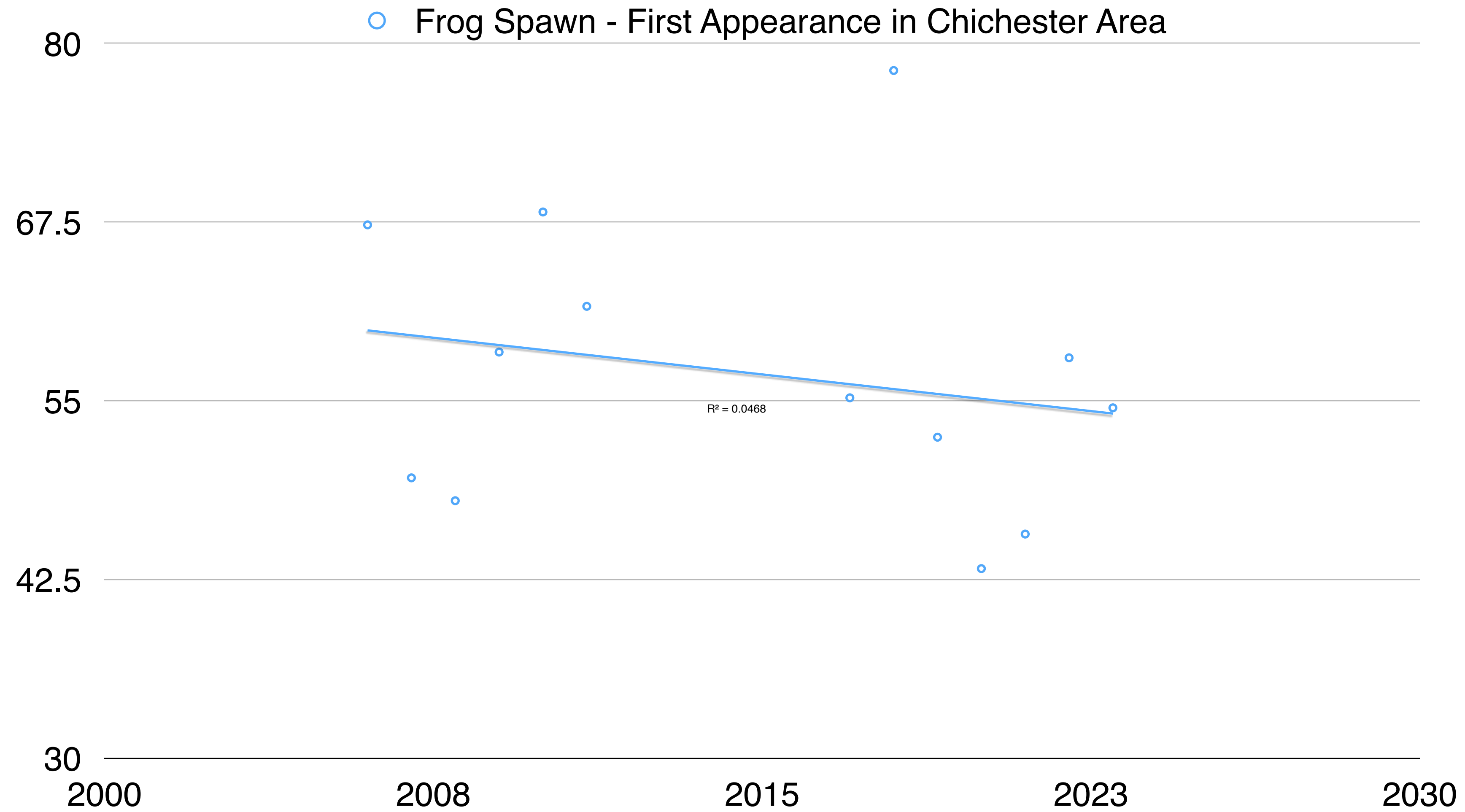


Honey Bee

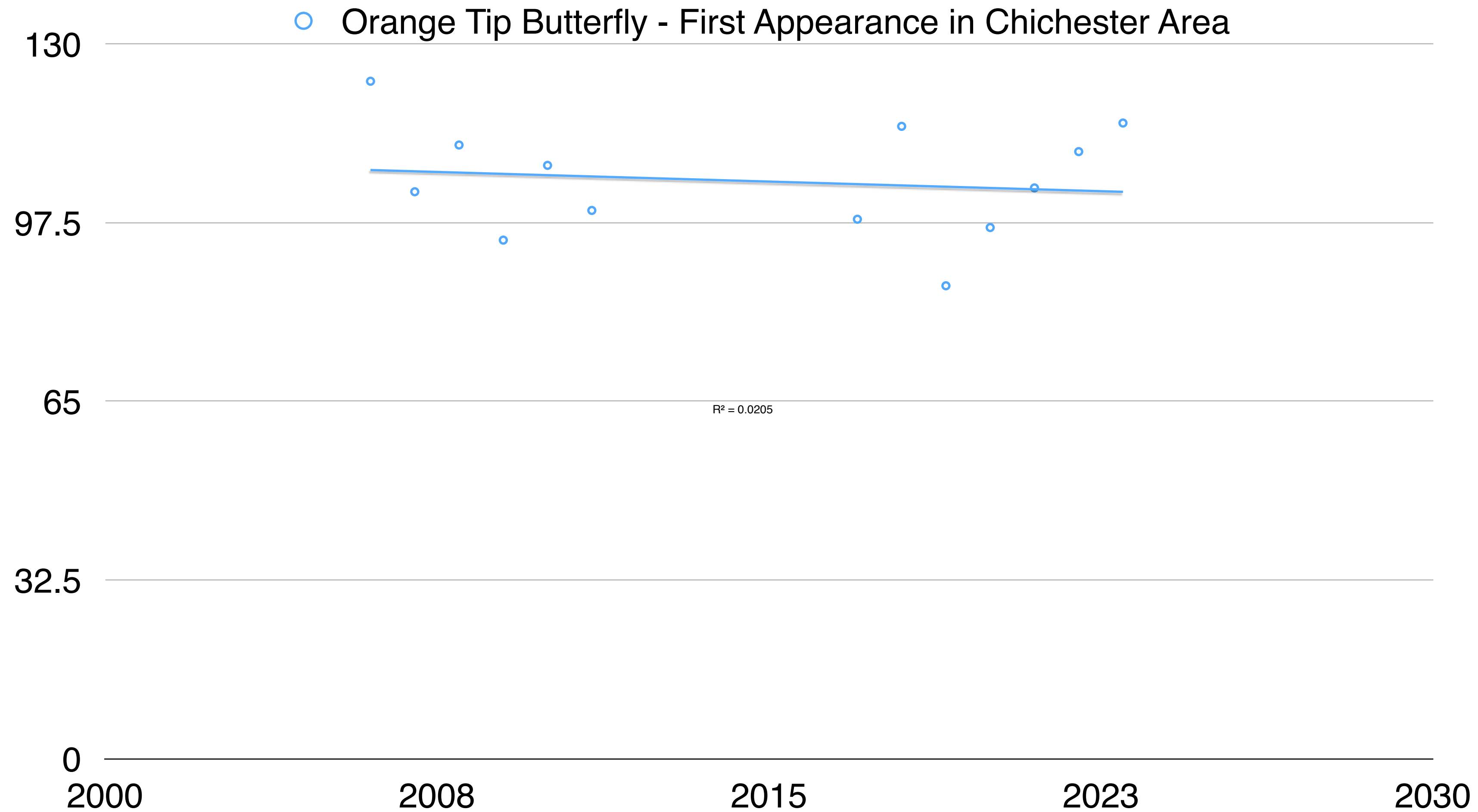
First appearance of Honey Bee in Chichester



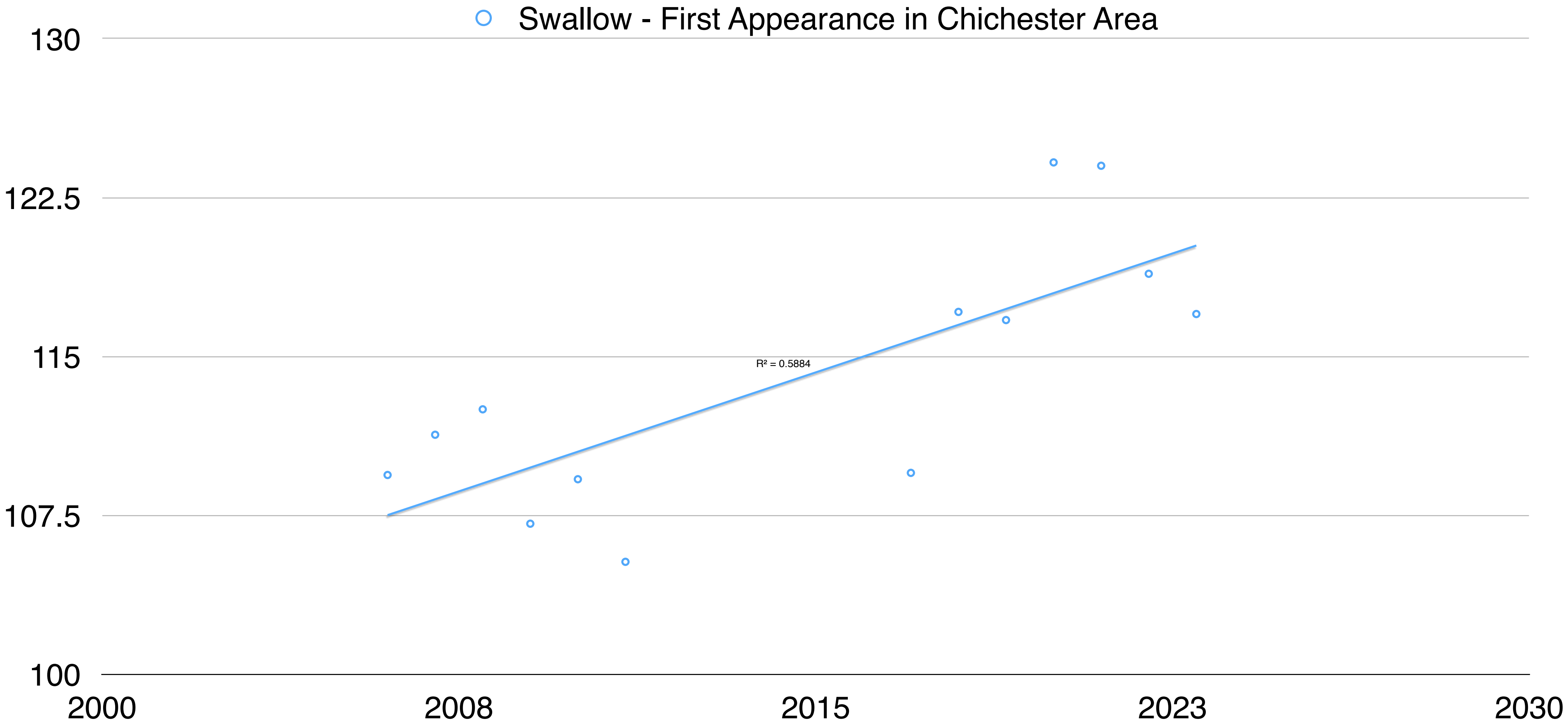
Frogspawn



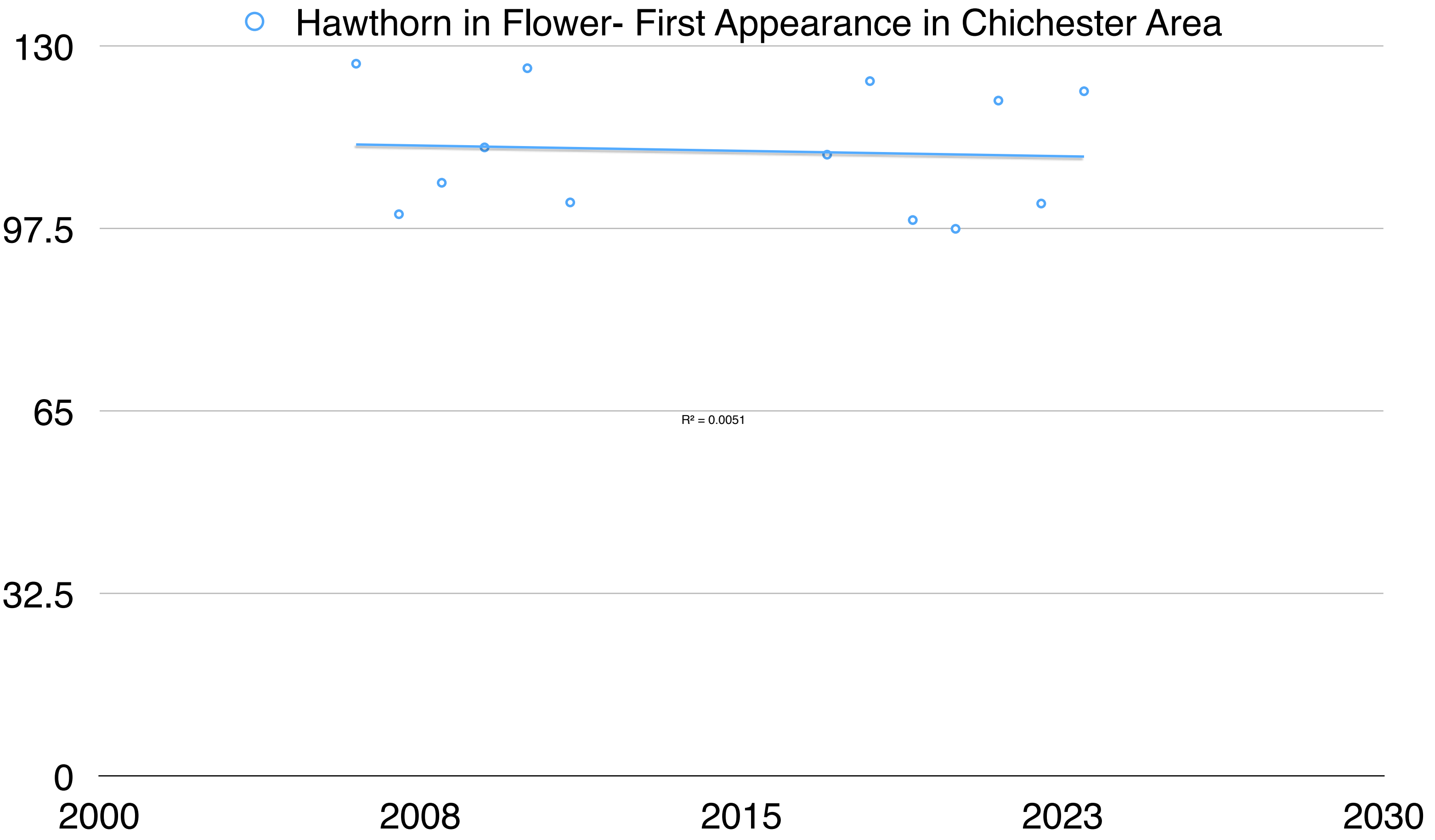
Orange Tip Butterfly



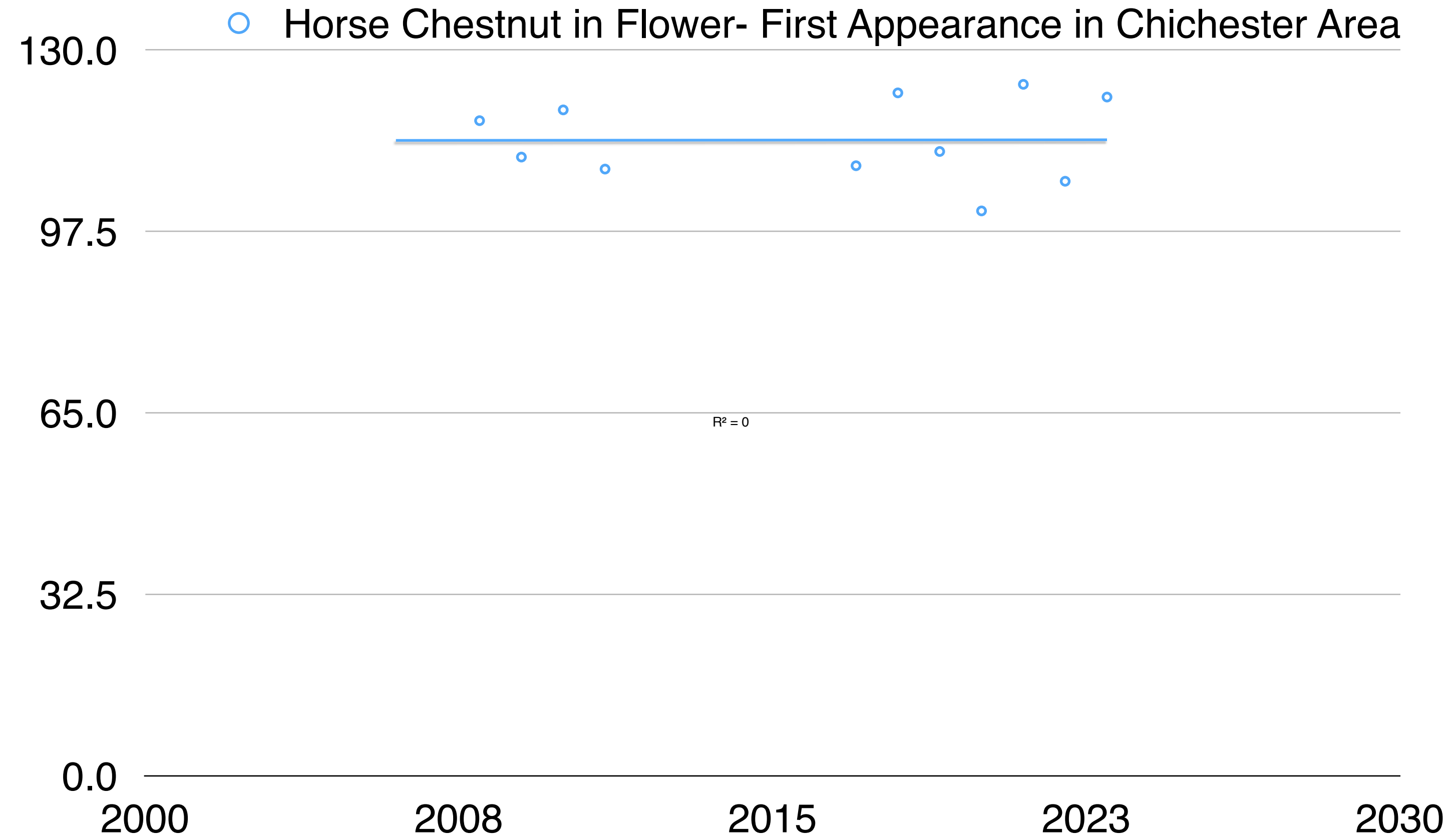
Swallow



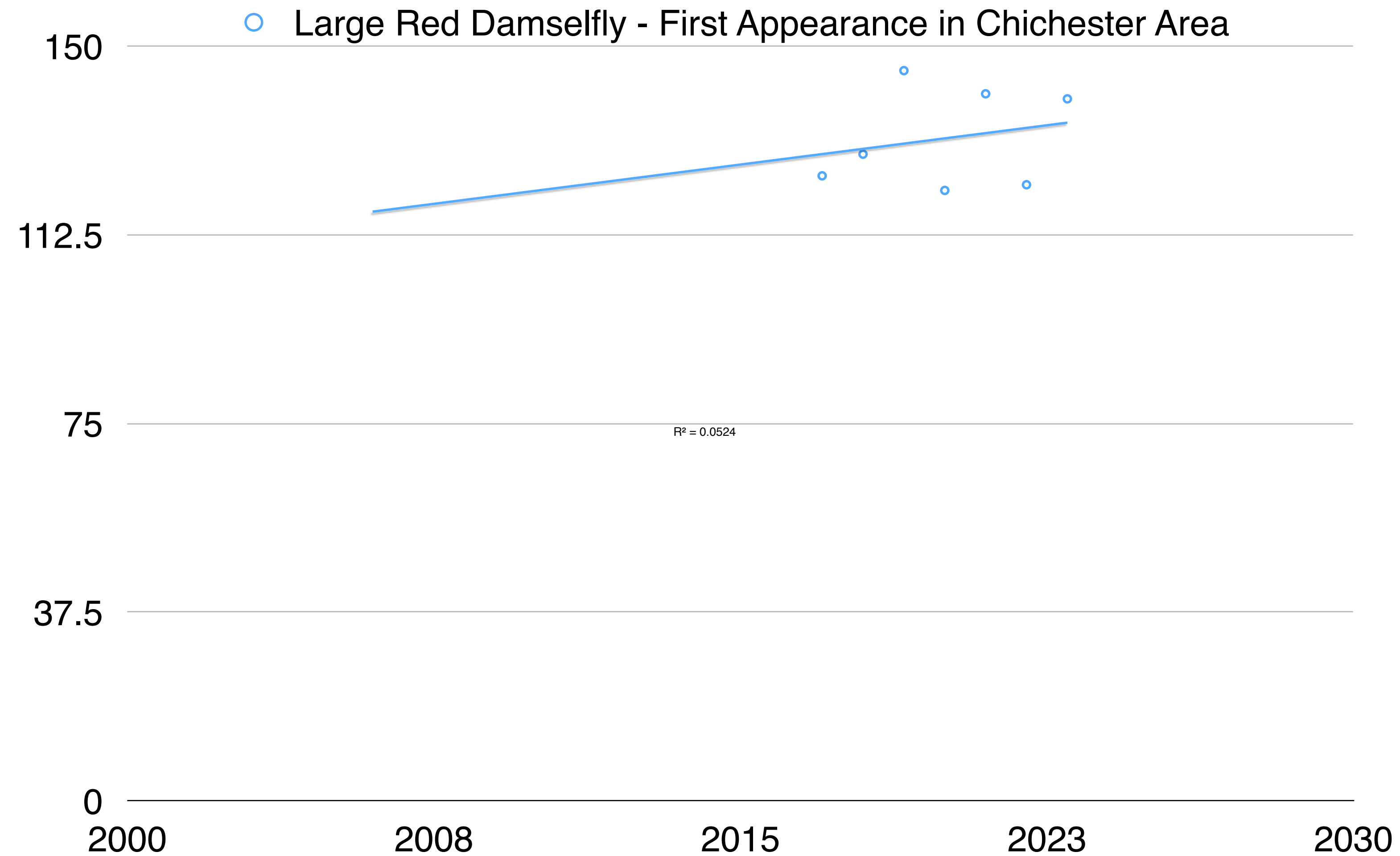
Hawthorn in Flower



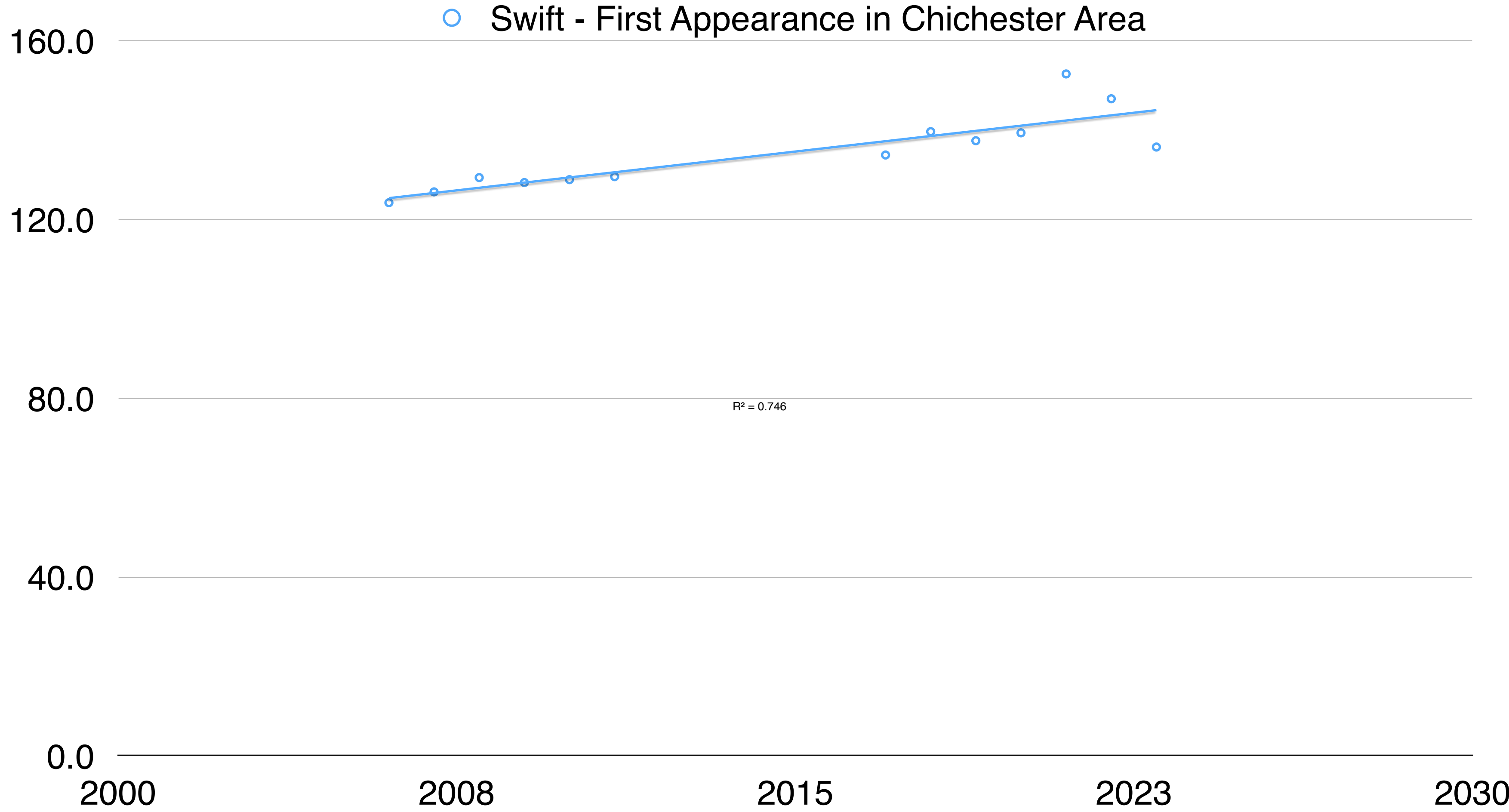
Horse Chestnut



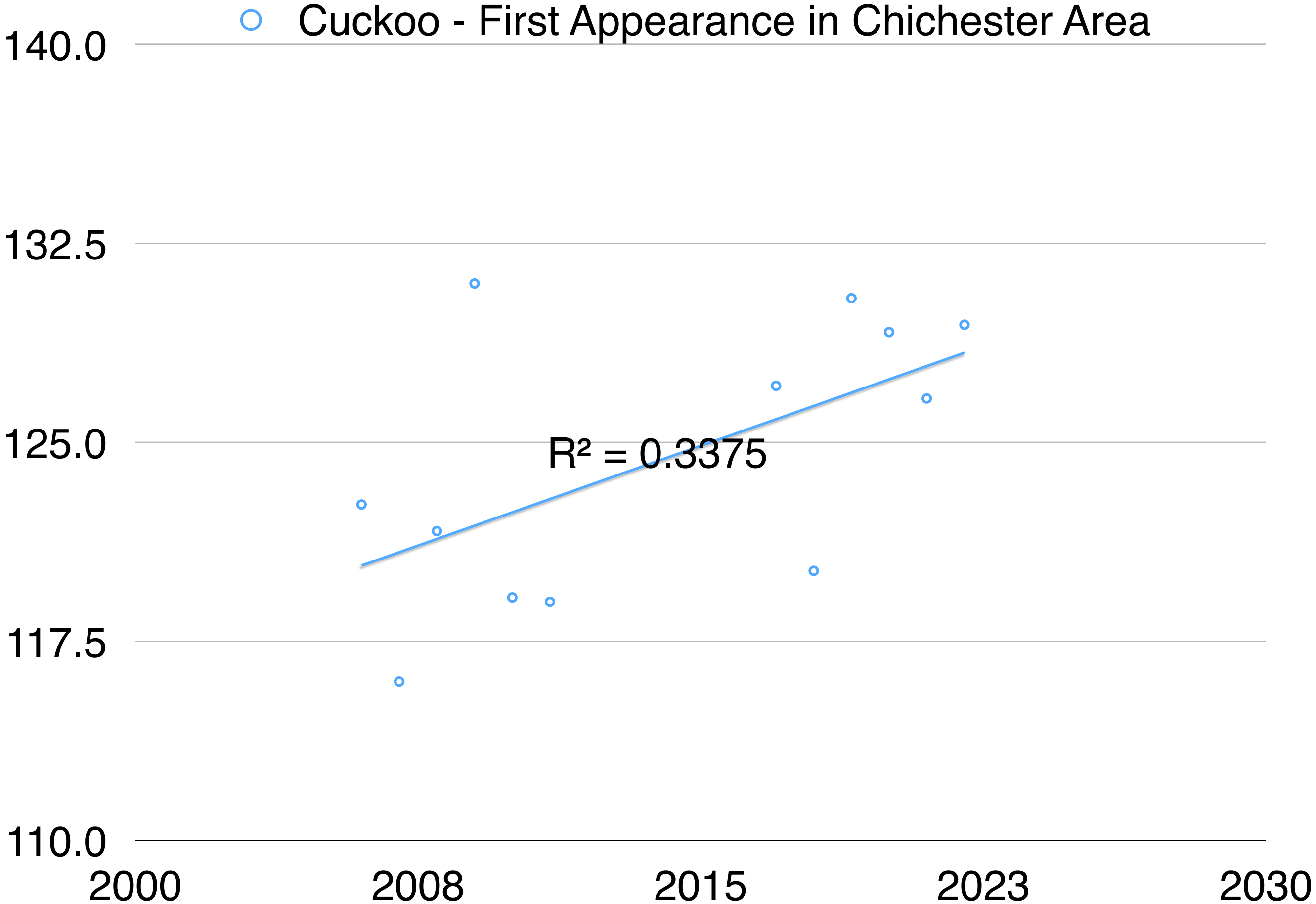
Large Red Damselfly



Swift



Cuckoo



This chart has not been updated as no records of cuckoos were submitted in 2023

2023 Spring Climate

- What do the records show for the climatic conditions in early 2023 ?
 - Spring overall saw temperatures slightly above average in many areas, due mainly to rather warm conditions during much of May. March and April saw an alternation between colder and milder spells of weather, with a notable cold spell in early March, and it was chilly for a time in late April.
 - Many areas in the southern half of the UK had more than double their average March rainfall, and only in north-west Scotland was rainfall appreciably below average. The overall UK rainfall total was 155% of average, making it provisionally the sixth wettest March in a series back to 1836.

Source : https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/uk_monthly_climate_summary_spring_2023.pdf

Comments

- Whilst the Spring of 2023 was warmer overall than the long term average, there were significant cold spells. There was also more unsettled weather, with considerably more rain than expected. It is unclear how this would have impacted our indicator species.
- Of our 12 indicator species, 2 were recorded earlier on average in 2023, 2 were about the same, 7 were later. One indicator species was not recorded at all (Cuckoo).
- Over the course of our study 2 events continue to occur a lot earlier in the year, (Chiff Chaff, Frog spawn).
- Over the course of our study 3 events continue to occur a lot later, (Swallows, Swifts and Cuckoos).