CHNS 2024 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, (see later comment) for each year sampled
  - A regression line, non of which are statistically significant, has been added to each graph to show a possible long term trend.

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

Which lifecycle events are recorded ?

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

2023 Notes

- 9 observers submitted records (up from last year but still down from our high of 17).

2024 Spring Climate

- In the UK, Spring 2024 was warm, unsettled, very wet and dull with a succession of low pressure and frontal systems bringing rain and wind. Overall, this was provisionally the warmest spring on record for the UK
- Some areas in the south saw over third more rain than average.
- One of the main drivers of the warmth was the high minimum tempretures, i.e. it didn’t get cold at night !

(Met Office Website).

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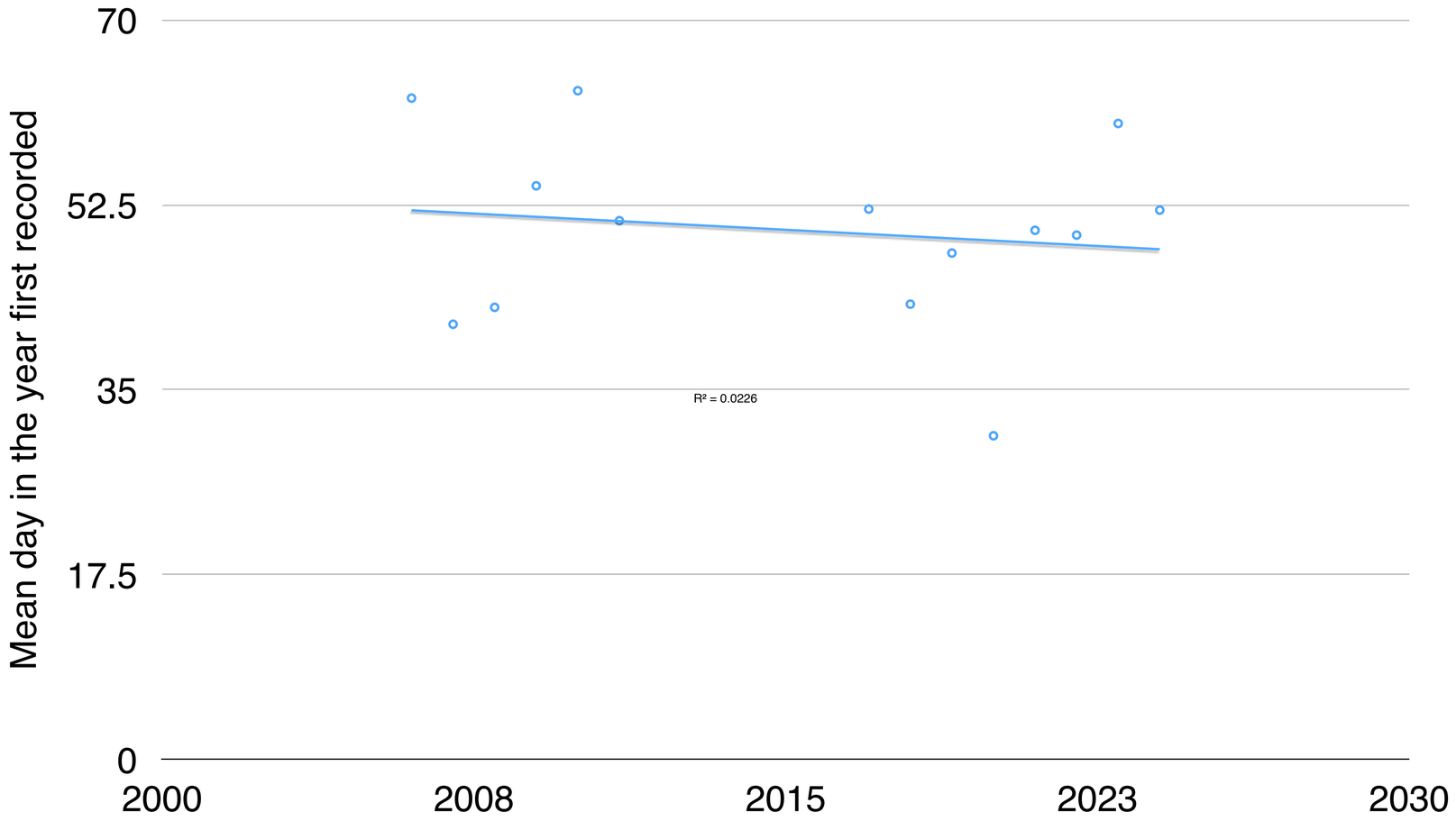
Primrose

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Chiff Chaff

June 30th	182
May 31st	152
Apr 30th	121
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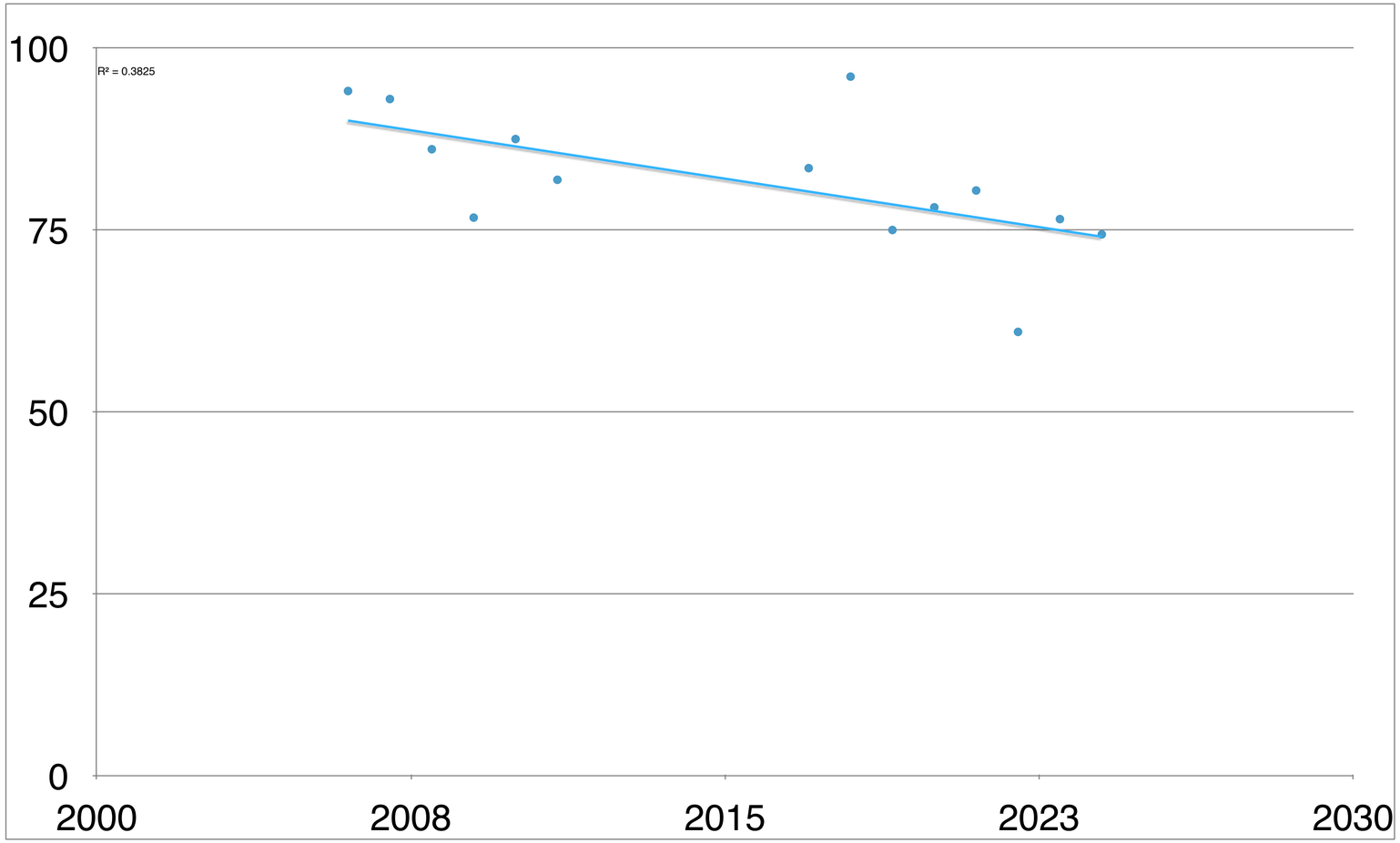
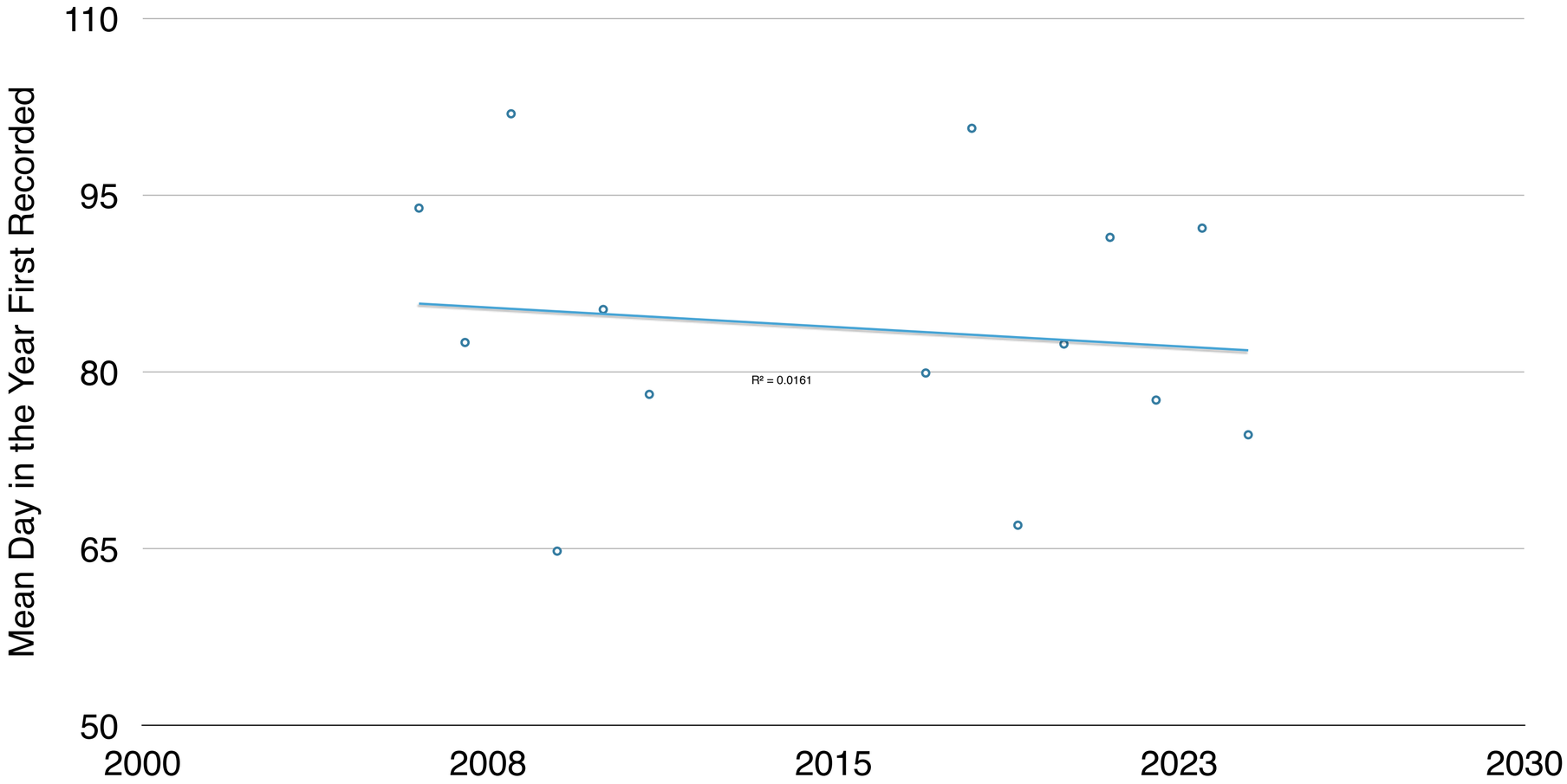
Feb 29th	60
Jan 31st	31



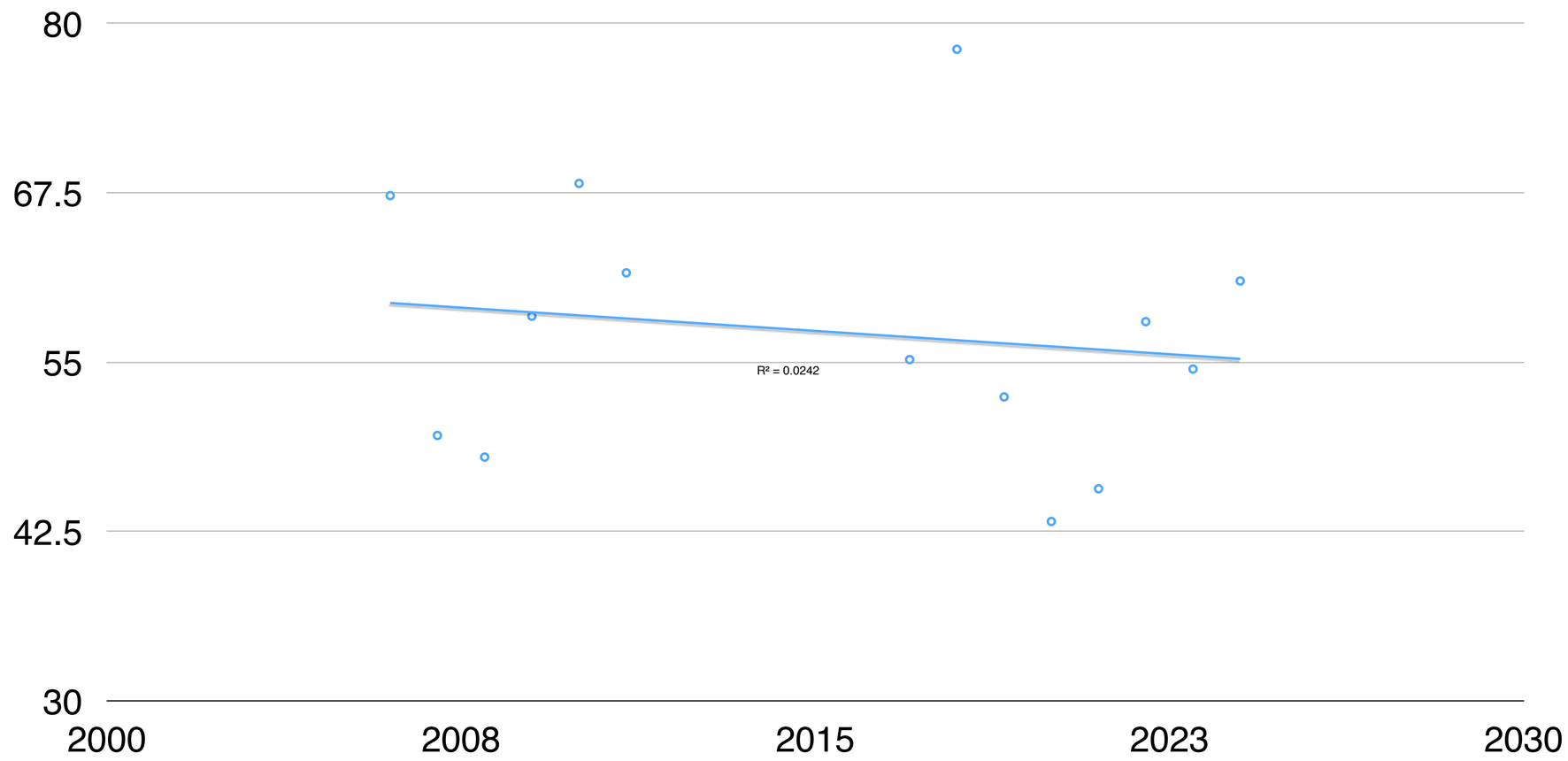
Brimstone Butterfly

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



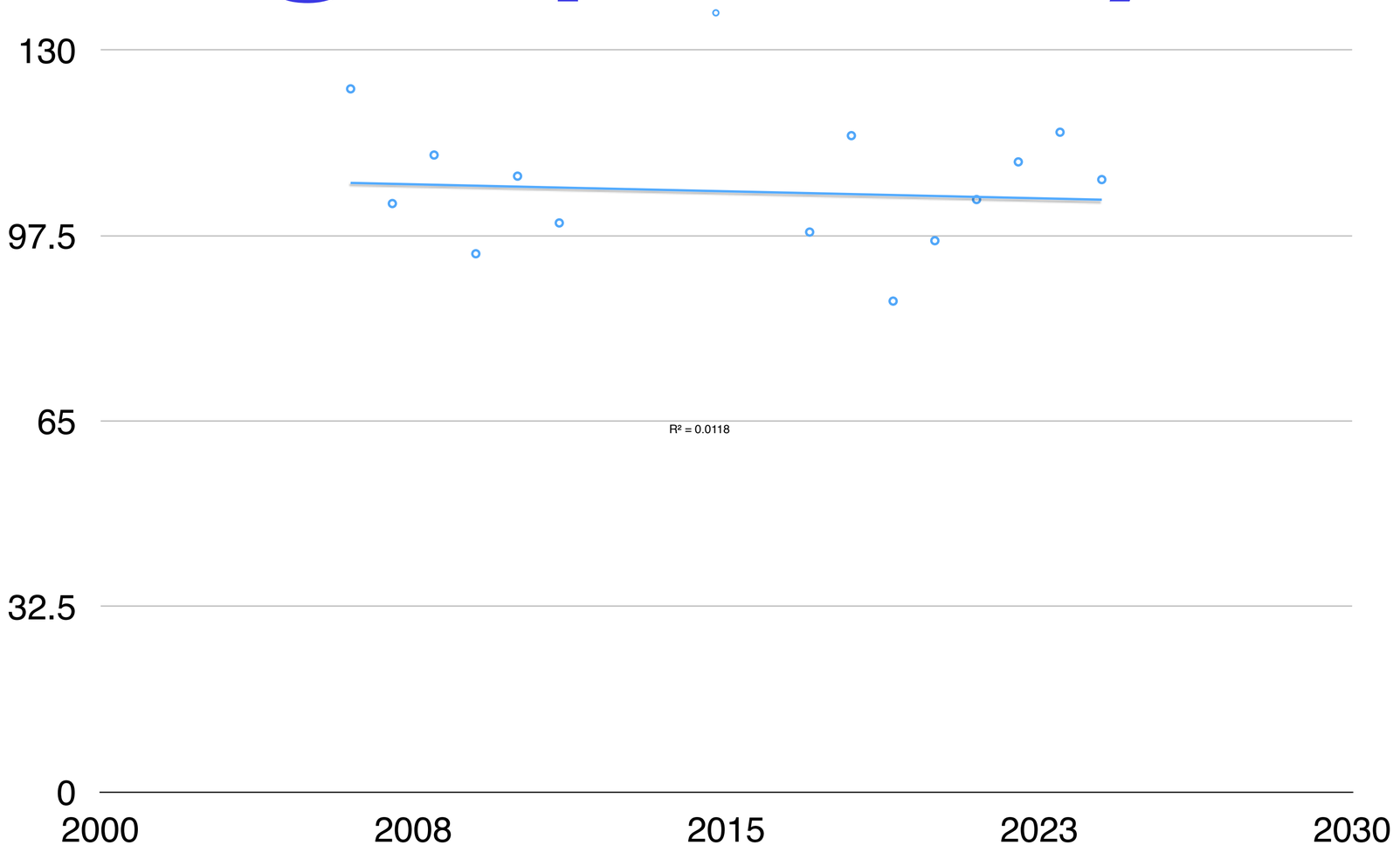
Frogspawn

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Orange Tip Butterfly

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Hawthorn in Flower

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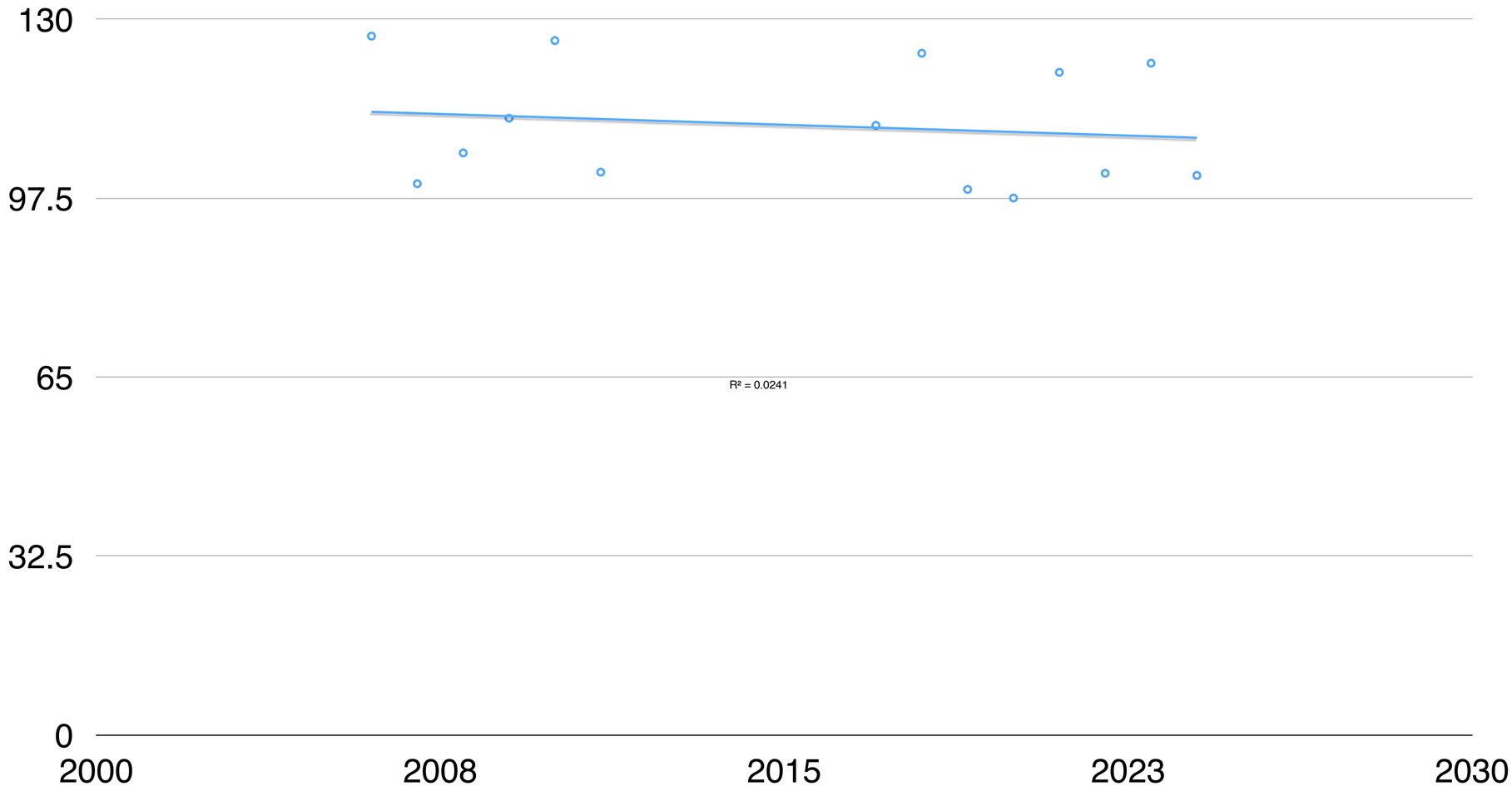
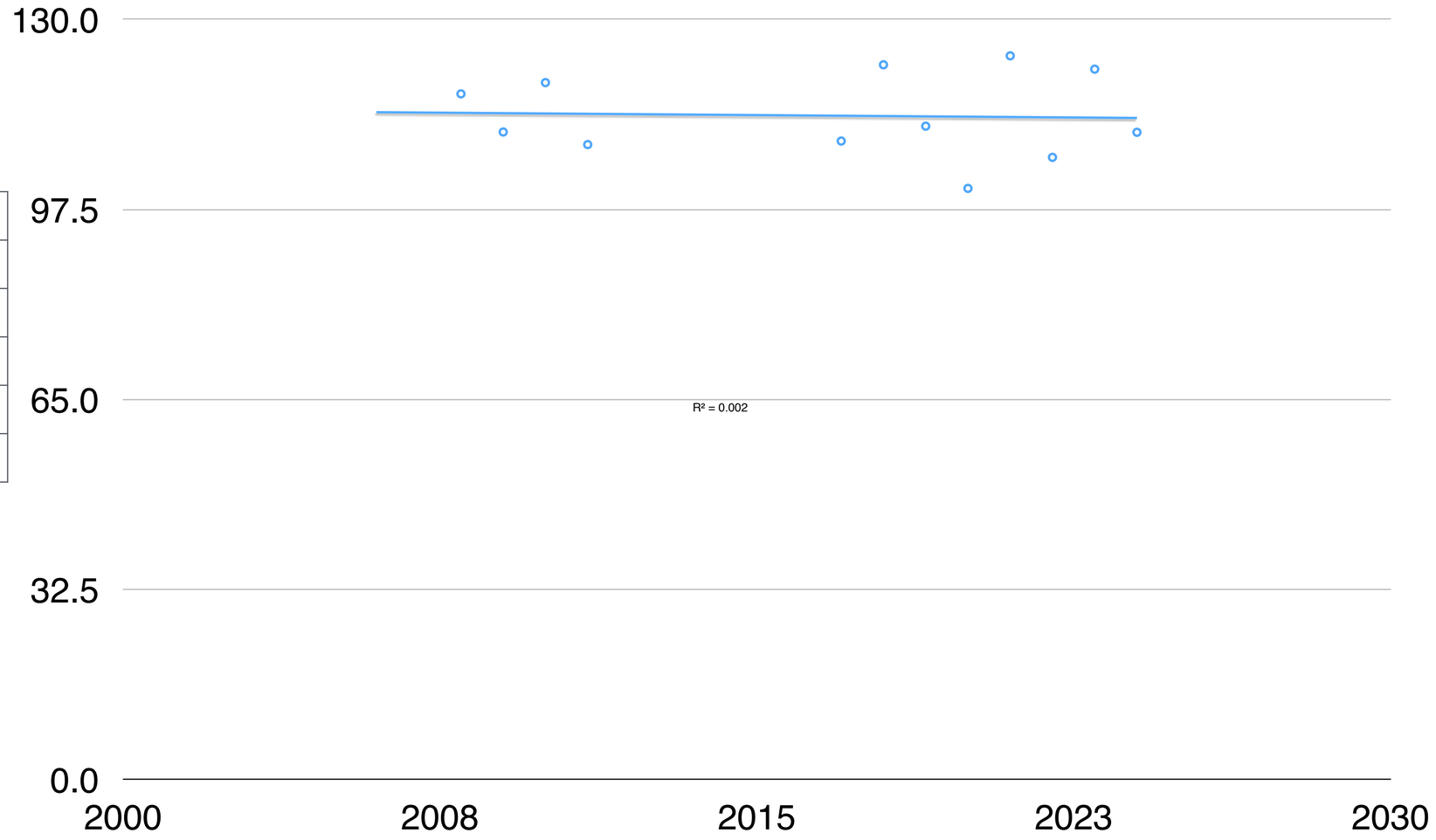
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Horse Chestnut in Flower

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Honey Bee

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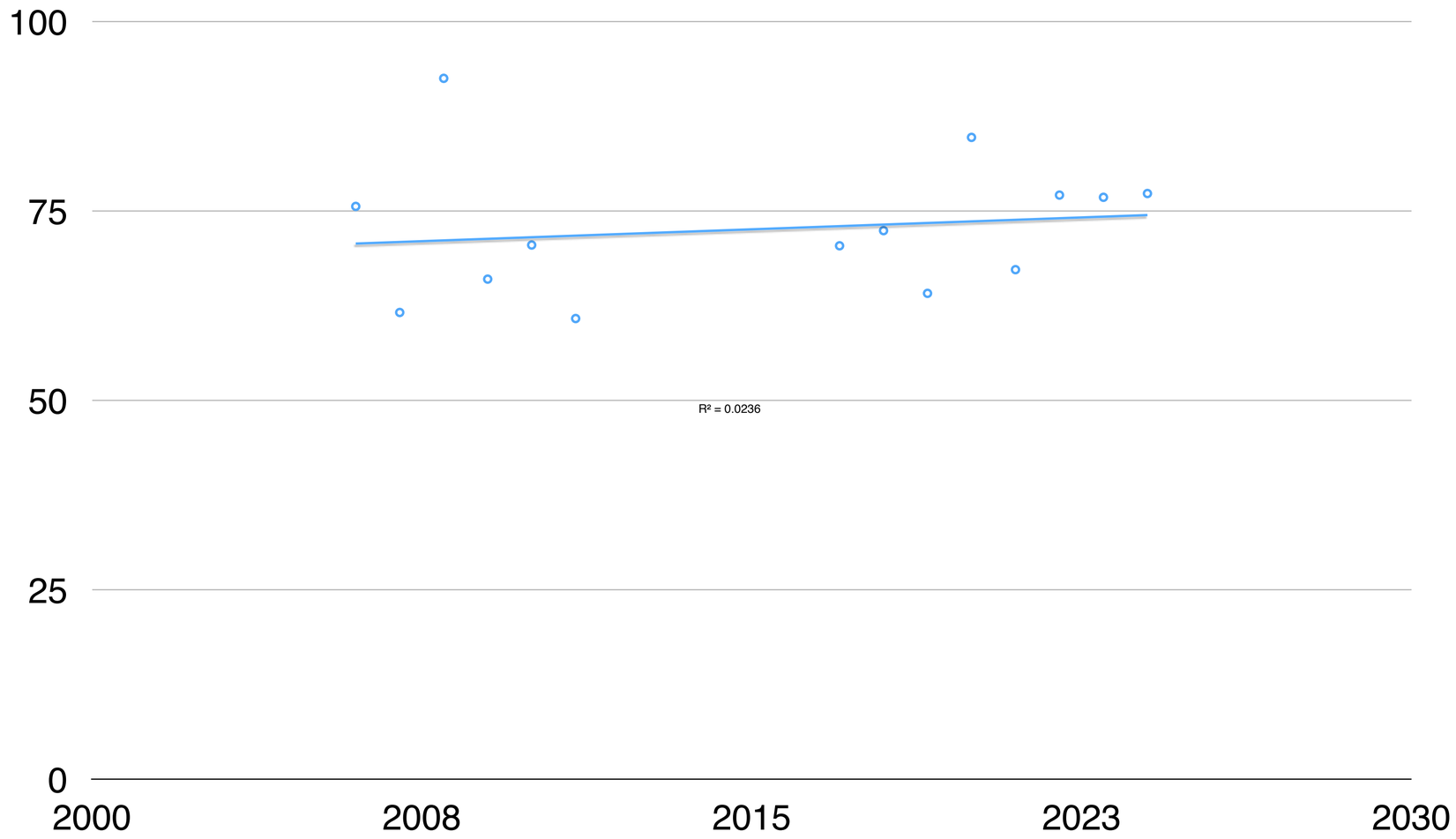
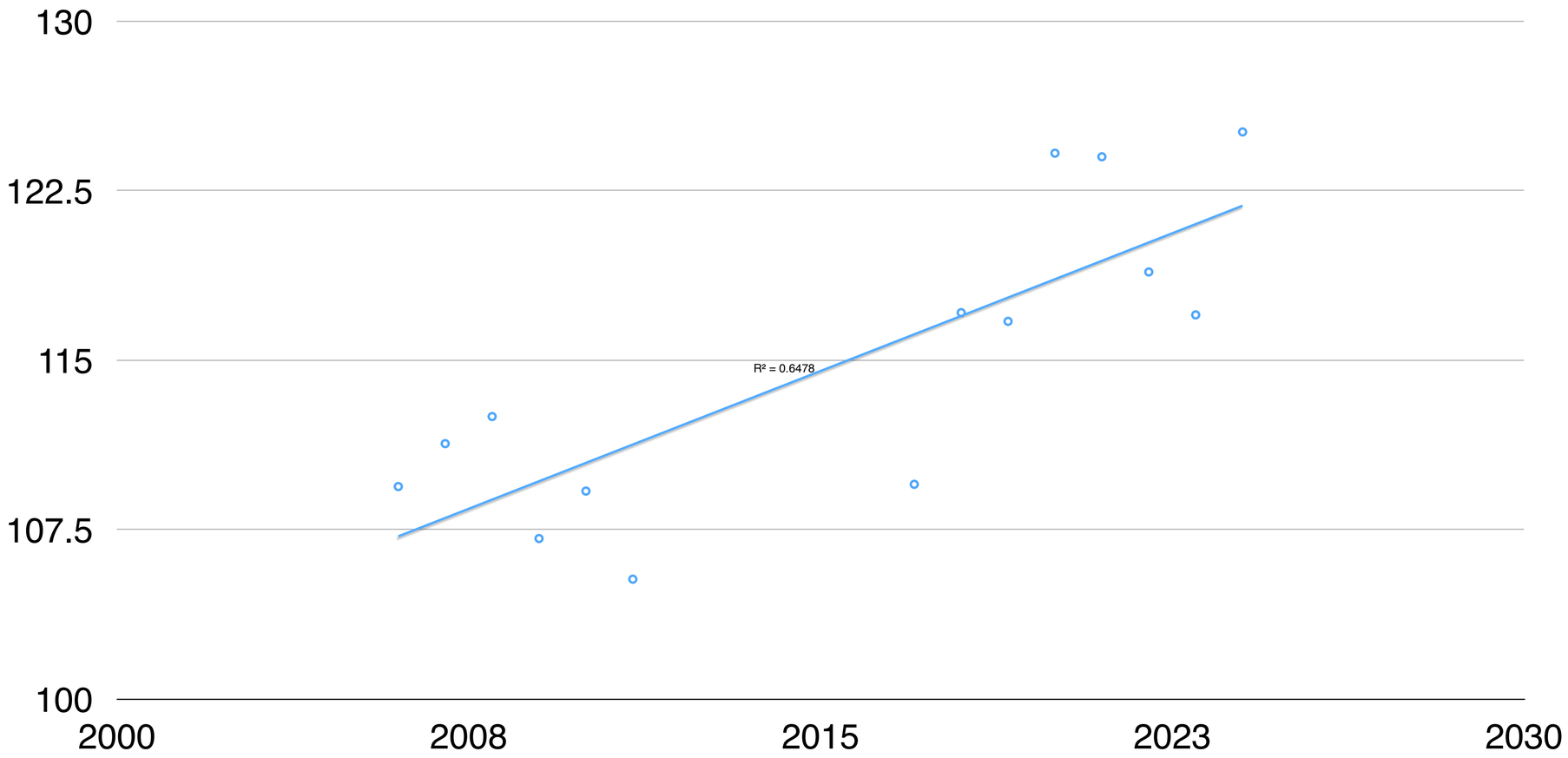


Swallow

June 30th	182
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31



Large Red Damselfly

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May 31st	152
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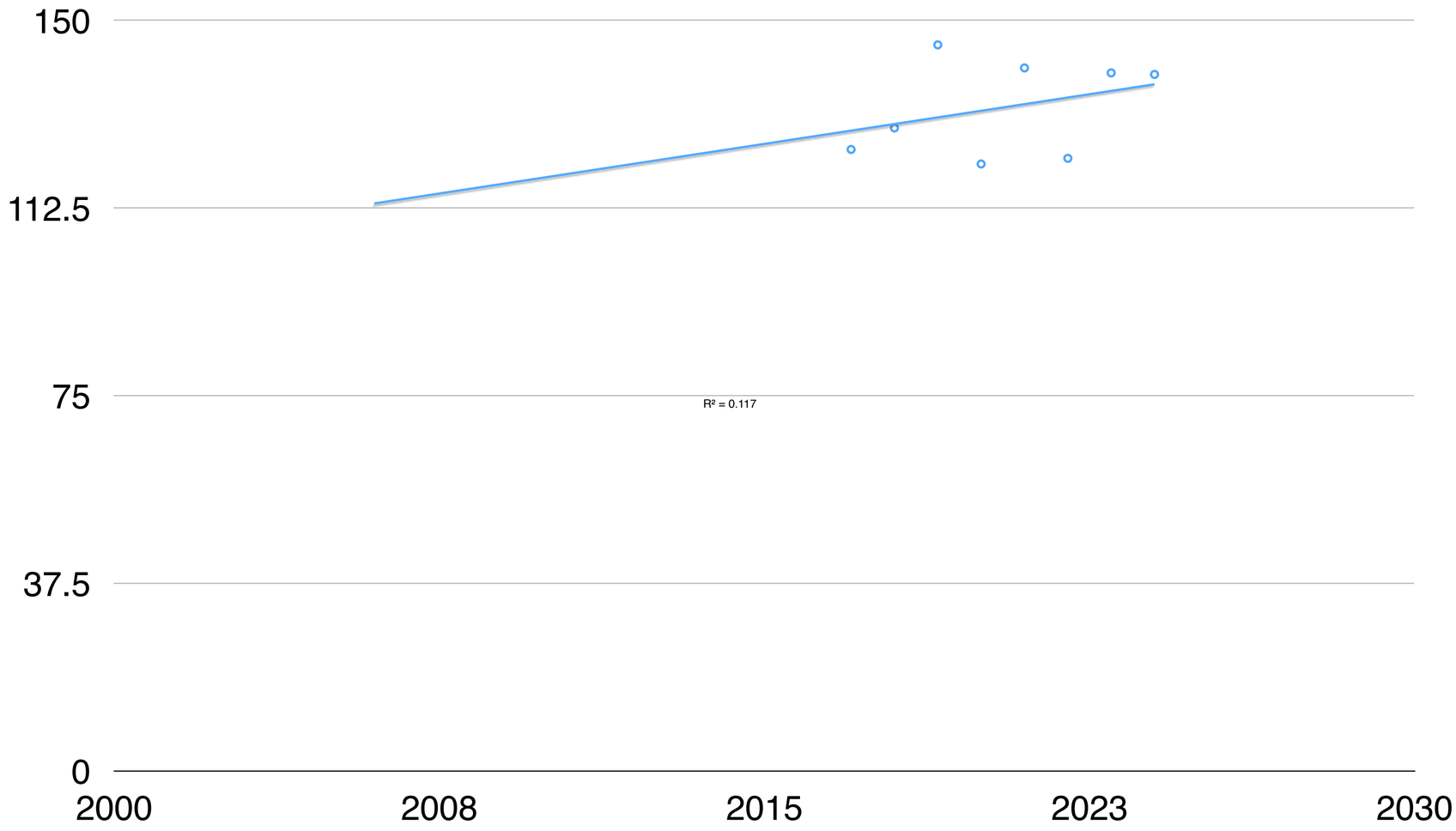
Mar 31st	91
Feb 29th	60
Jan 31st	31



Swift

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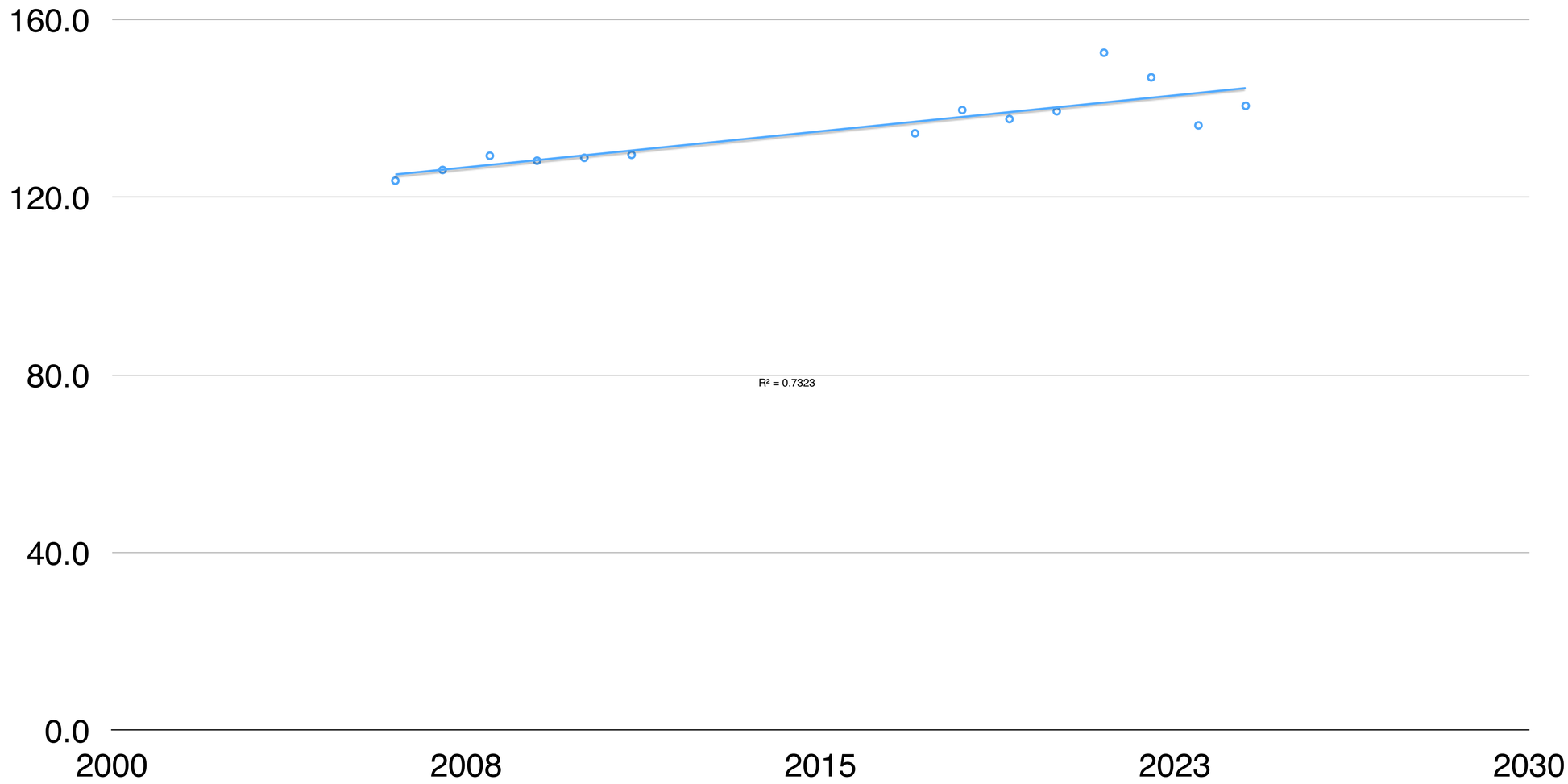
Feb 29th	60
Jan 31st	31



Cuckoo

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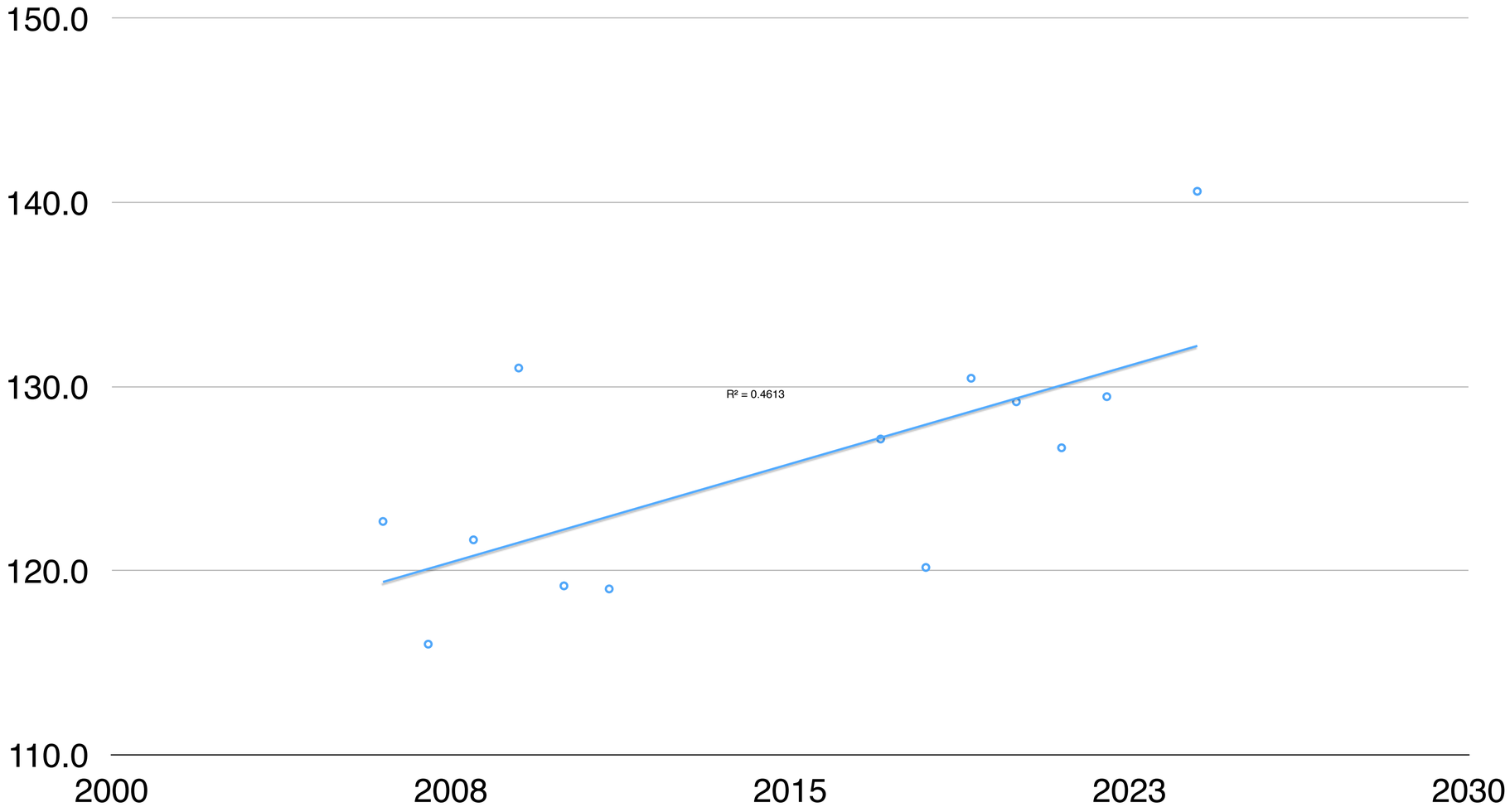
May 31st	152
Apr 30th	121
Mar 31st	91
Feb 29th	60
Jan 31st	31

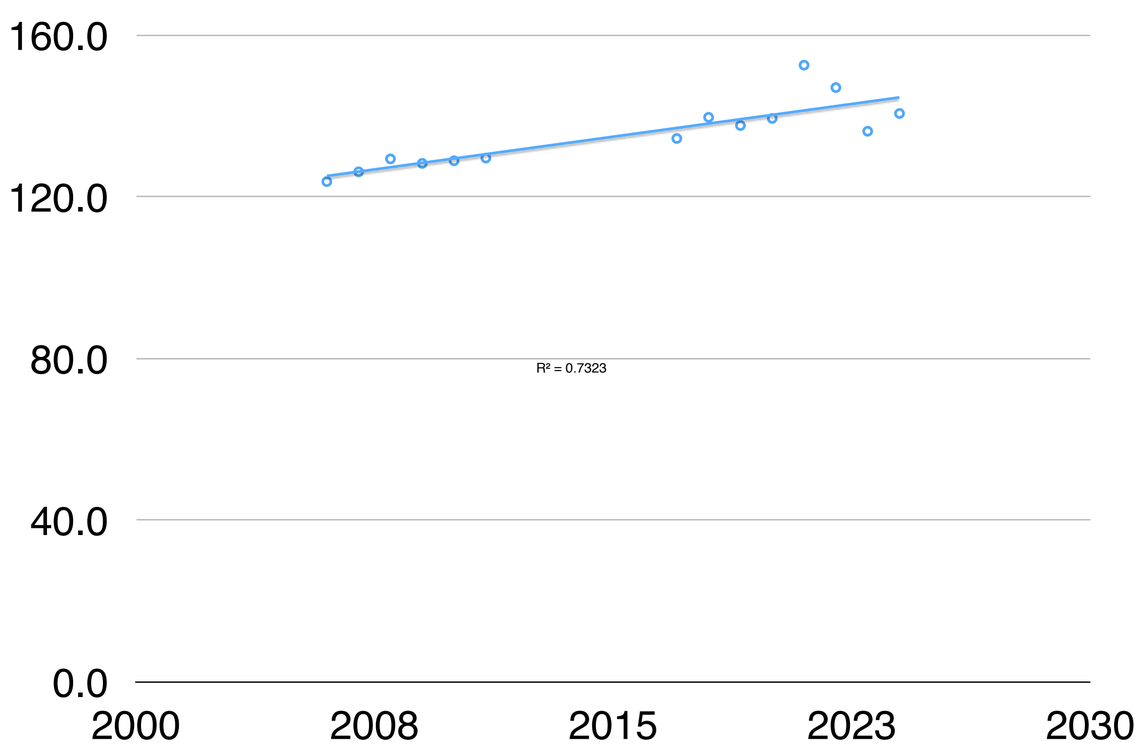


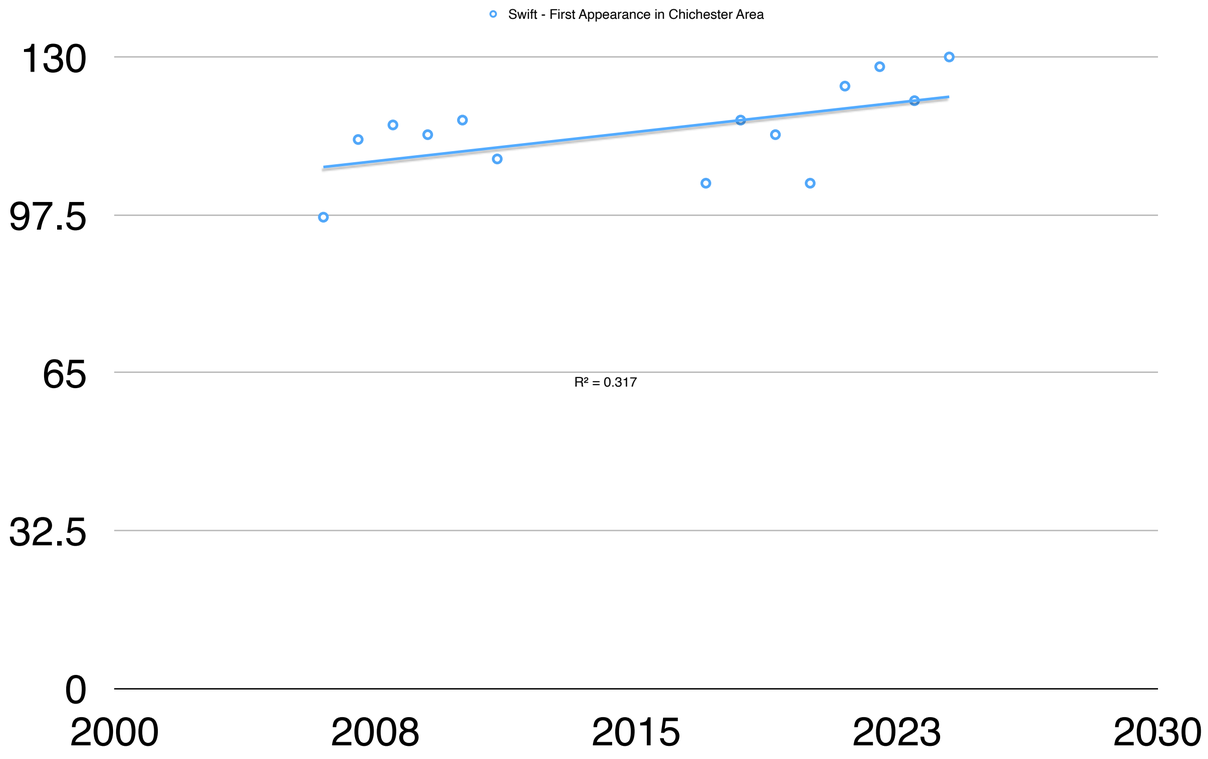
Comments

- 2024 spring was very warm & very wet
- Despite this only 2 of our indicators occurred earlier (Brimstone & Chiffchaff).
- This year 6 our of indicators occurred later - however this may be driven more by scarcity than climate.
- Over the long term 6 of our indicators are occurring earlier and 4 later.
- It may be appropriate to analyse the data in a different fashion.

What is the impact on the analysis if we use the first recorded date rather than the average recorded date ?

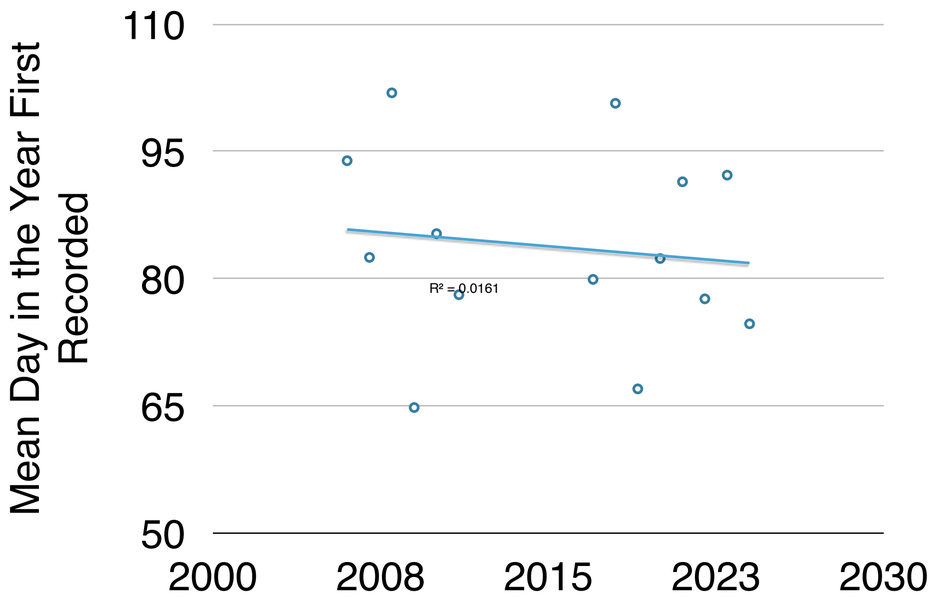
Using single earliest record rather than average

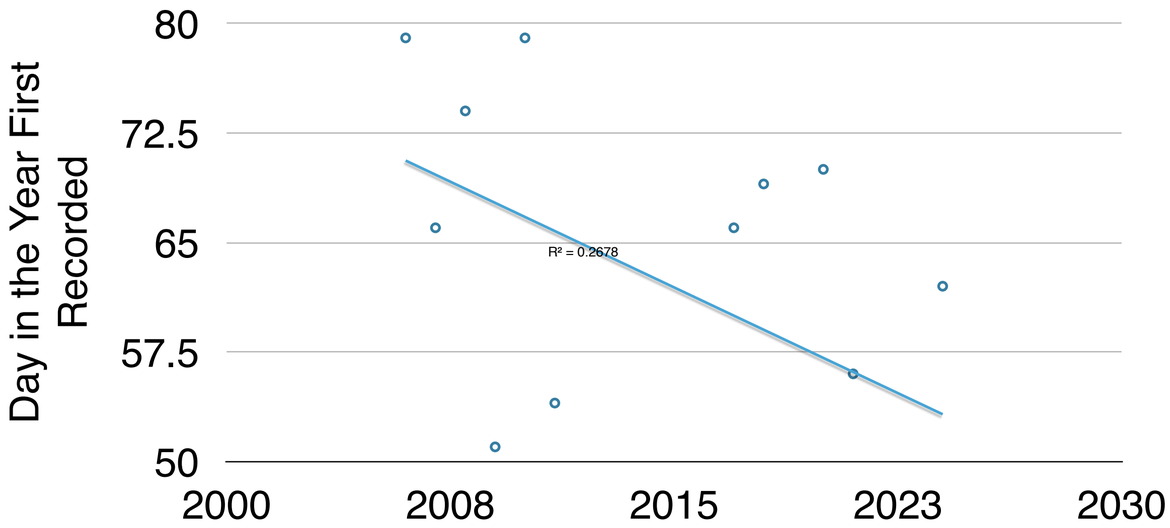




First appearance of Swift

Using single earliest record rather than average





First appearance of Brimstone butterfly