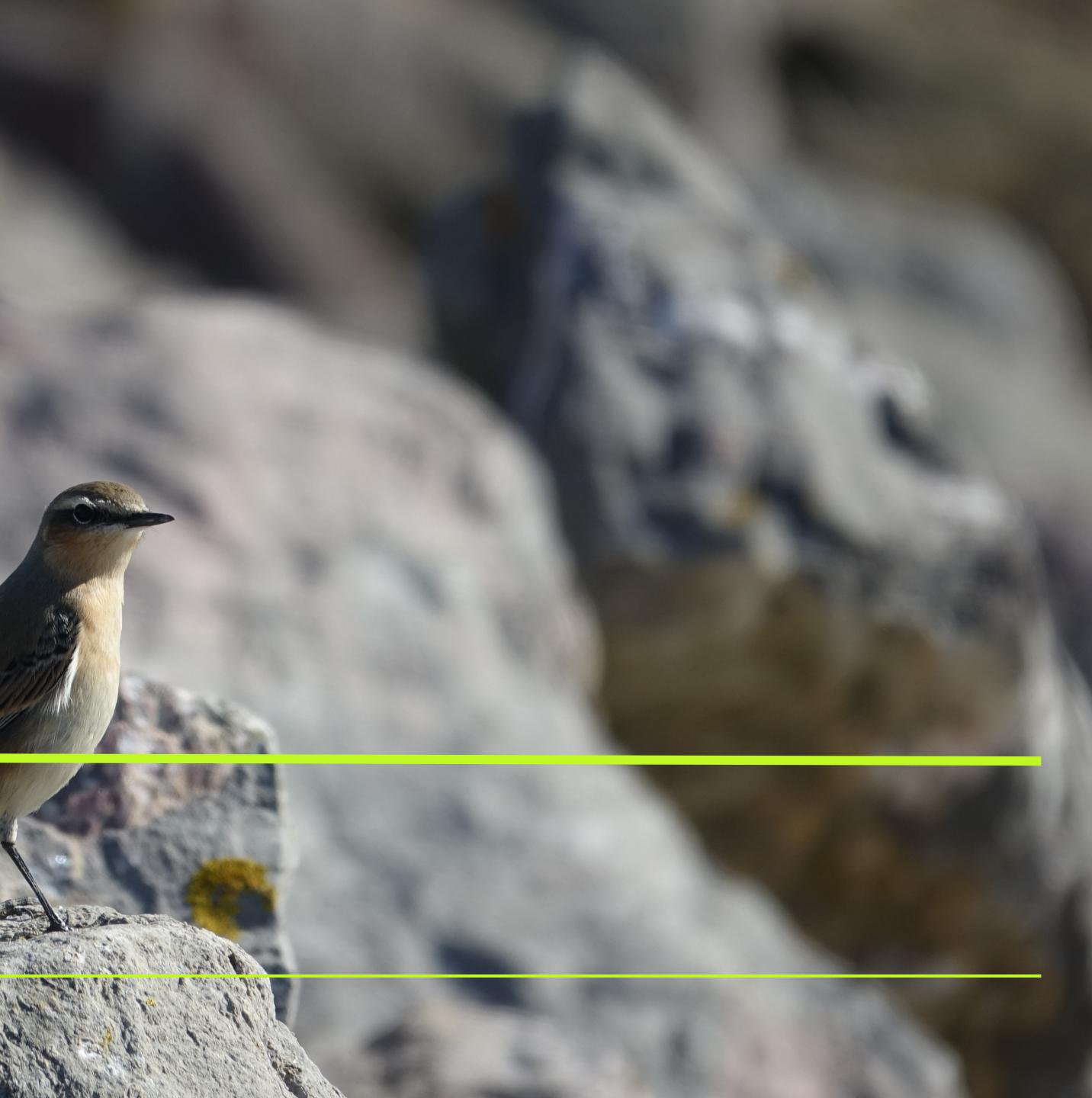
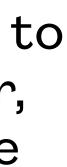
CHNS 2021 Phenology

DR CHRISTIAN HANCE



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.



Which lifecycle events are recorded?

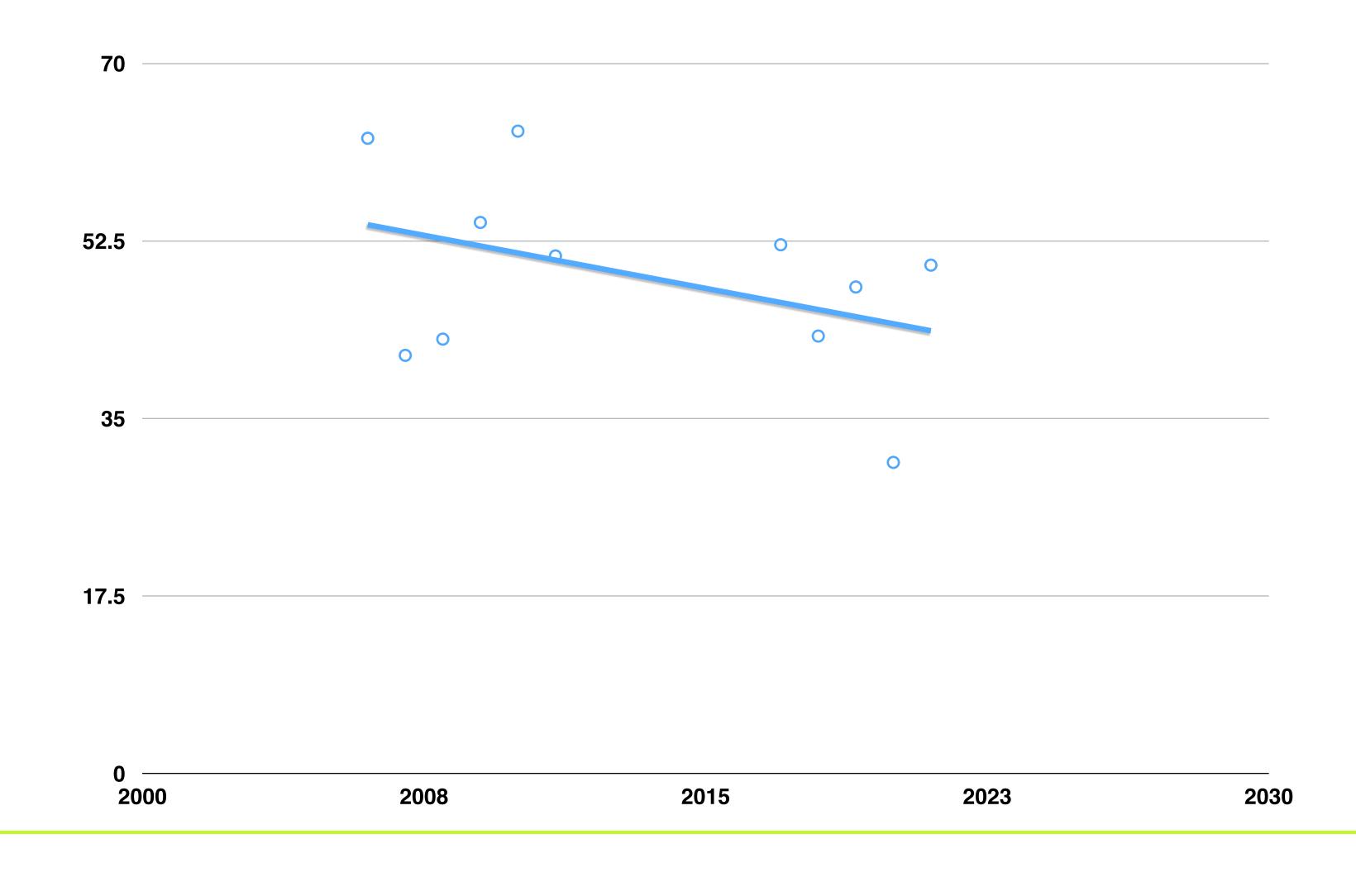
- First appearance in local area of :
 - Chiff-chaff
 - Brimstone butterfly
 - Honey bee
 - Frog spawn
 - Orange tip butterfly
 - Swallow
 - Large red damselfly
 - Swift
 - Cuckoo



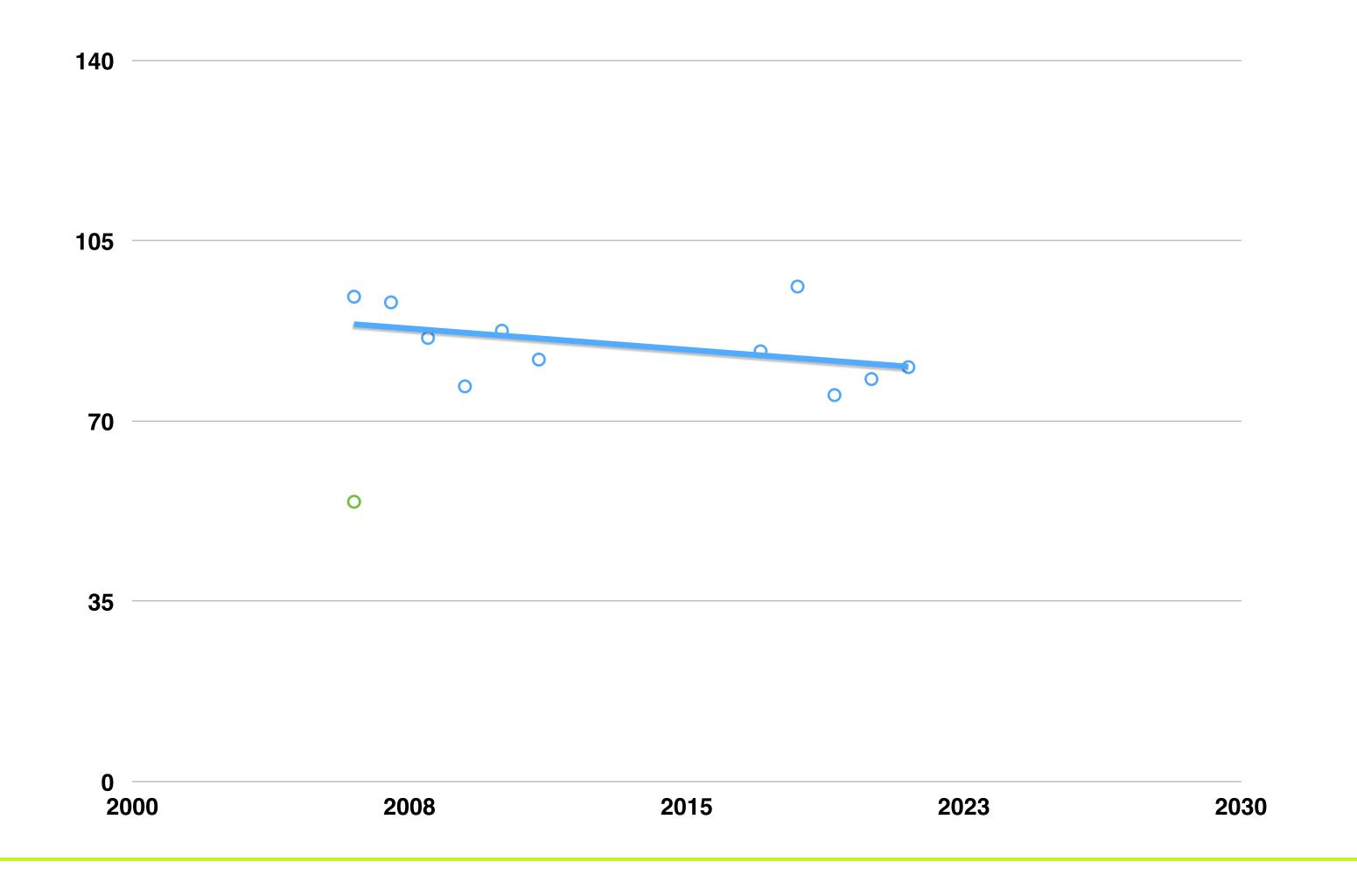
Which lifecycle events are recorded?

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



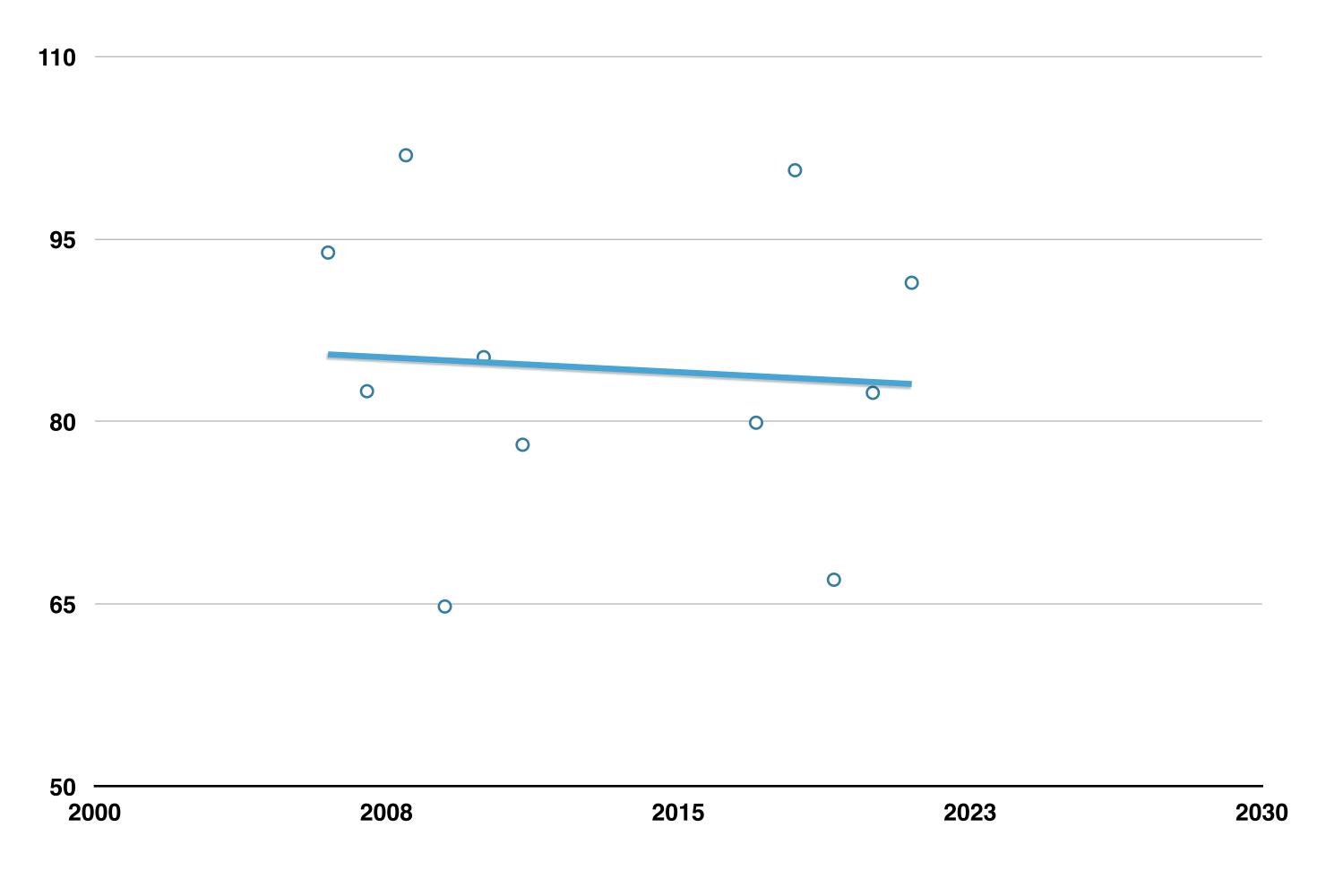


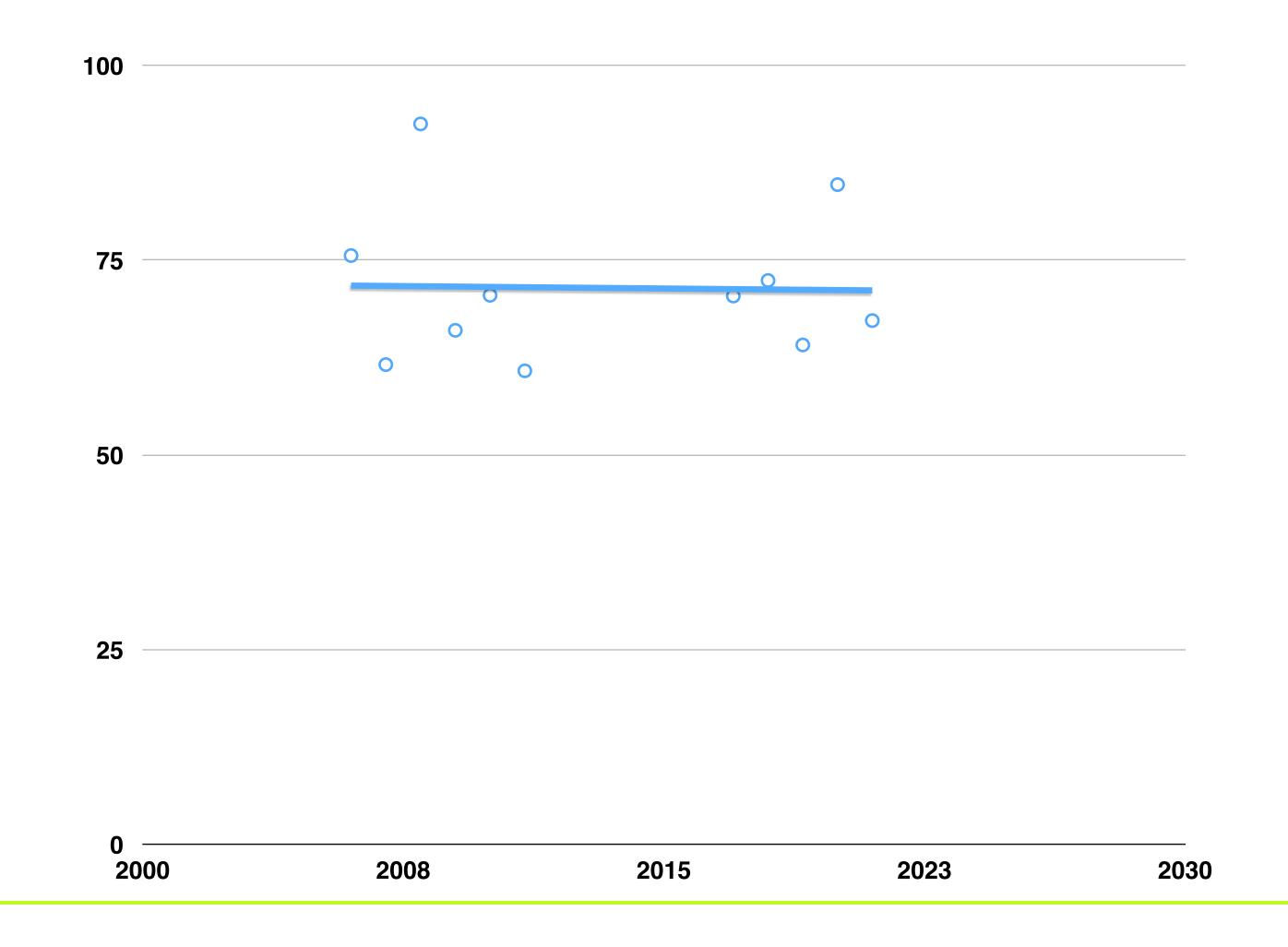
Primrose



Chiff Chaff

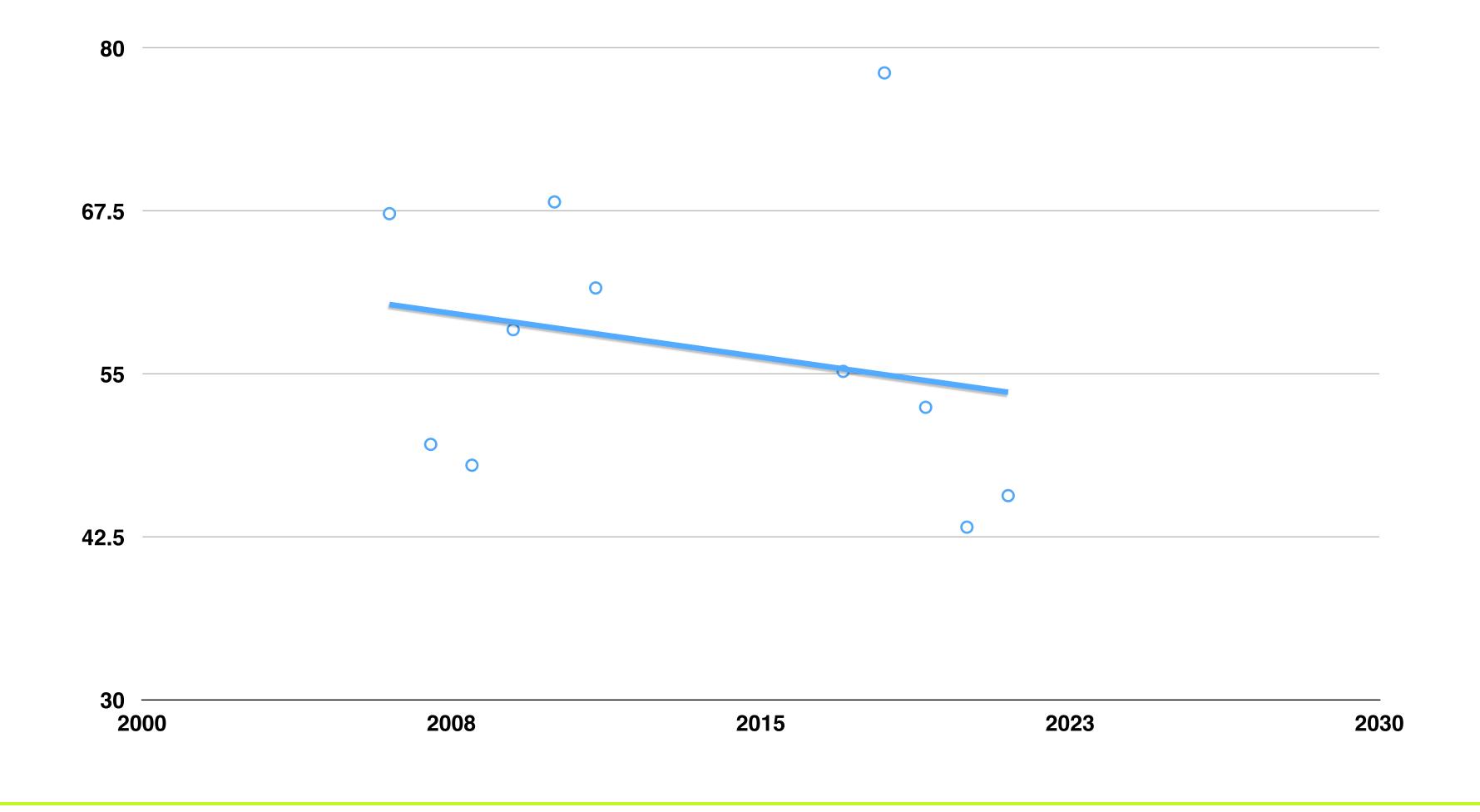
Brimstone Butterfly



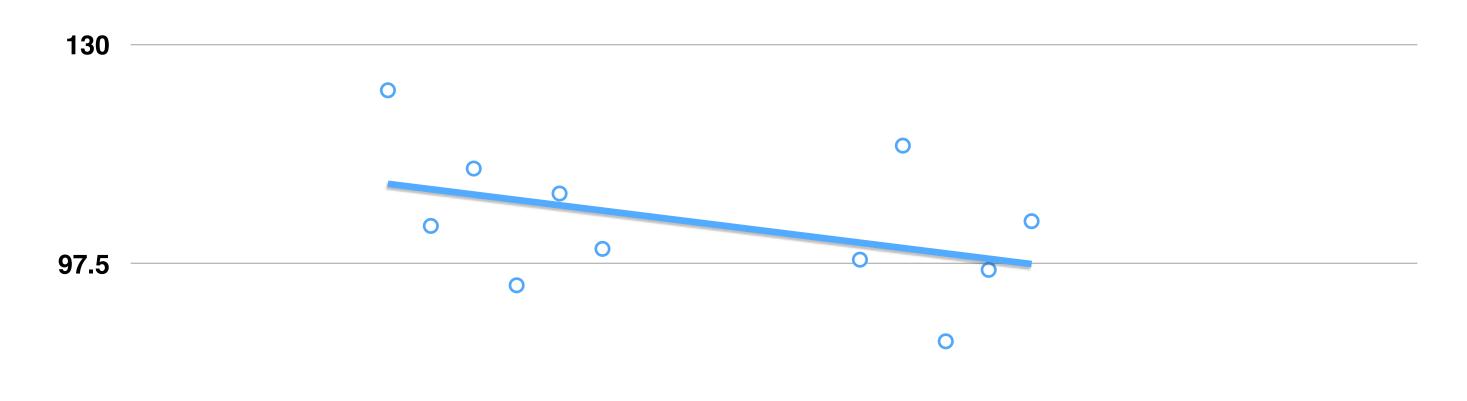


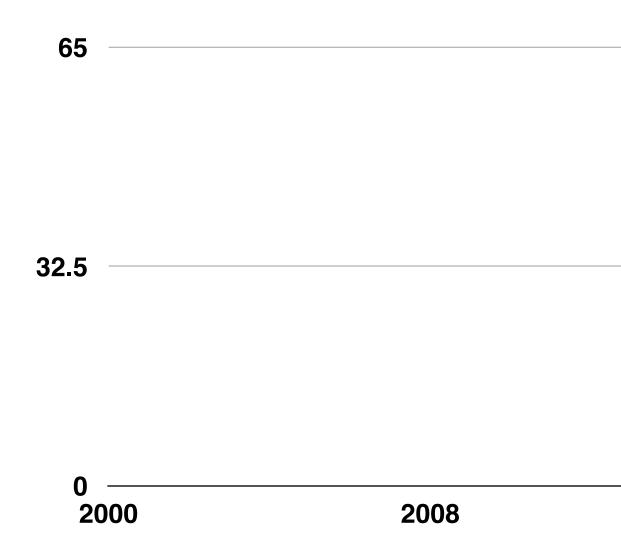






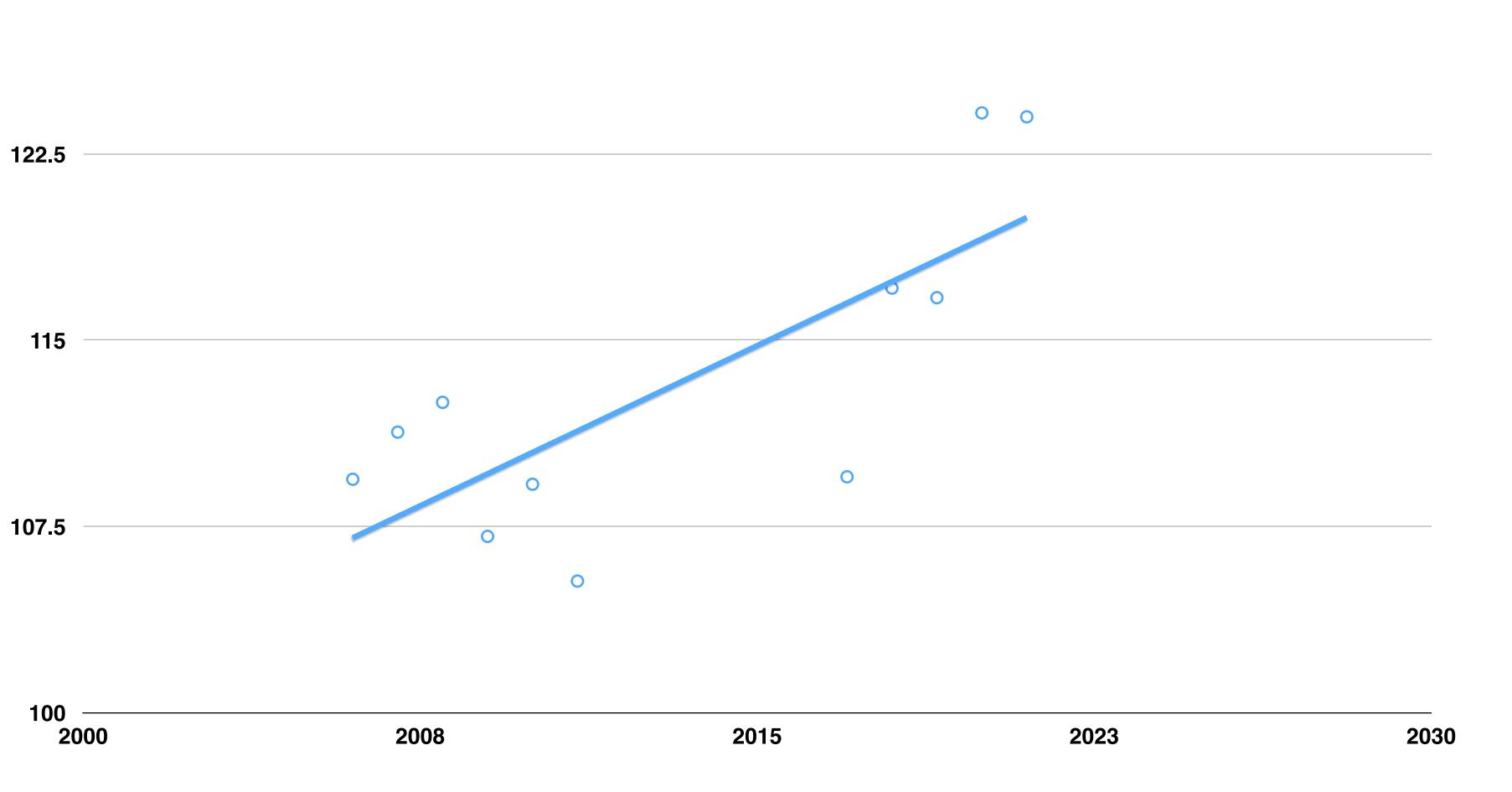


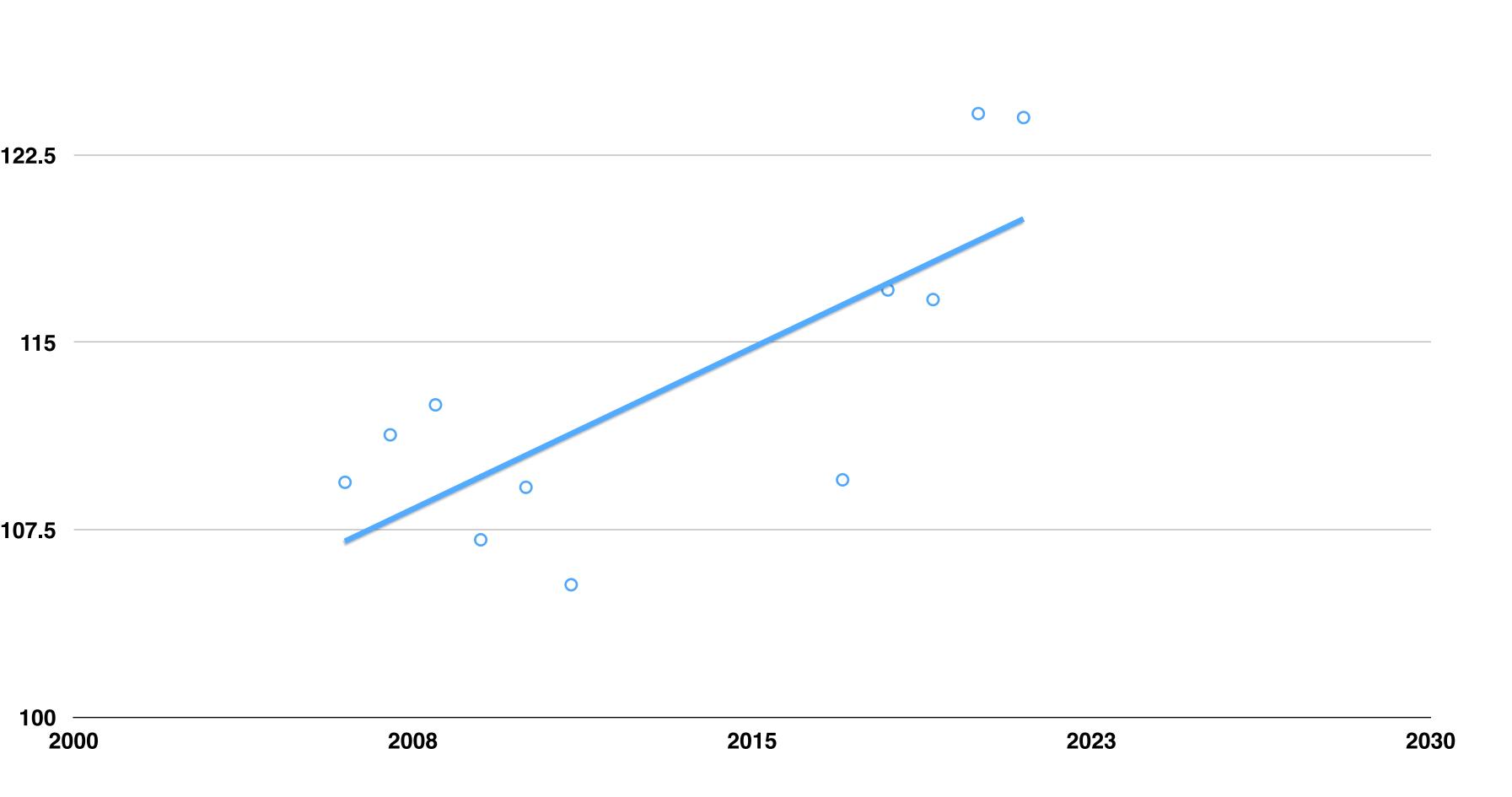




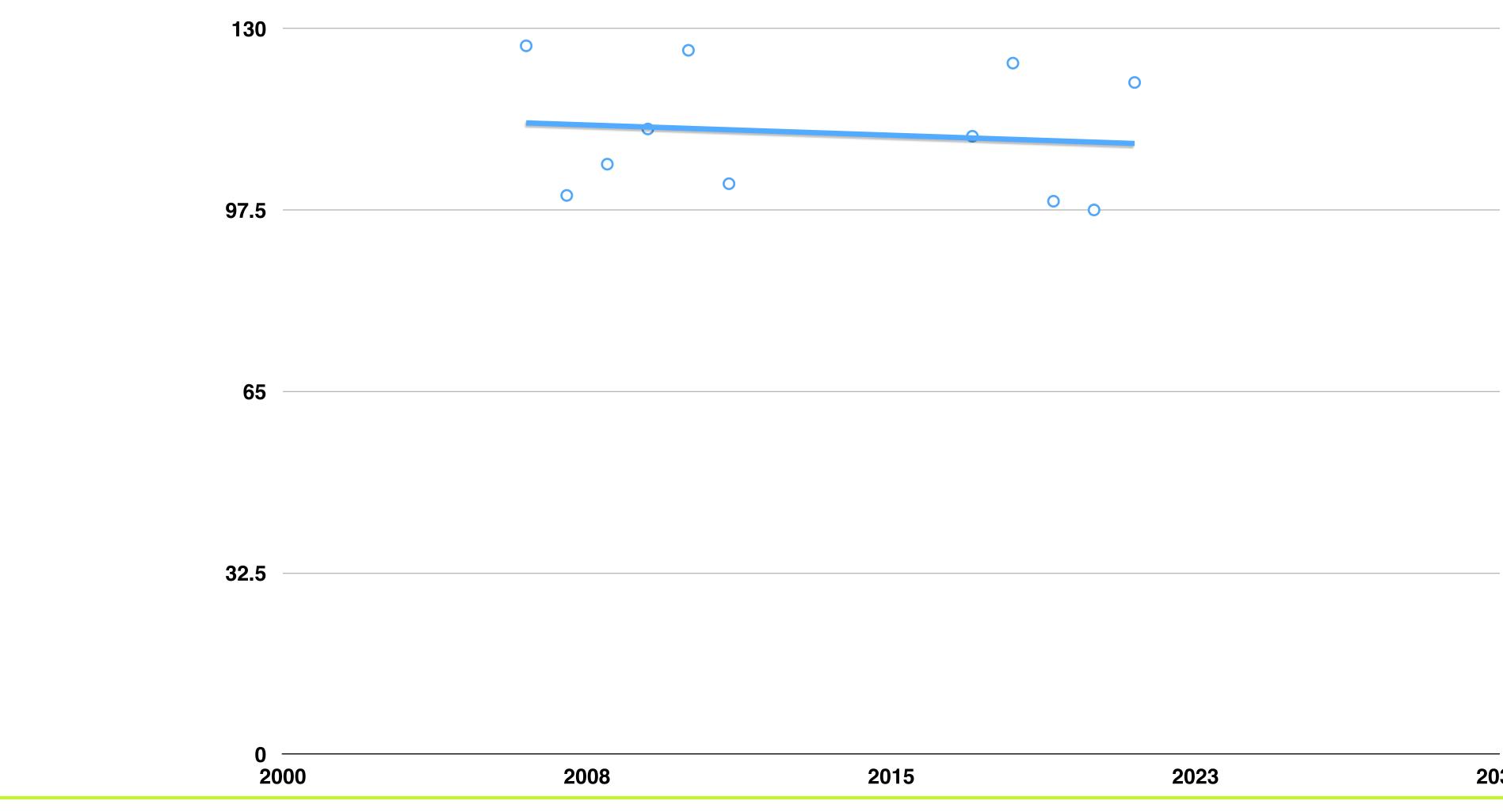
Orange Tip Butterfly





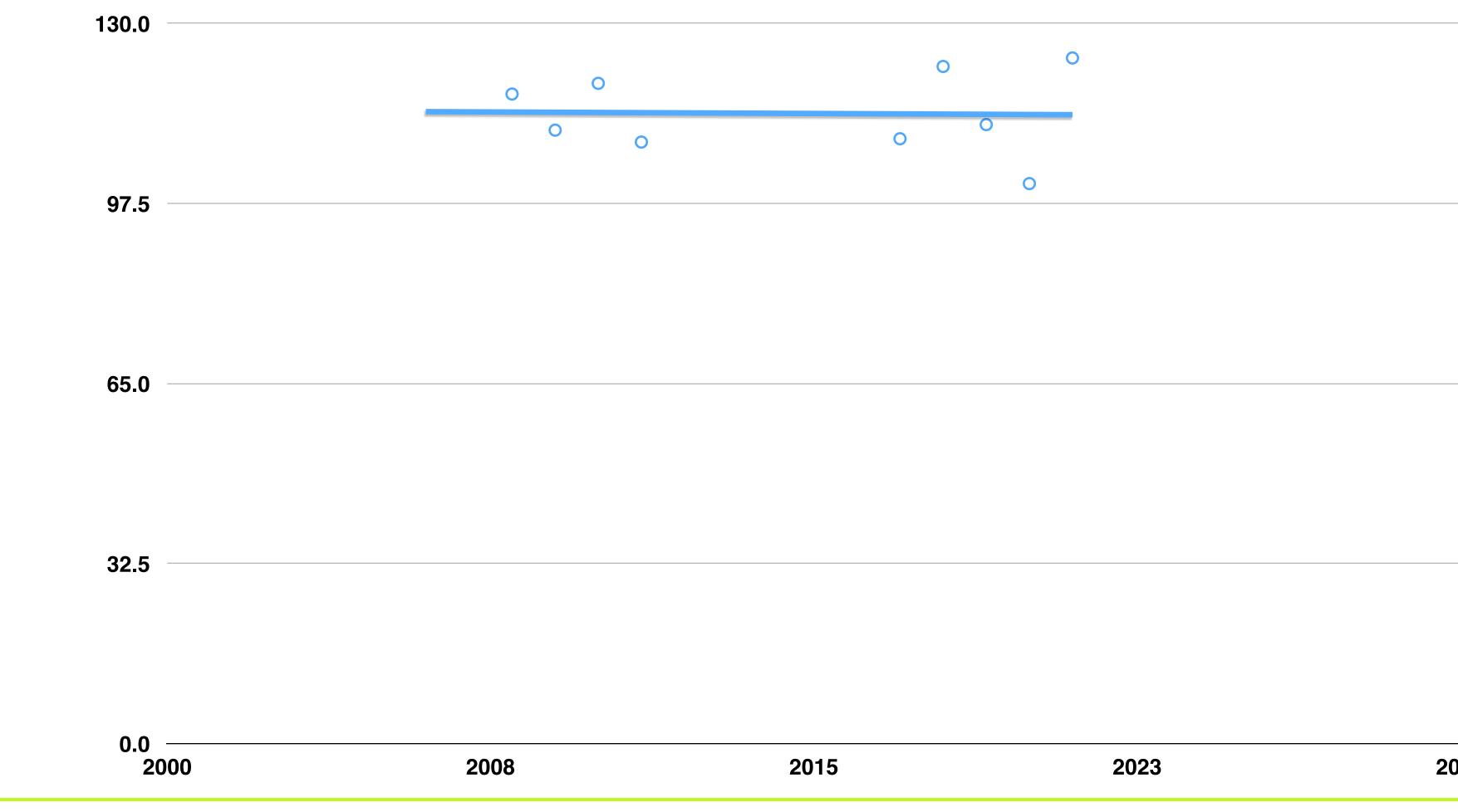


Hawthorn in Flower

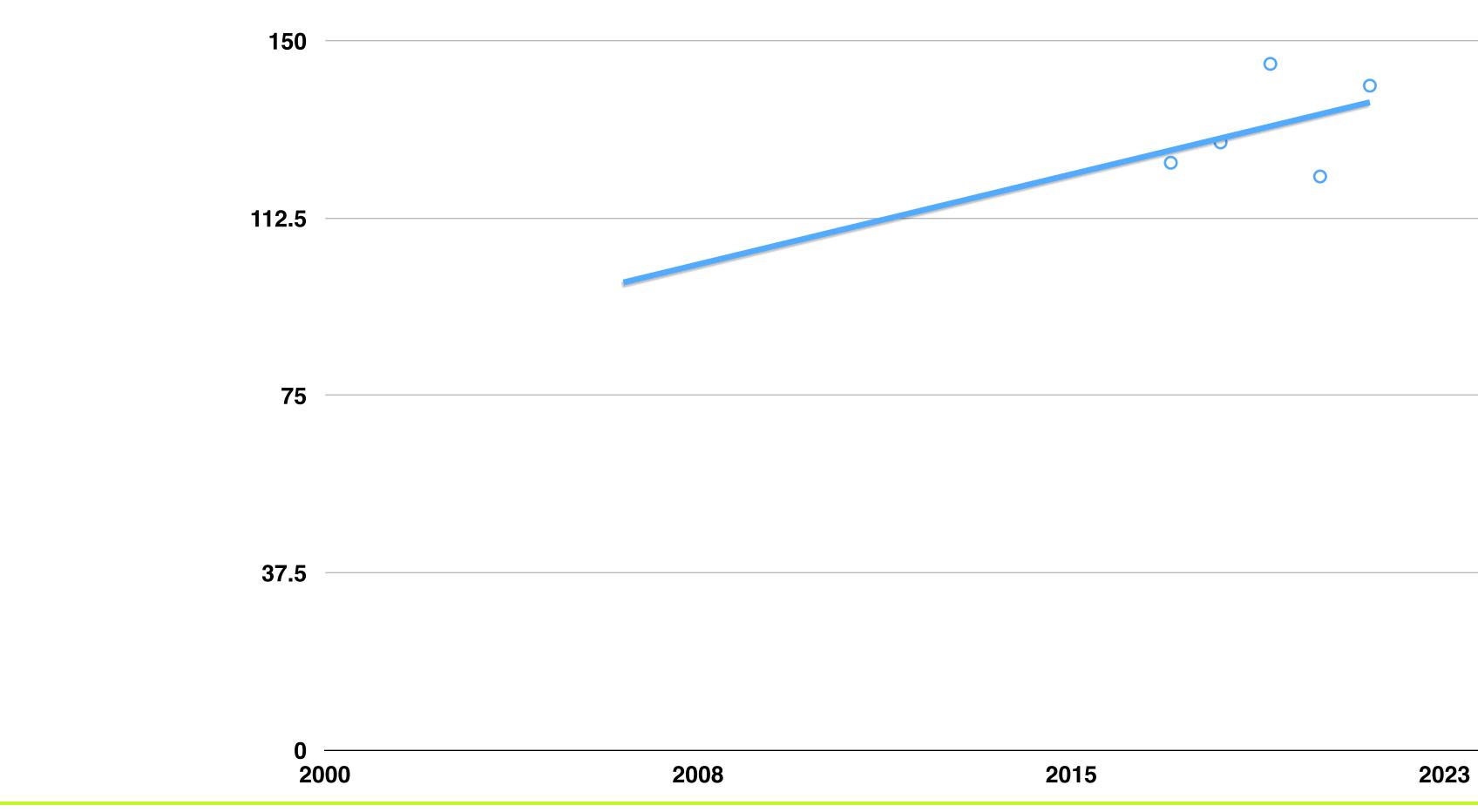




Horse Chestnut



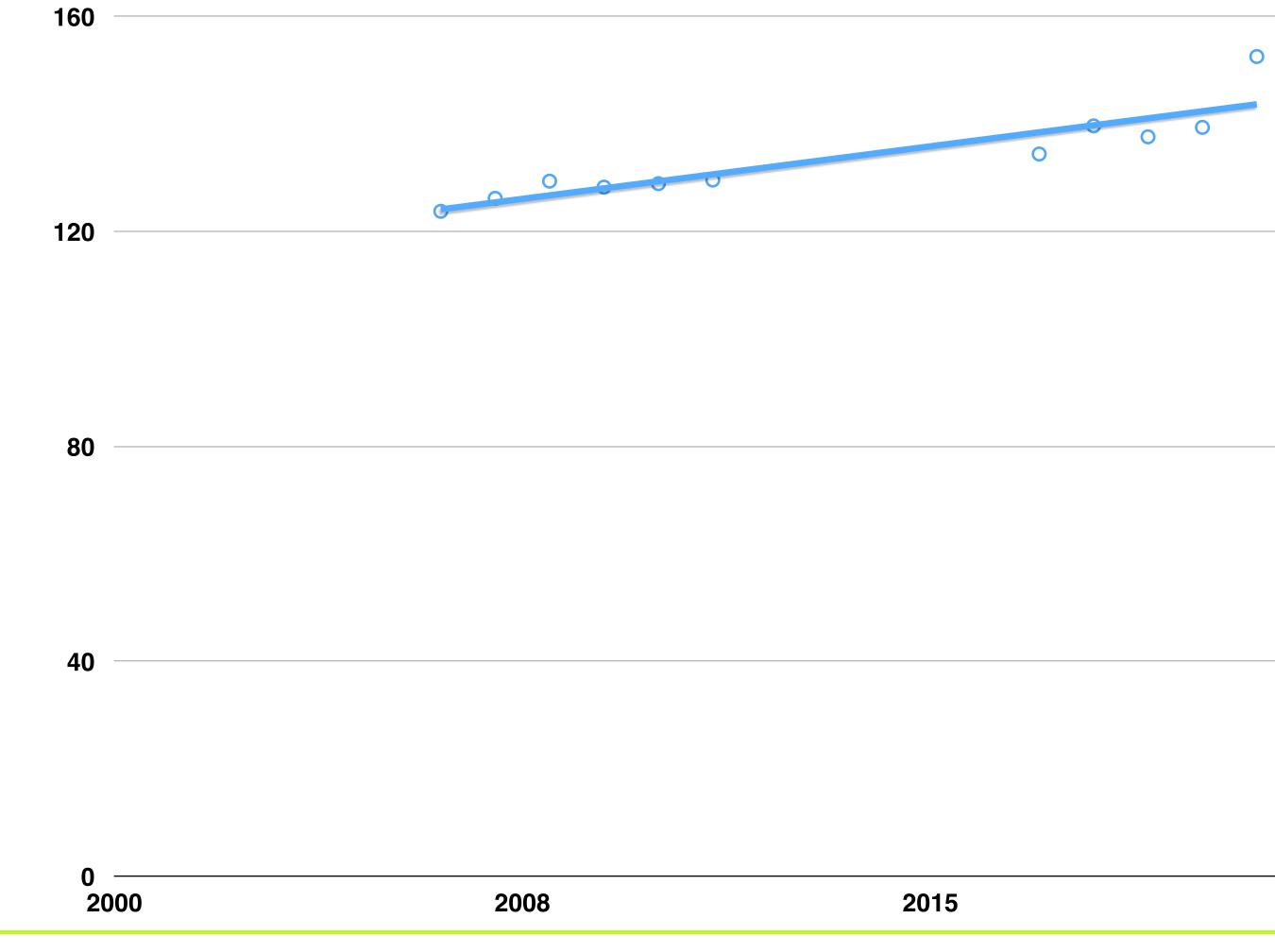
Large Red Damselfly





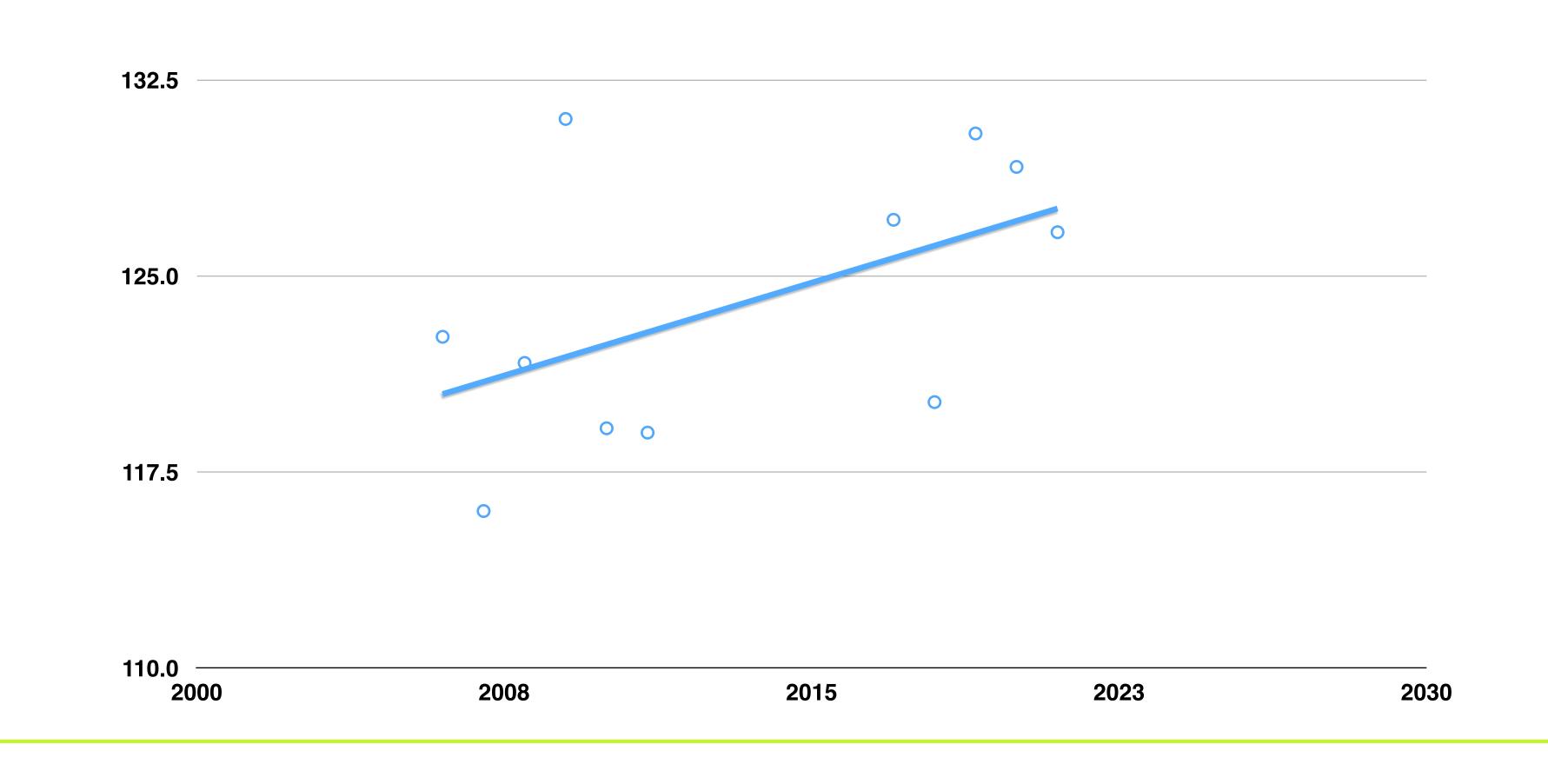
2030







140.0



2021 Spring Climate

- What do the records show for the climatic conditions in early 2021?
 - degrees cooler than the mean for the period 1961-1990 (Rothamsted 30-year mean meteorological data 1961-1990).
 - It was slightly sunnier and slightly drier than average



• The 2021 mean late winter / early spring temperature in Southern England was nearly 3

Comments

- spawn).

• The Spring of 2021 in Southern England was significantly colder than the long term average.

• Of our 12 indicator species 9 were later than 2020, 1 was about the same, and 2 were slightly earlier. This is in line with other phenological studies e.g. Natures Calendar (Woodland Trust).

• Over the course of our study 3 events are occurring a lot earlier, (Primrose, Chiff Chaff, Frog

Over the course of our study 3 events are occurring a lot later, (Swallows, Swifts and Cuckoos).