

Lep-Bird Pheno Update

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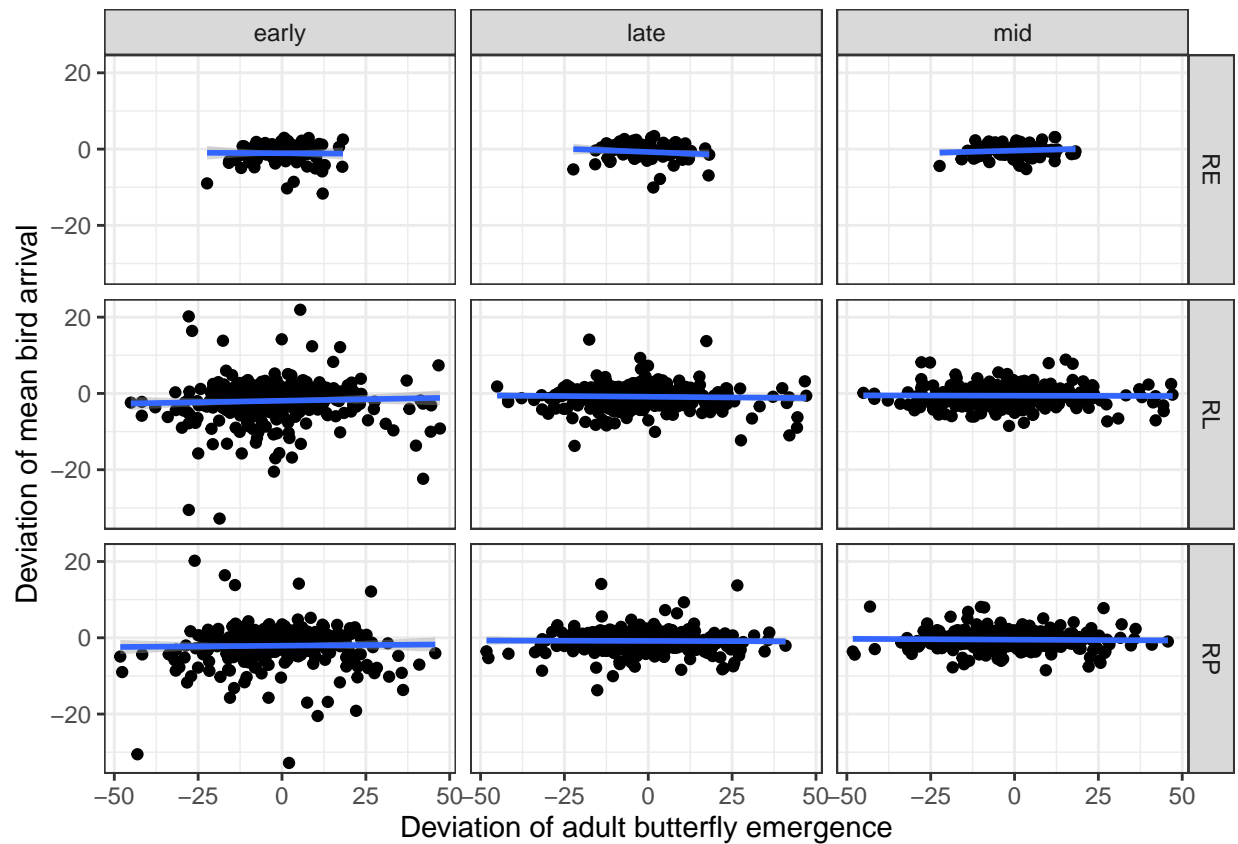
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Do phenology deviations within cells and groups of species correlate between adult butterflies and birds?

To do this, I calculated a 5-year mean for each cell/species group using the five most recent years. Next, the deviation was reported as the difference between the phenology estimate and 5-year mean phenology estimate.

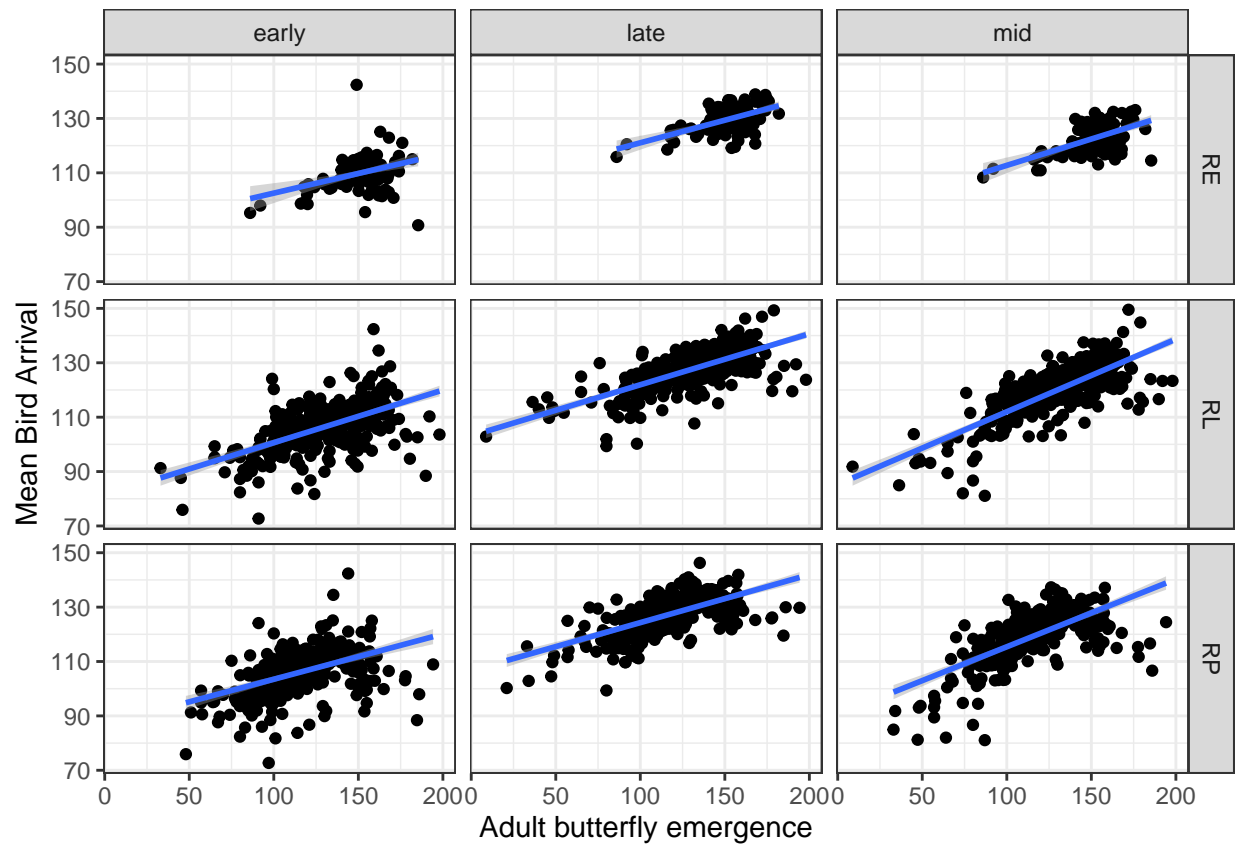
Bird species were grouped into “early”, “mid”, and “late arriving species based on a hopkins-corrected mean arrival time.

We find no relationship between the deviation of bird and lep phenology



Does absolute phenology values show a different story?

Yes, expected trend shown

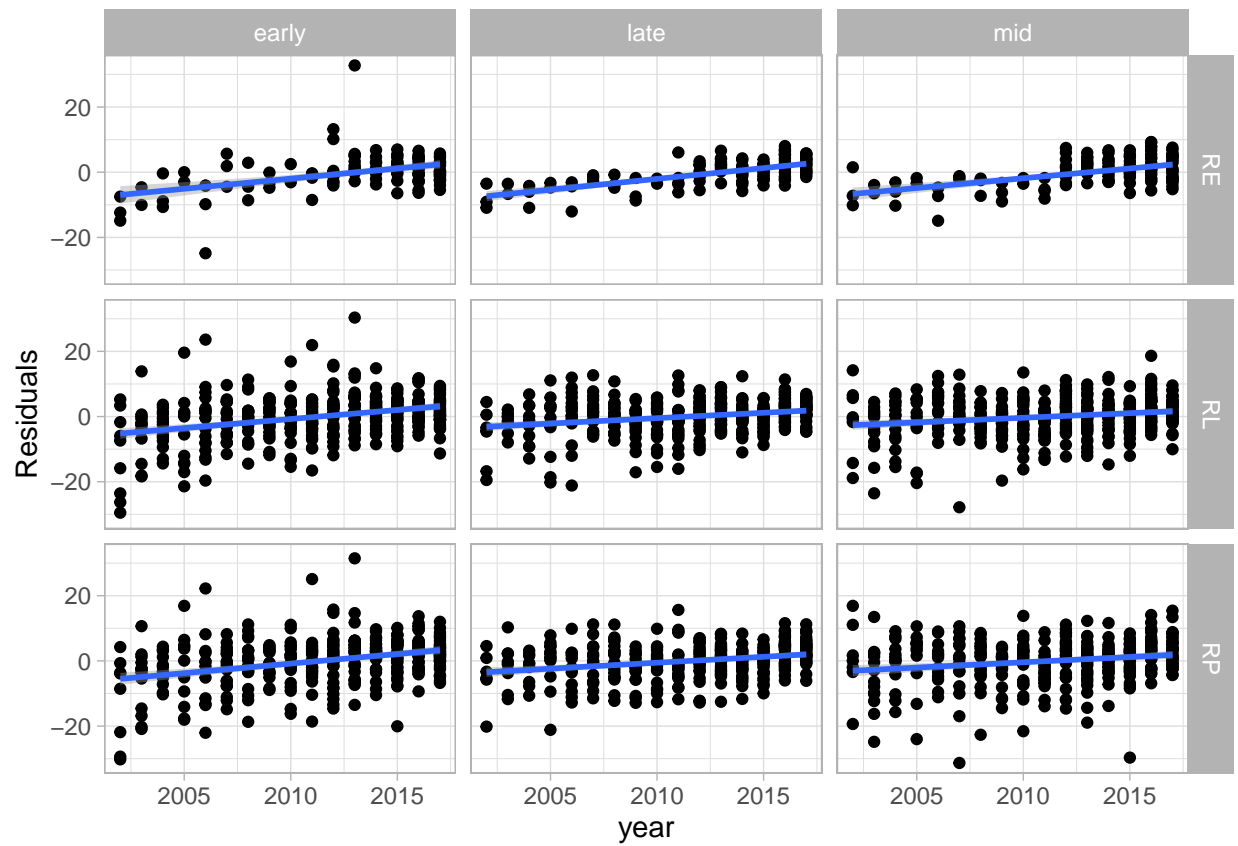


Where and when are the points falling away from the line?

Model

$\text{bird_arrival} \sim \text{lep_onset} + (1 \mid \text{unique_bird-lep_grouping}) + (0 + \text{lep_onset} \mid \text{unique_bird-lep_grouping})$

Temporal residuals



Spatial residuals

