

Supplemental Figure 1

Larsen & Shirey

Updated 3-Dec-2020; separated from reanalysis 25-Nov-2020

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Create panels for Supplemental Figure 1

In this code chunk, we previously used `lm.model$call` references in `geom_smooth`, which created a string of outputs showing the calls. The current simple `lm` still includes `geom_smooth` output text, which would be nice to suppress if we can figure that out.

```
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse 1.3.0 --
```

```
## v ggplot2 3.3.2      v purrr   0.3.4
## v tibble  3.0.3      v dplyr   1.0.1
## v tidyr   1.1.1      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.5.0
```

```
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(ggplot2)
library(ggExtra)
library(gridExtra)
```

```
##
## Attaching package: 'gridExtra'
```

```
## The following object is masked from 'package:dplyr':  
##  
##   combine
```

```
library(ggpubr)  
load("data/occurrences_FricAnalysis.RData")  
load("data/phenometrics.RData")  
reanalysis<-read_csv("outputs/supp_table2_part.csv")
```

```
## Warning: Missing column names filled in: 'X1' [1]
```

```
## Parsed with column specification:  
## cols(  
##   X1 = col_double(),  
##   name_resultsfile = col_character(),  
##   region = col_character(),  
##   phenometric = col_character(),  
##   indep.variable = col_character(),  
##   Reanalysis_sign = col_double(),  
##   Reanalysis_p = col_double(),  
##   Reanalysis_coefficient = col_double(),  
##   Fric_SR_Sign = col_double(),  
##   Fric_SR_coef = col_double(),  
##   Fric_RR_Sign = col_double(),  
##   Fric_RR_p = col_double(),  
##   Fric_RR_coef = col_double()  
## )
```

```
datasets<-pheno.data %>% group_by(name, region) %>% tally()  
datasets<-datasets %>% mutate(set=paste(name,region,sep="-"))
```

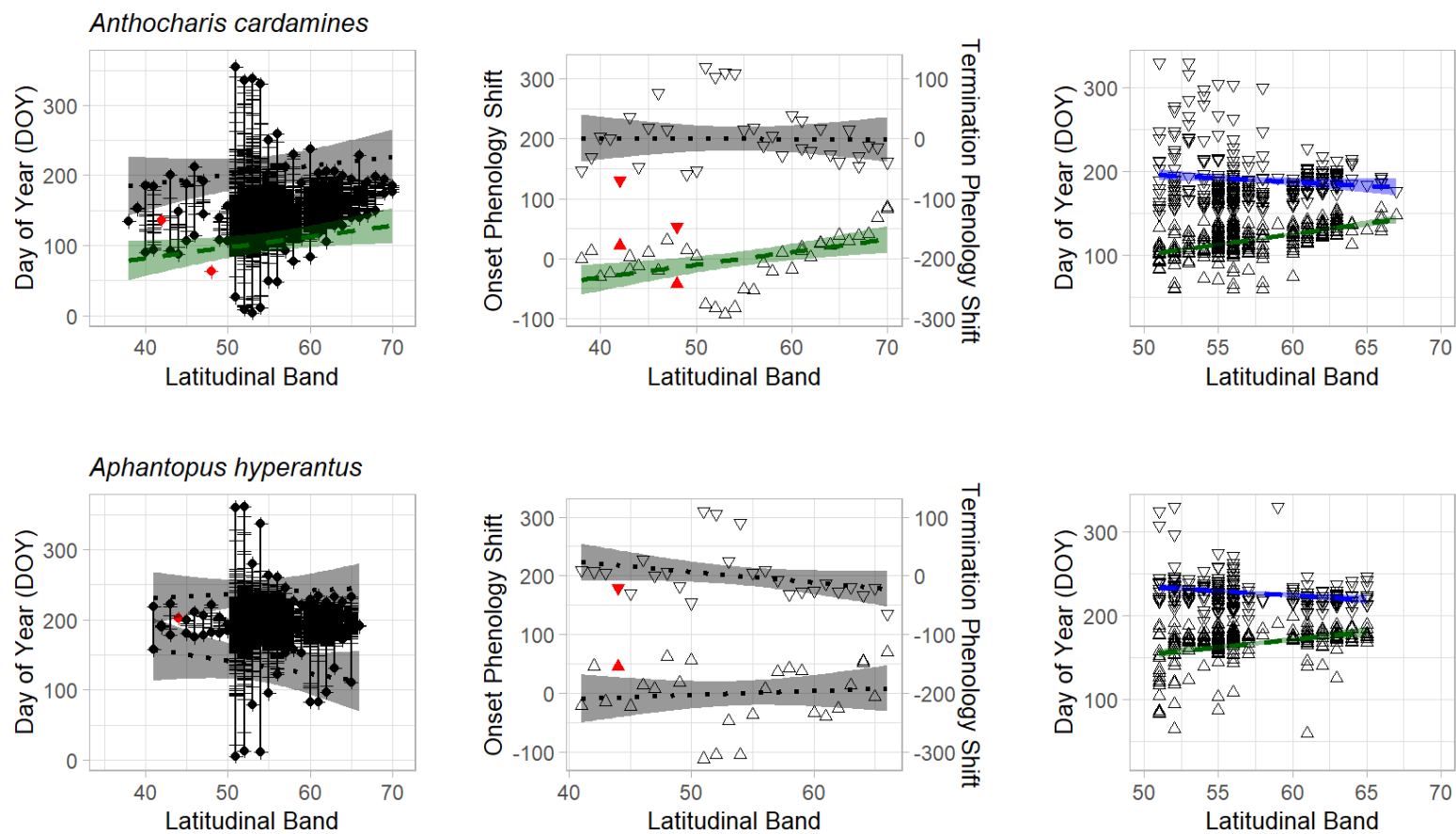
✱

Create Supplemental Figure 1

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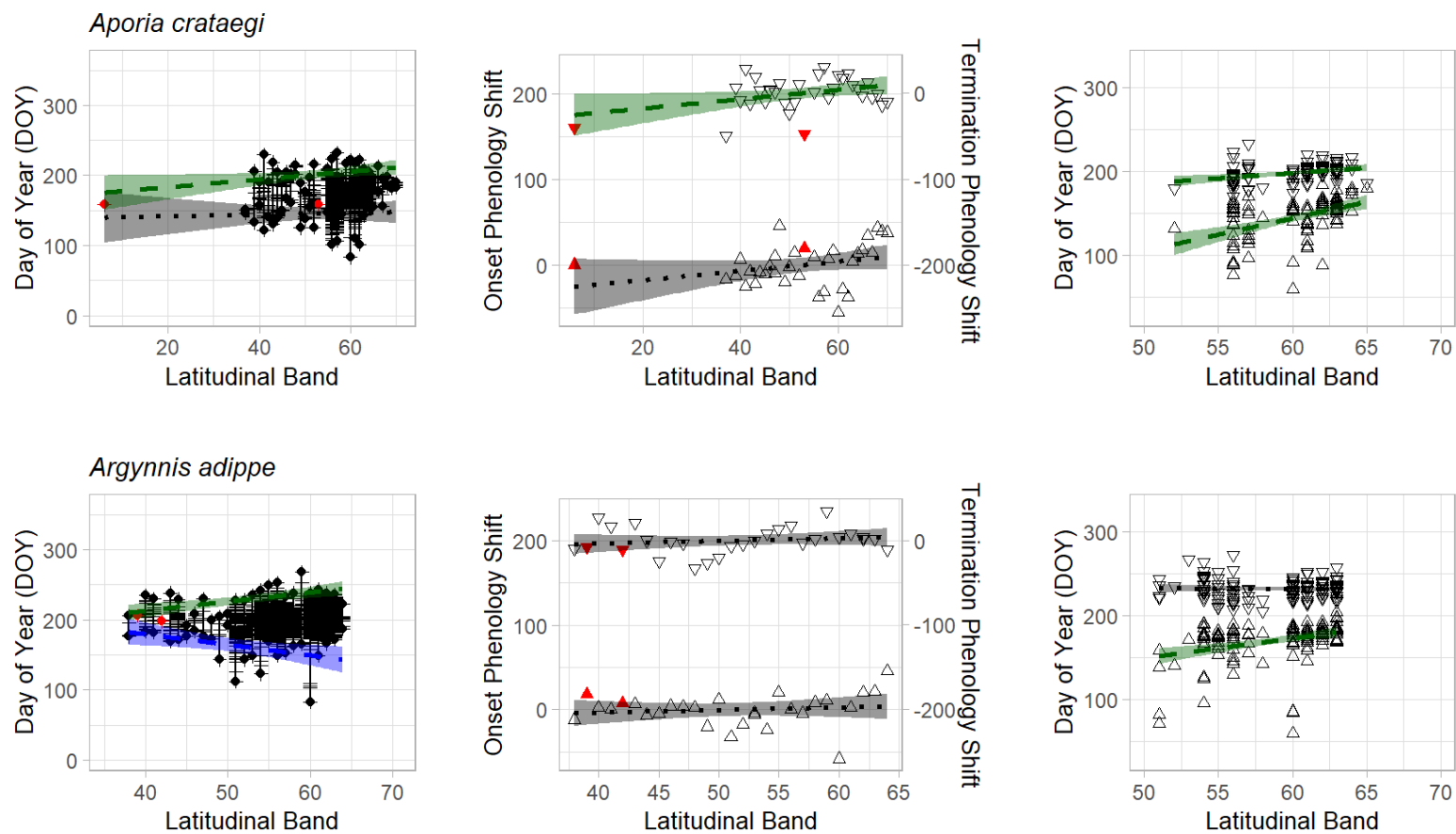
A small break between creating the panels and assmembling Supplemental Figure 1. The chunk below combines the panels into Supplemental Figure 1.

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## `geom_smooth()` using formula 'y ~ x'
```



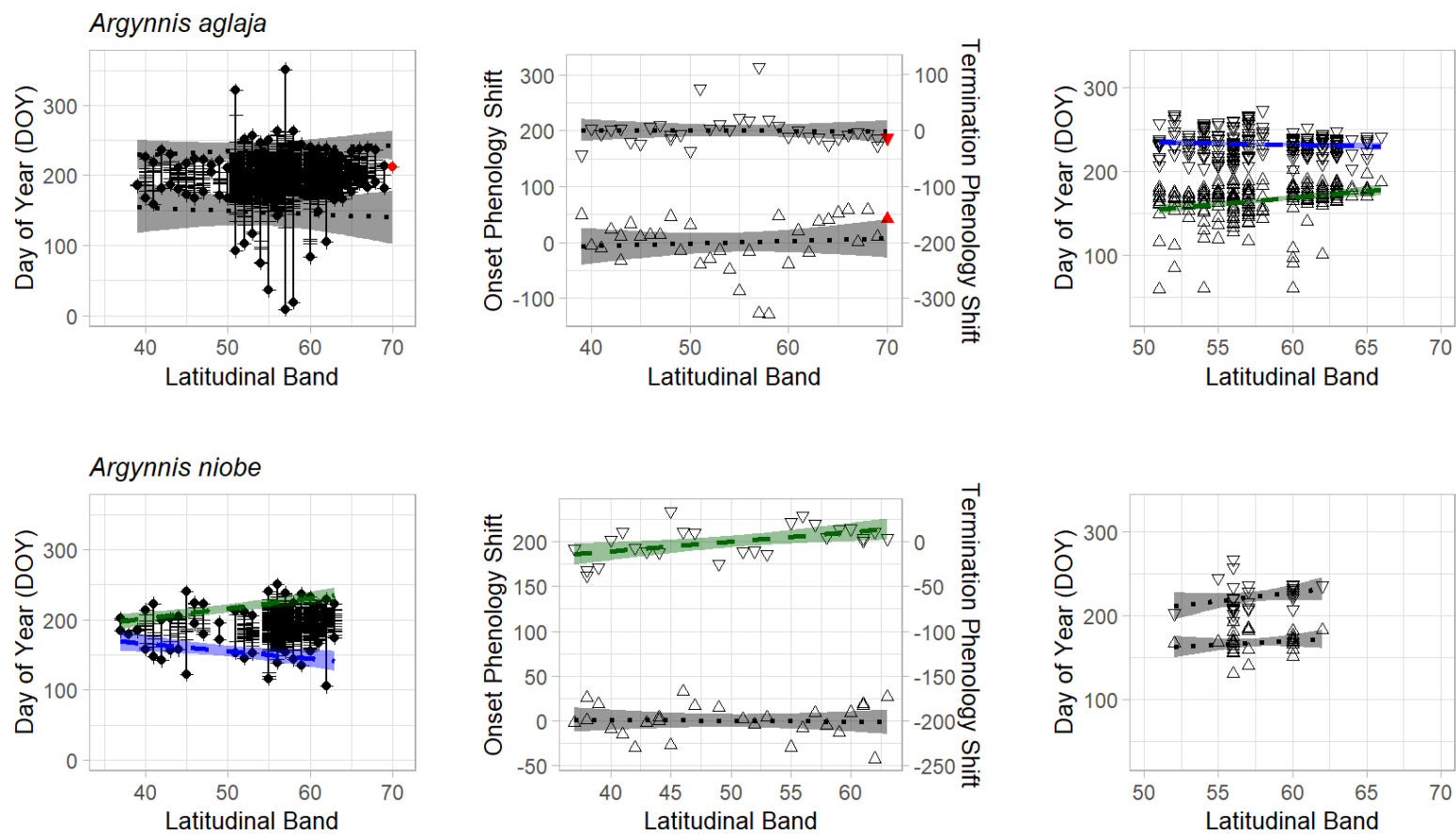
```
## TableGrob (2 x 3) "arrange": 6 grobs
##   z      cells      name      grob
## 1 1 (1-1,1-1) arrange gtable[layout]
## 2 2 (1-1,2-2) arrange gtable[layout]
## 3 3 (1-1,3-3) arrange gtable[layout]
## 4 4 (2-2,1-1) arrange gtable[layout]
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## 6 6 (2-2,3-3) arrange gtable[layout]
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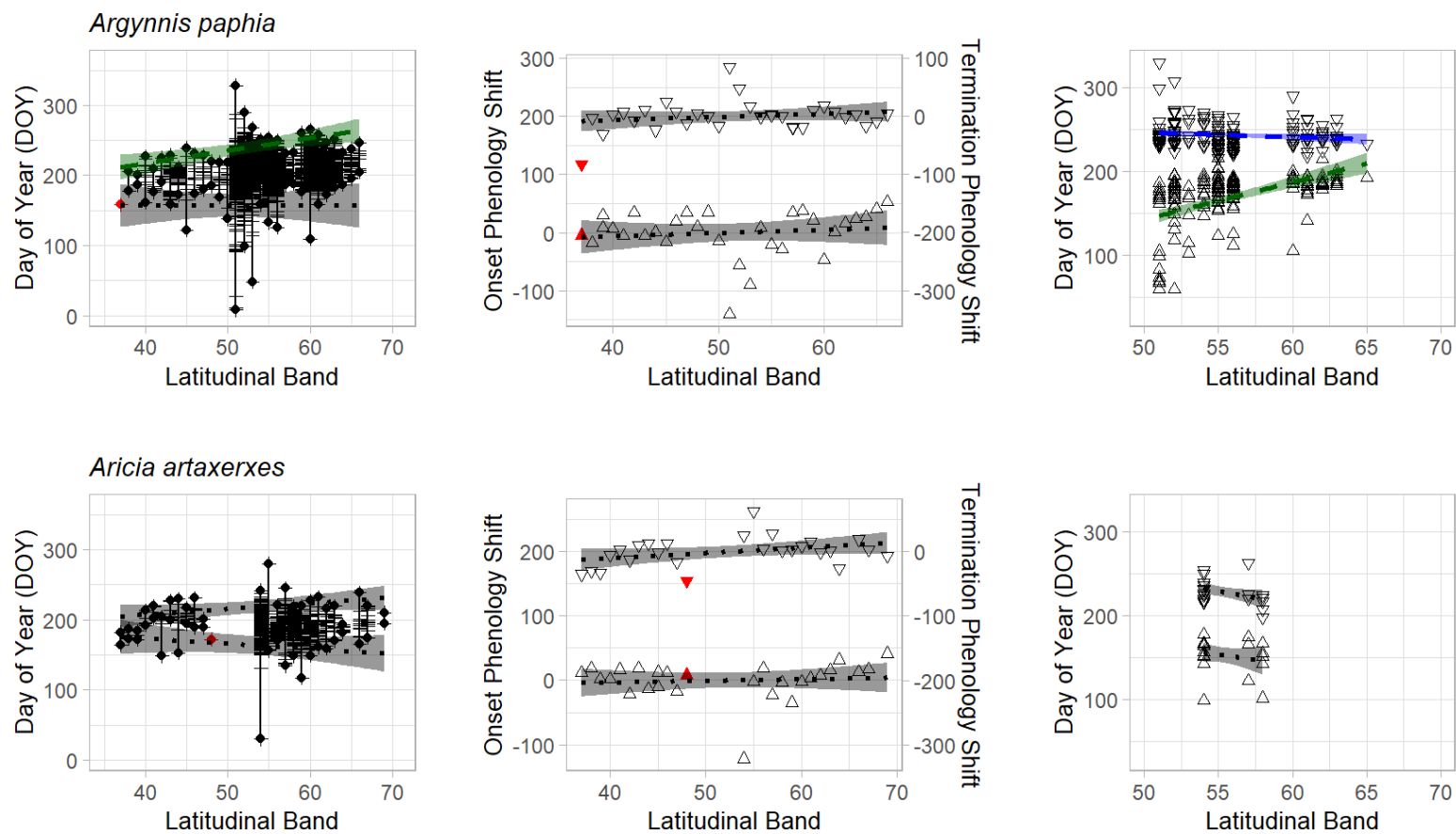
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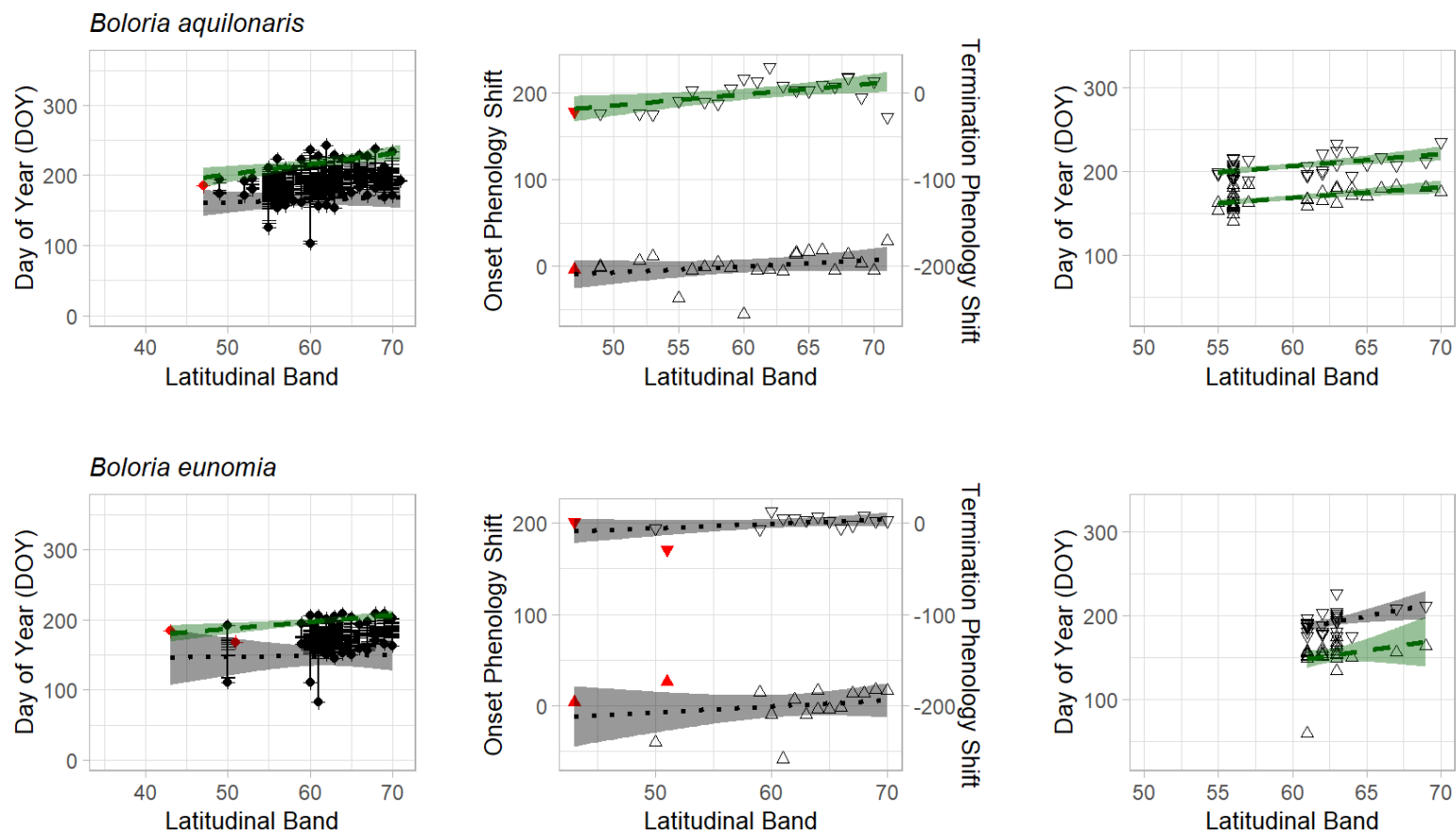

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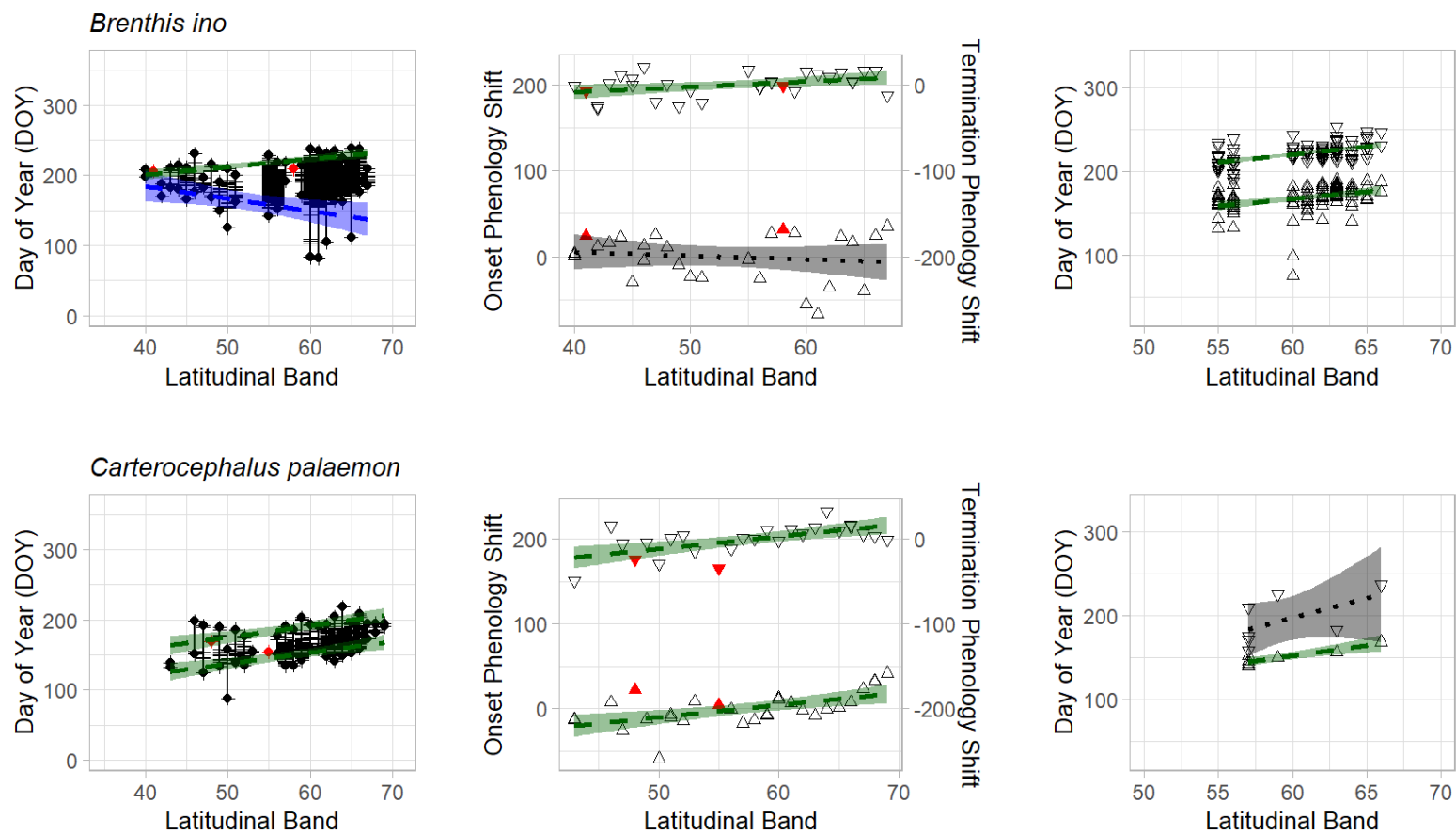
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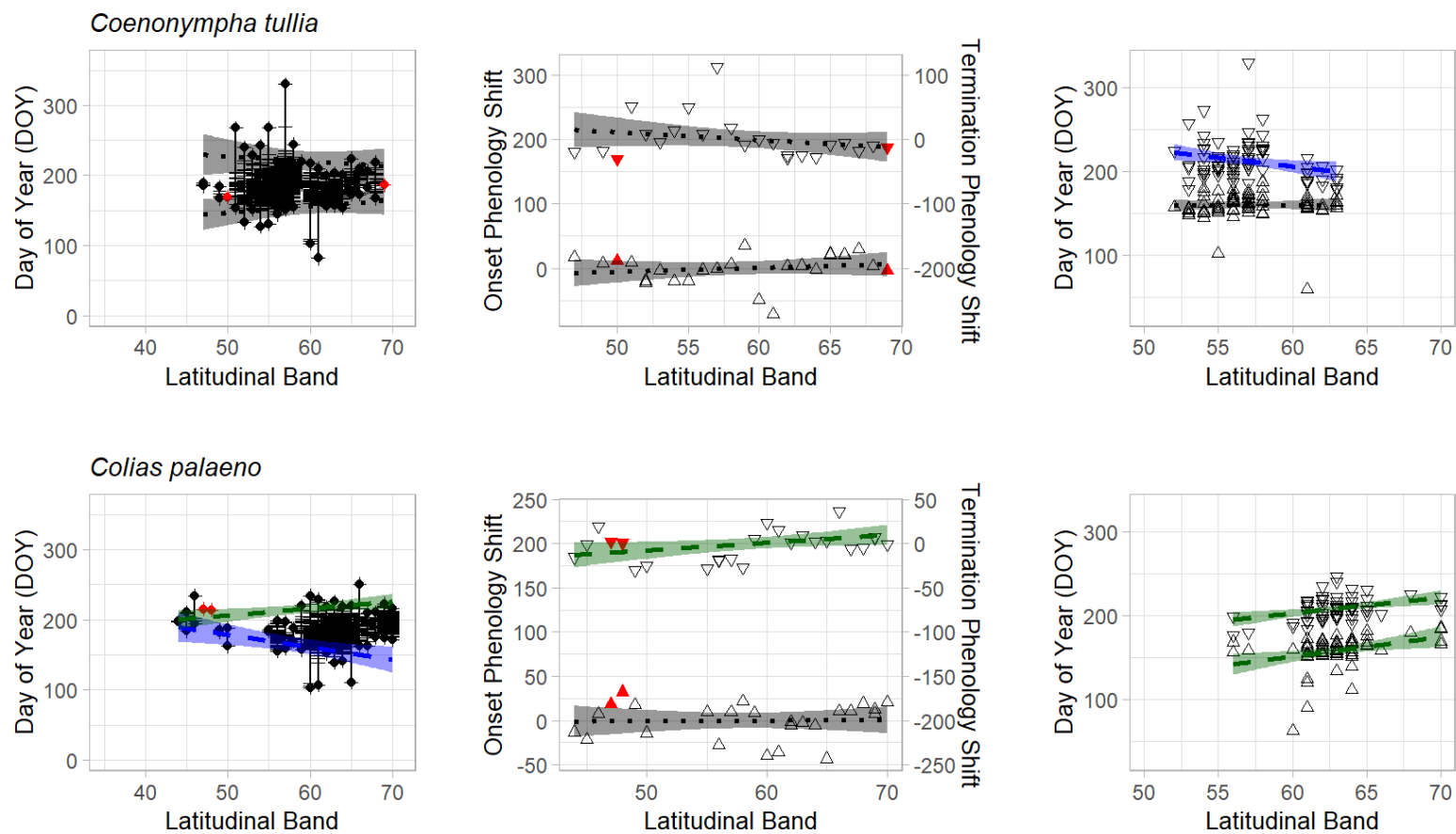
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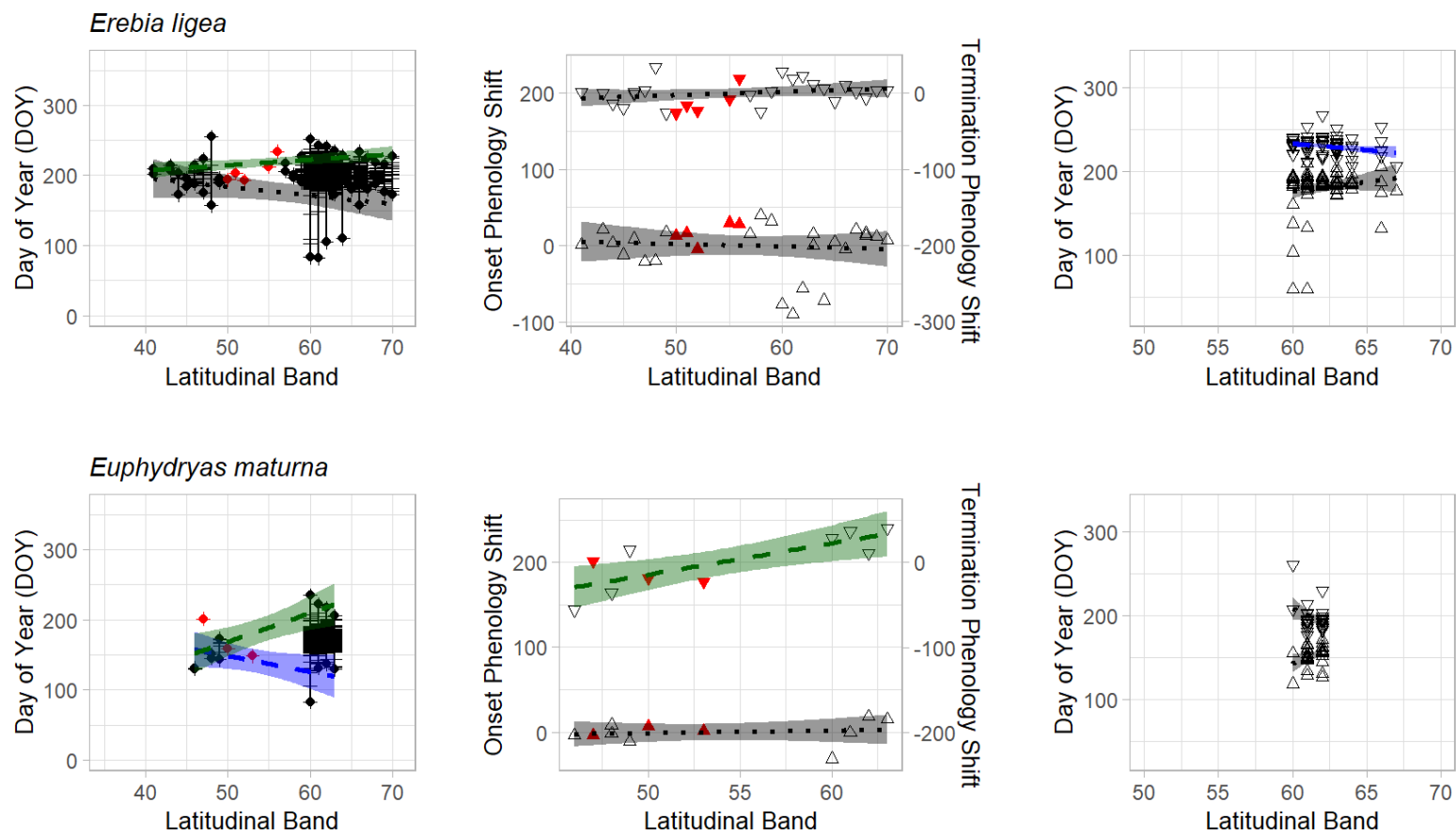
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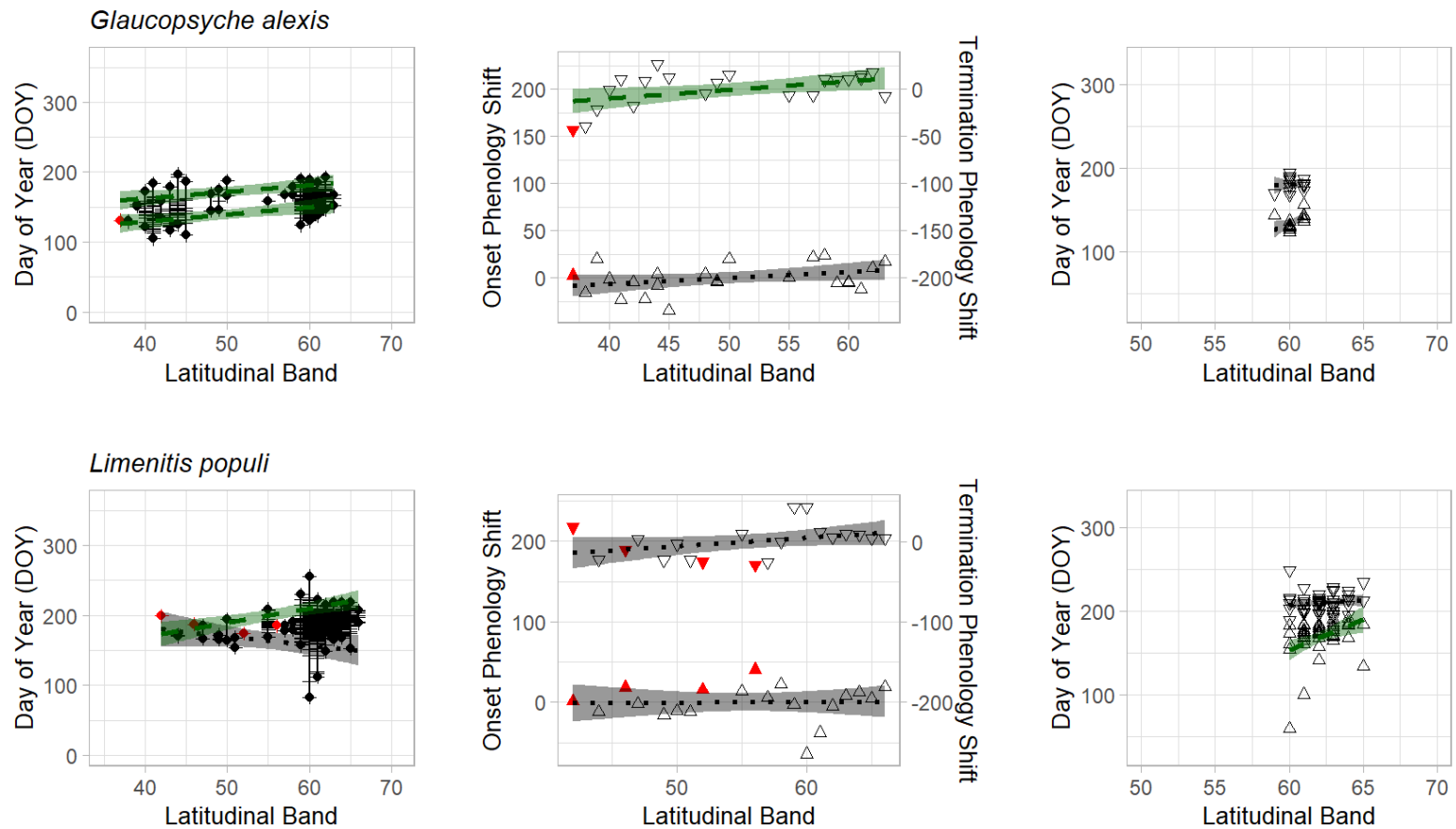

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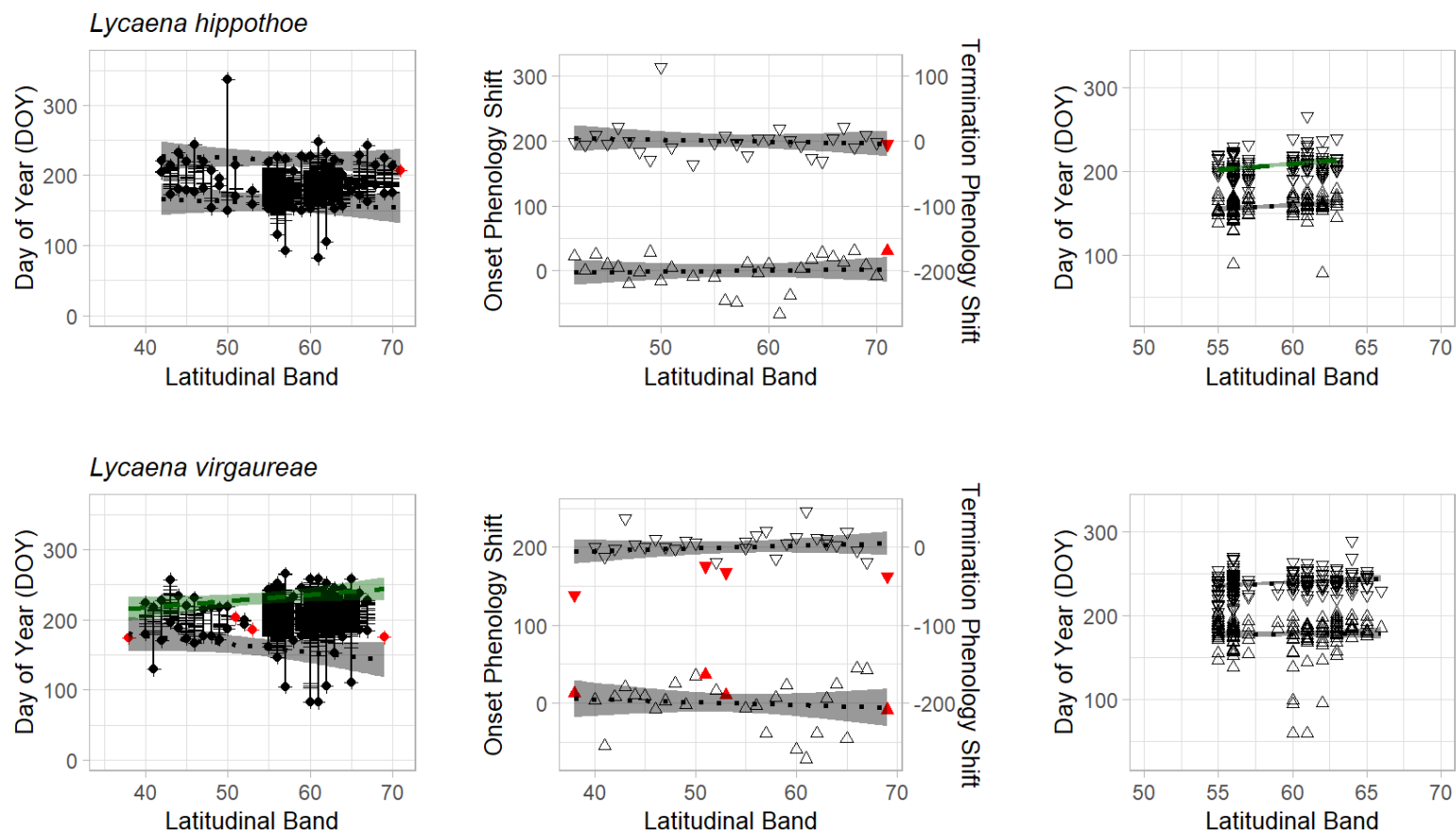
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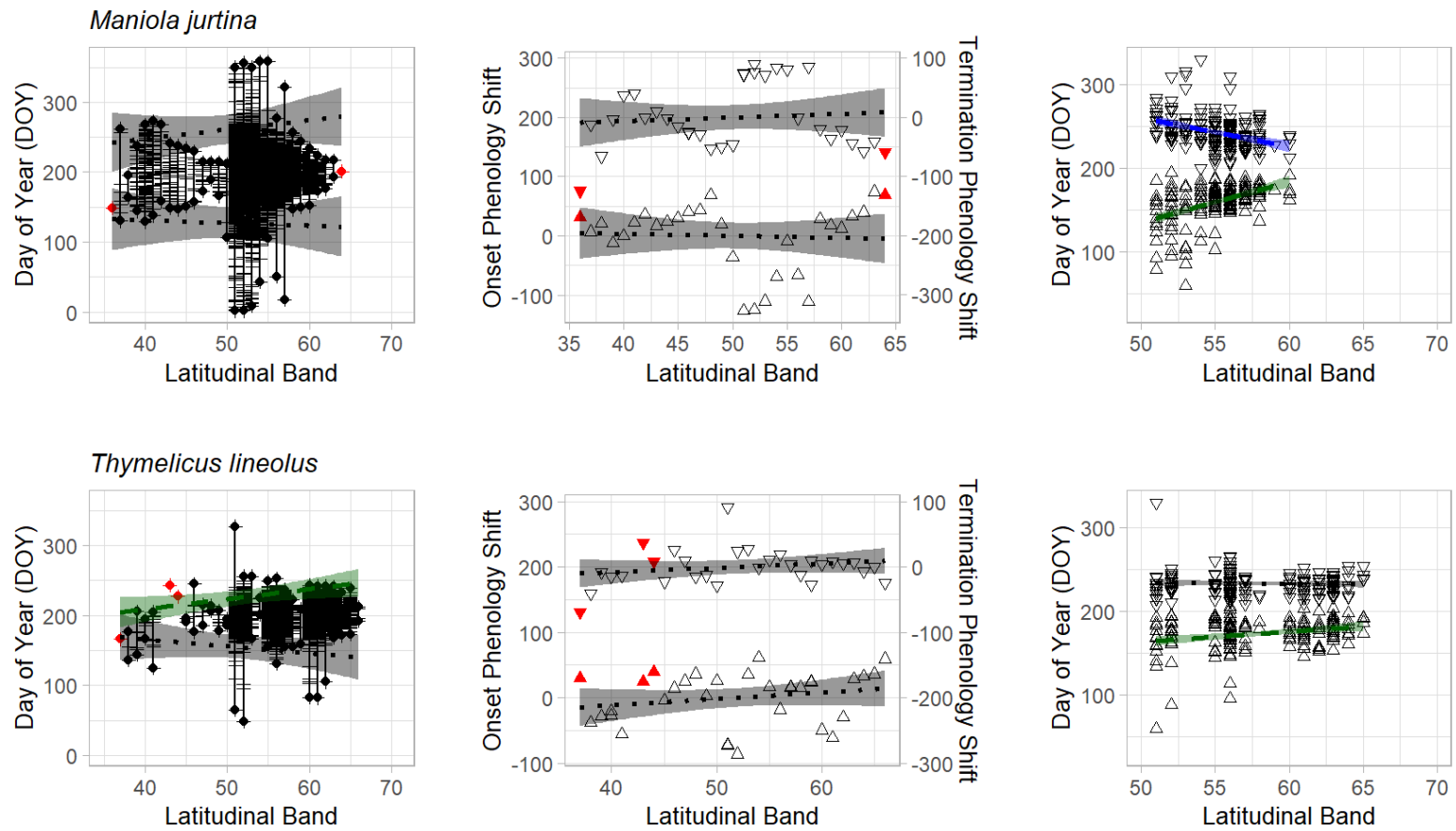
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Below is the code used to create Supplemental Figure 1 in R, for documentation.

We hope to add a live link to View Supplemental Figure 1 pdf.

Larsen and Shirey 2020 Supplemental Figure 1

These panels display the data and regression results for onset and termination across model species in the re-analysis. In the left column, all raw occurrence data are shown as plus symbols; red points indicate individual observations used as both onset and termination. In the right column, regression results of DOY ~ latitude for onset and termination are overlaid on the data. In the left column, regression of residuals are shown for onset (upward triangle) and termination (downward triangle) respectively, with red indicating records of observations used as both onset and termination. The 'phenology shift' data are centered around 0 and the termination axis is shifted for easier display the regression of residuals results from Fric et al. (2020). The right column shows the phenometrics calculated using the phest package (a latitudinal band represent different years), with the results from the multiple regression real line format demonstrates positive (green, dashed), non-significant (black, dotted), or negative (red, solid) relationships with latitude in the corresponding models. While the Fric et al. analyses were generally reproducible, we found that they did not match that reported in Fric et al. ST2, rather than our reproduction. We were unable to reproduce the single regression analyses: *E. maturna* onset and *L. virgaureae* termination.

End of file.

Author notes - Future updates should: Remove variables when we're done with them See if we can suppress geom_smooth() messages