Anova_total

Emergence date (past/present data)

```
##              Df Sum Sq Mean Sq F value  Pr(>F)
## Site          5   3374   674.8   17.89 3.2e-13 ***
## Residuals   120   4527    37.7
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  Emergence and Site
##
##       Site1   Site2   Site3   Site4   Site5
## Site2 0.20440 -       -       -       -
## Site3 1.00000 0.64190 -       -       -
## Site4 0.00574 1.00000 0.02647 -       -
## Site5 2.0e-09 0.00021 2.0e-08 0.01493 -
## Site6 1.5e-08 0.00102 1.4e-07 0.05283 1.00000
##
## P value adjustment method: bonferroni
```

Budburst date (past/present data)

```
##              Df Sum Sq Mean Sq F value   Pr(>F)
## Site          5   1332  266.43   21.72 1.94e-15 ***
## Residuals   120   1472   12.26
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  Budburst and Site
##
##       Site1   Site2   Site3   Site4   Site5
## Site2 0.21247 -       -       -       -
## Site3 1.00000 1.00000 -       -       -
## Site4 0.00062 1.00000 0.01185 -       -
## Site5 6.5e-09 0.00050 3.5e-07 0.18502 -
## Site6 3.1e-12 8.8e-07 2.2e-10 0.00155 1.00000
##
## P value adjustment method: bonferroni
```

Mismatch (past/present data)

```
##              Df Sum Sq Mean Sq F value  Pr(>F)
## Site          5  545.7  109.13   11.08 8.7e-09 ***
```

```
## Residuals   120 1182.1    9.85
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  Mismatch and Site
##
##       Site1   Site2  Site3   Site4  Site5
## Site2 0.5382  -      -       -      -
## Site3 1.0000  0.5175 -       -      -
## Site4 0.2684  1.0000 0.2572  -      -
## Site5 1.4e-07 0.0014 1.3e-07 0.0038 -
## Site6 0.0042  1.0000 0.0039  1.0000 0.2517
##
## P value adjustment method: bonferroni
```

Emergence date (RCP 2.6)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp26$Site     5 305237   61047    3334 <2e-16 ***
## Residuals   7194 131707      18
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp26$Emergence and rcp26$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 <2e-16 <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 <2e-16
##
## P value adjustment method: bonferroni
```

Budburst date (RCP 2.6)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp26$Site     5  94260   18852    2896 <2e-16 ***
## Residuals   7194  46827       7
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp26$Budburst and rcp26$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
```

```
## Site4 <2e-16 <2e-16 <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 1
##
## P value adjustment method: bonferroni
```

Mismatch (RCP 2.6)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp26$Site     5  66174   13235    2316 <2e-16 ***
## Residuals   7194  41116       6
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp26$Mismatch and rcp26$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 <2e-16 <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 <2e-16
##
## P value adjustment method: bonferroni
```

Emergence date (RCP 4.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp45$Site     5 139304   27861    1045 <2e-16 ***
## Residuals   7194 191768      27
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp45$Emergence and rcp45$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 1.000  <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 0.006
##
## P value adjustment method: bonferroni
```

Budburst date (RCP 4.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp45$Site     5  51477   10295    1046 <2e-16 ***
## Residuals   7194  70813      10
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp45$Budburst and rcp45$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 0.62   <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 <2e-16
##
## P value adjustment method: bonferroni
```

Mismatch (RCP 4.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp45$Site     5  23457    4691   651.4 <2e-16 ***
## Residuals   7194  51815       7
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp45$Mismatch and rcp45$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 0.22   <2e-16 -      -
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 <2e-16
##
## P value adjustment method: bonferroni
```

Emergence date (RCP 8.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp85$Site     5 155376   31075   727.7 <2e-16 ***
## Residuals   7194 307197      43
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp85$Emergence and rcp85$Site
##
##       Site1  Site2  Site3  Site4  Site5
## Site2 <2e-16 -      -      -      -
## Site3 <2e-16 <2e-16 -      -      -
## Site4 <2e-16 0.202  <2e-16 -      -
```

```
## Site5 <2e-16 <2e-16 <2e-16 <2e-16 -
## Site6 <2e-16 <2e-16 <2e-16 <2e-16 0.014
##
## P value adjustment method: bonferroni
```

Budburst date (RCP 8.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp85$Site     5  58046   11609   690.5 <2e-16 ***
## Residuals   7194 120951      17
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp85$Budburst and rcp85$Site
##
##       Site1   Site2   Site3   Site4   Site5
## Site2 < 2e-16 -       -       -       -
## Site3 8.2e-16 < 2e-16 -       -       -
## Site4 < 2e-16 0.0097  < 2e-16 -       -
## Site5 < 2e-16 < 2e-16 < 2e-16 < 2e-16 -
## Site6 < 2e-16 < 2e-16 < 2e-16 < 2e-16 < 2e-16
##
## P value adjustment method: bonferroni
```

Mismatch (RCP 8.5)

```
##               Df Sum Sq Mean Sq F value Pr(>F)
## rcp85$Site     5  25363    5073   572.3 <2e-16 ***
## Residuals   7194  63763       9
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
##  Pairwise comparisons using t tests with pooled SD
##
## data:  rcp85$Mismatch and rcp85$Site
##
##       Site1   Site2   Site3   Site4   Site5
## Site2 < 2e-16 -       -       -       -
## Site3 < 2e-16 < 2e-16 -       -       -
## Site4 < 2e-16 1       < 2e-16 -       -
## Site5 < 2e-16 < 2e-16 < 2e-16 < 2e-16 -
## Site6 < 2e-16 < 2e-16 < 2e-16 < 2e-16 1.1e-11
##
## P value adjustment method: bonferroni
```