Adjusting Individual Parameters

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1 Summary

This paper is an upgrade to the 092315 run; specifically, it did 10 years of populating the seed bank before forking into the true runs. That way, I can load with seedlings/saplings already present. Hypothetically.

This one actually did not perform as well as the last one. Not according to the slopes, anyway.

View the Rnw document to view the code; otherwise, I am only printing outputs to save some space and make this document more readable.

2 Seedling Absolute Density

```
Call:
lm(formula = SimAbsDen ~ ExpAbsDen, data = PlotMeans)

Residuals:
    Min      1Q  Median      3Q     Max
-531.26  -62.29  -58.81  -26.74  635.60

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) 58.71876   12.61262   4.656 5.96e-06 ***
ExpAbsDen    0.08706    0.01496   5.819 2.40e-08 ***
---
Signif. codes:  0 âĂŸ***âĂŹ 0.001 âĂŸ**âĂŹ 0.01 âĂŸ*âĂŹ 0.05 âĂŸ.âĂŹ 0.1 âĂŸ âĂŹ 1

Residual standard error: 166.9 on 195 degrees of freedom
Multiple R-squared:  0.1479,       Adjusted R-squared:  0.1436
F-statistic: 33.86 on 1 and 195 DF,  p-value: 2.399e-08
```
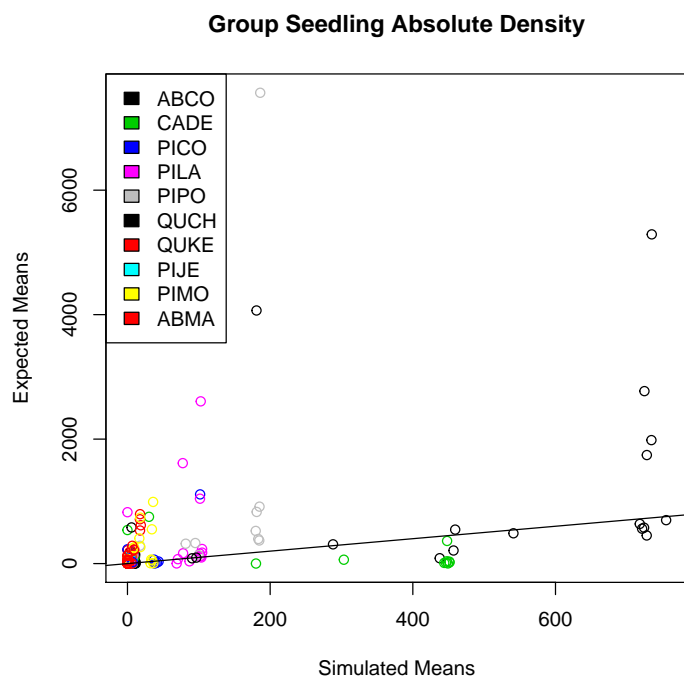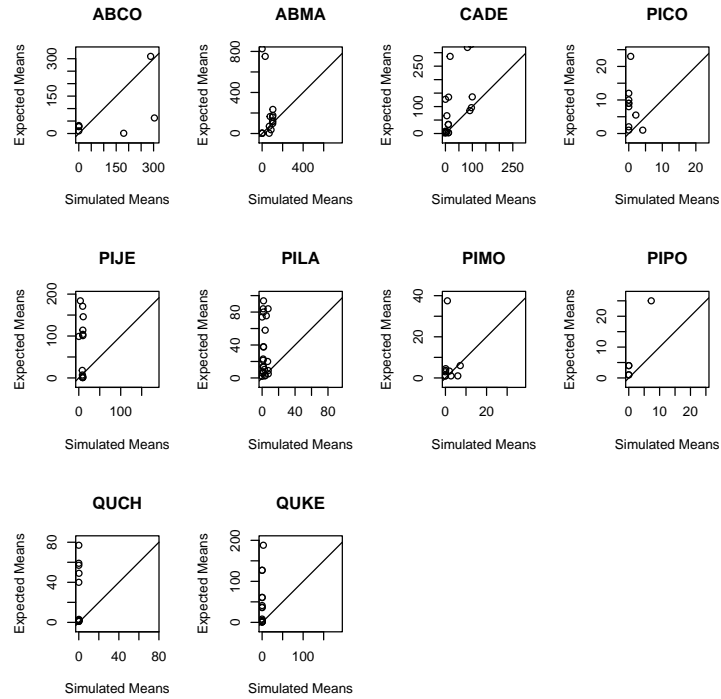
Group Seedling Absolute Density

Now, how are the individual species doing?

ABCO **ABMA** **CADE** **PICO**

PIJE **PILA** **PIMO** **PIPO**

QUCH **QUKE**

(Expected Means vs Simulated Means plots for each species)

```
>    sppSlopes

   species       sdlDen
1     ABCO     2.157439
2     ABMA     3.380833
3     CADE    10.706891
4     PICO     3.295118
5     PIJE    -6.009182
6     PILA     7.852920
7     PIMO     5.585802
8     PIPO     3.642160
9     QUCH  -180.534271
10    QUKE    29.951049
```

3

3   Sapling Density

```
Call:
lm(formula = SimAbsDen ~ ExpAbsDen, data = PlotMeans)

Residuals:
    Min      1Q  Median      3Q     Max
-629.40  -31.75    0.88    6.35  696.04

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -6.46008   14.50988  -0.445    0.657
ExpAbsDen    1.08447    0.08344  12.997   <2e-16 ***
---
Signif. codes:  0 âĂŸ***âĂŹ 0.001 âĂŸ**âĂŹ 0.01 âĂŸ*âĂŹ 0.05 âĂŸ.âĂŹ 0.1 âĂŸ âĂŹ 1

Residual standard error: 131.5 on 110 degrees of freedom
Multiple R-squared:  0.6056,         Adjusted R-squared:  0.602
F-statistic: 168.9 on 1 and 110 DF,  p-value: < 2.2e-16
```
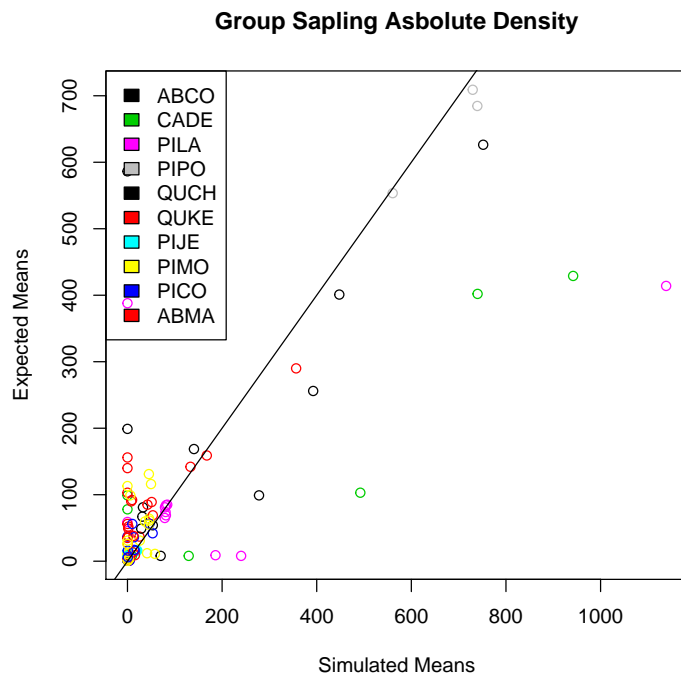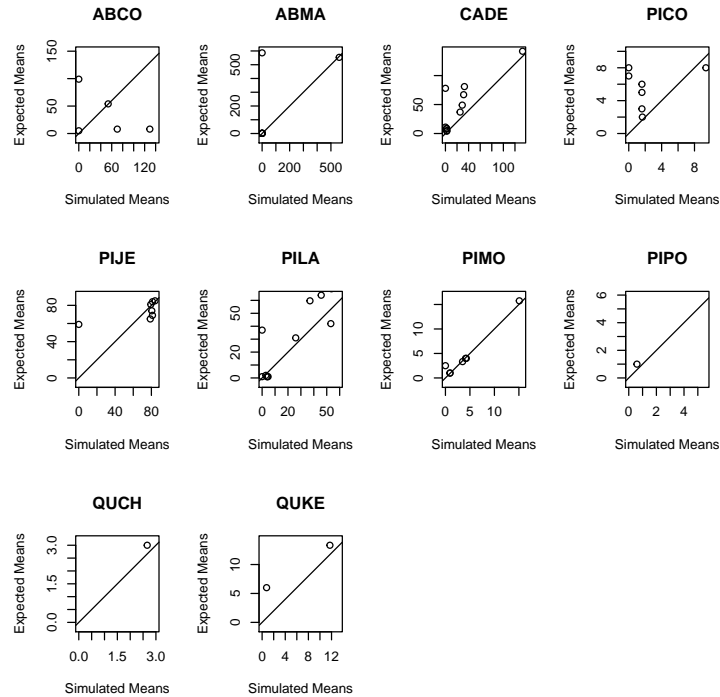

Group Sapling Asbolute Density

Now, how are the individual species doing?

```
>   sppSlopes

   species      sdlDen      saplDen
1     ABCO    2.157439    0.34272634
2     ABMA    3.380833    0.77941696
3     CADE   10.706891    0.61776581
4     PICO    3.295118    0.48216647
5     PIJE   -6.009182    0.22176447
6     PILA    7.852920    1.11587597
7     PIMO    5.585802    0.73830836
8     PIPO    3.642160    0.09804478
9     QUCH -180.534271  -14.87905328
10    QUKE   29.951049    0.19570718

>   write.csv(sppSlopes, file=paste(parName, ".csv", sep=""))
```