Validation Run

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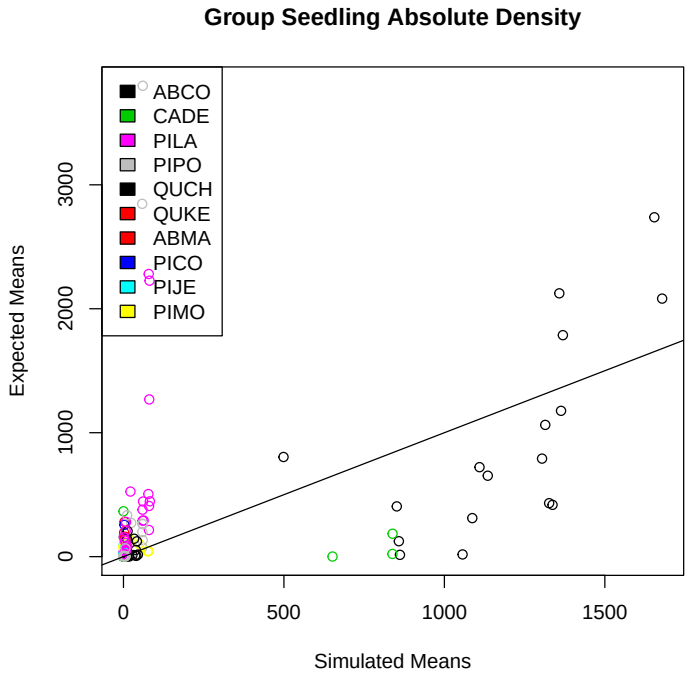
December 29, 2015

1 Summary

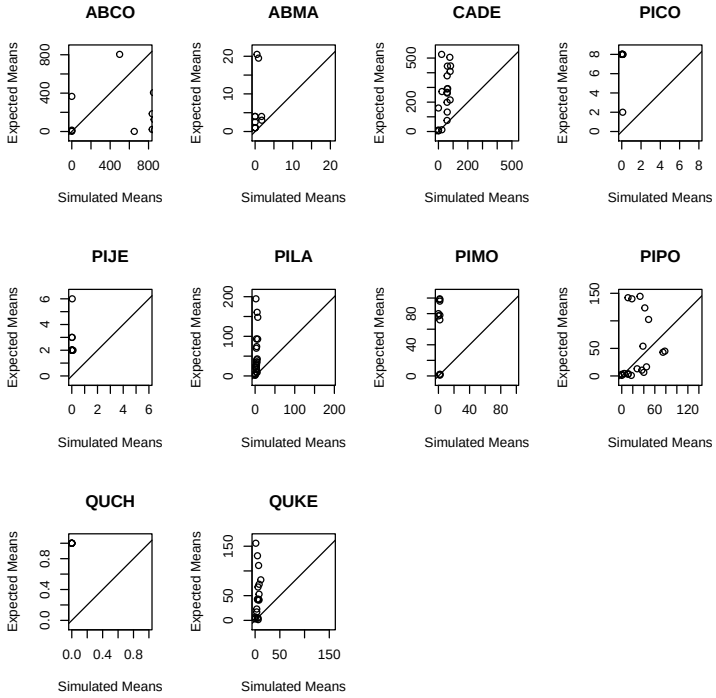
This run has four plots in it, and is the validation run for the model that I've built.

2 Seedling Absolute Density

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

Residuals:
     Min       1Q   Median       3Q      Max
-1233.87   -84.65   -70.31   -67.50  1133.34

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 68.86711   26.70203   2.579   0.0107 *
ExpAbsDen    0.32247    0.04476   7.204 1.76e-11 ***
---
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: 326.4 on 172 degrees of freedom
Multiple R-squared:  0.2318,        Adjusted R-squared:  0.2273
F-statistic:  51.9 on 1 and 172 DF,  p-value: 1.755e-11
```



Now, how are the individual species doing?

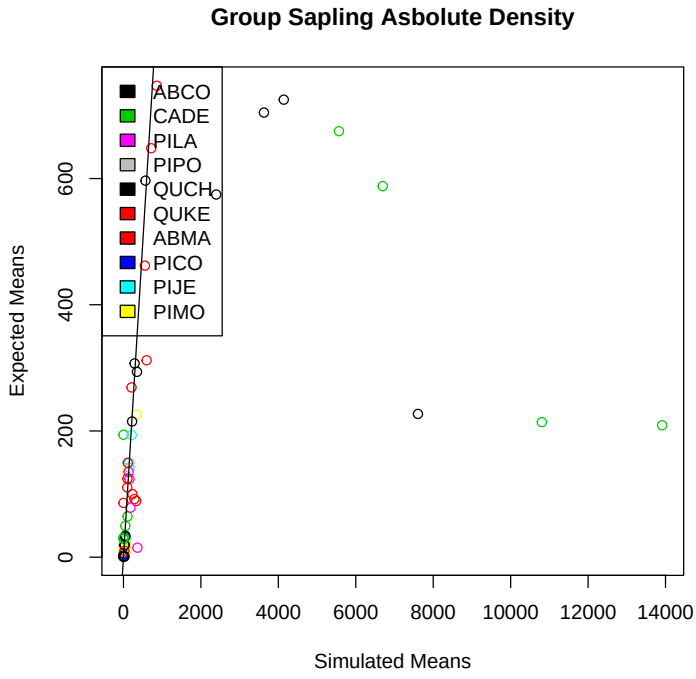



```
> sppSlopes
```

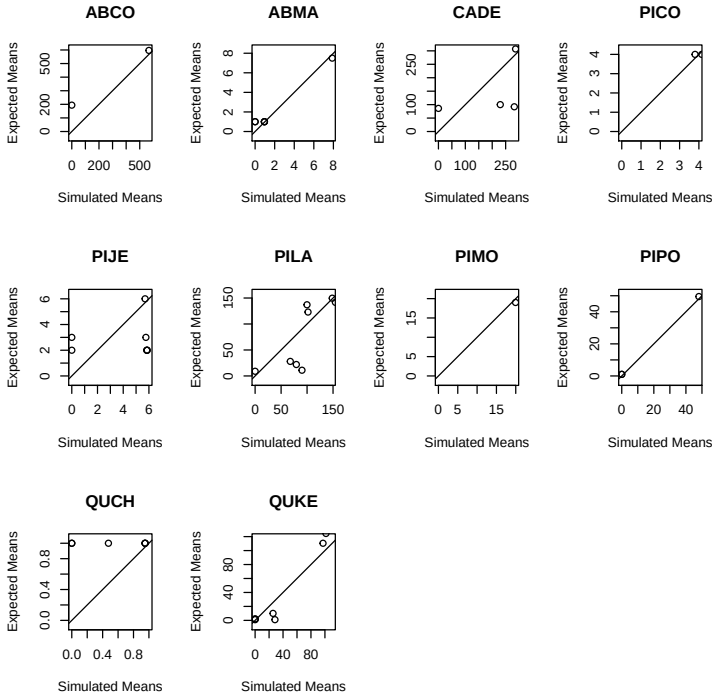
	species	sdlDen
1	ABCO	1.0146872
2	ABMA	8.2777967
3	CADE	12.8171749
4	PICO	-13.5321395
5	PIJE	1.9136359
6	PILA	12.0836268
7	PIMO	-15.3637140
8	PIPO	0.2800365
9	QUCH	NA
10	QUKE	14.3987423

3 Sapling Density

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

Residuals:
    Min      1Q  Median      3Q     Max
-2993.1  -565.5  -148.4  -121.4 12750.7

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  116.400    262.053   0.444    0.658
ExpAbsDen      5.002      1.136   4.405  3.1e-05 ***
---
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: 2056 on 84 degrees of freedom
Multiple R-squared:  0.1876,        Adjusted R-squared:  0.178
F-statistic:  19.4 on 1 and 84 DF,  p-value: 3.1e-05
```



Now, how are the individual species doing?



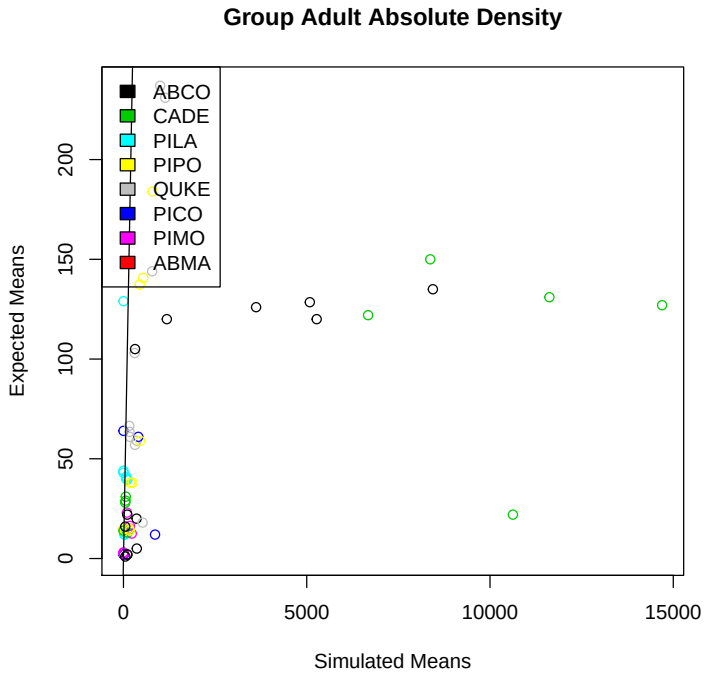

```
>   sppSlopes
```

	species	sdlDen	saplDen
1	ABCO	1.0146872	-2.368110e-02
2	ABMA	8.2777967	5.680939e-01
3	CADE	12.8171749	8.407172e-01
4	PICO	-13.5321395	-7.267092e-02
5	PIJE	1.9136359	7.692643e-02
6	PILA	12.0836268	7.511476e-01
7	PIMO	-15.3637140	2.811277e-02
8	PIPO	0.2800365	8.744458e-02
9	QUCH	NA	1.973967e-16
10	QUKE	14.3987423	1.166009e+00

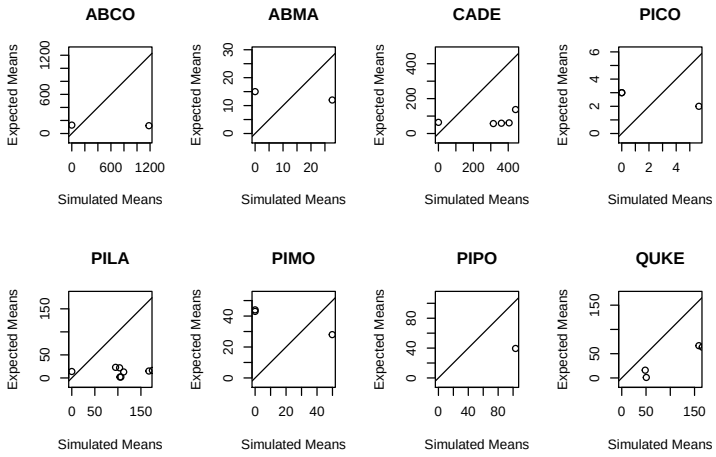
```
>     write.csv(sppSlopes, file=paste(parName, ".csv", sep=""))
```

4 Adult Absolute Density

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

Residuals:
    Min      1Q  Median      3Q     Max
-4223.3 -1007.1  -350.5  -124.7 11855.9

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)   87.870    471.851   0.186 0.852849
ExpAbsDen     21.673      5.819   3.725 0.000411 ***
---
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: 2781 on 65 degrees of freedom
Multiple R-squared:  0.1759,        Adjusted R-squared:  0.1632
F-statistic: 13.87 on 1 and 65 DF,  p-value: 0.0004112
```



Now, how are the individual species doing?

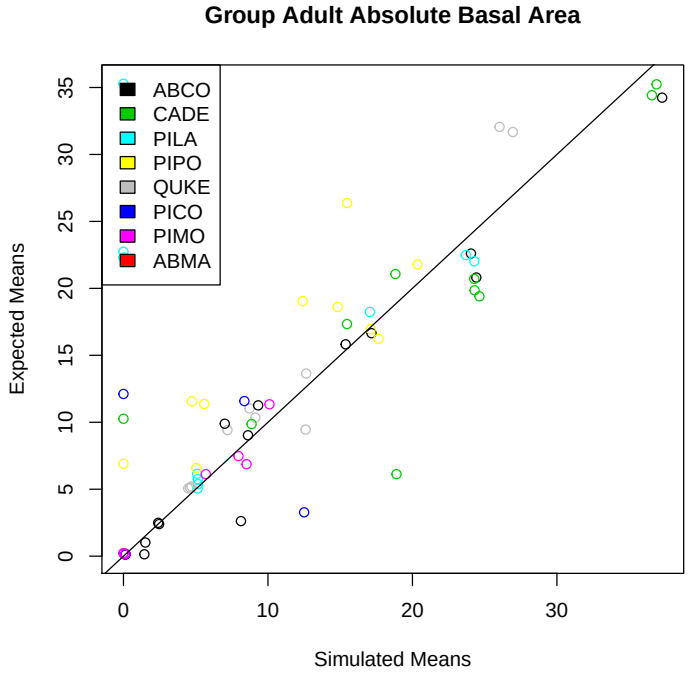



```
>   sppSlopes
```

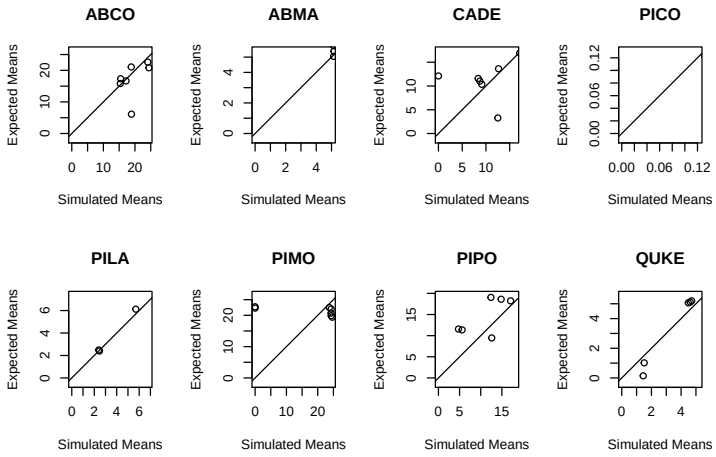
	species	sdlDen	saplDen	AdultDen
1	ABCO	1.0146872	-2.368110e-02	-0.001457316
2	ABMA	8.2777967	5.680939e-01	-0.042397316
3	CADE	12.8171749	8.407172e-01	0.146215097
4	PICO	-13.5321395	-7.267092e-02	-0.154997205
5	PIJE	1.9136359	7.692643e-02	-0.002727620
6	PILA	12.0836268	7.511476e-01	-0.099205124
7	PIMO	-15.3637140	2.811277e-02	0.020440402
8	PIPO	0.2800365	8.744458e-02	0.359659246
9	QUCH	NA	1.973967e-16	NA
10	QUKE	14.3987423	1.166009e+00	NA

5 Adult Absolute Basal Area

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

Residuals:
     Min       1Q   Median       3Q      Max
-28.2957  -1.1663  -0.1569   2.6671  13.0102

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  1.17715    1.31513   0.895    0.374
ExpAbsDen    0.76870    0.08176   9.402 9.76e-14 ***
---
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: 6.527 on 65 degrees of freedom
Multiple R-squared:  0.5763,        Adjusted R-squared:  0.5697
F-statistic:  88.4 on 1 and 65 DF,  p-value: 9.758e-14
```



Now, how are the individual species doing?




```
> sppSlopes
```

	species	sdlDen	saplDen	AdultDen	adultBA
1	ABCO	1.0146872	-2.368110e-02	-0.001457316	0.32247761
2	ABMA	8.2777967	5.680939e-01	-0.042397316	-0.22280141
3	CADE	12.8171749	8.407172e-01	0.146215097	0.89831498
4	PICO	-13.5321395	-7.267092e-02	-0.154997205	-0.53325191
5	PIJE	1.9136359	7.692643e-02	-0.002727620	0.41788855
6	PILA	12.0836268	7.511476e-01	-0.099205124	-0.06860065
7	PIMO	-15.3637140	2.811277e-02	0.020440402	0.81911923
8	PIPO	0.2800365	8.744458e-02	0.359659246	1.60301413
9	QUCH	NA	1.973967e-16	NA	NA
10	QUKE	14.3987423	1.166009e+00	NA	NA