Disturbance Stem Maps

Jeff Atkins April 3, 2019

Disturbance Stem Maps

The following document produces stem maps that assign mortality and treatments DRAFT DRAFT DRAFT

A01

```
## A01E, 85%, Bottom-Up
##
## kill live
##
     97
                                                                                           10
            A01E - 85% - Bottom-Up
                                                                                           20
    45.5638
                                                                    0
                                     \bigcirc
                                                                                           30
                                                                                           40
                                                                                           50
                                                                                      genus
    45.5637
                   0
                                                                                           Acer
              0
                                                                                           Betula
                                                                                           Fagus
                                                                                           Other
                                                                                           Pinus
    45.5636
                                                                                           Populus
                                                                                           Quercus
                                                                                           Tsuga
                                                                                      fate
                                                  -84.7283
                                     -84.7284
                       -84.7285
                                                                -84.<del>7</del>282
         -84.7286
                                                                              -84.728
                                                                                           kill
                                          Longitude
                                                                                           livo
## Plot LAI
## [1] 10.09794
## LAI of all trees to Kill
## [1] 8.447204
## Ratio of Kill to Live LAI - Targetting 85% Disturbance threshold
```

```
## [1] 0.8365277

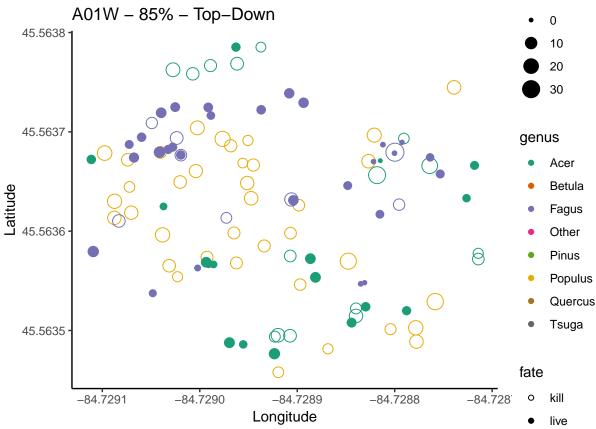
## A01W, 85%, Top-Down

##

## kill live

## 61 47

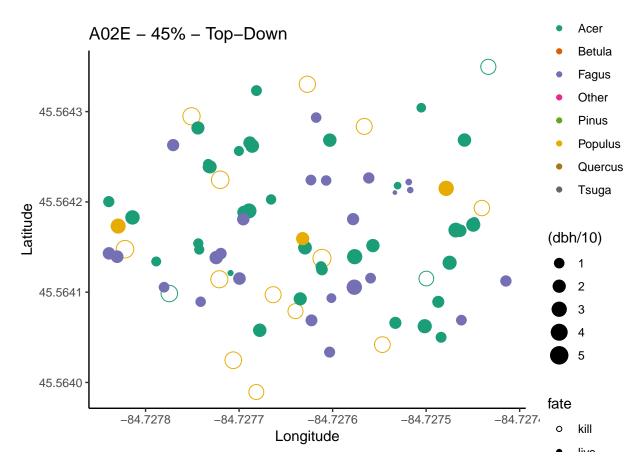
A01W - 88
```



```
## Plot LAI A01W
## [1] 9.963769
## LAI of all trees to Kill
## [1] 8.397294
## Ratio of Kill to Live LAI - Targeting 85% Disturbance threshold
## [1] 0.8427829
```

A02

```
## A02E, 45%, top-down
##
## kill live
## 16 64
```



```
## Plot LAI A02E
```

[1] 8.341339

LAI of all trees to Kill

[1] 3.65216

 $\mbox{\tt \#\#}$ Ratio of Kill to Live LAI - Targeting 45% Disturbance threshold

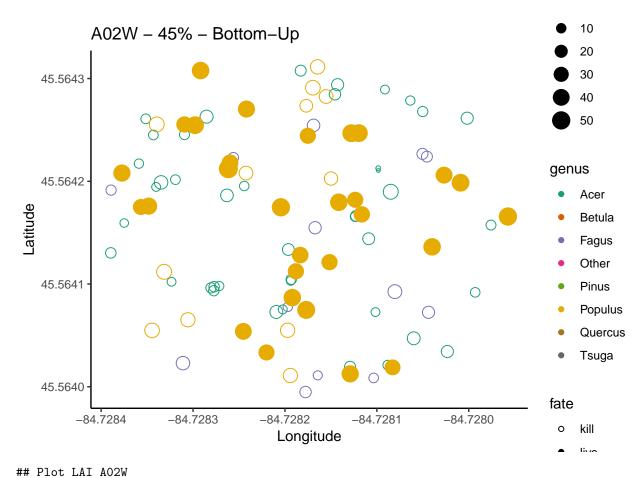
[1] 0.4378386

A02W, 45%, Bottom-Down

##

kill live

68 29



[1] 11.27066

LAI of all trees to Kill

[1] 4.958808

 $\mbox{\tt \#\#}$ Ratio of Kill to Live LAI - Targeting 45% Disturbance threshold

[1] 0.439975

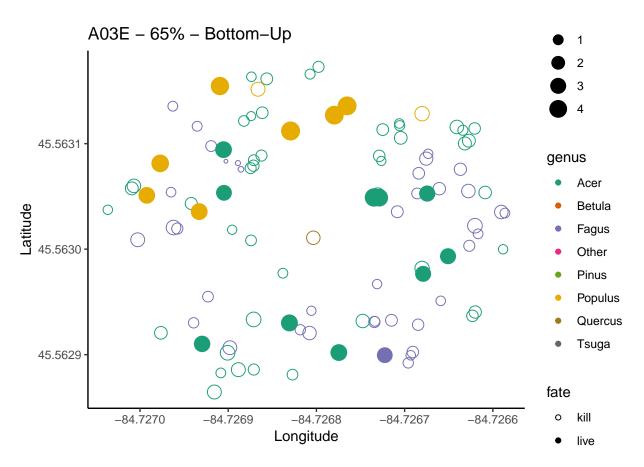
A03

A03E, 65%, Bottom-Down

##

kill live

86 18



```
## Plot LAI
```

[1] 9.468571

LAI of all trees to Kill

[1] 5.96648

Ratio of Kill to Live LAI - Targetting 65% Disturbance threshold

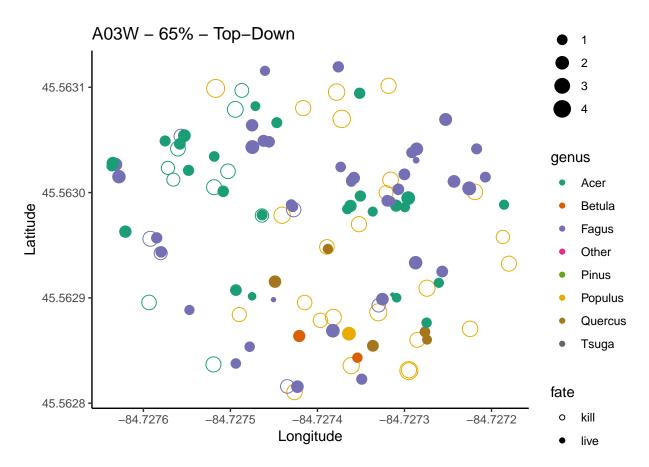
[1] 0.6301353

A03W, 65%, top-down

##

kill live

41 75



```
## Plot LAI
## [1] 9.838246
## LAI of all trees to Kill
## [1] 6.373324
## Ratio of Kill to Live LAI - Targetting 65% Disturbance threshold
## [1] 0.647811
```

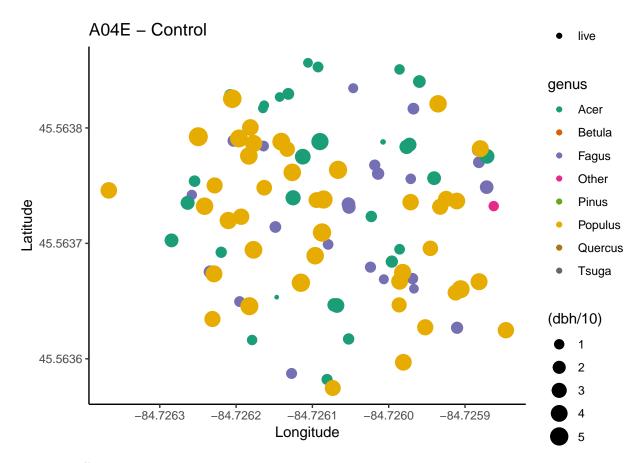
A04

A04E, 0%, Control

##

live

97

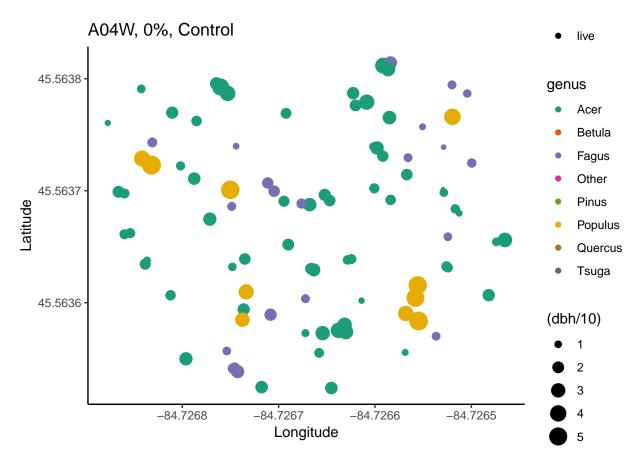


A04W, 0%, Control

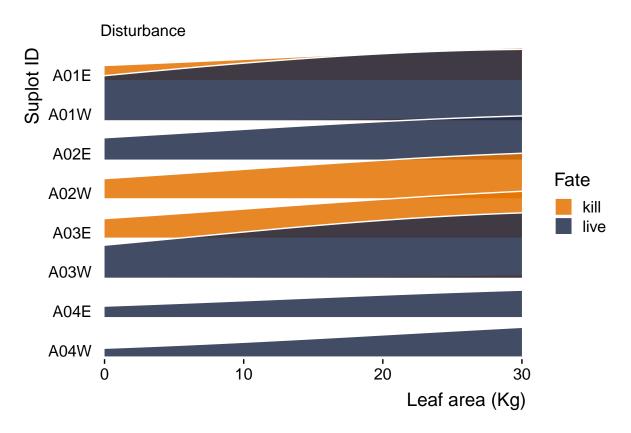
##

live

95



Picking joint bandwidth of 24



```
## Total mortality count
```

##

kill live

369 431

Estimated total number of trees killed for all 0.5 ha plots combined in Group A ## [1] 922.5

