

## Supplementary Materials

Table S1. Raw data, means, and statistical results for the last three measurement years of the study representing three years before (2007), two years after (2012), and five years after (2015) the 2010 tornado. We used two-tailed  $t$  tests to compare means of restoration metrics between the three restoration and three control plots for each year. Data correspond with Figures 3-7 of the paper. Data are ordered as a list of the raw values for each of the three plots within treatments for each year, followed by treatment means in bold.

Figure 3A. Density of small oaks  $\geq 1 < 40$  cm in diameter (trees/ha)

Restoration	Control	$t$ -statistic	$p$ -value
2007			
0	180		
40	160		
60	240		
<b>33</b>	<b>193</b>	-5.4	0.006
2012			
20	140		
20	80		
40	180		
<b>27</b>	<b>133</b>	-3.6	0.023
2015			
180	100		
20	100		
40	80		
<b>80</b>	<b>93</b>	-0.3	0.806

Figure 3B. Density of large oaks  $\geq 40$  cm in diameter (trees/ha)

Restoration	Control	$t$ -statistic	$p$ -value
2007			
100	60		
100	60		
80	20		
<b>93</b>	<b>47</b>	3.1	0.035
2012			
60	20		
40	40		
0	20		
<b>33</b>	<b>27</b>	0.4	0.742
2015			
60	20		
40	20		
0	20		
<b>33</b>	<b>20</b>	0.8	0.492

Figure 3C. Oak basal area (m<sup>2</sup>/ha)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
20.7	17.1		
21.4	23.7		
21.0	16.0		
<b>21.0</b>	<b>18.9</b>	0.9	0.431
2012			
12.0	8.2		
8.7	13.5		
2.1	14.6		
<b>7.6</b>	<b>12.1</b>	-1.3	0.274
2015			
12.2	8.2		
9.0	7.5		
2.5	9.5		
<b>7.9</b>	<b>8.4</b>	-0.2	0.869

Figure 3D. Non-oak tree density (trees/ha)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
0	560		
0	1060		
20	1240		
<b>7</b>	<b>953</b>	-4.7	0.009
2012			
100	320		
0	440		
20	140		
<b>40</b>	<b>300</b>	-2.8	0.048
2015			
200	380		
20	420		
0	140		
<b>73</b>	<b>313</b>	-2.2	0.091

Figure 3E. Understory cover of oaks < 1 cm in diameter (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
25	15		
20	5		
40	2		
<b>30</b>	<b>7</b>	3.1	0.036
2012			

15	9		
7	5		
25	3		
<b>15</b>	<b>6</b>	1.9	0.137
	2015		
25	5		
25	9		
65	4		
<b>38</b>	<b>6</b>	2.4	0.074

Figure 3F. Understory cover of non-oak species of trees < 1 cm in diameter (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
	2007		
9	5		
5	4		
3	18		
<b>6</b>	<b>9</b>	-0.6	0.562
	2012		
2	25		
3	6		
11	11		
<b>5</b>	<b>14</b>	-1.3	0.251
	2015		
10	10		
5	9		
25	20		
<b>14</b>	<b>13</b>	0.2	0.862

Figure 4A. Non-native species richness (500 m<sup>2</sup>)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
	2007		
1	1		
0	0		
1	0		
<b>0.7</b>	<b>0.3</b>	0.7	0.519
	2012		
4	2		
2	3		
3	2		
<b>3.0</b>	<b>2.3</b>	1.0	0.374
	2015		
0	1		
1	4		
1	0		

<b>0.7</b>	<b>1.7</b>	-0.8	0.468
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Figure 4B. Non-native species cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
0.1	0.1		
0.0	0.0		
0.1	0.0		
<b>0.1</b>	<b>0.0</b>	0.7	0.519
2012			
0.5	2.0		
0.5	0.5		
0.5	0.5		
<b>0.5</b>	<b>0.9</b>	-0.9	0.426
2015			
0.0	0.1		
0.1	0.5		
0.1	0.0		
<b>0.1</b>	<b>0.2</b>	-0.9	0.442

Figure 5A. Native species richness (500 m<sup>2</sup>)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
31	19		
28	17		
33	16		
<b>31</b>	<b>17</b>	7.8	0.001
2012			
41	31		
40	36		
36	32		
<b>39</b>	<b>33</b>	2.8	0.049
2015			
33	25		
45	28		
33	20		
<b>37</b>	<b>24</b>	2.7	0.052

Figure 5B. Floristic quality index

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
28.6	16.5		
25.1	16.7		
28.7	18.5		

<b>27.5</b>	2012	<b>17.3</b>	7.7	<0.001
27.8		24.1		
28.5		24.3		
28.0		24.0		
<b>28.1</b>	2015	<b>24.1</b>	18.2	<0.001
22.6		20.6		
33.4		21.0		
20.7		19.5		
<b>25.6</b>		<b>20.3</b>		

Figure 5C. Number of species with coefficients of conservatism from 7-10 (500 m<sup>2</sup>)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
10	2	7.1	0.002
7	1		
8	2		
<b>8.3</b>	<b>1.7</b>		
2012			
9	5	11.0	<0.001
9	5		
8	5		
<b>8.7</b>	<b>5.0</b>		
2015			
7	4	1.8	0.143
14	4		
5	3		
<b>8.7</b>	<b>3.7</b>		

Figure 5D. Number of Ohio rare species (500 m<sup>2</sup>)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
6	0	7.0	0.002
4	0		
4	0		
<b>4.7</b>	<b>0.0</b>		
2012			
4	2	6.4	0.003
5	1		
4	1		
<b>4.3</b>	<b>1.3</b>		
2015			
4	1		

7	1		
2	1		
<b>4.3</b>	<b>1.0</b>	2.3	0.083

Figure 6A,B. Total plant cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
90	75		
70	71		
119	56		
<b>93</b>	<b>67</b>	1.7	0.169
2012			
51	80		
41	70		
74	33		
<b>55</b>	<b>61</b>	-0.3	0.762
2015			
140	38		
83	56		
216	101		
<b>147</b>	<b>65</b>	1.9	0.130

Figure 7A. *Vaccinium* (*V. angustifolia* + *V. pallidum*) cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
10	20		
6	5		
25	5		
<b>14</b>	<b>10</b>	0.5	0.657
2012			
7	1		
7	1		
15	2		
<b>10</b>	<b>1</b>	3.6	0.023
2015			
10	5		
20	4		
20	6		
<b>17</b>	<b>5</b>	3.4	0.027

Figure 7C. *Gaylussacia baccata* cover (%) [note: no data for photo Figure 7B]

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
0	10		

2		15		
5		10		
<b>2</b>		<b>12</b>	-4.2	0.013
	2012			
0.0		0.5		
0.0		4.0		
0.5		0.1		
<b>0.2</b>		<b>1.5</b>	-1.0	0.355
	2015			
0		4		
2		4		
10		1		
<b>4</b>		<b>3</b>	0.3	0.771

Figure 7D. *Pteridium aquilinum* cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
25	20		
25	25		
10	25		
<b>20</b>	<b>23</b>	-0.6	0.561
2012			
9	25		
10	35		
2	10		
<b>7</b>	<b>23</b>	-2.1	0.101
2015			
7	5		
10	5		
7	25		
<b>8</b>	<b>12</b>	-0.5	0.615

Figure 7E. *Carex pensylvanica* cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
15	5		
7	15		
30	20		
<b>17</b>	<b>13</b>	0.5	0.646
2012			
3	4		
3	15		
20	1		
<b>9</b>	<b>7</b>	0.3	0.792

	2015			
55		5		
8		20		
40		40		
<b>34</b>		<b>22</b>	0.7	0.502

Figure 7F. *Lupinus perennis* cover (%)

Restoration	Control	<i>t</i> -statistic	<i>p</i> -value
2007			
0.1	0.0		
0.1	0.0		
0.1	0.0		
<b>0.1</b>	<b>0.0</b>	No variance	
2012			
0.1	0.0		
0.1	0.0		
0.1	0.0		
<b>0.1</b>	<b>0.0</b>	No variance	
2015			
5	0		
1	0		
10	0		
<b>5</b>	<b>0</b>	2.0	0.110