

# Appendices

## Appendix I

- Average values ( $\pm$ Standard Deviation) of environmental factors collected in source areas during 2014 and 2016

	2014	2016
<b>Herb</b>	49.38 $\pm$ 34	80.76 $\pm$ 19.4
<b>Moss</b>	9.69 $\pm$ 18	7.74 $\pm$ 17
<b>DOM</b>	8.17 $\pm$ 12.7	9.10 $\pm$ 9.8
<b>Baresoil</b>	48.33 $\pm$ 35.9	16.56 $\pm$ 17.3
<b>Height</b>	8.63 $\pm$ 7.6	31.34 $\pm$ 10.9
<b>pH</b>	4.86 $\pm$ 0.8	5.11 $\pm$ 0.6
<b>Nitrogen</b>	3.68 $\pm$ 0.6	3.86 $\pm$ 0.5
<b>Moisture</b>	7.51 $\pm$ 1.3	7.62 $\pm$ 0.6

- Average values ( $\pm$ Standard Deviation) of environmental factors collected in restored areas during 2014 and 2016

	Sods		C-controls	
	2014	2016	2014	2016
<b>Shrub</b>	0.07 $\pm$ 0.26	1.04 $\pm$ 2.3	3.75 $\pm$ 4.5	7.50 $\pm$ 3.5
<b>Moss</b>	15.61 $\pm$ 17.4	10.74 $\pm$ 14.1	28.13 $\pm$ 24.5	23.52 $\pm$ 20.6
<b>DOM</b>	8.46 $\pm$ 9.2	7.19 $\pm$ 3.8	5.46 $\pm$ 4.7	8.38 $\pm$ 8.2
<b>BareSoil</b>	4.70 $\pm$ 4.8	1.81 $\pm$ 2.7	47.08 $\pm$ 30.7	42.40 $\pm$ 27.2
<b>Moisture</b>	7.04 $\pm$ 0.6	7.16 $\pm$ 0.3	6.81 $\pm$ 0.5	6.85 $\pm$ 0.4
<b>Nitrogen</b>	4.07 $\pm$ 0.5	3.95 $\pm$ 0.3	4.22 $\pm$ 0.5	3.88 $\pm$ 0.3
<b>pH</b>	5.36 $\pm$ 0.6	5.40 $\pm$ 0.4	5.12 $\pm$ 0.4	5.23 $\pm$ 0.3
<b>Total cover</b>	96.67 $\pm$ 4.8	98.44 $\pm$	53.54 $\pm$	58.90 $\pm$ 25.8
<b>Herb</b>	82.28 $\pm$ 14.4	98.11 $\pm$ 2.6	24.63 $\pm$ 21.2	45.10 $\pm$ 25.9
<b>Height</b>	14.14 $\pm$ 4.5	36.97 $\pm$ 13.8	4.78 $\pm$ 4.9	13.53 $\pm$ 10.3

*Environmental factors are Total vegetation cover (Total cover), shrub cover (Shrub), herb cover (Herb), moss cover (Moss), DOM cover (Dead Organic matter), bare soil cover (Baresoil), heigh of vegetation (Heigh) and Ellenberg values of moisture, nitrogen and pH.*

## Appendix II

- Eigenvalues of Principal Component Analysis (PCA) in both areas for 2016

	<b>SOURCE AREAS</b>	<b>RESTORED AREAS</b>
<b>PC1</b>	<i>30.8166</i>	<i>23.724</i>
<b>PC2</b>	<i>14.1696</i>	<i>12.439</i>
<b>PC3</b>	<i>8.27259</i>	<i>8.329</i>
<b>PC4</b>	<i>6.05185</i>	<i>7.382</i>
<b>PC5</b>	<i>4.80252</i>	<i>5.896</i>
<b>PC6</b>	<i>3.14988</i>	<i>4.859</i>
<b>PC7</b>	<i>2.98726</i>	<i>4.608</i>
<b>PC8</b>	<i>2.39568</i>	<i>4.157</i>

- Eigenvalues of Detrended Correspondence Analyses (DCA) in both year for the comparison between 2014 and 2016.

	<b>Source areas</b>	<b>Restored areas</b>
<b>DCA1</b>	<i>0.2977</i>	<i>0.4612</i>
<b>DCA2</b>	<i>0.2879</i>	<i>0.2462</i>
<b>DCA3</b>	<i>0.2242</i>	<i>0.2186</i>
<b>DCA4</b>	<i>0.2038</i>	<i>0.1541</i>

### Appendix III

- Number of sod plots with different ant species in restored areas:

Plot	Year	M sca	Lnig	Msch	Mrugi	Mgal	Msab	Mrub	Lumbr	Mrugu	Myrtot	Anttot
HMD	2014	4	1	0	0	2	1	0	1	1	6	5
	2015	5	1	0	0	1	1	0	0	0	6	6
	2016	3	0	0	0	2	0	0	0	0	5	5
HOM	2014	3	0	0	0	0	0	0	0	0	3	3
	2015	2	0	0	0	0	0	0	0	0	2	2
	2016	0	0	0	0	0	0	0	0	0	0	0
TCG1	2014	3	0	0	0	0	0	0	0	0	3	3
	2015	5	0	0	0	0	0	0	0	0	5	5
	2016	2	0	0	0	1	0	0	0	0	2	2
TCG2	2014	3	1	0	0	1	1	0	0	0	5	6
	2015	4	0	0	0	2	1	0	0	0	7	7
	2016	1	0	1	0	3	0	0	0	0	5	5
CG1	2014	4	4	0	0	1	0	0	0	0	5	8
	2015	2	5	0	0	0	0	0	0	0	1	7
	2016	0	7	0	0	0	0	0	0	0	0	7
CG2	2014	2	5	0	0	0	0	0	0	0	2	5
	2015	1	9	0	0	0	0	0	0	0	1	9
	2016	1	7	0	0	0	0	0	0	0	1	7

- Number of c-control plots with different ant species in restored areas:

Plot	Year	M sca	Lnig	Mrugi	Msch	Mgal	Msab	Mrub	Lumbr	Mrugu	Myrtot	Anttot
HMD	2014	0	1	0	0	0	0	0	0	0	0	1
	2015	7	2	0	0	0	0	0	0	0	7	7
	2016	1	0	0	0	0	0	0	0	0	1	1
HOM	2014	0	1	0	0	0	0	0	0	0	0	1
	2015	1	0	0	0	0	0	0	0	0	1	1
	2016	0	0	0	0	0	0	0	0	0	0	0
TCG1	2014	0	0	0	0	0	0	0	0	0	0	0
	2015	3	0	0	0	0	0	0	0	0	3	3
	2016	3	0	0	0	0	0	0	0	0	3	3
TCG2	2014	0	0	0	0	2	0	0	0	0	2	2
	2015	3	1	2	0	0	0	0	0	0	4	4
	2016	1	0	0	0	2	0	0	0	0	3	3
CG1	2014	0	4	0	0	0	0	0	0	0	0	4
	2015	1	2	0	0	0	0	0	0	0	1	3
	2016	3	7	0	0	0	0	0	0	0	3	8
CG2	2014	0	5	0	0	1	0	0	0	0	1	5
	2015	0	6	0	0	0	0	1	0	0	1	7
	2016	0	5	0	0	0	0	0	0	1	1	5

- Number of o-control plots with different ant species in restored areas:

Plot	Year	Msc	Lnig	Mrugi	Msch	Mgal	Msab	Mrub	Lumbr	Mrugu	Myrtot	Anttot
HMD	2015	1	0	0	0	0	0	0	0	0	1	1
	2016	2	0	0	0	0	0	0	0	0	2	2
HOM	2015	0	0	0	0	0	0	0	0	0	0	0
	2016	1	0	0	0	0	0	0	0	0	1	1
TCG1	2015	0	0	0	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0	0	0	0
TCG2	2015	0	0	0	0	0	0	0	0	0	0	0
	2016	1	0	0	0	0	0	0	0	0	1	1
CG1	2015	0	7	0	0	0	0	0	0	0	0	7
	2016	1	6	0	0	0	0	0	0	1	2	8
CG2	2015	0	4	0	0	0	0	0	0	0	0	4
	2016	2	8	0	0	0	0	0	0	2	3	8

*Nomenclature of species:*

Msc - *Myrmica scabrinodis*

Lnig – *Lasius niger*

Msch – *Myrmica schencki*

Mrugi – *Myrmica ruginodis*

Mgal – *Myrmica gallienii*

Msab – *Myrmica sabuleti*

Mrub – *Myrmica rubra*

Lumbr – *Lasius umbratus*

Mrugu – *Myrmica rugulosa*

Myrtot - *Myrmica* totals

Anttot - Ant totals