ISU Monarch Data Summary for NCIG

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Table ?? and ?? provide mean count of nectar plant species averaged across all data collection events. Values in table represent the specific counting unit for each species, not necessarily a whole plant. Table ?? and ?? provide nectar plant species density (per 100m2) averaged across all data collection events.

Here are some heatmaps for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence.

Table 1: 2016 Nectar plant species density: average density (count / m2) across all rounds

			ŀ																	ı
ectar Plant Species	sillat	sallat	tarm1b	tarm2a	tberla	tber3a	terela	s2nubt	s&nubt	slorgt	sSorgt	tnknla	tnkn2a	$_{\rm tuor1b}$	sloiqt	tpio2a	${\rm tprd1a}$	$\operatorname{tprd2a}$	tsut2a	tverla
ack eyed susan	•	1	1	1	1	1	1	1	1	1	1	1	1	1	2.63	1	1	1	1	1
common milkweed	1	1	- 1	1	'	- 1	1	'	1	0.01	0.02	- 1	- 1	1	1	1	1	1	1	1
golden alexanders	١	1	1	1	0.07	1	1	1	- 1	1	1	- 1	1	1	1	1	1	1	1	1
eye sunflower	1	1	1	1	1	1	1	0.04	1	1	1	- 1	1	1	1	1	- 1	- 1	1	1

Table 2: 2016 Nectar plant species density: average density (count / m2) across all rounds

tverla	'	1.91	1	1	1	1	1	1	1	1	1	1	1	1	3.73	1
tsut2a	,		1	,	,		1	,	1		,	1	,	1	1	ı
s2brqt	'	1	1	1	1	0.08	1	1	ı	1	1	1	1	1	1	1
slbrqt	'	1	1	1	1	0.00	1	1	ı	1	1	1	1	1	1	1
tpio2a	١.	1	- 1	•	•	- 1	- 1	•	1	1	1	1	1	1	1	1
sloiqt	'	1	1	1	1	1	0.17	1	ı	0.22	1	0.02	0.03	1	0.02	1
dlront	١	1	1	1	0.02	1	1	1	1	1	1	1	1	1	1	1
tnkn2a	١.	29.0	1	ı	'	1	1	ı	1	1	1	1	ı	1	1	1
tnknla	١,	'		,	,			,		,	,	,	,	1		
tgro2a	0.34	1	1	1	1	92.0	0.19	1	ı	1	1	1	1	1	1	1
slorgt	4.53	1	1	1	1	1.56	'	1	ı	1	1	1	1	1	1	1
tdun3a	-	1	1	1	1	1	01.0	1	ı	1	1	1	ı	1	1	1
e2nubt	١.	1	1	١	١	0.01	0.33	١	1	1	1	00.0	1	1).12	1
terela	١.	01.10	1	1	1		0.03	1	ı	1	1	'	ı	1	0.02	1
tber3a	١.	'	1	1	1	1		90.0	.01	1	1	1	1	1	'	1
tberla	١.	1	1	ı	ı	1	0.15	'	'	1	1	1	ı	1	.01	1
esmret	80.0	1	1	1	1	1	'	1	1	1	1	1	1	1	'	1
tarmlb		0.31	1	1	1	1	1	1	ı	1	1	1	ı	1	1	0.05
sSllst	١.	_).17	1	ı).04	1	ı	0.03	1	0.04	0.05	ı	0.07	1	'
sIllat	1	ı	1	0.03	ı	1	ı	ı	0.03	ı	1	0.03	ı	0.02	1	ı
Nectar Plant Species	alfalfa	birdsfoot trefoil	black medic	bladder campion	canada goldenrod	canada thistle	carolina horsenettle	common cinquefoil	common dandelion	common evening primrose	common mallow	common mullein	common yarrow	compass plant	eastern daisy fleabane	flowering spurge

Table 3: 2016 Nectar plant species density: average density (count $/\ \mathrm{m2})$ across all rounds

	tverla	-	,)4	,	11	.32	1	1	,	.72	1	1	1	1
				0.0		0.	0				0.				
	sStust	1	1	1	1	1	1	1	1	1	- 1	- 1	1	- 1	1
	s2brqt	1	1	1	0.04	1	1	1	1	1	1	1	1	1	0.04
	tprdla	1	1	1	1	1	1	1	1	1	- 1	- 1	1	- 1	1
	s2oiqt	1	1	1	1	1	1	1	1	1	- 1	- 1	1	- 1	1
	sloiqt	1	1	1	1	1	1	1	1	1	1	0.17	0.02	1	1
	diront	1	1	1	1	1	1	1	1	1	- 1	1	1	- 1	1
	tnkn2a	1	1	1	1	0.07	0.50	1	1	1	4.74	1	1	1	1
	tnknla	'	1	1	1	1	0.15	1	1	1	2.09	1	1	1	1
	s2013t	1	0.18	1	1	1	6.93	ı	ı	1	1	1	ı	1	1
,	slorgt	1	0.43	1	١	1	1.37	ı	ı	1	1	1	1	1	1
	ь£пиbt	0.17	'	1	1	1	1	1	0.03	1	1	1	1	1	1
)	e2nubt	-	1	ı	1	1	1	1	'	1	0.03	1	1	1	1
,	terela		1	1	١	98.0	1.38	ı	ı	1	0.18	1	ı	1	1
	tber3a		1	1	١	'	2.48	ı	ı	1	0.32 (1	ı	0.22	1
	therla		0.01	1	1	1		0.23	1	- 0.01	'	1	ı	1	1
ı	tarm2a		1	1	1	1	3.77 0.01	1	1	1	80.0	1	1	1	1
ı	d1mrst		1	1	١	1.73	0.04	1	1	1	1	1	1	1	1
	s2llst		1	1	1	1	1	0.03	1	1	9.47	1	1	1	1
	sillat		4.63	1	1	1	0.08	0.03	1	1	7.77	1	ı	1	1
	Nectar Plant Species	lanceleaf fogfruit	morning glory	plantain	prickly lettuce	queen annes lace	red clover	smartweed	stinging nettle	velvetleaf	white clover	whitestar	whorled milkweed	wild mustard	yellow sweet clover

Table 4: 2016 Nectar plant species density: average density (count / m2) across all rounds

sisov	1		- 1	- 1	- 1	- 1	- 1	- 1
slasv) [7.1	1	1	0.61	0.35	0.05	0.39
steita	1 1		- 1	- 1	1	1	1	1
pre8a	ı ı		- 1	- 1	- 1	- 1	- 1	- 1
pre7a			- 1	- 1	- 1	- 1	- 1	- 1
ргеба			- 1	- 1	- 1	- 1	- 1	- 1
ьтеба	1 1		- 1	- 1	- 1	- 1	- 1	- 1
pre4a	1 1		- 1	- 1	1	1	- 1	- 1
pre3a			- 1	- 1	1	1	- 1	- 1
pre2a			- 1	- 1	1	1	1	1
brela			- 1	- 1	- 1	1	- 1	- 1
s19in;		50.5	1	1	1	1	1	1
slnoj	1		1	0.38	1	1	1	1
harla	1	0.04	0.01	90.0	1	1	1	1
stsh	1 1		- 1	- 1	- 1	1	- 1	-1
stvsb			- 1	- 1	- 1	1	-	1
рсг2а	1 1		- 1	- 1	- 1	1	- 1	1
pcrla	1 1		- 1	- 1	- 1	- 1	- 1	- 1
spp1a	1 1		- 1	- 1	1	1	1	1
Norten Dlant Gracine	black and susan	blaca eyea sasan blue vervain	common milkweed	hoary vervain	ox eye sunflower	purple prairie clover	sawtooth sunflower	wild bergamot

Table 5: 2016 Nectar plant species density: average density (count / m2) across all rounds

stsovi	2.01	1	1	1	1	1	1
sInsvt	1	0.69	1	0.03	1	1	ı
ttiela		1	1	1	1	1	1
tpre8a	1	1	1	1	1	0.18	1
tpre7a	1	1	1	1	1	0.17	1
tpre6a	1	ı	1	1	1	0.02	1
tpre5a	1	1	1	1	1	0.19	1
tpre4a	1	ı	1	1	1	0.37	1
tpre3a	1	ı	1	1	1	0.27	ı
tpre2a	1	1	1	1	1	0.05	1
tprela	1	1	1	1	1	0.01	1
sləint	1	0.15	1	1	1	1	ı
sInoit	1	1	1.07	1	0.15	1	0.01
tharla	0.22	1	1	1.02	1	1	1
sfsAt	1	1	1	- 1	1	1	1
alvabt	1	1	1	1	1	1	1
tber2a	1	1	1	1	1	1	1
tbcrla	1	1	1	- 1	-1	1	1
tappla	1	1	1	1	1	1	1
Nectar Plant Species	alfalfa	brown eyed susan	canada goldenrod	canada thistle	chicory	common dandelion	eastern daisy fleabane

Table 6: 2016 Nectar plant species density: average density (count / m2) across all rounds

£1sovf	1	ı	1	1	1	74	ı
						0.0	
sInsvt	0.01	1	ı	1	0.39	1.11	'
sləitt	1	1	1	1	0.69	1	1
tpre8a	1	ı	0.37	1	3.66	1	1
tpre7a	1	1	0.22	1	$3.49 \ 3.66 \ 0.69$	1	ı
tpre6a	•	1	1	1	0.83	1	ı
tpre5a	1	1	ı	1	6.24	1	0.01
tpre4a	•	1	1	1	6.37	1	ı
tpre3a	1	1	1	1	7.63 6.37	1	١
tpre2a	1	1	0.07	1	1.46 0.13	1	1
tprela	•	1	1.23	1	1.46	1	1
tniela		1	ı	1	1	1	ı
tjonla	1	0.07	ı	1.29	1	0.23	1
tharla	1	1	0.81	0.62	1.10	1	0.14
stant		1	1	1	1	1	1
stvsbt	'	1	1	1	1	0.01	1
tber2a	1	1	1	-1	- 1	1	- 1
therla	1	1	1	1	0.84	1	1
sIqqst	•	1	1	0.33	0.07	1	1
Nectar Plant Species	morning glory	musk thistle	plantain	red clover	white clover	wild parsnip	yellow sweet clover

Table 7: 2016 Nectar plant species density: average density (count / m2) across all rounds

զջպյու	0.00
terala	1
tbyd2a	1
tbydla	1
Nectar Plant Species	common milkweed

Table 8: 2016 Nectar plant species density: average density (count $/\ \mathrm{m2})$ across all rounds

	s1b	e2b	sla	qgų
Nectar Plant Species	tрм	tрì	ter	դոդ
alfalfa	3.79 1.29	1.29	1	1
black medic	1	0.34	1	
blue wild indigo	1	ı	1	0.01
brown eyed susan	1	1	1	0.77
canada goldenrod	1	1	1	0.01
canada thistle	1	1	1	0.14
common cinquefoil	1	1	0.12	
common dandelion	1	0.02	0.02	'
eastern daisy fleabane	1	1	0.05	1

Table 9: 2016 Nectar plant species density: average density (count $/\ \mathrm{m2})$ across all rounds

Nectar Plant Species	tbydla	tbyd2a	terala	զջպող
red clover	0.58	$0.58 \ 0.70 \ 2.30$	2.30	١.
white clover	6.45	6.45 7.57 1.92	1.92	1
white sweet clover	0.03	1	0.02	1
wild parsnip	0.00	1	1	1
yellow sweet clover	1	0.01 0.03	0.03	

Table 10: 2017 Nectar plant species density: average density (count / m2) across all rounds

tverla)1	ı	ı	1	ı	ı	1	1	1	ı
estust	0.0	1	1	1	ı	1	1	3	1	
	0.0							0.0		
sSbrqt	0.02	'	'	'	1	'	'	0.03	'	'
slbrqt	0.00	ı	1	1	ı	ı	1	1	1	1
sSoigt	- 0.01 0.00 0.02 0.00 0.01	1	1	1	1	1	1	0.02	1	1
sloigt	1	ı	1	1	ı	ı	1	0.07	1	1
tnorlb	90.0	10.02	1	1	0.01	1	1	0.16	1	1
tnkn2a			1	1	0.04	1	1	0.04	1	0.02
tnknla).15 ('	1	1	1	ı		0.01	1	'
tgro2a	- 0.02 0.02 0.15 0.37	1	0.01	0.01	1	1	0.01	1	1	١
alorgt	0.05	ı	'	'	ı	ı	0.01	1	1	•
s&nubt	'	ı	1	1	ı	ı	'	0.00	1	ı
s2nubt	.01	ı	1	1	ı	ı	1	0.03	1	ı
terela	0.02 0.01	1	1	1	ı	.01	1	'	1	,
tber3a	0	1	1	1	1	0	1	1	ı	ī
tberla	1	1	1	1	1	1	1	1	0.07	1
tarm2a	0.01	00.0	1	1	ı	ı	1	0.02	'	•
d1mrst	1	'	1	1	ı	ı	1	0.02	1	1
s2llst		ı	,	1		ı	,	-	1	ı
sillat	0.02	1	1	1	1	1	1	1	1	1
Nectar Plant Species	black eyed susan	blue vervain	culvers root	foxglove beardtongue	hoary vervain	ironweed	ox eye sunflower	partridge pea	prairie cinquefoil	yellow coneflower

Table 11: 2017 Nectar plant species density: average density (count / m2) across all rounds

tverla	'	1	0.70	1	1	0.00	1	1	1	1	0.00	0.00	1	1	1	1	1	1	0.20	1	1
sStust	'	1	1	1	ı	1	1	1	1	1	1	0.30	1	ı	1	1	1	1	1	0.07	1
tprd2a	'	1	1	١	ı	0.01	1	1	1	1	1	0.05	1	ı	1	1	0.04	1	1	1	1
tprdla		1	1	1	ı	'	1	1	1	1	1	•	1	ı	1	1	'	0.00	1	1	1
s2oiqt		5.36	•	2.55	1	1	1	1	1	90.0	•	1	1	1	1	•	1	'	0.24	1	1
sloiqt		1	•	0.01	1	0.07	1	1	1	'	1	1	1	1	1	1	1	0.01	0.01	1	1
tnorlb		1	1	0.33	ı	1	1	0.02	1	1	0.03	0.01	0.01	ı	0.02	1	1	1	1	1	1
tnkn2a	'	1	1.84	1	1	1	1	1	0.03	1	0.04	0.21	1	1	1	0.89	1	1	1	1	1
tnknla	'	1	5.74	1	1	1	1	1	0.18	1	0.00	0.20	1	1	1	0.02	1	1	1	0.01	1
s201gt	'	1	1	1	ı	1	1	0.04	1	1	1	0.02	1	ı	1	1	1	1	1	0.02	1
slorgt	0.34	1	1	1	ı	1	1	1	1	1	1	0.02	1	ı	1	1	1	1	1	0.33	1
tdun3a	'	1	1	1.64	1	0.02	1	1	1	1	1	1	1	0.00	1	1	0.01	1	0.74	1	0.00
tdun2a	'	1	1	2.98	1	0.01	1	1	1	1	1	0.02	1	0.00	1	1	1	0.07	90.0	1	1
terela		1	1	1	1	,	1	1	1	1	1	•	1	1	1	1	1	'	0.50	1	1
tber3a		1	•	0.01	1	1	1	1	1	1	0.01	0.12	١	1	1	1	1	١	0.26	1	1
tberla		1	1	0.01	1	1	1	1	1	1	'	•	1	1	1	1	1	1	0.23	1	1
tarm2a	0.16	1	1	'	1	1	1	1	1	1	1	0.11	1	1	1	1	1	0.03	'	1	1
dlmist	'	1).18	١	1	0.01	1	1	1	1	1	0.01	1	1	1	1	1	'	1	1	1
sallat		•	'	ı	ı	0.01	0.03	1	1	1	1	'	1	ı	1	1	1	1	1	1	1
sillat		1	•	0.03	89.0	'	1	1	1	1	•	1	1	1	1	1	ı	1	1	1	1
Nectar Plant Species	alfalfa	bedstraw	birdsfoot trefoil	black medic	bladder campion	brown eyed susan	buffalobur nightshade	canada thistle	chicory	clasping venus looking glass	common cinquefoil	common dandelion	common mallow	common mullein	common purslane	common yarrow	compass plant	eastern black nightshade	eastern daisy fleabane	field pennycress	groundcherry

Table 12: 2017 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

tverla	'	١	1	1	1	1	1	1.60	0.16	1	1	ı	ı	1	1.85	1	١	1	1
tsut2a	'	1	ı	ı	1	1	1	ı	1	0.00	98.0	1	1	1	1	1	1	1	0.02
tprd2a	'	1	1	1	0.01	1	0.03	1	1	1	0.00	ı	1	1	1	1	1	1	1
albrqt	'	1	1	1	0.00	0.00	1	1	1	1	0.21	'	1	1	1	1	1	1	1
sSoigt	'	1	1	1	1	1	1	0.00	0.17	1	1	1	1	1	1	1	0.01	1	0.05
sloigt	'	1	ı	1	1	1	1	1	0.01	1	1	1	1	1	1	1	1	0.02	1
diront	'	1	ı	ı	1	1	1	0.07	0.01	1	1	1	1	1	0.18	1	1	1	0.40
tnkn2a	'	1	1	1	1	1	1	0.68	3.96	1	0.03	'	2.57	1	1.74	1	1	1	1
tnknla	1.07	1	0.01	1	1	1	1	0.43	3.60	1	0.04	'		0.00	0.75	1	0.01	1	1
s2orgt	'	1	ı	ı	1	1	1	ı	8.98	1	0.53	1	0.17	1	1	1	0.11	1	'
tgrola	'	1	1	1	1	1	1	ı	8.44	1	0.04	1	0.08	1	0.03	1	0.31	1	1
sEnubt	'	1	0.00	0.01	1	1	1	0.08	0.09	1	1	0.15	0.11	1	90.9	1	1	0.02	0.32
e2nubt	'	1	0.13	0.03	1	1	1	0.02	0.08	1	1	'	0.03	1	0.75	1	1	1	0.10
terela	'	1	ı	ı	1	1	1	0.97	0.12	1	1	1	0.07	1	0.01	1	1	1	'
tber3a	'	1	1	1	1	1	1	1	7.13	1	1	'	0.95	1	0.67	1	1	1	1
tberla	'	1	1	1	1	1	1	1	1.35	1	1	'	4.37	1	1	1	1	1	1
eSmret	'	1	0.02	1	1	1	1	1	1.30	1	0.00	'	0.03	1	0.87	1	1	1	1
d1mrst	'	1	1	1	1	1	1	4.49	0.49	1	0.03	1	0.02	1	0.04	1	1	1	1
s2llst	'	1	ı	1	1	0.07	1	ı	1	1	1	1	0.29	1	1	0.05	1	1	1
sillat	1	0.05	1	0.27	1	1	240.00	1	0.05	1	1	1	0.03	1	1	1	1	1	1
Nectar Plant Species	hawkweed	morning glory	musk thistle	pineapple weed	prickly sowthistle	prostrate knotweed	prostrate vervain	queen annes lace	red clover	rough avens	shepherds purse	shortstalk chickweed	smartweed	venice mallow	white clover	white sweet clover	wild mustard	yellow sweet clover	yellow wood sorrel

Table 13: 2017 Nectar plant species density: average density (count $\ /\ \mathrm{m2}$) across all rounds

tvosla	0.01	1	1	1	0.03	ı	ı	1
sInsvt	'	- 0.04	1	1	0.49	0.01	0.01	'
sleitt	- 0.01	1	1	0.01	0.04 0.49	1	1	1
tpre8a	١.	- 1	1	1	1	1	1	-
		1	1	1	1	1	1	1
tpre6a	- 0.03 0.00	1	1	•	0.01	1	1	1
tpre5a	١.	-1	1	1	1	1	1	-
tpre4a	0.01	1	1	1	1	1	1	1
tpre3a	0.02	1	1	1	0.00	1	1	0.02
tpre2a	0.02	1	1	1	1	1	1	1
tprela	0.00	1	1	1	1	1	1	1
sləint	0.03	1	1	1	0.03	1	1	1
tjonla	0.01 0.03 0.00 0.02 0.02 0.01	1	0.28	1	- 0.03 0.03	1	1	1
tharla	1	ı	0.01 0.28	1	1	'	'	1
s1sAt	١.	1	1	1	1	1	1	-
tdavla	0.03	1	1	1	1	1	1	1
tber2a	1	1	1	1	80.0	1	1	1
therla	ı	1	1	1	0.05 0.10 0.08	1	1	1
tappla	0.21	0.03	1	1	0.02	1	1	1
Nectar Plant Species	black eyed susan	blue vervain	hoary vervain	ox eye sunflower	partridge pea	purple prairie clover	wild bergamot	yellow coneflower

Table 14: 2017 Nectar plant species density: average density (count $\ /\ \mathrm{m2}$) across all rounds

tvanla tvosla	1	- 29.0	1	1	1	1	1	1
		0.6						
sleitt	'	1	1	1	1	0.03	1	1
tpre8a	'	- 0.02	1	1	0.00	1	1	1
tpre7a	١.	1	1	1	1	1	1	1
tpre6a	1	0.01	1	1	ı	1	1	1
tbre5a	1	0.07	1	1	ı	0.02	1	1
tpre4a	,	$0.01 \ 0.07 \ 0.01$	1	1	0.11	0.03	1	1
tpre3a	١.	0.08	1	1	ı	90.	1	1
tpre2a	1	1	1	1	1	1 0.06 0	1	0.33
tprela	1	0.13	1	1	1	0.01	1	1
sləint	١.	1	1	1	1	1	1	1
tjonla	'	1	1	0.04	1	1	1	1
tharla	'	0.52	1	1	1	1	1	1
slsht	1	1	1	1	ı	1	1	1
tdavla	'	0.22	0.03	1	1	1	1	1
tpcr2a	'	2.04 0.03	1	1	1	0.03	1	1
tberla	0.33	2.04	1	1	1	0.11	1	1
tappla	1	0.02	1	1	1	0.06	0.01	1
Nectar Plant Species	alfalfa	black medic	canada thistle	chicory	common cinquefoil	common dandelion	compass plant	eastern daisy fleabane

Table 15: 2017 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

tvosla	13	1	1	ı	1	1	1	1	1	1	34	1	ı	ı	1	1
sinsvi	- 0.	1	1	01	ı	1	1	1	ı	1	- 0.	1	ı	ı	0.05	0.07
				0.0											0.0	0.0
sleitt	'	'	'	'	'	1	'	1	1	1	0.12	'	'	'	1	1
tpre8a	'	1	1	1	1	1	1.55	1	ı	1	0.07	1	0.22	1	1	1
tpre7a	١	1	1	1	1	1	1	1	1	0.46	1	1	0.14	1	1	1
tpre6a	'	1	1	1	1	1	1	1	1	1	2.38	1	90.0	1	1	1
tpre5a	١	1	1	1	1	1	1	1	1	1	0.11	1	0.49	1	1	1
tpre4a	١	1	1	1	1	1	1	1	1	1	0.18	1	0.65	1	1	1
tpre3a	١	1	1	1	1	1	1	0.01	1	1	0.15	1	0.18	1	1	1
tpre2a	١	1	1	1	0.01	0.11	1	1	1	1	1.51	1	0.03	1	1	1
tprela	١.	1	1	1	'	,	1	1	ı	1	1	1).11	ı	1	1
sləint	١.	1	1	5.23	1	1	1	1	0.41	0.01	1.09	1	'	1	1	1
	1			\vdash												
tionla	١.	1	1	1	1	1	1	1	.04	1	1	1	1	60.	80.	1
	1	- 6	1	- 9	1	1	1	1	2 0.04	1		1	1	- 0.09	- 0.08	1
strant stroit	1	0.49	1	0.26	1	1	1	1	$1.82 \mid 0.04$	1	- 80.0	1	0.21	- 0.09	- 0.08	1
	1	- 0.49	1	- 0.26	1	1	1	1	- 1.82 0.04	1	28.25 0.08 -	1	- 0.21	0.09	0.08	1
tharla	1	- 0.49	1	- 0.26 -	1	1	1	1	- 1.82 0.04	1	_	1	- 0.21	0.09	0.08	1
sleft slastla	1	0.49	1 1 1 1 1	0.26	1 1 1	1 1 1	1 1 1 1	1 1 1	1.82 0.04	1 1 1 1	_	1 1 1 1 1	0.21	60.0	0.08	1 1
slvsbt slaht slant	1 1 1	0.49	1 1 1	0.26	1 1 1	1 1 1	1.40	1 1 1	1.82 0.04	1	- 28.25	1 1 1	0.67 0.21	0.09	0.08	1 1 1
ther2a tdav1a tfis1a thar1a	1 1 1	0.49	0.41	0.26	1 1 1 1	1 1 1 1	- 1.40	1 1 1	2.11 1.82 0.04	1	0.35 0.79 - 28.25 (0.01	0.67 79.0	60.0	0.08	1 1 1 1 1 1

Table 16: 2017 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

Nectar Plant Species	tbydla	tbyd2a	terala	զջպոդ
black eyed susan	0.05	0.05 0.00 0.01 0.17	0.01	0.17
common milkweed	1	1	1	0.01
hoary vervain	0.00	1	1	1
partridge pea	0.08	0.08 0.05 0.15 0.05	0.15	0.05

Table 17: 2017 Nectar plant species density: average density (count / m2) across all rounds

	s1.	Sa	ßl		
	ρΛo	ρΛ	ra	цэ	
Nectar Plant Species	qt	qı	ot		
alfalfa	1.13	$1.13 \ 0.54 \ 0.10$	0.10	1	
black medic	0.52	0.52 3.77	1	1	
brown eyed susan	1	1	0.01	1	
canada thistle	1	1	1	0.01	
common cinquefoil	1	1	0.14	1	
common dandelion	0.27	0.27 - 0.55	1	0.01	
common evening primrose	1	1	0.17	1	
eastern daisy fleabane	1	1	0.35	1	

Table 18: 2017 Nectar plant species density: average density (count / m2) across all rounds

զջպոդ	1.28	0.00	1	1	1	1	1	1	1
terala	1	1	ı	0.02	2.60	1	0.54	2.81	1
tbyd2a	1	1	0.04 0.05	1	0.68 0.15	0.41	1	$4.50 \ 4.03$	0.07
slbydt	1	1	0.04	1	0.68	0.23	1	4.50	1
Nectar Plant Species	hawkweed	musk thistle	prickly sowthistle	prostrate vervain	red clover	shepherds purse	smartweed	white clover	wild mustard

Table 19: 2018 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

Nectar Plant Species	silla	sSllst	dlmrst	szmrst	tberla	tper3a	terela	s2nubt	s&nubt	slorgt	s2orgt	tnknla	tnkn2a	tnorlb	sloiqt	s2oiqt	tprdla	szbiqt	estust	tverla
black eyed susan	1	0.11	0.09	1		-	.11	0.07	0.04	,	,	- 0.	0.02	-	0.88	0.72	0.15	1.27	1	0.05
blue vervain	0.02	1	1	').19	,	,	'	35	ı	- 0.	0.62 1.	1.03 4	45.77	'	0.17	0.02	0.08	ı	1
canada milk vetch	1	1	1	1	,	1	1	1	1	1	,	,	1	1	1	1	1	1	0.03	1
foxglove beardtongue	1	1	0.08	0.00	0	.01	,	,	1	ı	,	- 0	19 (0.89	'	0.04	0.27 (80.0	0.25	1
golden alexanders	ı	1	0.01	0.02	1	1	1	1	-	.01	- 0.	02	1	0.05	1	1	1	1	1	1
great blue lobelia	ı	1	1	ı	1	ı	ı	ı	ı	ı	ı	ı	ı	ı	1	0.01	1	ı	1	ı
hoary vervain	0.01	1	1	1	٠	ı	0	0.10	1.28 C	.17	ı	ı	,	0.88	'	0.00	0.05	0.04	0.04	1
ironweed	1	1	1	ı	1	1	1	'	.01	ı	1	1	ı	ı	'	0.00	1	1	1	1
leadplant	ı	1	1	1	1	1	1	1	1	ı	1	1	1	1	'	0.00	1	1	1	1
new england aster	ı	0.03	1	1	1	1	1	ı	ı	ı	ı	ı	ı	1	1	1	1	1	0.07	1
ox eye sunflower	0.10	0.03	0.10	0.66	0.14 0	0 60.0	.15 0	0.83	0.49 1	1.28 0.20	20 0.	81 1.	1.25	2.91	0.20	1.83	0.04	0.34	1.72	90.0
pale purple coneflower	1	1	1	ı	1	1	1	ı	1	ı	1	1	ı	'	0.05	1	1	1	0.01	1
partridge pea	1	1	1	1	•	ı	0	.01	ı	ı	i	ı	'	0.02	0.16	.08	0.03	0.10	1	0.04
prairie blazing star	1	1	1	ı	1	,	ı	ı	ı	1	,	ı	'	0.01	1	1	1	1	1	1
prairie cinquefoil	1	1	1	•	•	,	ı	-	.01	ı	ı	- 0.	00	•	1	1	0.07	1	ı	1
purple prairie clover	1	1	1	1	•	ı	i	ı	•	,	,	,	ı	1	1	1	'	0.01	1	1
swamp milkweed	1	1	1	0.08	•	ı	i	ı	-	.03	,	,	ı	1	1	1	1	1	1	1
virginia mountain mint	1	1	1	1	1	1	,	1	1	1	- 0.	20	'	0.04	'	90.0	1	1	0.03	1
wild bergamot	0.06	0.12	•	0.02)	0.01	0.02	,	- 2	2.08 0.21		0.56 0.	0.98	1.15	'	0.22	0.73 (0.11	0.70	1
yellow coneflower	1.13	0.78	0.49	1.55 ().16 C	0.13 0	0.10 0	0.60	0.90	2.76 1.0	1.05 5.	5.03 5.	5.20	4.40 (0.90	3.41	1.83	1.65	5.93	0.03

Table 20: 2018 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

Nectar Plant Species	sIllat	s2llst	d1mrst	tarm2a	tberla	tber3a	terela	45 tdun	tdun3a	alorgt	e2orgt	tnknla	вЅпАпт	dlront	sloigt	ьSoiqt	slbiqt	s2b1qt	tsut2a	tverla
alfalfa	١	'	1	2.47	1	'	1	'	1	0.26	١.		ı	١.	١.	'	,	,		-
american bellflower	1	1	1	1	1	1	1	1	1	1	1		0	.03	٠	1	,	,	,	1
birdsfoot trefoil	1	1	0.42	1	1	1	0.03	0.01	1.12	1	1	9.73	10.25	1	1	1	1	1	ا .	32
black medic	0.10	0.03	1	1	ı	1	1	1.35	ı	1	ı	ı	1	'	0.38	0.02	1	- 0.10	0	1
bladder campion	2.47	0.53	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1
bull thistle	1	1	1	1	1	1	0.01	1	1	ı	'	0.02	0.01	1	1	1	- 0.0	0.02	1	1
canada goldenrod	1	1	1	1	1	1	1	1	1	1		1	0 -	0.15	1	1	1	1	1	1
canada thistle	1	0.23	1	0.03	1	1	1	1		0.15 0		0.13	0 -	.39	ı	1	1	- 1.40	0	ı
carolina horsenettle	1	ı	1	1	0.11	0.02	1	90.0	0.02	0	0.04	ı	1	'	00.0	1	1	1	1	ı
catnip	1	1	1	1	1	1	1	0.16		0.33		1	1	1	٠	1	,	- 2.5	11	1
chicory	1	1	1	1	1	1	1		1	1	1	1.07		1	٠	1	,	,	,	1
common cinquefoil	2.53	0.42	0.01	1	0.01	1	0.01	1	0.01	٠	').18	0.13 0	80.	,	١	,	,	1	ı
common dandelion	0.01	0.01	1	1	ı	0.01	1	0.00	0.01	1	ı	ı	0 -	0.01	ı	1	1	- 0.01	<u>-</u>	ı
common evening primrose	1	1	1	1	1	0.02	1	1	1	ı	ı	1	0 -		0.02	1	- 0.0	0.0	2	1
common mullein	1	1	1	1	0.01	1	1	0.18	0.19	1	ı	1	1		0.00	0.01	1	1	1	1
common selfheal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	٠	1	,	,	0 -	0.30
common sneezeweed	1	1	1	1	1	1	1	1	1	•	ı	•	ı	1	٠	0.12	,	,		ı
common yarrow	1	1	1	1	1	1	0.03	1	1	•	ı	1	0.24	'	0.26	1	,	,	,	1
compass plant	1	1	0.03	1	1	1	1	1	1	ı	ı	•	1	ı	•	1		,		ı
deptford pink	1	1	1	1	1	1	08.0	1	•	ı	ı	1	1	1	٠	1		,		1
eastern daisy fleabane	1	1	3.26	1	1.87	3.95	9.28	0.52	3.02	•	'	0.01	0.04 0	0.02	1.27	7.02	- 0.0)5	- 10	25
field pennycress	1	1	ı	1	1	1	1	0.04	ı	ı	ı	•	1	1	ı	1	,	,		ı
field thistle	1	1	1	1	1	1	1	1	1	1	1	1	0 -	0.31	1	1		1	- 0	10
flowering spurge	•	1	90.0	1	1	1	1	1	1		•			1		1				1

Table 21: 2018 Nectar plant species density: average density (count / m2) across all rounds

tverla	'	ı	ı	ı	ı	ı	,		,	,	.97	.14	,	,		,		88.	,	,	,	,	1	1	ı	٠
tsut2a	,	ı).18	1	ı	ı	ı	ı	,	1	ا ت	0.14 4	0.03).13		1	ı	0.31 4	00.0	1	1	1	ı	1	0.03	
s2brqt		•	0.39	1	ı	1	1	0.01	٠	0.10	ı	'	'	'	1	1	•	-	'	1	1	1	ı	1	0.12 (١
tprdla	1	1	,		1	-	-	,	ı	,	1	1	ı	ı	1	1	1	,	-	1	1	1	1	1	'	
sSoigt	1	1	1	1	0.01	1	1	1	1	1	1	6.99	ı	ı	1	1	1	0.01	1	1	1	1	ı	1	1.59	
sloigt	'	1	1	1	0.02	1	1	1	1	1	0.98	11.99	1	1	1	1	1	1	1	2.41	1	1	ı	1	0.20	'
dlront	1	1	1	1	1	ı	1	1	•	1	1	0.09	0.01	1	1	1	•	1.06	0.50	1	1	1	0.03	0.01	0.13	١
tnkn2a	'	1	1	1	1	1	1	1	1	1	0.33	1.84	1	1	1	1	1	4.95	1	1	1	1	1	1	0.17	١
tnknla	ı	1	1	1	1	1	0.02	1	ı	ı	0.19	13.32	1	1	1	1	1	4.97	0.01	1	1	1	1	1	0.29	١
s201gt	1	0.01	1	0.03	1	1	1	1	1	1	0.01	51.36	1	0.49	1	1	1	1	1	1	1	1	1	1	0.14	
slorgt	1	1	1	0.03	ı	1	1	0.19	ı	1	1	13.05	1	3.17	1	ı	1	1	0.11	ı	0.84	1.94	ı	1	80.0	
sEnubt	0.04	1	1	1	0.18	1	0.01	0.03	1	1	0.37		1	0.10	0.02	1	1	17.47	1	1	1	1	1	1	1	
e2nubt		1	1	1	0.41	1	1	0.17	1	ı	0.06	0.54	1	0.02	0.23	1	1	[4.32]	1	1	1	1	0.20	1	0.13	0.32
terela		1	0.07	1	ı	0.07	1	1.18	ı	ı	9.43	10.56	1	1	1	90.0	0.01	·	ı	1	1	1	0.08	1	1.93	١
tper3a		1	1	0.04	1	ı	ı	1	1	1	ı	17.79	ı	0.40	1	ı	1	2.45	0.37	1	1	1	0.52	1	•	
therla		1	1	80.0	ı	ı	ı	1	•	ı	ı	3.95 1	ı	3.40	0.10	1	1	0.24	ı	1	1	0.18	0.71	1	0.02	
eSmret	1	1	0.31	1	1	ı	0.17	•	ı	ı	1	32.44	1	1	1	1	1	2.40	ı	ı	1	1	0.02	1	90.0	١
tarmlb		1	1	1	0.02	1	1	1	ı	ı	5.84	7.38	1	1	1	0.01	1	0.12	0.91	1	1	1	1	1	0.39	١
s2llst		ı	1	1	0.22	- 0.01	ı	1	0.02	ı	ı	0.57 1	ı	0.19	1	1	ı	5.20	ı	1	1	1	ı	1	0.26	١
sillat	1	1	1	0.01	0.03 0.22	ī	0.09	0.01	ı	1	1	1.37 0.57	1	1.17 0.19	1	1	1	13.97 5.20	0.03	1	1	1	1	1	0.13 0.26	
Nectar Plant Species	lanceleaf fogfruit	lesser burdock	marestail	morning glory	musk thistle	ox eye daisy	plantain	prickly lettuce	prickly sowthistle	prostrate vervain	queen annes lace	red clover	rough avens	smartweed	stinging nettle	tall thistle	venice mallow	white clover	white sweet clover	whorled milkweed	wild cucumber	wild mustard	wild parsnip	yellow salsify	yellow sweet clover	yellow wood sorrel

Table 22: 2018 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

Nooten Dlent Crooice	appla	pcrla	bcr2a	stvsb	alsh	harla	sInoj	s19in	prela	рге2а	pre3a	pre4a	pre5a	ргеба	pre7a	pre8a	sleit	sInsv	slsov
Nectal Liant Species) f	, t) f	1 5	1 t	=======================================	1 5	1 8 8 8 E) f	1 f		1 5	1 6) 1	1 5))		$\frac{c}{x}$
o descrit	1	1		10.0	ı	11:0	0.0	0.00		1	1	0.00	2	0.00	0.0				
blue vervain	1	1	1	1	1	1	1	1	0.25	1	99.0	1	0.35	0.10	1	1	1	1	1
butterfly milkweed	1	1	1	1	- 1	1	1	1	1	1	1	1	1	1	1	1	0.03	1	1
canada milk vetch	1	1	1	1	- 1	1	1	0.03	1	1	1	0.01	1	1	1	1	0.03	1	1
foxglove beardtongue	•	1	1	0.47	ı	1	1	1	0.13	0.25	0.26	0.02	0.31	0.77	1	0.01	0.53	1	0.63
golden alexanders	ı	1	1	0.13	ı	1	1	1	•	•	1	1	1	1	1	0.08	0.06	•	0.14
hoary vervain	80.0	0.02	0.01	1	-	0.64	0.04	1.36	0.07	0.19	0.24	0.11	0.07	0.07	1	0.01	0.36	1	1
	0.01	1	0.03	1	1	0.02	1	1	1	1	1	1	1	1	1	1	1	1	1
ox eye sunflower	1.25	1.42	0.09	0.95	1	0.74	0.26	1.69	1.38	1.90	4.77	1.83	1.67	0.03	0.36	1.45	4.27	3.35	0.77
pale purple coneflower	1	1	0.03	1	1	1	1	0.01	1	0.01	1	1	1	1	1	1	0.08	0.03	1
partridge pea	1	1	1	1	1	1	1	0.01	0.03	0.01	1	1	1	1	1	0.03	1	0.01	1
prairie cinquefoil	1	1	0.01	1	1	1	1	1	•	•	1	1	1	1	1	1	1	1	1
purple prairie clover	1	1	1	1	1	1	1	1	1	1	1	1	1	0.01	1	1	0.03	0.58	1
stiff goldenrod	ı	1	1	1	1	1	1	1	1	1	0.01	1	1	1	1	1	1	1	1
virginia mountain mint	ı	1	1	1	1	1	1	1	0.12	1	1	1	1	0.45	1	1	1	1	1
white heath aster	1	1	1	1	-	1	1	1	1	1	1	1	1	0.01	0.46	1	1	1	1
wild bergamot	0.01	1	1	0.48	1	1	1	1	0.50	0.72	0.51	0.72	0.32	1	0.23	0.53	2.70	0.40	1.85
yellow coneflower	3.07	2.38	2.87	3.15	1	$4.10 \mid 0.63$	0.63	0.49	5.12	7.88	8.60	6.90	8.37	6.74	3.35	5.28	20.40	0.46	4.85

Table 23: 2018 Nectar plant species density: average density (count $\ /\ \mathrm{m2}$) across all rounds

	spla	sira	erza	siva	sla	arla	sla	ela	rela	rezə	геЗз	ь 1 97	вдэл	гөөз	ьТэг	в8э1	ela	Lu	sla
Nectar Plant Species	tsł	qt	tþ		gH 1	зцэ	oţt	iut	tpi	tpi	tpi	tpi	tpi	tpi	tpi	tpi	itt	3VJ	МŢ
alfalfa	0.01	1	'	'	1	1	0.03	1	1	1	'	1	'	1	1	1	'	ı	9.23
birdsfoot trefoil	1	1			1	0.03	1	1	•	•	1	1	1	•	1	1	1	1	1
black medic	1	1.71	'	'	1	0.78	23.93	0.33	1.08	0.33	0.03	0.03	0.22	'	0.44	0.37	1	19.20	1
bladder campion	1	1	1	'	1	0.22	1	1	0.03	1	0.22	0.15	1	1	1	1	1	1	1
bog yellow-cress	1	1	1	'	1	1	1	1	0.09	1	0.01	1	0.38	1	1	1	1	1	1
canada goldenrod	1	ı	1	'	1	ı	1	1	1	1	0.02	ı	1	1	0.00	1	1	1	1
canada lettuce	1	1	1	'	1	1	1	1	1	1	1	1	1	1	1	1	0.72	1	1
canada thistle	0.17	1	1	0.39	1	1	1	0.12	0.15	0.05	0.02	1	1	1	1	1	0.78	1	1
catnip	1	1	1	'	1	1	1	1	1	1	0.11	1	1	1	1	1	1	1	1
chicory	1	1	'	'	1	1	0.67	1	1	1	١	1	١	٠	1	١	١	1	1
common cinquefoil	0.00	0.46	1	'	1	0.03	1	1		1.19	2.73	4.10		4.73	1.92	2.64	0.56	1	1
common dandelion	1	0.10	0.05		- 1	1	1	1		0.12	0.02			0.01	0.01	0.09	0.23	1	1
common evening primrose	1	0.05	1	0.08	1	1	0.01	1	0.36	1	1	1	0.23	1	1	1	1	1	0.09
cup plant	1	1	1.30	'	1	1	0.02	1	1	1	1	1	1	1	1	1	1	1	1
eastern daisy fleabane	'	1	'	'	1	1	1.33	1	0.01	2.77	0.01	0.01	0.00	0.03	0.30	١	١	1	1
field pennycress	1	0.27	2.02	'	1	1	1	1		1	1	1	1	1	1	1	1	1	1
field thistle	1	1	1	'	1	1	0.03	1	0.03	0.01	1	0.01	1	1	1	1	1	1	0.01
groundcherry	1	1	1	0.06	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 24: 2018 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

slsovt	1	1	'	ı	1	ı	1	1.20	1	1	1	ı	1	ı	1	1	23.58	1	2.00	6.89	1
sInsvt	١	1	1	1	1	1	1	1	1	0.40	1.04	1	1	1	1	7.33			4.11	4.27	1
ttiela	'	1	0.97	1	1	1	4.17	1	1	1	1	0.56	1	7.56	1	0.16	1	•	1	1	0.02
£8эл д т	1	1	0.00	ı	1	1	1	1	0.24	1	1	ı	1	2.22	1	13.73	1	0.13	1	0.12	1
£Pre7a	١	1	1	1	1	1	1	1	1.24	0.10	1	1	1	1	1	5.04	0.10	0.05	١	0.14	1
ьдэлдт	١.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9.97	1	١	1	1	1
ьдэлдэ	1	1	0.00	1	1	1	1	1	1	1	1	1	1	0.10	1		0.04	1	1	0.24	1
tpre4a	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24.20	0.21	1	1	0.29	1
tpre3a	1	1	1	1	0.03	1	1	1	1	1	1	1	1	0.78	1		0.02	1	ı	0.01	1
tpre2a	١	1	1	1	0.44	0.26	1	0.40	1	1	0.03	1	1	0.54	1	1.09	0.03	1	1	0.04	1
tprela	١	1	1	1	1	0.04	1	0.53	1	1	0.21	1	1	1.31	1	9.91	0.97	1	١	0.08	1
sləint	1	1	1	1	1	1	1	1	1	1	25.49	1	1	1	1	1	1.23	1	1	0.20	
tjonla	'	1	1	1	1	1	1	1	1	1	1.95	1	1	1	1	0.37	0.75	•	9.38	1.41	0.35
strsdt	17.97	0.11	90.0	1	1	ı	1	1	1	0.03	13.11	1	1	90.0	1	4.44	1	1	1	0.22	1
stsit	ı	1	- 1	1	ı	1	-	1	ı	ı	1	1	1	ı	1	-	-	1	1	1	1
sIvsbt	ı	1	0.01	1	ı	1	1	ı	ı	ı	1	1	ı	0.33	0.01	1	21.26	1	21.51	0.47	1
tber2a	'	1	0.01	1	1	1	1	1	1	1	1	1	1.37	1	0.03	0.03	0.01	'	1	1	1
tberla	1	1	0.03	0.03	ı	ı	1	0.13	0.01	ı	3.53	ı	0.09	ı	1	14.34	2.51	1	ı	1	ı
sIqqst	1	1	0.27	1	1	1	1	1	1	1	5.81	1	1	0.37	1	1.03	1	1	0.01	1.16	0.04
Nectar Plant Species	hoary alyssum	lesser burdock	marestail	morning glory	musk thistle	nodding stickseed	pineapple weed	prickly lettuce	prostrate vervain	queen annes lace	red clover	rough cinquefoil	shepherds purse	smartweed	velvetleaf	white clover	white sweet clover	wild mustard	wild parsnip	yellow sweet clover	yellow wood sorrel

Table 25: 2018 Nectar plant species density: average density (count / m2) across all rounds

	լց	S	8	q
	ĮρΛ	gpΛ	ls:	ец1
Nectar Plant Species	tp:	tp:	ter	na
black eyed susan	0.00	0.05	0.00 0.05 0.05 2.29	2.29
blue vervain	'	1	0.02	1
butterfly milkweed	0.03	1	1	1
foxglove beardtongue	90.0	0.09	1	1
golden alexanders	0.00	1	1	1
hoary vervain	0.09	0.01	0.02	0.00
ox eye sunflower	2.36	1.44	0.69	0.13
pale purple coneflower	0.01	0.01	1	1
partridge pea	1	1	1	0.08
prairie cinquefoil	1	0.00	1	1
purple prairie clover	'	1	0.00	1
swamp milkweed	1	0.01	1	1
tall boneset	1	1	0.01	1
wild bergamot	0.68	0.68 2.26	1	0.13
yellow coneflower	5.90	6.87	5.90 6.87 1.66 1.82	1.82

Table 26: 2018 Nectar plant species density: average density (count $\ /\$ m2) across all rounds

Nectar Plant Species	slbydt	tbyd2a	terala	զջպերդ
alfalfa	2.73	2.73 0.52	'	'
brown eyed susan	1	1	1	0.03
canada thistle	1	0.03	1	0.07
common cinquefoil	1	1	1.64	0.02
common dandelion	0.01	0.01	1	1
common mullein	1	0.00	1	0.04
eastern daisy fleabane	1	1	0.34	1

Table 27: 2018 Nectar plant species density: average density (count / m2) across all rounds

	9	9	1	q
	1by	Zby	19	լբպգ
Nectar Plant Species	$_{\mathrm{tp}}$	tpi	ter	na
marestail	1	1	3.65	$3.65 ext{ } 1.67$
morning glory	ı	ı	1	0.00
musk thistle	1	ı	1	0.05
panicledleaf tick trefoil	ı	ı	1	0.03
prickly lettuce	ı	1	0.05	1
red clover	2.06	1.11	9.45	1
white clover	28.82	13.27	10.94	1.20
white sweet clover	1	0.07	0.08	1
white vervain	1	ı	1	0.30
wild mustard	1	ı	0.43	0.43 0.13
wild parsnip	0.15	0.14	1	2.38
yellow sweet clover	1	1.83	1	0.03

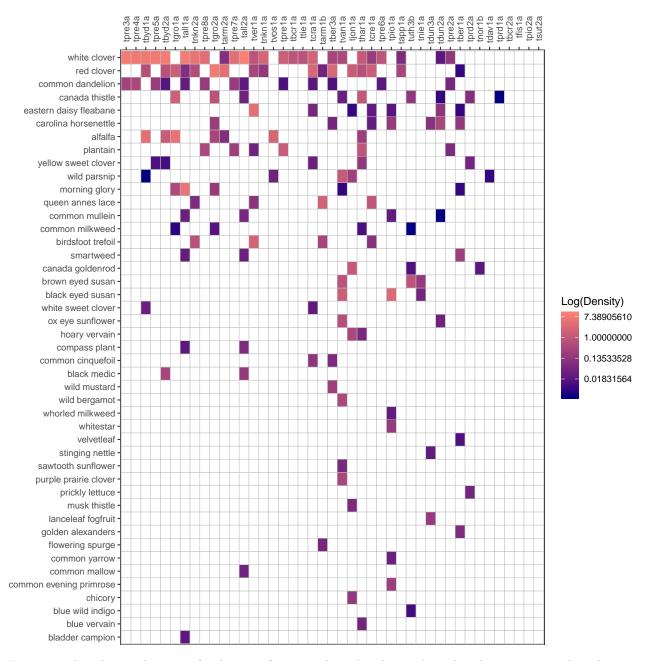


Figure 1: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

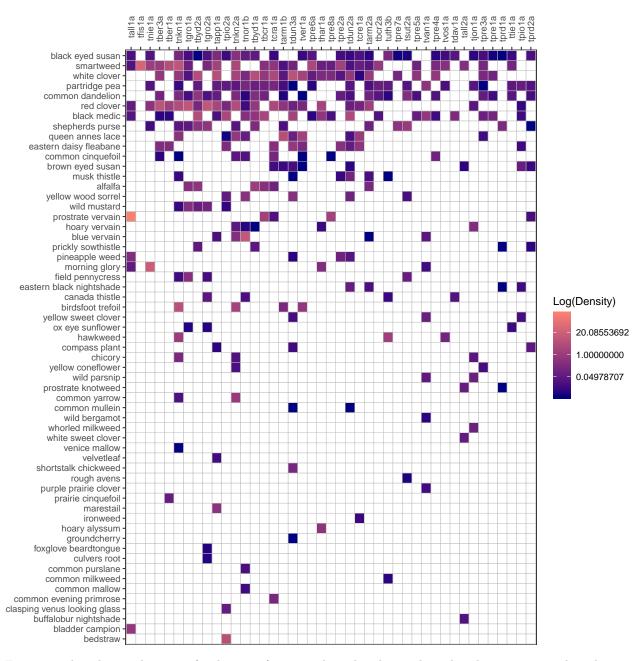


Figure 2: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

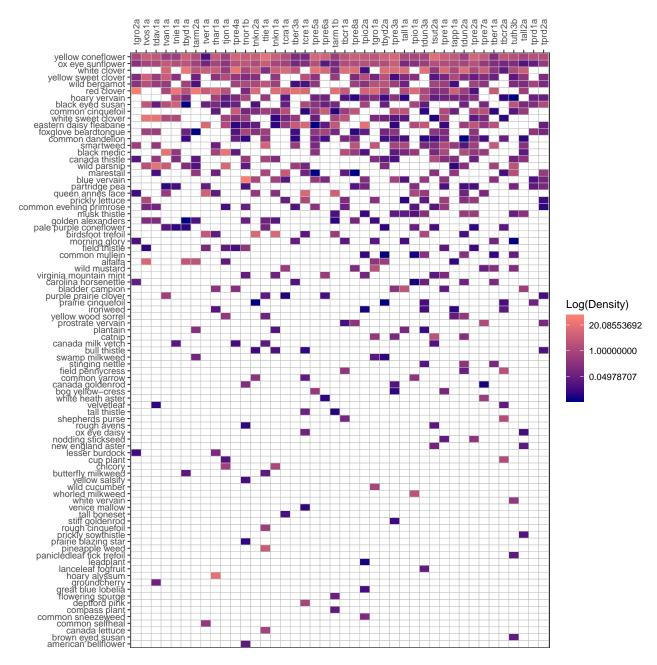


Figure 3: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2018.

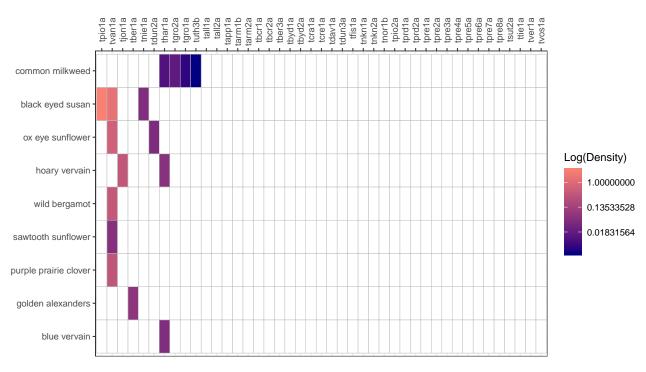


Figure 4: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

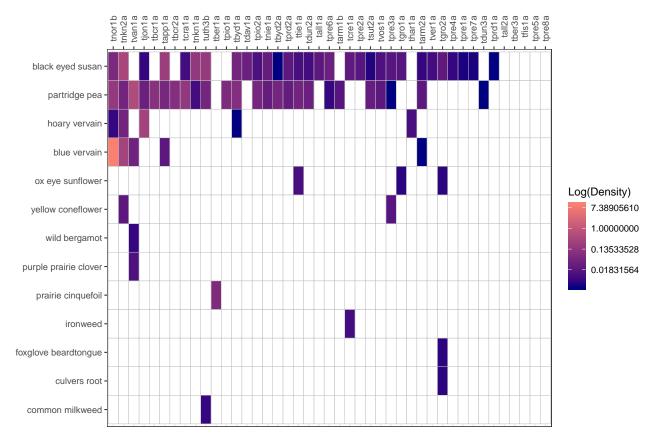


Figure 5: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

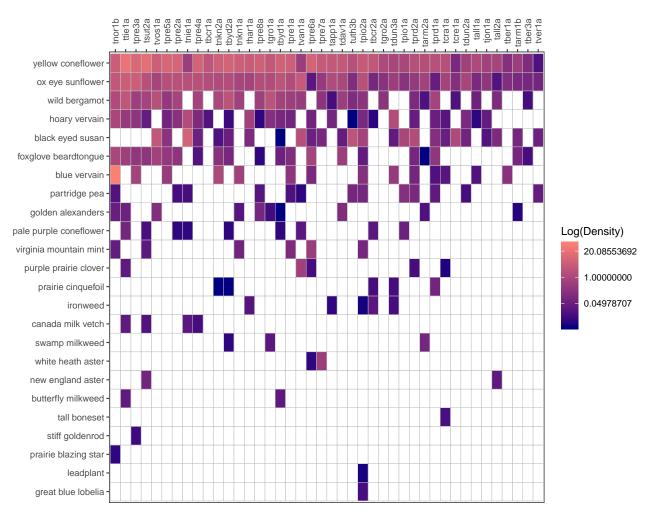


Figure 6: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.

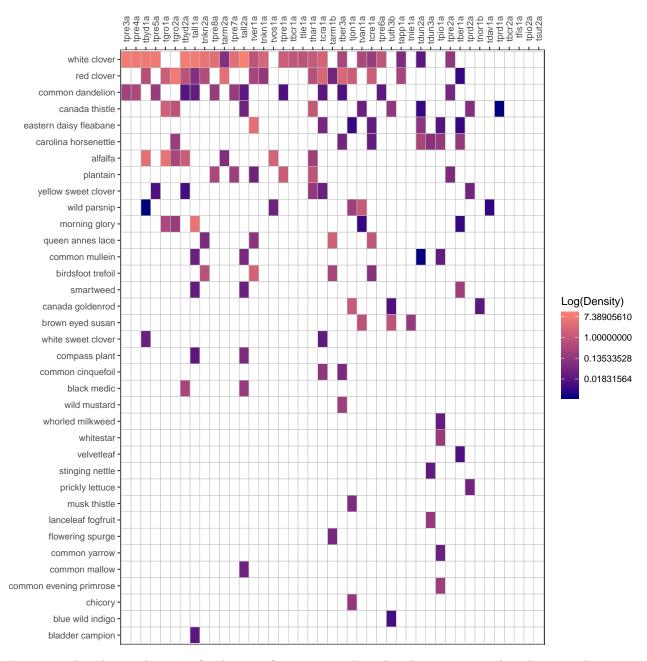


Figure 7: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2016.

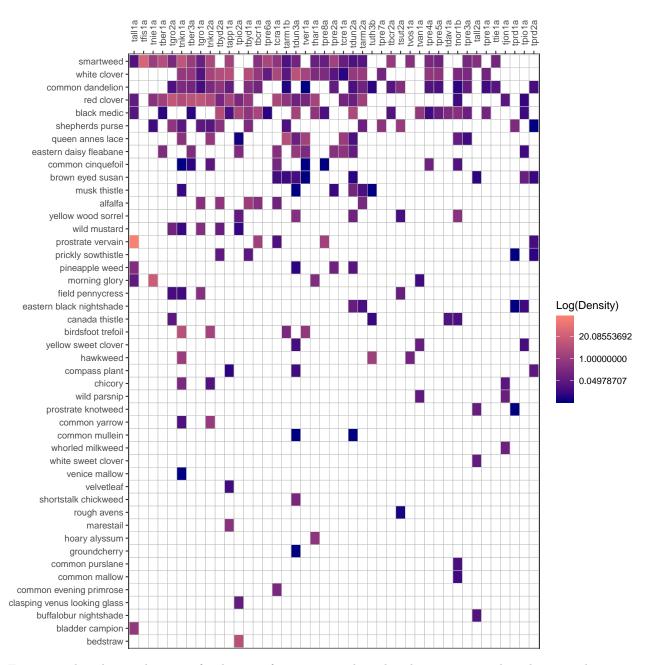


Figure 8: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2017.

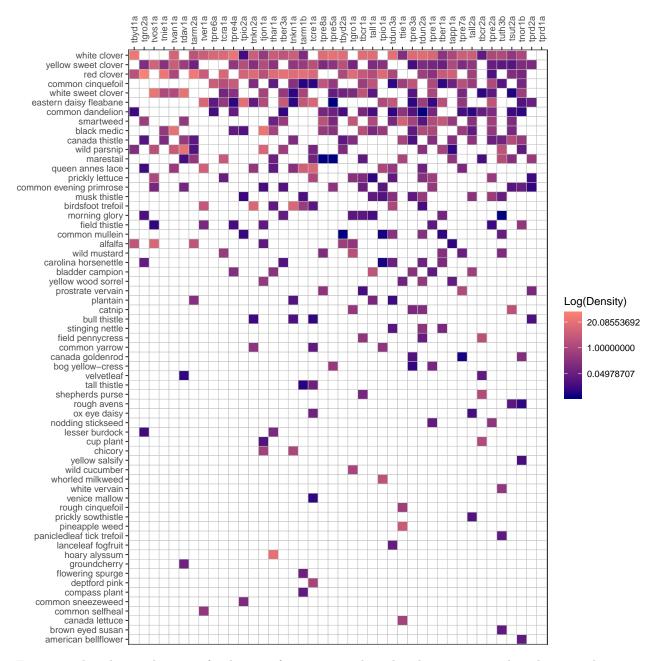


Figure 9: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.