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 for NCIG grant transects

Nectar Plant Species	sillat	tall2a	d1mrst	tarm2a	therla	tper3a	terela	s2nubt	s£aubt	slorgt	scorgt	tnknla	tnkn2a	dlront	stoigt	s2oiqt	tprdla	tprd2a	tsut2a	tverla
black eyed susan	1	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	'	1	0.01	0.02	1	1	1	1	1	1	1	1	1
golden alexanders	1	1	1	1	0.07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ox 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 for NCIG grant transects

tverla	'	.91	1	1	1	ı	1	1	ı	ı	1	1	ı	ı	.73	1
eStust		- <u>-</u>	,	1	1	,	1	1	,		1	,	1		. 3	
tprd2a				ı	ı	8(1	ı		1	1	1	,	1	1	1
						0.0										
slbrqt	'	1	1	1	1	0.00	1	1	1	1	1	1	1	1	1	1
sSoigt	١.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
sloigt	'	1	1	1	1	1	.17	1	1	0.22	1	0.02	0.03	1	0.03	1
dront	١.	1	١	١	0.03	1	'	١	ı	'	1	'	'	•	'	1
tnkn2a	١.	29.0	1	1	'	1	1	1	ı	1	1	1	1	1	1	1
tnknla		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
sSorgt	0.34	1	1	1	1	92.0	0.19	1	1	1	1	1	1	1	1	1
forga	4.53	1	1	1	1	1.56	1	1	1	1	1	1	1	1	1	1
s&nubt	'	1	1	1	1	1	0.10	1	1	1	1	1	1	1	1	1
62 aubt	١	1	1	1	1	0.01	0.33	1	ı	1	1	0.00	ı	1	0.12	1
terela	١	0.10	1	1	1	1	0.03	1	1	1	1	1	1	1	0.03	1
tper3a	١	1	1	1	1	1	0.05	90.0	0.01	1	1	1	1	1	1	1
therla	١	1	1	1	1	1	0.15	1	1	1	1	1	ı	1	0.01	1
tarm2a	80.0	1	1	1	1	1	1	1	ı	1	1	1	ı	1	1	1
tarmlb	'	0.31	1	1	1	1	1	1	ı	1	1	1	ı	1	1	0.05
sSllst	١	1	.17	1	1	0.04	1	1	0.02	1	.04	0.02	1	20.0	1	1
sillat	1	1	1	0.02	1	'	1	1	0.03	1	'	0.03	1	0.02	1	1
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 / m2) across all rounds for NCIG grant transects

tverla	1	1	0.04	1	0.11	0.32	1	1	1	0.72	1	1	1	1
tsut2a	1	1	1	1	1	- 1	1	1	1	- 1	1	1	1	1
tprd2a	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	ı	1	1	1	ı	ı	1	- 1	- 1	1	1	1
s10iqt	1	1	1	ı	1	1	1	1	1	1	0.17	0.02	1	1
tnorlb	1	1	ı	1	1	1	ı	ı	1	- 1	- 1	1	1	1
tnkn2a	'	1	1	1	0.02	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
szorgt	'	0.18	1	1	1	6.93	1	1	1	1	1	1	1	1
sforgt	1	0.43 0.18	1	1	1	1.37	1	1	1	1	1	1	1	1
tdun3a	0.17	1	1	1	1	1	1	0.02	1	1	1	1	1	1
s2nubt	1	1	1	ı	1	1	1	1	1	0.02	1	1	1	1
terela	1	1	1	ı	0.86	1.38	1	1	1	0.18	1	1	1	1
tber3a	1	1	1	ı	1	2.48 1.38	1	1	1	0.32	1	1	0.22	1
tberla	'	0.01	1	1	1	0.01	0.23	1	0.01	1	1	1	1	1
tarm2a	1	1	1	ı	1	3.77 0.01	1	1	1	0.08	1	1	1	1
tarmlb	1	1	1	ı	1.73	0.04	1	1	1	1	1	1	1	1
sallat	'	1	1	1	1	1	0.03	1	1	9.47	1	1	1	1
slllst	1	4.63	1	1	1	0.08	0.03	1	1	7.77	1	1	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 for Pork and Soy grant transects

sisovi	١.	-1	- 1	1	1	-1	-1	- 1
stasvt	1.42	1	1	1	0.61	0.35	0.05	0.39
s19itt	١.	1	1	1	1	1	1	1
tpre8a	١.	-1	- 1	1	1	-1	-1	- 1
tpre7a	١.	1	1	1	ı	1	1	1
tpre6a	١.	1	1	1	1	1	1	1
tpre5a	١.	1	1	1	ı	1	1	1
tpre4a	١.	-1	1	1	1	-1	-1	1
tpre3a	1	1	1	1	1	1	1	1
tpre2a	١.	-1	1	-1	1	-1	-1	1
tprela	١.	-1	1	1	1	-1	-1	1
tniela	0.05	1	1	1	1	1	1	1
tionla	1	1	1	0.38	1	1	1	1
tharla	'	0.04	0.01	90.0	1	1	1	1
stsat	١.	1	1	1	1	1	1	1
tdavla	١.	1	1	1	1	1	1	1
tpcr2a	١.	1	1	1	1	1	1	1
tpcrla	١.	-1	1	-1	1	-1	-1	- 1
tappla	١.	-1	1	1	1	-1	-1	1
Nectar Plant Species	black eyed susan	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 for Pork and Soy grant transects

Nectar Plant Species	tappla	tpcrla	tber2a	stvsbt	slsit	tharla	slnojt	s19int	tprela	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	s faitt	sInsvt	froot
alfalfa	1	1	1	1	1	0.22	'	1	'	1	1	1	1	'	1	1	1	1	2.01
brown eyed susan	1	1	1	1	1	1	ı	0.15	ı	1	1	'	1	1	1	1	1	0.69	1
canada goldenrod	ı	1	1	1	1	1	1.07	1	1	1	1	ı	1	1	1	1	1	1	1
canada thistle	1	- 1	- 1	- 1	- 1	1.02	1	1	1	1	1	'	1	1	1	1	- 1	0.03	1
chicory	1	- 1	- 1	- 1	- 1	'	0.15	'	1	1	1	'	1	1	1	1	- 1	1	1
common dandelion	1	1	- 1	1	- 1	1	1	1	0.01	0.05	0.27	0.37	0.19	0.02	0.17	0.18	- 1	1	1
eastern daisy fleabane	1	1	1	1	1	1	0.01	1	1	1	ı	'	1	1	1	1	1	1	1

Table 6: 2016 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

Nectar Plant Species	siqqst	therla	tbcr2a	slvsbt	slaht	tharla	sInojt	s19int	tprela	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	sleitt	sInsvt	fvosla
morning glory	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.01	1
musk thistle	1	1	1	1	1	1	0.07	1	1	1	ı	ı 	1	1	1	1	1	1	1
plantain	1	ı	1	1	1	0.81	1	1	1.23	0.07	1	'	1	1	0.22	0.37	1	1	1
red clover	0.33	1	1	1	1	0.62	1.29	1	1	1	1	<u>'</u>	1	1	1	1	1	1	1
white clover	0.07	0.84	1	1	- 1	1.10	1	1	1.46	1.46 0.13	7.63	7.63 6.37	6.24	0.83	3.49 3.66	3.66	0.69	0.39	1
wild parsnip	1	1	1	0.01	1	1	0.23	1	1	1	1	'	1	1	1	1	1	1.11	0.04
yellow sweet clover	1	1	1	1	1	0.14	ı	1	1	1	1	ı 	0.01	1	ı	1	1	1	1

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

զջպող	000
terala	١
tbyd2a	١
tbydla	١
Nectar Plant Species	common milkweed

Table 8: 2016 Nectar plant species density: average density (count / m2) across all rounds for IACIG grant transects

	slb	42a	sl	qgt
Nectar Plant Species	tpλo	tpyo	tcra	լդոդ
alfalfa	3.79	3.79 1.29	'	1
black medic	1	0.34	1	1
blue wild indigo	1	1	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	1
common dandelion	1	0.02	0.02	1
eastern daisy fleabane	1	1	0.05	1

Table 9: 2016 Nectar plant species density: average density (count / m2) across all rounds for IACIG grant transects

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

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

	•		•)		,			`					1			
Nectar Plant Species	sillat	s2llst	d1mrst	tarm2a	therla	rner 1st tper3s	terela		ьsanubt	ь£пиbt	slorgt	s2orgt	tnknla	tnkn2a	tnorlb	sloigt	s2oiqt	tprdla	tprd2a	s2tust	tverla
black eyed susan	0.02	1	'	0.01			0.05	- 0.02 0.01		9 -	0.02	0.02	0.15	0.37	- 0.02 0.02 0.15 0.37 0.06		0.01	0.00	0.02	0.01 0.00 0.02 0.00	0.01
blue vervain	1	1	1	0.00					ı	ı	1	1	ı	0.30	10.02	1	1	1	1	1	ı
culvers root	1	1	1	'		1			1	1	1	0.01	1	1	1	1	1	1	1	1	1
foxglove beardtongue	1	1	1	'	•	1			1	ı	1	- 0.01	1	1		1	1	1	1	1	ı
hoary vervain	1	1	1	'		1	·		1	ı	1	1	1	0.04	0.01	1	1	1	1	1	ı
ironweed	1	1	1	'		'	0.01	_	1	ı	1	1	1	1	1	1	1	1	1	1	ı
ox eye sunflower	1	1	1	'		1			1	9 -	0.01	0.	1	1		1	1	1	1	1	ı
partridge pea	1	1	0.02	0.02		1		- 0.03	3 0.	00	1	1	0.01 0	0.04	0.16	0.07	0.02	1	0.03	0.03	ı
prairie cinquefoil	1	1	1	'	0.07				1	ı	1	1	1	1	1	1	1	1	1	1	ı
yellow coneflower	1	١.	'	'					,	١.	1	'	1	0.02	1	١	'	'	1	'	١

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

			•	,																
	sIII	128	զլայ	rmzs	erla	er3a	ela:	ezun	eEau	slor	гоуя	кпіа	кп2а	diro	ьlоі	ьSoi	rdla	rd2a	ıtZa	erla
Nectar Plant Species	[st	[st	ter	ter	qţ	dt	юţ	pţ	pt.	gt	gt	uı	uı	uı	tp:	tp:	tb:	tb:	ısı	vj
alfalfa	١	١	١	0.16	1	'	١	ı	ı	0.34	1	١	١	١	١.	ı	١.	١.	١.	١
bedstraw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5.36	1	1	1	1
birdsfoot trefoil	1	1	0.18	1	1	1	1	1	1	1	1	5.74	1.84	1	1	1	1	1	'	0.70
black medic	0.03	١	١	1	0.01	0.01	1	2.98	1.64	1	1	1	1	0.33	0.01	2.55	ı	ı	1	١
bladder campion	0.68	1	1	1	1	1	1	1	1	1	1	1	1	1	١	1	ı	1	1	1
brown eyed susan	1	0.01	0.01	1	1	1	1	0.01	0.02	1	1	1	1	1	0.07	1	1	0.01	'	0.00
buffalobur nightshade	1	0.03	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
canada thistle	1	1	1	1	1	1	1	1	1	1	0.04	1	1	0.02	1	1	1	1	1	1
chicory	1	1	1	ı	1	1	1	ı	ı	1	1	0.18	0.03	ı	1	ı	1	ı	1	1
clasping venus looking glass	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	90.0	1	1	1	1
common cinquefoil	1	1	1	1	1	0.01	1	1	1	1	1	0.00	0.04	0.03	1	ı	1	1	'	0.00
common dandelion	1	1	0.01	0.11	1	0.12	1	0.02	1	0.02	0.02	0.20	0.21	0.01	1	1	1	0.02	.30	00.0
common mallow	1	1	1	ı	1	1	1	1	1	1	1	1	1	0.01	1	1	ı	ı	ı	1
common mullein	1	1	1	1	1	1	1	0.00	0.00	1	1	1	1	1	١	1	ı	1	1	1
common purslane	1	1	1	1	1	1	1	1	1	1	1	1	1	0.02	1	1	1	1	1	1
common yarrow	1	1	1	1	1	1	1	1	1	1	1	0.02	0.89	1	1	1	1	1	1	1
compass plant	1	1	1	1	1	1	1	1	0.01	1	1	1	1	1	1	1	1	0.04	1	1
eastern black nightshade	1	1	1	0.02	1	1	1	0.07	1	1	1	1	1	1	0.01	-	00.	1	1	1
eastern daisy fleabane	1	1	1	1	0.23	0.26	0.50	90.0	0.74	1	1	1	1	1	0.01	0.24	1	ı	'	0.70
field pennycress	1	1	1	1	1	1	1	1	1	0.33	0.02	0.01	1	1	1	1	1	'	20.0	1
groundcherry	1	1	1	1	1	1	1	1	0.00	1	1	1	1	1	1	1	1	1	1	1

Table 12: 2017 Nectar plant species density: average density (count / m2) across all rounds for NCIG grant transects

The color of the		ßIIa	12a	qĮm.	.mzs	erla	e£13	.e1s	ezun	eEnu	slo	гося	glux	kn2a	dire	sloi	ь2оі	slbr	rd2a	ıtSa	erla
- - - - - 1.07 -	tal		tsl	tar	tsr	tþ	tþe	ter	ıpı	ıbt	ıgı	ıgı	_{[u1}	_{[u1}	ид	iqt	iqt	ıdı	tpi	nst	элт
- 0.02 - 0.13 0.00 - 0.01 - 0.01 - 0.01 - 0.00 - 0.00 - 0.01 - 0.00 <td>·</td> <td>١.</td> <td>١.</td> <td>ı</td> <td>١.</td> <td>١.</td> <td>١.</td> <td>١.</td> <td>١</td> <td>1</td> <td>ı</td> <td>1</td> <td>1.07</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td></td> <td>١</td>	·	١.	١.	ı	١.	١.	١.	١.	١	1	ı	1	1.07	1	1	1	1	1			١
- 0.02 - 0.13 0.03 - 0.01 - 0.01 - 0.01 - 0.02 - 0.03 0.01 - 0.03 0.01 - 0.03 0.01 - 0.03 0.01 - 0.03 0.01 - 0.03 0.01 - 0.03 0.01 - 0.03 <td< td=""><td>0.0</td><td>١٥</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></td<>	0.0	١٥	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1 - - - 0.03 0.01 - - - 0.00 0.01 - 0.00 0.01 - - 0.00 - - 0.00 - - - 0.00 - - 0.00 - - 0.00 - - 0.00 - - 0.00 - - 0.00 - - 0.00 - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - - - 0.00 - -			1	'	0.02	١	1	1	0.13	0.00	1	1	0.01	1	١	1	1	1	1	1	1
4.49 - - - - - - - - 0.00 - -	0.2	~	1	ı	1	ı	ı	1	0.03	0.01	ı	1	1	1	1	1	ı	ı	1	ı	ı
4.49 - - - - - - - - - 0.00 - - - 0.00 - - 0.00 - - 0.02 - - 0.02 - - 0.02 - - 0.03 - - 0.00 - - 0.00 - - 1 - - - 0.00 - - 0 0.00 - - 0 0 - - 0 0 - - 0 0 - - 0 0 - - - 0 0 0 - - - 0		,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.00	0.01	1	1
4.49 - - - - - - - - - 0.02 - </td <td></td> <td></td> <td>20.0</td> <td>1</td> <td>0.00</td> <td>1</td> <td>1</td> <td>1</td>			20.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.00	1	1	1
4.49 - - 0.97 0.03 - 0.43 0.68 0.07 - 0.00 - - 0.43 0.68 0.07 - 0.00 - - 0.00 0.02 0.03 1.35 7.13 0.12 0.08 8.44 8.98 3.60 3.96 0.01 0.01 0.17 - - 0.00 0.02 0.03 - - - - - - - 0.00	240.0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.02	1	1
0.49 1.30 1.35 7.13 0.12 0.08 8.44 8.98 3.60 3.96 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.03 0.04 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.04 0.03 0.04 <td< td=""><td></td><td></td><td>ı</td><td>4.49</td><td>١</td><td>1</td><td>'</td><td>_</td><td></td><td>0.08</td><td>1</td><td>1</td><td>0.43</td><td>0.68</td><td>0.07</td><td>1</td><td>0.00</td><td>1</td><td>1</td><td>'</td><td>09.</td></td<>			ı	4.49	١	1	'	_		0.08	1	1	0.43	0.68	0.07	1	0.00	1	1	'	09.
0.002 0.003 4.37 0.056 0.07 0.075 0	0.0	5	1									8.98	3.60	3.96	0.01	0.01	0.17	1	1	').16
0.02 0.09 - - - 0.04 0.53 0.04 0.03 - - 0.015 - - - 0.04 0.03 0.04 0.03 - - 0.02 0.01 0.05 0.11 0.08 0.17 7.83 2.57 -<		1	1			1	1	1	1	1		1	1	1	1	1	1	1	1	0.00	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	_	0.09	1	1	1	1	1		0.53	0.04	0.03	1	1	1	0.21	0.00	98.0	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$,	ı	1	ı	ı	ı	ı	١	0.15	1	1	1	1	ı	1	ı	ı	ı	1	١
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0	3	0.29	0.02	-		0.95 (0.07		0.11		0.17	7.83	2.57	ı	1	ı	1	ı	ı	ı
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	ı	1	1	1	1	1	1		1	0.00	1	1	1	1	1	1	1	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$,	1		0.87	'					0.03	1	0.75	1.74	0.18	1	1	1	1	'	.85
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		_	0.05	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1
0.02 0.40 - 0.05 0.05 0.05		,	1	ı	1	ı	ı	1	1	1	0.31	0.11	0.01	1	1	1	0.01	ı	ı	ı	ı
0.40 - 0.05 0.		1	1	1	•	1	1	1	1	0.02	1	1	1	1	1	0.02	1	1	1	1	1
		1	1	1	1	1	1	1	0.10	0.32	1	1	1	1	0.40	1	0.05	1	1	0.02	1

Table 13: 2017 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

tvosla	0.01	1	1	1	0.02	1	1	1
tvanla	'	0.04	1	1	0.49	0.01	0.01	1
sləitt	0.01	1	1	0.01	0.04	1	1	1
tbre8a	١.	-1	1	1	1	1	1	1
tpre7a	0.00	1	1	1	1	1	1	1
tpre6a	0.03	1	1	1	0.01	1	1	1
tpre5a	١.	- 1	1	1	1	1	1	1
tpre4a	0.01	1	1	1	1	1	1	1
tbre3a	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 0.00 0.02 0.02	1	1	1	0.03	1	1	1
tjonla	0.01	1	0.28	1	0.03	1	1	1
tharla	1	1	0.01	1	1	1	1	1
slsit	١.	1	1	1	ı	1	1	1
stvsbt	0.03	1	1	1	1	1	1	1
tber2a	ı	1	1	1	0.08	1	1	1
tberla	ı	1	1	1	0.10	1	1	1
tappla	0.21	0.02	1	1	0.05	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 / m2) across all rounds for Pork and Soy grant transects

tpre8a ttiela slnsvt slsovt	1	0.00 - 0.67	1	1	00	- 0.03 -	1	
		0.02			0.0			
tpre7a	ļ '	'			'	'		
tpre6a	'	0.01	'	'	'	'	'	
tpre5a	'	0.07	'	'	'	0.02	'	
tpre4a	1	0.01	1	1	0.11	0.03	1	
tpre3a	1	0.08	1	1	1	90.0	1	
tpre2a	1	1	1	1	1	90.0	1	000
tprela	'	0.13	1	1	1	0.01	1	
sləint	١.	1	1	1	1	1	1	
sInoįt	1	1	1	0.04	1	1	1	
tharla	1	0.52	1	1	1	1	1	
slsit	,	-	- 1	1	1	-	1	
stvsbt	1	0.22	0.03	1	1	1	1	
tber2a	1	0.03	1	1	1	0.03	1	
tberla	0.33	2.04 0.03	1	1	1	0.11	1	
tappla	'	0.02	1	1	1	0.06	0.01	
Nectar Plant Species	alfalfa	black medic	canada thistle	chicory	common cinquefoil	common dandelion	compass plant	and defent defent

Table 15: 2017 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

	appla	pcrla	рсг2а	stvsb	slsñ	parla	ь1пој	ьГэіп	prela	ьтега	pre3a	pre4a	ьге5а	ьргеба	pre7a	pre8a	tiela	sInsv	rosjs	
Nectar Plant Species		Ţ.	Ţ.	t,	ţ.	Ţ	j	t.	Ţ	ţ.	Ţ	ţ.	t	Ţ	ţ.	ţ.	ı,	Ţ.	t	
hawkweed	1	ı	1	ı	1	1	ı	1	1	1	1	1	1	ı	1	1	1	'	0.13	
hoary alyssum	1	1	1	1	1	0.49	1	1	1	•	1	1	1	1	1	1	1	1	ı	
marestail	0.41	1	1	1	1	1	1	1	1	•	1	1	1	1	1	1	1	1	ı	
morning glory	•	ı	1	1	'	0.26	1	15.23	1	١	1	1	1	1	1	1	1	0.01	ı	
musk thistle	1	1	1	1	1	1	1	1	1	0.01	1	1	1	1	1	٠	1	1	ı	
pineapple weed	1	1	1	1	1	1	1	1	1	0.11	1	1	1	1	1	1	1	1	ı	
prostrate vervain	1	1.40	1	1	1	1	1	1	1	•	1	1	1	1	ï	1.55	1	1	ı	
queen annes lace	1	ı	1	1	1	1	1	1	1	1	0.01	1	1	1	1	1	1	1	ı	
red clover	2.11	1	1	1	1	1.82	0.04	0.41	1	1	1	1	1	1	1	1	ı	ı	ı	
shepherds purse	1	1	1	1	1	1	1	0.01	1	1		1	1	1	0.46	1	1	1	ı	
smartweed	1.68	0.35	0.79	ī	28.25	80.0	1	1.09	1	1.51	0.15	0.18	0.11	2.38	'	0.07).12	1	0.34	
velvetleaf	0.01	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
white clover	4.98	0.67	1	1	1	0.21	ı	1	0.11	0.03	0.18	0.65	0.49	0.06	0.14 (0.22	ı	ı	ı	
whorled milkweed	1	1	1	1	1	1	0.09	ı	1	٠	1	1	1	١	1	1	1	1	ı	
wild parsnip	1	1	1	1	1	1	80.0	1	1	•	1	1	1	1	1	1	1	0.05	ı	
vellow sweet clover	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.07	ı	

Table 16: 2017 Nectar plant species density: average density (count / m2) across all rounds for IACIG grant transects

զջպու	0.17	0.01	1	0.02
terala	0.05 0.00 0.01 0.17	1	1	0.08 0.05 0.15 0.05
tbyd2a	0.00	1	1	0.05
tbydla	0.05	1	0.00	0.08
Nectar Plant Species	black eyed susan	common milkweed	hoary vervain	partridge pea

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

Nectar Plant Species	tbydla	tbyd2a	terala	զջպու
alfalfa	1.13	1.13 0.54 0.10	0.10	'
black medic	0.52	0.52 3.77	1	'
brown eyed susan	1	1	0.01	'
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 for IACIG grant transects

	ydla	yd2a	sla:	4641
Nectar Plant Species	(q)	tp:	ter	ną.
hawkweed	'	'	1	1.28
musk thistle	1	1	1	0.00
prickly sowthistle	0.04	0.04 0.05	1	1
prostrate vervain	1	'	0.02	ı
red clover	0.68	0.68 - 0.15	2.60	1
shepherds purse	0.23	0.41	1	1
smartweed	1	1	0.54	1
white clover	4.50	$4.50 \ 4.03$	2.81	1
wild mustard	1	0.07	1	1

Table 19: 2018 Nectar plant species density: average density (count / m2) across all rounds for NCIG grant transects

talll tall? tarm tarm
- 0.11 0.09
0.02 0.19
1
- 0.08 0.00
0.01 0.02 -
1
0.01
1 1
1
- 0.03
$0.10 \ 0.02 \ 0.10 \ 0.66 \ 0.14$
1 1
1 1
1 1
1 1
1 1
- 0.08
1
0.06 0.12 - 0.02 -
$1.13 \ 0.78 \ 0.49 \ 1.55 \ 0.16$

Table 20: 2018 Nectar plant species density: average density (count / m2) across all rounds for NCIG grant transects

Nectar Plant Species	slllat	sallat	d1mrst	tarm2a	tberla	tper3a	terela	s2nubt	s&nubt	alorgt	szorgt	tnknla	tnkn2a	tnorlb	sloiqt	sSoigt	tprdla	tprd2a	sStust	tverla
alfalfa	'	'	'	2.47	'	'	'	'		0.26	'	١	'	'	'	'	,	,	1	'
american bellflower	1	1	1	1	1	1	1	1	1	1	1	1	1	0.03	1	1	1	,	1	1
birdsfoot trefoil	1	1	0.42	1	٠	1	0.03	0.01	1.12	•	1	3.73	0.25	1	•	1	,	,	•	3.32
black medic	0.10	0.03	1	1	1	1	١	1.35	1	١	1	•	1	1	0.38	0.03	,	-	.10	1
bladder campion	2.47	0.53	1	1	1	•	•	1	1	•	•	•	•	•	•	1		,	•	1
bull thistle	1	1	1	1	1	1	0.01	1	1	•	'	0.03	0.01	1	1	1	- 0	.02	1	1
canada goldenrod	1	1	1	1	1	1	1	1	1	٠		•	1	0.15	1	1	,	,	,	1
canada thistle	1	0.23	1	0.03	ı	1	1	1	1	0.15 (0.02	0.13	1	0.39	•	1	,	- 1	1.40	1
carolina horsenettle	1	1	1	1	0.11	0.02	1	_	0.05	'		•	•	1	0.00	1	,	,	•	1
catnip	1	1	1	1	1	1	1	0.16		0.33		•	1	1	1	1	,	- 2	2.21	1
chicory	1	1	1	1	1	•	•		•	1	,	1.07	1	•	1	1	ì	,	•	1
common cinquefoil	2.53	0.42	0.01	1	0.01		0.01		0.01	٠	'	0.18	0.13	0.08	•	1	,	,	ı	1
common dandelion	0.01	0.01	1	1		0.01	1	0.00	0.01	١	1	١	1		ı	1	,	-	0.01	1
common evening primrose	1	1	1	1	1	0.02	1		1	1	1	1	1		0.05	1	0 -	.01	.02	1
common mullein	1	1	1	1	0.01	1	1	0.18	0.19	1	1	1	1	1	0.00	0.01	1	ı	1	1
common selfheal	1	1	1	1	1	1	1	1	1	٠	1	•	1	1	•	1		ı	ı	0.30
common sneezeweed	1	1	1	1	ı	1	١	1	1	١	ı	1	1	1	1	0.12	1	ı	ı	1
common yarrow	1	1	1	1	•	1	0.03	1	1	•	1	•	0.24	1	0.26	1		ı	ı	1
compass plant	1	1	0.03	1	1	1	1	1	1	1	1	1	1	1	1	1	,	1	1	1
deptford pink	1	1	1	1	1	1	0.80	1	1	٠	1	•	1	1	1	1	,	,	,	1
eastern daisy fleabane	ı	1	3.26	1	1.87	3.95	9.28	0.52	3.02	1	'	0.01	0.04	0.02	1.27	7.02	-0	0.0	- 1	0.25
field pennycress	1	1	ı	1	ı	١	1	0.04	•	ı	•	•	1	١	ı	1	ı	,	,	1
field thistle	ı	1	1	1	1	1	1	1	1	1	ı	1	1	0.31	1	1	1	ı	1	0.10
flowering spurge	1	1	90.0	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	,	,	1

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

verla	7J	1		1	,	,	1	1	1	,	,	2	4	1	1	1	1	1	<u>∞</u>	1	1	1	,	1	1	1	
satus	รา			~								- 5.9	1.4.1	~	~				1.8							~1	
				0.18									0.14	0.03	0.13				0.3	0.0						0.0	
grd2a	II	'		0.39		'	1	1	0.01	1	0.10	1	'	'	'	1	1	'	'	'	1	'	'	'	'	0.12	'
prdla	Į,	ı	1	1	1	1	1	1	1	1	1	- 1	-1	1	1	-1	1	- 1	1	1	-1	- 1	1	1	- 1	1	١
ьSoiq	ΙŢ	1	1	1	1	0.01	1	1	1	1	1	1	6.99	1	1	1	1	1	0.01	1	1	1	1	1	1	1.59	1
ьloiq	Ιą	ı	1	ı	1	0.03	1	1	1	1	1	0.98	11.99	ı	1	1	ı	1	ı	1	2.41	1	1	ı	1	0.20	'
dlion	ıτ	1	1	1	1	1	1	1	1	1	ı	1	0.09	0.01	1	1	1	1	1.06	0.50	1	1	1	0.03	0.01	0.13	1
пкп2а	ıτ	1	1	1	1	'	1	1	1	1	1	0.33	11.84	1	1	1	1	1	4.95	1	1	1	1	1	1	0.17	'
nknla	ıτ	1	1	1	1	1	1	0.02	1	ı	1	0.19	13.32	1	1	1	1	1	4.97	0.01	1	1	1	1	1	0.29	1
groza	3t	1	0.01	1	0.02	ı	1	1	1	ı	1	0.01	51.36	1	0.49	1	1	1	1	1	1	1	ı	1	1	0.14	1
slorg	gt.	1	1	1	0.03	1	1	1	0.19	1	1	1	13.05	1	3.17	1	1	1	1	0.11	1	0.84	1.94	1	1	80.0	1
s&aub	ot	0.04	1	1	1	0.18	1	0.01	0.03	ı	1	0.37	1.03	1	0.10	0.02	1	1	17.47	1	1	1	1	1	1	ı	1
sZaub	ot	1	1	1	1	0.41	1	1	0.17	1	1	90.0	0.54	1	0.02	0.23	1	1	14.32	1	1	1	1	0.20	1	0.13	0.32
crela	ot	1	1	0.07	1	ı	0.07	1	1.18	ı	1	9.43	0.56	1	1	1	90.0	0.01	1	1	1	1	1	0.08	1	1.93	'
s£190	17	1	1	1	0.04	ı	1	1	1	1	1	1	17.79	1	0.40	1	1	1	2.45	0.37	1	1	ı	0.52	1	ı	'
perla	17	1	1	1	80.0	1	1	1	1	1	ı	1	3.95	1	3.40	0.10	1	1	0.24	1	1	1	0.18	0.71	1	0.05	1
ezmre	3.J	1	1	0.31	1	'	1	0.17	1	1	1	1	32.44	1	1	1	1	1	2.40	1	1	1	1	0.03	1	90.0	'
armlb	3.J	ı	1	1	1	0.03	ı	ı	1	ı	1	5.84	17.38	ı	1	1	0.01	1	0.12	0.91	1	1	ı	ı	1	0.39	1
e2llæ	3.J	ı	•	1	1).22	0.01	1	1	0.02	ı	1	.57	1	0.19	ı	1	1	5.20	1	ı	1	1	1	1).26	1
sllla	3.J	ı	1	ı	0.01	0.03 0.22	1	0.09	0.01	1	1	1	1.37 0.57	ı	1.17 0.19	ı	ı	1	13.97	0.03	ı	1	ı	ı	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 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 for Pork and Soy grant transects

tvosla	2.88	1	1	1	0.63	0.14	1	ı	0.77	ı	1	1	1	1	1	1	1.85	4.85
tvanla	1.67	1	1	1	1	1	1	1	3.35	0.03	0.01	1	0.58	1	1	1	0.40	0.46
sləitt	1	1	0.03	0.03	0.53	0.06	0.36	ı	4.27	0.08	1	1	0.03	1	1	1	2.70	20.40
tbre8a	١.	1	1	1	0.01	0.08	0.01	1	1.45	1	0.02	1	1	1	1	1	0.53	5.28
tpre7a	0.09	1	1	1	1	1	1	1	0.36	1	1	1	1	1	1	0.46	0.23	3.35
tpre6a	0.05	0.10	1	1	0.77	1	0.07	1	0.03	1	1	1	0.01	1	0.45	0.01	1	6.74
tpre5a	0.20	0.35	1	1	0.31	ı	0.07	1	1.67	1	1	1	1	1	1	1	0.32	8.37
tpre4a	0.05	1	1	0.01	0.02	1	0.11	1	1.83	1	1	1	1	1	1	1	0.72	6.90
tpre3a	1	99.0	1	1	0.26	1	0.24	1	4.77	1	1	1	1	0.01	1	1	0.51	8.60
tpre2a	ı	1	1	1	0.25	ı	0.19	1	1.90	0.01	0.01	1	1	ı	ı	1	0.72	7.88
tprela	١	0.25	1	1	0.13	1	0.07	1	1.38	1	0.02	1	1	1	0.12	1	0.50	5.12
s19int	6.33	1	1	0.03	1	1	1.36	1	1.69	0.01	0.01	1	1	1	1	1	1	
tjonla	0.02	1	1	1	1	ı	0.04	1	0.26	1	1	1	1	1	1	1	1	0.63 0.49
tharla	0.11	1	1	1	1	1	0.64	0.02	0.74	1	1	1	1	1	1	1	1	4.10
stsit	١.	1	1	1	1	1	1	1	1	1	1	1	1	ı	ı	1	1	- 1
tdavla	0.04	1	1	1	0.47	0.13	1	1	0.95	1	1	1	1	1	1	1	0.48	3.15
tber2a	'	1	1	1	1	1	0.01	0.03	0.09	0.03	1	0.01	1	1	1	1	1	2.87
tberla	1	1	1	1	1	1	0.02	1	1.42	1	1	1	1	1	1	1	1	2.38
tappla	'	1	1	1	1	1	0.08	0.01	1.25	1	1	1	1	1	1	1	0.01	3.07
Nectar Plant Species	black eyed susan	blue vervain	butterfly milkweed	canada milk vetch	foxglove beardtongue	golden alexanders	hoary vervain	ironweed	ox eye sunflower	pale purple coneflower	partridge pea	prairie cinquefoil	purple prairie clover	stiff goldenrod	virginia mountain mint	white heath aster	wild bergamot	yellow coneflower

Table 23: 2018 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

	ı				ı		,											
Nectar Plant Species	tappla tberla	tber2a	sivsbt	slaht	strsdt	sInojt	sləint	tprela	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	£7ere7a	tpre8a	sləitt	sInsvt	slsovi
alfalfa	0.01	'	'	1	١	0.03	'	'	'	'	'	'	١.	١.	١	١.	'	9.23
birdsfoot trefoil	'			1	0.03	1	1	1	1	1	1	1	•	•	•	•	1	•
black medic	- 1.71	'	'	1	0.78	23.93	0.33	1.08	0.33	0.03	0.03	0.22	'	0.44 (0.37		19.20	1
bladder campion	'	'	'	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	ı	0.09	ı	0.01	ı	0.38	1	ı	1	ı	1	1
canada goldenrod		'	1	ı	1	1	ı	1	1	0.02	ı	1	'	00.0	1	1	1	١
canada lettuce	'	'	'	1	1	1	1	1	1	1	1	1	1	1	'	0.72	1	1
canada thistle	0.17	'	0.39	1	1	1	0.12	0.15	0.05	0.02	1	1	1	1	'	92.0	1	1
catnip			1	1	1	1	1	1	1	0.11	1	1	•	1	1	•	1	1
chicory		'	1	1	1	0.67	ı	1	ı	ı	ı	1	1	ı	1	ı	1	1
common cinquefoil	0.06 0.46	1	1	1	0.03	1	1	1.18	1.19	2.73	4.10	0.35	4.73		2.64 (0.56	1	1
common dandelion	- 0.10	0.05	1	1	1	1	1	0.08		0.02	0.04	90.0		0.01	0.09	0.23	1	1
common evening primrose	- 0.05	'	0.08	1	1	0.01	1	0.36	1	1	1	0.23	•	1	1	•	1	0.09
cup plant	1	1.30	•	1	1	0.02	1		1	1	•	١	٠	١	٠	٠	1	٠
eastern daisy fleabane	'	'	1	1	1	1.33	1	0.01	2.77	0.01	0.01	0.00	0.03 (0.30	1	٠	•	1
field pennycress	- 0.27	2.02	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
field thistle			1	1	1	0.03	1	0.03	0.01	1	0.01	1	•	1	1	•	1	0.01
groundcherry	'	'	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 for Pork and Soy grant transects

	tvanla		,					1 1 1 1		1.20	1.20				1.20 2.40 1.04	1.20 2.40 1.04		0.40			
)	ttiela	۱ ا		0.97	1	•	1	4.17	1	ı	1	1	0.56	1	7.56	1	0.16	1	ı		ı
•	tpre8a	·		0.00	1	1	1	1	1	0.24	1	1	1	1	2.22	1	13.73	1	0.13		1
	tpre7a	'		1	1	1	1	1	1	1.24	0.10	1	1	1	1	1	5.04	0.10	0.05		1
	гргеба	· '		1	1	1	1	1	1	1	1	1	1	1	1	1	9.97	1	1		ı
	tpre5a	'	1	0.00	1	1	1	1	ı	ı	ı	ı	ı	1	0.10	1	19.70	0.04	1		•
	tpre4a	·		1	1	ı	ı	1	1	1	1	1	1	1	1	1	24.20	0.21	ı		1
	tpre3a	. '		1	1	0.03	1	1	1	1	1	ı	ı	1	0.78	1	12.45	0.03	1		1
	tpre2a	·		1	1	0.44	0.26	1	0.40	1	1	0.02	1	1	0.54	1	1.09	0.03	1		ı
-	tprela	·		1	1	1	0.04	1	0.53	1	1	0.21	1	1	1.31	1	9.91	0.97	1		1
, s	tniela	. 1		1	1	1	1	1	1	1	1	25.49	1	1	ı	1	1	1.23	1		
	sInojt	'		1	1	1	1	1	1	1	1	1.95	1	1	1	1	0.37	0.75	1	36.0	00.0
)	tharla	17.97	0 11	0.06	1	1	1	1	1	1	0.03	13.11	1	1	90.0	1	4.44	1	1		1
	stsit	. 1	-	- 1	- 1	1	1	- 1	1	1	1	1	1	- 1	1	- 1	- 1	1	1		ı
•	tdavla	1		0.01	1	ı	1	1	1	1	1	1	1	1	0.33	0.01	1	21.26	1	91.51	70.17
	tber2a	'		0.01	1	1	1	1	1	1	1	1	1	1.37	'	0.03	0.03	0.01	1		•
•	therla	'		0.03	0.03	1	1	1	0.13	0.01	1	3.53	1	0.09	1	1	14.34	2.51	1		
•	tappla			0.27	1	ı	ı	1	ı	ı	ı	5.81	ı	1	0.37	1	1.03	1	ı	0.01	10.0
	Nectar Plant Species	hoarv alvssim	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	J

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

0.0
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Table 26: 2018 Nectar plant species density: average density (count / m2) across all rounds for IACIG grant transects

Nectar Plant Species	tbydla	tbyd2a	terala	զջպերդ
alfalfa	2.73	2.73 0.52	1	ı
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	ı
common mullein	1	0.00	1	0.04
eastern daisy fleabane	1	1	0.34	•

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

	s1b	e2b	sla	વૃદૃપ
Nectar Plant Species	ұрм	tрм	ter	դոդ
marestail	1	1	3.65	1.67
morning glory	ı	1	1	0.00
musk thistle	1	ı	1	0.02
panicledleaf tick trefoil	1	1	1	0.03
prickly lettuce	1	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	1	1	0.30
wild mustard	1	ı	0.43	0.13
wild parsnip	0.15	0.14	1	2.38
yellow sweet clover	1	1.83	1	0.03

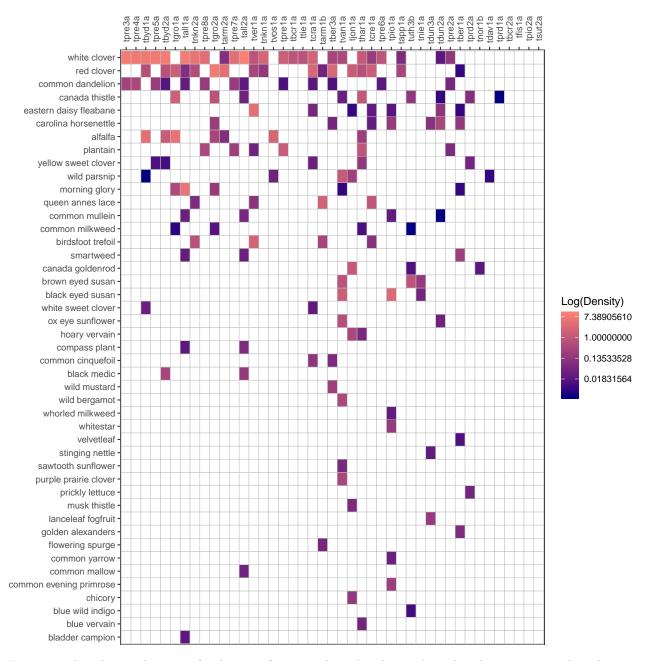


Figure 1: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

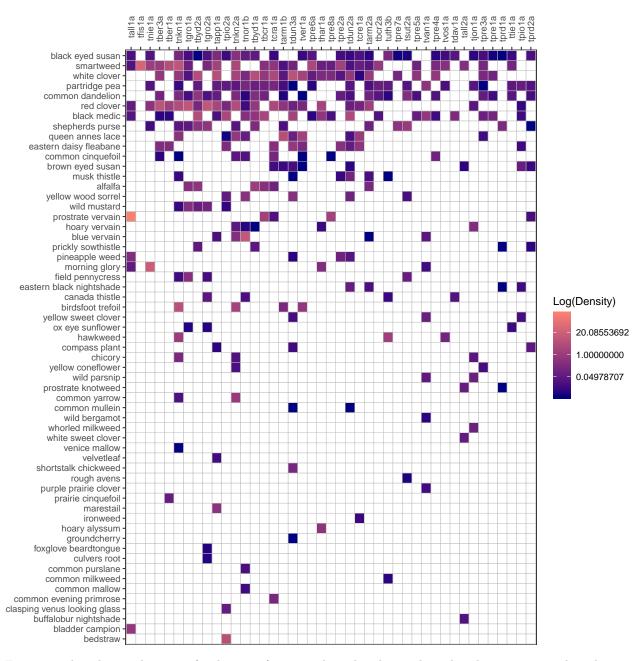


Figure 2: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

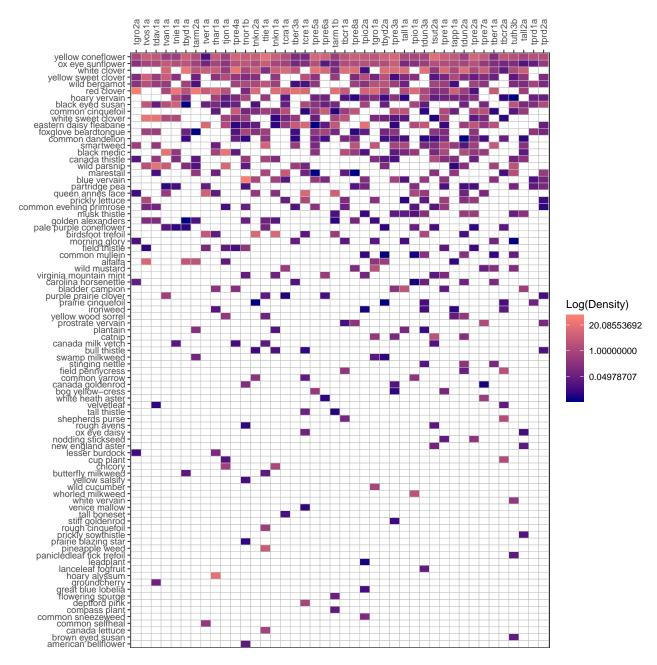


Figure 3: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2018.

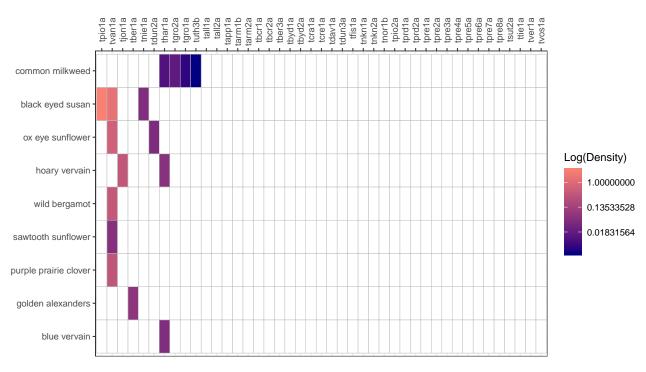


Figure 4: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

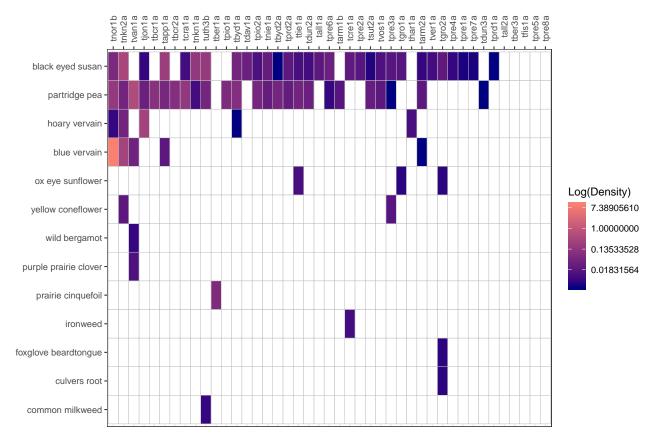


Figure 5: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

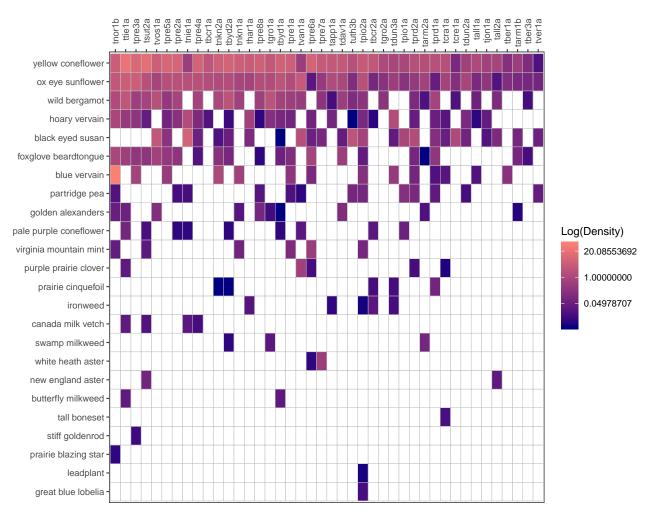


Figure 6: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.

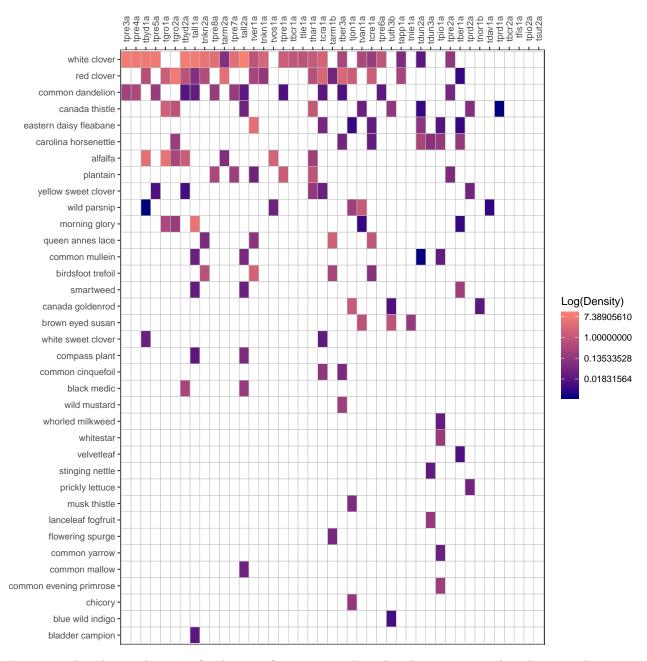


Figure 7: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2016.

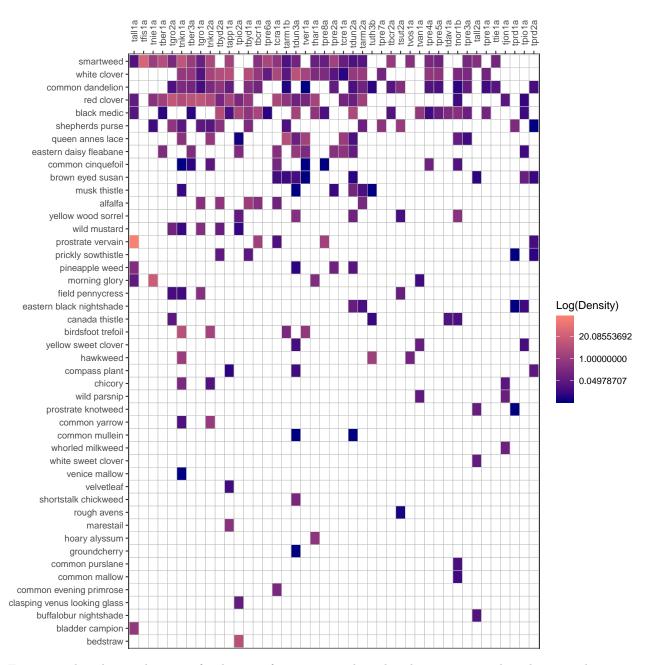


Figure 8: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2017.

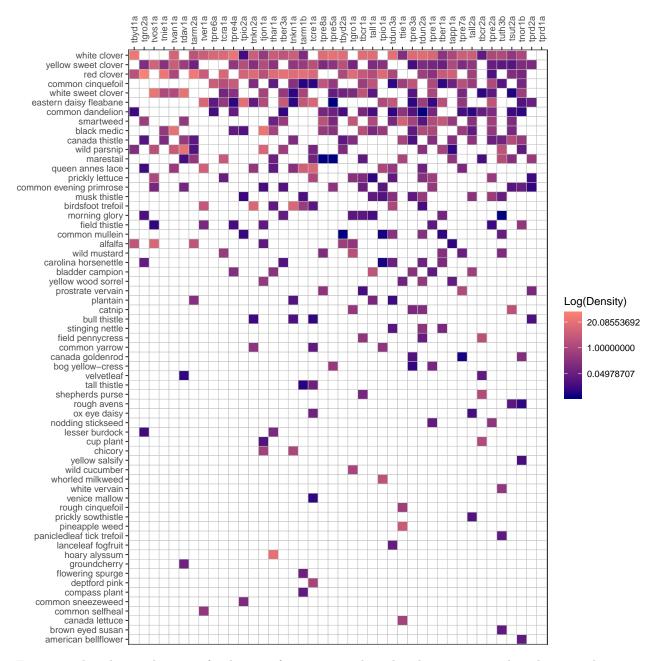


Figure 9: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.