

ISU Monarch Data Summary for NCIG

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2019-04-30

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.

Table 1: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcres1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a
black eyed susan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210.3	-	-	-	-
canada goldenrod	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-
carolina hosenettle	-	-	-	-	7.3	2.3	2.7	33.3	9.7	-	11.7	-	-	-	13.3	-	-	-	-
common cinquefoil	-	-	-	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-
common evening primrose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.3	-	-	-	-
common milkweed	-	-	-	-	-	-	-	-	-	0.3	1.0	-	-	-	-	-	-	-	-
compass plant	1.0	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	-	0.3	-	2.3	11.7	-	-	-	-	-	-	1.3	-	-	-	-
flowering spurge	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
golden alexanders	-	-	-	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
lanceleaf fogfruit	-	-	-	-	-	-	-	-	16.7	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-
whitestar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.7	-	-	-	-
whorled milkweed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-	-	-	-

Table 2: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdum2a	tdum3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	7.7	-	-	-	-	-	272.0	20.3	-	-	-	-	-	-	-	-	-
birdsfoot trefoil	-	-	18.3	-	-	-	9.0	-	-	-	-	-	33.3	-	-	-	-	-	-	19
black medic	-	8.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bladder campion	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
canada thistle	-	2.0	-	-	-	-	-	0.7	-	93.3	45.3	-	-	-	-	-	0.3	8.3	-	-
common mallow	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common mullein	1.7	2.7	-	-	-	-	-	0.3	-	-	-	-	-	-	2.0	-	-	-	-	-
prickly lettuce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	-	-
queen annes lace	-	-	104.0	-	-	-	85.0	-	-	-	-	-	-	-	-	-	-	-	-	10
red clover	4.0	-	2.7	377.0	0.3	124.0	129.0	-	-	82.3	415.7	7.3	25.0	-	-	-	-	-	-	35
velvetleaf	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
white clover	388.7	473.3	-	8.0	-	16.0	13.7	2.0	-	-	-	107.7	257.0	-	-	-	-	-	-	75
wild mustard	-	-	-	-	-	11.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
yellow sweet clover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	-	-

Table 3: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiola	tpio2a	tprd1a	tprd2a	tsut2a	tver
common dandelion	1.3	1.0	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common yarrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-	-	-	-	-
morning glory	231.7	-	-	-	0.3	-	-	-	-	26.0	10.7	-	-	-	-	-	-	-	-	-
plantain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
smartweed	1.3	1.7	-	-	11.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
stinging nettle	-	-	-	-	-	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-

Table 4: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tapla	tbcrla	tbcrla	tbcrla	tbcrla	tpre1a	tpre1a	tpre2a	tpre2a	tpre3a	tpre3a	tpre4a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
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Table 5: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tapla	tbc1a	tbc2a	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
red clover	16.7	-	-	-	-	-	-	-	-	-	-	-
white clover	3.3	42.0	-	116.3	13.3	763.3	318.3	624.3	41.7	279.3	365.7	20.7
yellow sweet clover	-	-	-	-	-	-	-	1.3	-	-	-	-

Table 7: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
blue wild indigo	-	-	-	1.0
brown eyed susan	-	-	-	77.0
canada goldenrod	-	-	-	1.3
common cinquefoil	-	-	8.7	-
common milkweed	-	-	-	0.3
eastern daisy fleabane	-	-	3.3	-

Table 8: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	thyd1a	tbyd2a	terala	tuth3b
alfalfa	379.0	128.7	-	-
black medic	-	34.0	-	-
canada thistle	-	-	-	13.7
red clover	58.0	70.3	161.0	-
white clover	644.7	757.0	134.3	-
white sweet clover	3.3	-	1.7	-
wild parsnip	0.3	-	-	-
yellow sweet clover	-	1.0	2.3	-

Table 9: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	tcra1a	tuth3b
common dandelion	-	1.7	1.3	-

Table 10: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvania	tvosla
black eyed susan	-	-	-	-	2.3	71.0	-
blue vervain	-	-	1.3	-	-	-	-
brown eyed susan	-	-	-	-	7.7	34.3	-
canada goldenrod	-	-	-	53.7	-	-	-
common milkweed	-	-	0.3	-	-	-	-
eastern daisy fleabane	-	-	-	0.3	-	-	-
hoary vervain	-	-	1.7	19.0	-	-	-
ox eye sunflower	-	-	-	-	-	30.7	-
purple prairie clover	-	-	-	-	-	17.3	-
sawtooth sunflower	-	-	-	-	-	2.7	-
wild bergamot	-	-	-	-	-	19.7	-

Table 11: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
alfalfa	-	-	6.7	-	-	-	100.3
canada thistle	-	-	30.7	-	-	1.7	-
chicory	-	-	-	7.3	-	-	-
musk thistle	-	-	-	3.3	-	-	-
red clover	-	-	18.7	64.7	-	-	-
white clover	-	-	33.0	-	-	19.7	-
wild parsnip	0.3	-	-	11.7	-	55.7	2.0
yellow sweet clover	-	-	4.3	-	-	-	-

Table 12: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvan1a	tvos1a
morning glory	-	-	-	-	-	0.3	-
plantain	-	-	24.3	-	-	-	-

Table 13: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcrela	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiola	tpio2a	tprd1a	tprd2a	tsu
black eyed susan	1.0	-	-	0.7	-	-	2.3	1.0	-	1.0	1.3	14.7	36.7	3.0	-	1.0	0.3	2.0	-
blue vervain	-	-	-	0.3	-	-	-	-	-	-	-	-	30.0	501.0	-	-	-	-	-
brown eyed susan	-	0.3	0.7	-	-	-	-	0.7	1.7	-	-	-	-	-	6.0	-	-	1.0	-
buffalobur nightshade	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
clasping venus looking glass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7	-	-	-
common cinquefoil	-	-	-	-	-	0.3	-	-	-	-	-	0.3	4.0	1.3	-	-	-	-	-
compass plant	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	4.3	-
culvers root	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-
eastern black nightshade	-	-	-	2.0	-	-	-	6.7	-	-	-	-	-	-	1.0	-	0.3	-	-
eastern daisy fleabane	-	-	-	-	11.7	13.0	49.7	6.0	73.7	-	-	-	-	-	1.0	19.3	-	-	-
foxglove beardtongue	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-
groundcherry	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-
hoary vervain	-	-	-	-	-	-	-	-	-	-	-	-	4.3	0.3	-	-	-	-	-
ironweed	-	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	-	-	0.3	0.3	-	-	-	-	-	-	-	-
partridge pea	-	-	1.0	2.0	-	-	-	3.3	0.3	-	-	1.0	4.3	8.0	5.3	4.0	-	2.7	-
prairie cinquefoil	-	-	-	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
prostrate vervain	12000.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-
rough avens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
yellow coneflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
yellow wood sorrel	-	-	-	-	-	-	-	10.3	31.7	-	-	-	2.0	-	-	-	-	-	-
														20.0		4.3			

Table 14: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcrela	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiolb	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	16.3	-	-	-	-	-	20.7	-	-	574.3	184.0	-	-	-	-	-	-	70
birdsfoot trefoil	-	-	10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
black medic	1.7	-	-	-	0.3	0.3	-	298.0	164.0	-	-	-	-	-	16.3	1.0	204.3	-	-	-	-
bladder campion	34.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
canada thistle	-	-	-	-	-	-	-	-	-	-	2.3	-	-	-	1.0	-	-	-	-	-	-
chicory	-	-	-	-	-	-	-	-	-	-	-	18.3	2.7	-	0.7	-	-	-	-	-	-
common mallow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common mullein	-	-	-	-	-	-	-	0.3	0.3	-	-	-	-	-	-	-	-	-	-	-	-
field pennycress	-	-	-	-	-	-	-	-	-	20.0	1.0	1.3	-	-	-	-	-	-	-	-	5.0
musk thistle	-	-	-	2.0	-	-	-	12.7	0.3	-	-	1.0	-	-	-	-	-	-	-	-	-
pineapple weed	13.3	-	-	-	-	-	-	3.3	0.7	-	-	-	-	-	-	-	-	-	-	-	-
prickly sowthistle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.7	-	-
prostrate knotweed	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	16
queen annes lace	-	-	269.3	-	-	-	96.7	2.0	8.3	-	-	43.0	67.7	3.3	-	-	0.3	-	-	-	16
red clover	2.7	-	29.3	129.7	67.7	356.3	12.3	8.0	9.3	506.7	538.7	360.0	396.0	0.7	0.7	0.7	14.0	-	-	-	16
shepherds purse	-	-	1.3	9.0	-	-	-	-	-	2.7	31.7	4.0	3.3	-	-	-	-	21.0	0.3	60.3	-
shortstalk chickweed	-	-	-	-	-	-	-	-	15.3	-	-	-	-	-	-	-	-	-	-	-	-
venice mallow	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-
white clover	-	-	2.3	87.3	-	33.7	0.7	74.7	605.7	1.7	-	74.7	174.3	9.0	-	-	-	-	-	-	18
white sweet clover	-	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
wild mustard	-	-	-	-	-	-	-	-	-	18.3	6.7	1.0	-	-	-	-	0.7	-	-	-	-
yellow sweet clover	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	1.3	-	-	-	-	-

Table 15: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiolb	tpio2a	tprd1a	tprd2a	tsut2a	tver
bedstraw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common dandelion	-	-	0.3	11.0	-	6.0	-	2.0	-	1.0	1.3	19.7	20.7	0.3	-	-	-	1.7	21.0	0
common purslane	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-	-
common yarrow	-	-	-	-	-	-	-	-	-	-	-	2.3	88.7	-	-	-	-	-	-	-
hawkweed	-	-	-	-	-	-	-	-	-	-	-	106.7	-	-	-	-	-	-	-	-
morning glory	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
smartweed	1.3	14.3	1.3	3.3	218.3	47.7	7.0	2.3	11.3	5.0	10.0	782.7	257.3	-	-	-	-	-	-	-

Table 16: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tapp1a	tbc1a	tbc2a	tpr1a	tpr2a	tpr3a	tpr4a	tpr5a	tpr6a	tpr7a	tpr8a	tti1a
black eyed susan	10.7	-	-	0.3	1.7	1.7	0.3	-	1.7	0.3	-	0.3
blue vervain	1.0	-	-	-	-	-	-	-	-	-	-	-
common cinquefoil	-	-	-	-	-	-	5.3	-	-	-	0.3	-
compass plant	0.3	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	-	33.3	-	-	-	-	-	-	-
maretail	20.3	-	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	-	-	-	-	0.3
partridge pea	2.7	5.0	4.0	-	-	0.3	-	-	0.3	-	-	1.3
prostrate vervain	-	70.0	-	-	-	-	-	-	-	-	155.0	-
yellow cone flower	-	-	-	-	-	1.7	-	-	-	-	-	-

Table 17: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tpre2a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
alfalfa	-	16.7	-	-	-	-	-	-	-	-	-	-	-
black medic	1.0	102.0	1.3	10.3	-	8.3	0.7	6.7	0.3	-	-	2.0	-
musk thistle	-	-	-	-	1.0	-	-	-	-	-	-	-	-
pineapple weed	-	-	-	-	10.7	-	-	-	-	-	-	-	-
queen annes lace	-	-	-	-	-	1.3	-	-	-	-	-	-	-
red clover	105.7	-	-	-	-	-	-	-	-	-	-	-	-
shepherds purse	-	-	-	-	-	-	-	-	-	-	36.7	-	-
velvetleaf	0.7	-	-	-	-	-	-	-	-	-	-	-	-
white clover	249.0	33.7	-	9.0	3.3	18.0	32.3	49.3	3.0	11.0	22.3	-	-

Table 19: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbycd2a	tera1a	tuth3b
black eyed susan	4.7	0.3	0.7	17.3
brown eyed susan	-	-	1.0	-
common cinquefoil	-	-	9.7	-
common evening primrose	-	-	11.7	-
common milkweed	-	-	-	0.7
eastern daisy fleabane	-	-	24.3	-
hoary vervain	0.3	-	-	-
partridge pea	8.0	4.7	10.3	4.7
prostrate vervain	-	-	1.7	-

Table 20: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	terala	tuth3b
alfalfa	113.3	54.0	7.3	-
black medic	52.3	376.7	-	-
canada thistle	-	-	-	1.0
musk thistle	-	-	-	0.3
prickly sowthistle	4.0	5.0	-	-
red clover	68.0	14.7	181.7	-
shepherds purse	22.7	41.0	-	-
white clover	450.3	402.7	196.7	-
wild mustard	-	7.3	-	-

Table 21: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	tcr1a	tuth3b
common dandelion	27.3	55.0	-	0.7
hawkweed	-	-	-	127.7
smartweed	-	-	38.0	-

Table 22: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvania	tvosla
black eyed susan	1.7	-	-	0.3	1.3	-	0.7
blue vervain	-	-	-	-	-	2.0	-
hoary vervain	-	-	0.3	14.0	-	-	-
partridge pea	-	-	-	1.7	1.3	24.3	1.0
purple prairie clover	-	-	-	-	-	0.7	-
whorled milkweed	-	-	-	4.7	-	-	-
wild bergamot	-	-	-	-	-	0.3	-

Table 23: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
black medic	11.0	-	15.7	-	-	33.3	-
canada thistle	1.3	-	-	-	-	-	-
chicory	-	-	-	2.0	-	-	-
hoary alyssum	-	-	14.7	-	-	-	-
red clover	-	-	54.7	2.0	20.7	-	-
shepherds purse	-	-	-	-	0.7	-	-
white clover	-	-	6.3	-	-	-	-
wild parsnip	-	-	-	4.0	-	2.3	-
yellow sweet clover	-	-	-	-	-	3.7	-

Table 24: 2017 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniela	tvani1a	tvos1a
hawkweed	-	-	-	-	-	-	6.3
morning glory	-	-	7.7	-	761.3	0.7	-
smartweed	-	1412.7	2.3	-	54.3	-	17.0

Table 25: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcrc1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a
american bellflower	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	-	-
black eyed susan	-	5.3	5.3	-	-	-	111.3	6.7	3.7	-	-	-	1.7	-	70.0	57.7	15.0	127.0	-
blue vervain	1.0	-	-	-	9.7	-	-	-	35.0	-	-	62.0	103.3	2288.7	-	13.3	1.7	7.7	-
canada goldenrod	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-	-	-	-	-
canada milk vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3
carolina horsenettle	-	-	-	-	5.7	1.0	-	6.3	5.3	-	2.3	-	-	-	0.3	-	-	-	-
common cinquefoil	126.7	21.0	0.3	-	0.3	1.0	0.7	-	0.7	-	-	18.0	13.0	4.0	-	-	-	-	-
common evening primrose	-	-	-	-	-	1.0	-	-	-	-	-	-	-	2.3	2.0	-	-	0.7	1.7
common selfheal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common sneezeweed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	-	-	-
compass plant	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	195.3	-	93.3	197.7	928.3	51.7	301.7	-	-	0.7	3.7	1.0	101.7	1361.3	-	5.0	-
field thistle	-	-	-	-	-	-	-	-	-	-	-	-	-	15.3	-	-	-	-	-
flowering spurge	-	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
foxglove beardtongue	-	-	5.0	0.3	-	0.7	-	-	-	-	-	-	18.7	44.3	-	3.0	26.7	8.3	17.7
golden alexanders	-	-	0.3	1.7	-	-	-	-	-	0.7	-	2.3	-	2.3	-	-	-	-	-
great blue lobelia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-
hoary vervain	0.3	-	-	-	-	-	-	10.0	127.7	10.0	-	-	-	44.0	-	7.3	5.0	4.3	2.7
ironweed	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	0.3	-	-	-
lanceleaf fogfruit	-	-	-	-	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	-
leadplant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-
mairetail	-	-	-	30.7	-	-	6.7	-	-	-	-	-	-	-	-	-	-	38.7	12.7
new england aster	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0
ox eye sunflower	5.0	1.0	6.0	65.7	7.0	4.3	15.3	83.0	48.7	76.7	12.0	80.7	125.0	145.3	16.0	146.3	4.3	34.3	120.3
pale purple coneflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3	-	-	-	1.0
partridge pea	-	-	-	-	-	-	-	1.3	-	-	-	-	-	1.0	13.0	6.3	3.3	10.0	-
prairie blazing star	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-
prairie cinquefoil	-	-	-	-	-	-	-	-	1.3	-	-	-	0.3	-	-	-	7.0	-	-
prostrate vervain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
purple prairie clover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	-
rough avens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-
swamp milkweed	-	-	-	8.0	-	-	-	-	-	1.7	-	-	-	0.3	-	-	-	-	2.0
tall thistle	-	-	0.3	-	-	-	5.7	-	-	-	-	-	-	-	-	-	-	-	-
virginia mountain mint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
whorled milkweed	-	-	-	-	-	-	-	-	-	-	-	6.7	-	2.0	-	6.7	-	-	2.0
wild bergamot	3.0	6.0	-	1.7	-	0.7	1.7	-	-	124.7	12.7	56.3	98.0	57.7	193.0	-	73.0	11.0	49.0
wild cucumber	-	-	-	-	-	-	-	-	-	50.3	-	-	-	-	-	-	-	-	-
yellow coneflower	56.7	39.0	29.3	155.0	8.0	6.3	10.3	60.0	90.0	165.7	63.0	502.7	520.3	220.0	72.3	273.0	182.7	165.3	1115.0
yellow wood sorrel	-	-	-	-	-	-	-	31.7	-	-	-	-	-	-	-	-	-	-	-

Table 26: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcrela	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiolb	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	247.3	-	-	-	-	-	15.7	-	-	-	-	-	-	-	-	-	-
birdsfoot trefoil	-	-	25.3	-	-	-	3.0	1.3	112.0	-	-	973.0	1024.7	-	-	-	-	-	-	33
black medic	5.0	1.7	-	-	-	-	-	134.7	-	-	-	-	-	-	30.0	1.7	-	-	6.7	-
bladder campion	123.3	26.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bull thistle	-	-	-	-	-	-	0.7	-	-	-	-	1.7	1.0	-	-	-	-	1.7	-	-
canada thistle	-	11.3	-	3.0	-	-	-	-	-	9.0	1.3	13.0	-	19.7	-	-	-	-	98.0	-
catnip	-	-	-	-	-	-	-	16.0	-	20.0	-	-	-	-	-	-	-	-	154.7	-
chicory	-	-	-	-	-	-	-	-	-	-	-	106.7	-	-	-	-	-	-	-	-
common mullein	-	-	-	-	0.3	-	-	18.0	19.3	-	-	-	-	-	0.3	0.7	-	-	-	-
deftford pink	-	-	-	-	-	-	80.3	-	-	-	-	-	-	-	-	-	-	-	-	-
field pennycress	-	-	-	-	-	-	-	4.3	-	-	-	-	-	-	-	-	-	-	-	-
lesser burdock	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-
musk thistle	1.7	11.0	1.0	-	-	-	-	41.3	17.7	-	-	-	-	-	1.7	0.7	-	-	-	-
ox eye daisy	-	0.7	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-
prickly lettuce	0.3	-	-	-	-	-	118.0	17.3	3.3	11.7	-	-	-	-	-	-	-	1.0	-	-
prickly sowthistle	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
queen annes lace	-	-	350.3	-	-	-	943.3	6.3	36.7	-	0.7	19.0	33.0	-	78.3	-	-	-	59	-
red clover	68.3	28.3	1043.0	3244.0	197.7	889.3	1056.3	54.0	103.0	783.0	3081.7	1331.7	1184.3	4.7	959.0	559.3	-	-	10.0	41
venice mallow	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
white clover	698.7	260.0	7.3	239.7	12.0	122.7	-	1431.7	1746.7	-	-	497.3	495.3	53.0	-	1.0	-	-	21.7	48
white sweet clover	1.3	-	54.7	-	-	18.7	-	-	-	6.7	-	0.7	-	25.0	-	-	-	-	0.3	-
wild mustard	-	-	-	-	-	-	-	-	-	116.7	-	-	-	-	-	-	-	-	-	-
wild parsnip	-	-	-	2.0	35.3	26.0	8.3	19.7	-	-	-	-	-	1.7	-	-	-	-	-	-
yellow salsify	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-
yellow sweet clover	6.3	13.0	23.3	6.0	2.7	-	193.3	13.0	-	4.7	8.3	29.0	17.3	6.7	15.7	127.0	-	11.7	1.7	-

Table 27: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiola	tpio2a	tprd1a	tprd2a	tsut2a	tver
common dandelion	0.7	0.3	-	-	-	-	0.3	-	0.3	-	-	-	-	0.3	-	-	-	-	-	0.7
common yarrow	-	-	-	-	-	-	3.3	-	-	-	-	-	24.0	-	-	-	-	-	-	-
morning glory	0.7	-	-	-	4.0	2.0	-	-	-	1.7	1.0	-	-	-	-	-	-	-	-	-
plantain	4.7	-	-	17.0	-	-	-	-	1.0	-	-	2.0	-	-	-	-	-	-	-	-
smartweed	58.3	9.3	-	-	170.0	20.0	-	2.3	10.0	190.0	29.7	-	-	-	-	-	-	-	9.0	-
stinging nettle	-	-	-	-	5.0	-	-	23.3	2.3	-	-	-	-	-	-	-	-	-	-	-

Table 28: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tappla	tbcr1a	tbcr2a	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
black eyed susan	-	-	-	-	-	-	2.7	20.3	2.7	7.3	-	-
blue vervain	-	-	-	20.0	-	65.7	-	35.0	5.0	-	-	-
bog yellow-cress	-	-	-	7.3	-	0.7	-	38.0	-	-	-	-
butterfly milkweed	-	-	-	-	-	-	-	-	-	-	-	1.0
canada goldenrod	-	-	-	-	-	2.0	-	-	-	0.3	-	-
canada lettuce	-	-	-	-	-	-	-	-	-	-	-	21.7
canada milk vetch	-	-	-	-	-	-	0.7	-	-	-	-	1.0
common cinquefoil	3.0	23.0	-	94.3	119.3	273.0	205.0	35.3	236.7	153.3	264.0	16.7
common evening primrose	-	2.7	-	28.7	-	-	-	23.3	-	-	-	-
cup plant	-	-	65.0	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	0.7	277.0	0.7	0.3	0.3	1.7	23.7	-	-
field thistle	-	-	-	2.3	1.0	-	0.7	-	-	-	-	-
foxglove beardtongue	-	-	-	10.7	25.3	25.7	1.0	31.0	38.3	-	0.7	16.0
golden alexanders	-	-	-	-	-	-	-	-	-	-	8.3	1.7
hoary vervain	4.0	1.0	0.3	5.7	18.7	24.0	5.7	6.7	3.3	-	0.7	10.7
ironweed	0.3	-	1.3	-	-	-	-	-	-	-	-	-
maretail	13.7	1.7	0.7	-	-	-	-	0.3	-	-	0.3	29.0
nodding stickseed	-	-	-	3.0	26.3	-	-	-	-	-	-	-
ox eye sunflower	62.7	71.0	4.3	110.0	189.7	477.0	91.3	166.7	1.3	28.7	145.3	128.0
pale purple coneflower	-	-	1.3	-	0.7	-	-	-	-	-	-	2.3
partridge pea	-	-	-	1.3	1.3	-	-	-	-	-	2.3	-
prairie cinquefoil	-	-	0.7	-	-	-	-	-	-	-	-	-
prostrate vervain	-	0.7	-	-	-	-	-	-	-	99.3	24.3	-
purple prairie clover	-	-	-	-	-	-	-	-	0.7	-	-	1.0
rough cinquefoil	-	-	-	-	-	-	-	-	-	-	-	16.7
stiff goldenrod	-	-	-	-	-	1.0	-	-	-	-	-	-
virginia mountain mint	-	-	-	9.3	-	-	-	-	22.7	-	-	-
white heath aster	-	-	-	-	-	-	-	-	0.3	37.0	-	-
wild bergamot	0.7	-	-	39.7	71.7	50.7	36.0	31.7	-	18.7	53.0	81.0
yellow coneflower	153.7	119.0	143.7	409.3	788.3	860.0	345.0	836.7	337.0	268.0	528.3	612.0
yellow wood sorrel	2.0	-	-	-	-	-	-	-	-	-	-	2.0

Table 29: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tprela	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
alfalfa	0.3	-	-	-	-	-	-	-	-	-	-	-	-
black medic	-	85.3	-	-	86.3	33.3	3.3	1.7	21.7	-	35.0	36.7	-
bladder campion	-	-	-	-	2.7	-	21.7	7.7	-	-	-	-	-
canada thistle	8.3	-	-	-	12.3	5.3	1.7	-	-	-	-	-	23.3
catnip	-	-	-	-	-	-	10.7	-	-	-	-	-	-
field pennycress	-	13.7	101.0	-	-	-	-	-	-	-	-	-	-
musk thistle	-	-	-	-	-	44.3	3.3	-	-	-	-	-	-
pineapple weed	-	-	-	-	-	-	-	-	-	-	-	-	125.0
prickly lettuce	-	6.7	-	-	42.7	40.3	-	-	-	-	-	-	-
queen annes lace	-	-	-	-	-	-	-	-	-	-	8.3	-	-
red clover	290.7	176.3	-	-	16.7	1.7	-	-	-	-	-	-	-
shepherds purse	-	4.3	68.3	-	-	-	-	-	-	-	-	-	-
velvetleaf	-	-	1.7	-	-	-	-	-	-	-	-	-	-
white clover	51.3	717.0	1.7	793.0	109.0	1245.3	1210.0	1970.3	498.7	403.0	1373.3	4.7	-
white sweet clover	-	125.7	0.3	78.0	3.0	2.3	10.3	4.0	-	-	8.0	-	-
wild mustard	-	-	-	-	-	-	-	-	-	-	3.7	13.3	-
wild parsnip	0.3	-	-	-	-	-	-	-	-	-	-	-	-
yellow sweet clover	58.0	-	-	6.7	4.3	1.3	14.7	23.7	-	11.0	12.3	-	-

Table 30: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tappla	tbr1a	tbr2a	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
common dandelion	-	5.0	2.3	6.7	12.0	2.0	2.0	6.0	0.7	1.0	8.7	7.0
morning glory	-	1.3	-	-	-	-	-	-	-	-	-	-
smartweed	18.3	-	-	104.7	54.3	78.3	-	10.0	-	-	221.7	226.7

Table 31: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	terala	tuth3b
black eyed susan	0.3	5.0	3.3	228.7
blue vervain	-	-	1.7	-
brown eyed susan	-	-	-	3.3
butterfly milkweed	3.0	-	-	-
common cinquefoil	-	-	114.7	2.3
eastern daisy fleabane	-	-	24.0	-
foxglove beardtongue	5.7	8.7	-	-
golden alexanders	0.3	-	-	-
hoary vervain	9.3	1.0	1.7	0.3
maresetail	-	-	255.3	166.7
ox eye sunflower	236.0	144.0	48.0	13.3
pale purple coneflower	0.7	0.7	-	-
panicledleaf tick trefoil	-	-	-	3.3
partridge pea	-	-	-	8.3
prairie cinquefoil	-	0.3	-	-
purple prairie clover	-	-	0.3	-
swamp milkweed	-	0.7	-	-
tall boneset	-	-	1.0	-
white vervain	-	-	-	30.0
wild bergamot	67.7	226.3	-	12.7
yellow coneflower	590.3	687.0	116.0	181.7

Table 32: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
alfalfa	273.3	51.7	-	-
canada thistle	-	3.0	-	6.7
common mullein	-	0.3	-	4.0
musk thistle	-	-	-	4.7
prickly lettuce	-	-	3.3	-
red clover	206.3	111.3	661.3	-
white clover	2881.7	1327.0	765.7	120.3
white sweet clover	-	6.7	5.7	-
wild mustard	-	-	30.0	13.0
wild parsnip	15.0	13.7	-	237.7
yellow sweet clover	-	183.0	-	3.0

Table 33: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
common dandelion	1.0	1.3	-	-
morning glory	-	-	-	0.3

Table 34: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvavla	tvosla
black eyed susan	2.0	-	3.3	1.0	316.3	83.3	144.0
canada milk vetch	-	-	-	-	1.3	-	-
common cinquefoil	-	-	1.0	-	-	-	-
common evening primrose	4.0	-	-	0.7	-	-	4.7
cup plant	-	-	-	1.0	-	-	-
eastern daisy fleabane	-	-	-	66.3	-	-	-
field thistle	-	-	-	1.7	-	-	0.3
foxglove beardtongue	23.3	-	-	-	-	-	31.7
golden alexanders	6.7	-	-	-	-	-	7.0
groundcherry	3.0	-	-	-	-	-	-
hoary vervain	-	-	19.3	2.0	68.0	-	-
ironweed	-	-	0.7	-	-	-	-
maristail	0.7	-	1.7	-	-	-	-
ox eye sunflower	47.3	-	22.3	13.0	84.7	167.7	38.7
pale purple coneflower	-	-	-	-	0.3	1.3	-
partridge pea	-	-	-	-	0.7	0.3	-
purple prairie clover	-	-	-	-	-	29.0	-
wild bergamot	24.0	-	-	-	-	20.0	92.7
yellow coneflower	157.3	-	123.0	31.7	24.3	23.0	242.7
yellow wood sorrel	-	-	-	17.3	-	-	-

Table 35: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tnan1a	tvos1a
alfalfa	-	-	-	1.7	-	-	461.7
birdsfoot trefoil	-	-	1.0	-	-	-	-
black medic	-	-	23.3	1196.7	16.7	960.0	-
bladder campion	-	-	6.7	-	-	-	-
canada thistle	19.3	-	-	-	6.0	-	-
chicory	-	-	-	33.7	-	-	-
hoary alyssum	-	-	539.0	-	-	-	-
lesser burdock	-	-	3.3	-	-	-	-
prickly lettuce	-	-	-	-	-	-	60.0
queen annes lace	-	-	1.0	-	-	20.0	-
red clover	-	-	393.3	97.3	1274.7	52.0	-
velvetleaf	0.3	-	-	-	-	-	-
white clover	-	-	133.3	18.3	-	366.7	-
white sweet clover	1063.0	-	-	37.7	61.7	66.7	1179.0
wild parsnip	1075.7	-	-	469.0	-	205.3	100.0
yellow sweet clover	23.3	-	6.7	70.7	10.0	213.3	344.7

Table 36: 2018 nectar plant species: mean count across all surveys

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
smartweed	16.7	-	1.7	-	-	-	-

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 37: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a
black eyed susan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.63	-	-	-	-
canada goldenrod	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-
carolina hosenettle	-	-	-	-	0.15	0.05	0.03	0.33	0.10	-	0.19	-	-	-	0.17	-	-	-	-
common cinquefoil	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-
common evening primrose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-
common milkweed	-	-	-	-	-	-	-	-	-	0.01	0.02	-	-	-	-	-	-	-	-
compass plant	0.02	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	-	0.01	-	0.02	0.12	-	-	-	-	-	-	0.02	-	-	-	-
flowering spurge	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
golden alexanders	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
lanceleaf fogfruit	-	-	-	-	-	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
whitestar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	-	-	-
whorled milkweed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-

Table 38: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdum2a	tdum3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	0.08	-	-	-	-	-	4.53	0.34	-	-	-	-	-	-	-	-	-
birdsfoot trefoil	-	-	0.31	-	-	-	0.10	-	-	-	-	-	0.67	-	-	-	-	-	-	1.
black medic	-	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bladder campion	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
canada thistle	-	0.04	-	-	-	-	-	0.01	-	1.56	0.76	-	-	-	-	-	0.00	0.08	-	-
common mallow	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common mullein	0.03	0.05	-	-	-	-	-	0.00	-	-	-	-	-	-	0.02	-	-	-	-	-
prickly lettuce	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-
queen annes lace	-	-	1.73	-	-	-	0.86	-	-	-	-	-	0.07	-	-	-	-	-	-	0.
red clover	0.08	-	0.04	3.77	0.01	2.48	1.38	-	-	1.37	6.93	0.15	0.50	-	-	-	-	-	-	0.
velvetleaf	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
white clover	7.77	9.47	-	0.08	-	0.32	0.18	0.02	-	-	-	2.09	4.74	-	-	-	-	-	-	0.
wild mustard	-	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
yellow sweet clover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-

Table 39: 2016 Nectar plant species density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiolb	tpiolc	tpio2a	tprd1a	tprd2a	tsut2a	tver
common dandelion	0.03	0.02	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
common yarrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-
morning glory	4.63	-	-	-	0.01	-	-	-	-	0.43	0.18	-	-	-	-	-	-	-	-	-	-
plantain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.
smartweed	0.03	0.03	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
stinging nettle	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-

Table 40: 2016 Nectar plant species density (count / m²) across all rounds

Nectar Plant Species tappla tbcrla tbcrl2a tprela tpre2a tpre3a tpre4a tpre5a tpre6a tpre7a tpre8a ttiela

Table 41: 2016 Nectar plant species density (count / m2) across all rounds

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tbcrla	tbcrla	tbcrla	tbcrla	tbcrla	tbcrla
red clover	0.33	-	-	-	-	-	-	-	-	-
white clover	0.07	0.84	-	1.46	0.13	7.63	6.37	6.24	0.83	3.49
yellow sweet clover	-	-	-	-	-	-	-	0.01	-	-

Table 42: 2016 Nectar plant species density (count / m²) across all rounds

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tpr2a	tpr3a	tpr4a	tpr5a	tpr6a	tpr7a	tpr8a	ttiela
common dandelion	-	-	-	-	0.01	0.05	0.27	0.37	0.19	0.02	0.17	0.18
plantain	-	-	-	-	1.23	0.07	-	-	-	-	0.22	0.37

Table 43: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
blue wild indigo	-	-	-	0.01
brown eyed susan	-	-	-	0.77
canada goldenrod	-	-	-	0.01
common cinquefoil	-	-	0.12	-
common milkweed	-	-	-	0.00
eastern daisy fleabane	-	-	0.05	-

Table 44: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	terala	tuth3b
alfalfa	3.79	1.29	-	-
black medic	-	0.34	-	-
canada thistle	-	-	-	0.14
red clover	0.58	0.70	2.30	-
white clover	6.45	7.57	1.92	-
white sweet clover	0.03	-	0.02	-
wild parsnip	0.00	-	-	-
yellow sweet clover	-	0.01	0.03	-

Table 45: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	tcra1a	tuth3b
common dandelion	-	0.02	0.02	-

Table 46: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
black eyed susan	-	-	-	-	0.05	1.42	-
blue vervain	-	-	0.04	-	-	-	-
brown eyed susan	-	-	-	-	0.15	0.69	-
canada goldenrod	-	-	-	1.07	-	-	-
common milkweed	-	-	0.01	-	-	-	-
eastern daisy fleabane	-	-	-	0.01	-	-	-
hoary vervain	-	-	0.06	0.38	-	-	-
ox eye sunflower	-	-	-	-	-	0.61	-
purple prairie clover	-	-	-	-	-	0.35	-
sawtooth sunflower	-	-	-	-	-	0.05	-
wild bergamot	-	-	-	-	-	0.39	-

Table 47: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvan1a	tvos1a
alfalfa	-	-	0.22	-	-	-	2.01
canada thistle	-	-	1.02	-	-	0.03	-
chicory	-	-	-	0.15	-	-	-
musk thistle	-	-	-	0.07	-	-	-
red clover	-	-	0.62	1.29	-	-	-
white clover	-	-	1.10	-	-	0.39	-
wild parsnip	0.01	-	-	0.23	-	1.11	0.04
yellow sweet clover	-	-	0.14	-	-	-	-

Table 48: 2016 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvan1a	tvos1a
morning glory	-	-	-	-	-	0.01	-
plantain	-	-	0.81	-	-	-	-

Table 49: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	ther1a	tber1a	tber3a	ter1a	tdun1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiola	tpio2a	tprd1a	tprd2a	tsut
black eyed susan	0.02	-	-	0.01	-	-	-	0.02	0.01	-	-	0.02	0.02	0.15	0.37	0.06	-	0.01	0.00	0.02	0.
blue vervain	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	0.30	10.02	-	-	-	-	-
brown eyed susan	-	0.01	0.01	-	-	-	-	-	0.01	0.02	-	-	-	-	-	-	0.07	-	-	0.01	-
buffalobur nightshade	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
clasping venus looking glass	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.06	-	-	-
common cinquefoil	-	-	-	-	-	-	0.01	-	-	-	-	-	-	0.00	0.04	0.03	-	-	-	-	-
compass plant	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	0.04	-
culvers root	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-
eastern black nightshade	-	-	-	0.02	-	-	-	-	0.07	-	-	-	-	-	-	-	0.01	-	0.00	-	-
eastern daisy fleabane	-	-	-	-	0.23	0.26	0.26	0.50	0.06	0.74	-	-	-	-	-	-	0.01	0.24	-	-	-
foxglove beardtongue	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-
groundcherry	-	-	-	-	-	-	-	-	-	0.00	-	-	-	-	0.04	-	-	-	-	-	-
hoary vervain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-
ironweed	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	-	-	-	-	0.01	0.01	-	-	-	-	-	-	-	-
partridge pea	-	-	0.02	0.02	-	-	-	-	0.03	0.00	-	-	-	0.01	0.04	0.16	0.07	0.05	-	0.03	0.
prairie cinquefoil	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
prostrate vervain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-
rough avens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.
yellow coneflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-
yellow wood sorrel	-	-	-	-	-	-	-	-	0.10	0.32	-	-	-	-	-	0.40	-	0.05	-	-	0.

Table 50: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcrela	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiolb	tpiol1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	0.16	-	-	-	-	-	0.34	-	-	1.84	-	-	-	-	-	-	-	0.
birdsfoot trefoil	-	-	0.18	-	-	-	-	-	-	-	-	5.74	1.84	-	-	-	-	-	-	-	-
black medic	0.03	-	-	-	0.01	0.01	-	2.98	1.64	-	-	-	-	0.33	0.01	2.55	-	-	-	-	-
bladder campion	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
canada thistle	-	-	-	-	-	-	-	-	-	-	0.04	-	-	0.02	-	-	-	-	-	-	-
chicory	-	-	-	-	-	-	-	-	-	-	-	0.18	0.03	-	-	-	-	-	-	-	-
common mallow	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-
common mullein	-	-	-	-	-	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-
field pennycress	-	-	-	-	-	-	-	-	-	0.33	0.02	0.01	-	-	-	-	-	-	-	0.07	-
musk thistle	-	-	-	0.02	-	-	-	0.13	0.00	-	-	0.01	-	-	-	-	-	-	-	-	-
pineapple weed	0.27	-	-	-	-	-	-	0.03	0.01	-	-	-	-	-	-	-	-	-	-	-	-
prickly sowthistle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
prostrate knotweed	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.01	-	-
queen annes lace	-	-	4.49	-	-	-	0.97	0.02	0.08	-	-	-	-	-	-	-	-	0.00	-	-	1.
red clover	0.05	-	0.49	1.30	1.35	7.13	0.12	0.08	0.09	8.44	8.98	3.60	3.96	0.01	0.01	0.17	-	-	-	-	0.
shepherds purse	-	-	0.02	0.09	-	-	-	-	-	0.04	0.53	0.04	0.03	-	-	-	-	0.21	0.00	0.86	-
shortstalk chickweed	-	-	-	-	-	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-	-
venice mallow	-	-	-	-	-	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-	-
white clover	-	-	0.04	0.87	-	0.67	0.01	0.75	6.06	0.03	-	0.75	1.74	0.18	-	-	-	-	-	-	1.
white sweet clover	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
wild mustard	-	-	-	-	-	-	-	-	-	0.31	0.11	0.01	-	-	-	-	0.01	-	-	-	-
yellow sweet clover	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	0.02	-	-	-	-	-	-

Table 51: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpiol1a	tpiol2a	tpio2a	tprd1a	tprd2a	tsut2a	tver
bedstraw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.36	-	-	-	-
common dandelion	-	-	0.01	0.11	-	0.12	-	0.02	-	0.02	0.02	0.20	0.21	0.01	-	-	-	-	0.02	0.30	0.
common purslane	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-
common yarrow	-	-	-	-	-	-	-	-	-	-	-	0.02	0.89	-	-	-	-	-	-	-	-
hawkweed	-	-	-	-	-	-	-	-	-	-	-	1.07	-	-	-	-	-	-	-	-	-
morning glory	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
smartweed	0.03	0.29	0.02	0.03	4.37	0.95	0.07	0.02	0.11	0.08	0.17	7.83	2.57	-	-	-	-	-	-	-	-

Table 52: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tapp1a	tbc1a	tbc2a	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	tti1a
black eyed susan	0.21	-	-	0.00	0.02	0.02	0.01	-	0.03	0.00	-	0.01
blue vervain	0.02	-	-	-	-	-	-	-	-	-	-	-
common cinquefoil	-	-	-	-	-	-	0.11	-	-	-	0.00	-
compass plant	0.01	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	-	0.33	-	-	-	-	-	-	-
marestalk	0.41	-	-	-	-	-	-	-	-	-	-	-
ox eye sunflower	-	-	-	-	-	-	-	-	-	-	-	0.01
partridge pea	0.05	0.10	0.08	-	-	0.00	-	-	0.01	-	-	0.04
prostrate vervain	-	1.40	-	-	-	-	-	-	-	-	1.55	-
yellow cone flower	-	-	-	-	-	0.02	-	-	-	-	-	-

Table 53: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
alfalfa	-	0.33	-	-	-	-	-	-	-	-	-	-	-
black medic	0.02	2.04	0.03	0.13	-	-	0.08	0.01	0.07	0.01	-	0.02	-
musk thistle	-	-	-	-	-	0.01	-	-	-	-	-	-	-
pineapple weed	-	-	-	-	-	0.11	-	-	-	-	-	-	-
queen annes lace	-	-	-	-	-	-	0.01	-	-	-	-	-	-
red clover	2.11	-	-	-	-	-	-	-	-	-	-	-	-
shepherds purse	-	-	-	-	-	-	-	-	-	-	0.46	-	-
velvetleaf	0.01	-	-	-	-	-	-	-	-	-	-	-	-
white clover	4.98	0.67	-	0.11	0.03	0.18	0.65	0.49	0.06	0.14	0.22	-	-

Table 54: 2017 Nectar plant species density: average density (count / m²) across all rounds

Nectar Plant Species	tappla	tbcrla	tbcrla	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	tttela
common dandelion	0.06	0.11	0.03	0.01	0.06	0.06	0.03	0.02	-	-	-	0.03
smartweed	1.68	0.35	0.79	-	1.51	0.15	0.18	0.11	2.38	-	0.07	0.12

Table 55: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbycd2a	tera1a	tuth3b
black eyed susan	0.05	0.00	0.01	0.17
brown eyed susan	-	-	0.01	-
common cinquefoil	-	-	0.14	-
common evening primrose	-	-	0.17	-
common milkweed	-	-	-	0.01
eastern daisy fleabane	-	-	0.35	-
hoary vervain	0.00	-	-	-
partridge pea	0.08	0.05	0.15	0.05
prostrate vervain	-	-	0.02	-

Table 56: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	terala	tuth3b
alfalfa	1.13	0.54	0.10	-
black medic	0.52	3.77	-	-
canada thistle	-	-	-	0.01
musk thistle	-	-	-	0.00
prickly sowthistle	0.04	0.05	-	-
red clover	0.68	0.15	2.60	-
shepherds purse	0.23	0.41	-	-
white clover	4.50	4.03	2.81	-
wild mustard	-	0.07	-	-

Table 57: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	tcr1a	tuth3b
common dandelion	0.27	0.55	-	0.01
hawkweed	-	-	-	1.28
smartweed	-	-	0.54	-

Table 58: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvania	tvosla
black eyed susan	0.03	-	-	0.01	0.03	-	0.01
blue vervain	-	-	-	-	-	0.04	-
hoary vervain	-	-	0.01	0.28	-	-	-
partridge pea	-	-	-	0.03	0.03	0.49	0.02
purple prairie clover	-	-	-	-	-	0.01	-
whorled milkweed	-	-	-	0.09	-	-	-
wild bergamot	-	-	-	-	-	0.01	-

Table 59: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
black medic	0.22	-	0.52	-	-	0.67	-
canada thistle	0.03	-	-	-	-	-	-
chicory	-	-	-	0.04	-	-	-
hoary alyssum	-	-	0.49	-	-	-	-
red clover	-	-	1.82	0.04	0.41	-	-
shepherds purse	-	-	-	-	0.01	-	-
white clover	-	-	0.21	-	-	-	-
wild parsnip	-	-	-	0.08	-	0.05	-
yellow sweet clover	-	-	-	-	-	0.07	-

Table 60: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfis1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
hawkweed	-	-	-	-	-	-	0.13
morning glory	-	-	0.26	-	15.23	0.01	-
smartweed	-	28.25	0.08	-	1.09	-	0.34

Table 61: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgro1a	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a
american bellflower	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-
black eyed susan	-	0.11	0.09	-	-	-	1.11	0.07	0.04	-	-	-	0.02	-	0.88	0.72	0.15	1.27	-
blue vervain	0.02	-	-	-	0.19	-	-	-	0.35	-	-	0.62	1.03	45.77	-	0.17	0.02	0.08	-
canada goldenrod	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15	-	-	-	-	-
canada milk vetch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
carolina horsenettle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02
common cinquefoil	2.53	0.42	0.01	-	0.11	0.02	-	0.06	0.05	-	0.04	-	-	-	0.00	-	-	-	-
common evening primrose	-	-	-	-	0.01	-	0.01	-	0.01	-	-	0.18	0.13	0.08	-	-	-	-	-
common selfheal	-	-	-	-	-	0.02	-	-	-	-	-	-	-	0.05	0.02	-	-	0.01	0.02
common sneezeweed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-
compass plant	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	3.26	-	1.87	3.95	9.28	0.52	3.02	-	-	0.01	0.04	0.02	1.27	17.02	-	0.05	-
field thistle	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31	-	-	-	-	-
flowering spurge	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
foxglove beardtongue	-	-	0.08	0.00	-	0.01	-	-	-	-	-	-	0.19	0.89	-	0.04	0.27	0.08	0.25
golden alexanders	-	-	0.01	0.02	-	-	-	-	-	0.01	-	0.02	-	0.05	-	-	-	-	-
great blue lobelia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-
hoary vervain	0.01	-	-	-	-	-	-	0.10	1.28	0.17	-	-	-	0.88	-	0.09	0.05	0.04	0.04
ironweed	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	0.00	-	-	-
lanceleaf fogfruit	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-
leadplant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	-	-
mairetail	-	-	-	0.31	-	-	0.07	-	-	-	-	-	-	-	-	-	-	0.39	0.18
new england aster	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07
ox eye sunflower	0.10	0.02	0.10	0.66	0.14	0.09	0.15	0.83	0.49	1.28	0.20	0.81	1.25	2.91	0.20	1.83	0.04	0.34	1.72
pale purple coneflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	0.01
partridge pea	-	-	-	-	-	-	-	0.01	-	-	-	-	-	0.02	0.16	0.08	0.03	0.10	-
prairie blazing star	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-
prairie cinquefoil	-	-	-	-	-	-	-	-	0.01	-	-	-	0.00	-	-	-	0.07	-	-
prostrate vervain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
purple prairie clover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.10	-
rough avens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	0.03
swamp milkweed	-	-	-	0.08	-	-	-	-	-	0.03	-	-	-	0.01	-	-	-	-	-
tall thistle	-	-	0.01	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-
virginia mountain mint	-	-	-	-	-	-	-	-	-	-	-	0.07	-	0.04	-	0.08	-	-	0.03
whorled milkweed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.41	-	-	-	-
wild bergamot	0.06	0.12	-	0.02	-	0.01	0.02	-	-	2.08	0.21	0.56	0.98	1.15	-	0.22	0.73	0.11	0.70
wild cucumber	-	-	-	-	-	-	-	-	-	0.84	-	-	-	-	-	-	-	-	-
yellow coneflower	1.13	0.78	0.49	1.55	0.16	0.13	0.10	0.60	0.90	2.76	1.05	5.03	5.20	4.40	0.90	3.41	1.83	1.65	15.93
yellow wood sorrel	-	-	-	-	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-

Table 62: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
alfalfa	-	-	-	2.47	-	-	-	0.03	0.01	1.12	-	0.26	-	-	-	-	-	-	-	3.
birdsfoot trefoil	-	-	0.42	-	-	-	-	0.03	0.01	1.12	-	-	9.73	10.25	-	-	-	-	-	-
black medic	0.10	0.03	-	-	-	-	-	-	1.35	-	-	-	-	-	0.38	0.02	-	-	0.10	-
bladder campion	2.47	0.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bull thistle	-	-	-	-	-	-	-	0.01	-	-	-	-	0.02	0.01	-	-	-	0.02	-	-
canada thistle	-	0.23	-	0.03	-	-	-	-	-	-	0.15	0.02	0.13	-	0.39	-	-	-	1.40	-
catnip	-	-	-	-	-	-	-	-	0.16	-	0.33	-	-	-	-	-	-	-	2.21	-
chicory	-	-	-	-	-	-	-	-	-	-	-	1.07	-	-	-	-	-	-	-	-
common mullein	-	-	-	-	0.01	-	-	-	0.18	0.19	-	-	-	-	0.00	0.01	-	-	-	-
deftford pink	-	-	-	-	-	-	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-
field pennycress	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
lesser burdock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
musk thistle	0.03	0.22	0.02	-	-	-	-	-	0.41	0.18	-	-	-	-	0.02	0.01	-	-	-	-
ox eye daisy	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
prickly lettuce	0.01	-	-	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-
prickly sowthistle	-	0.02	-	-	-	-	-	1.18	0.17	0.03	0.19	-	-	-	-	-	-	0.01	-	-
queen annes lace	-	-	5.84	-	-	-	-	9.43	0.06	0.37	-	-	-	-	-	-	-	-	-	5.
red clover	1.37	0.57	17.38	32.44	3.95	17.79	10.56	0.01	0.54	1.03	13.05	51.36	13.32	11.84	0.09	11.99	-	-	0.14	4.
venice mallow	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
white clover	13.97	5.20	0.12	2.40	0.24	2.45	-	-	14.32	17.47	-	-	4.97	4.95	1.06	-	-	-	0.31	4.
white sweet clover	0.03	-	0.91	-	-	0.37	-	-	-	-	0.11	-	0.01	-	0.50	-	-	-	0.00	-
wild mustard	-	-	-	-	0.18	-	-	-	-	-	1.94	-	-	-	-	-	-	-	-	-
wild parsnip	-	-	-	0.02	0.71	0.52	0.08	0.20	0.20	-	-	-	-	0.03	-	-	-	-	-	-
yellow salsify	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-
yellow sweet clover	0.13	0.26	0.39	0.06	0.05	-	1.93	0.13	0.13	-	0.08	0.14	0.29	0.17	0.13	1.59	-	0.12	0.02	-

Table 63: 2018 Nectar plant species density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tarm1b	tarm2a	tber1a	tber3a	tcre1a	tdun2a	tdun3a	tgrola	tgro2a	tnkn1a	tnkn2a	tnor1b	tpio1a	tpio2a	tprd1a	tprd2a	tsut2a	tver
common dandelion	0.01	0.01	-	-	-	-	0.01	-	0.01	-	-	-	-	0.01	-	-	-	-	0.01	-
common yarrow	-	-	-	-	-	-	0.03	-	-	-	-	-	0.24	-	-	-	-	-	-	-
morning glory	0.01	-	-	-	0.08	0.04	-	-	-	0.03	0.02	-	-	-	-	-	-	-	-	-
plantain	0.09	-	-	0.17	-	-	-	-	0.01	-	-	0.02	-	-	-	-	-	-	-	-
smartweed	1.17	0.19	-	-	3.40	0.40	-	0.02	0.10	3.17	0.49	-	-	-	-	-	-	-	0.13	-
stinging nettle	-	-	-	-	0.10	-	-	0.23	0.02	-	-	-	-	-	-	-	-	-	-	-

Table 64: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tappla	tbcr1a	tbcr2a	tpre1a	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiela
black eyed susan	-	-	-	-	-	-	0.05	0.20	0.05	0.09	-	-
blue vervain	-	-	-	0.25	-	0.66	-	0.35	0.10	-	-	-
bog yellow-cress	-	-	-	0.09	-	0.01	-	0.38	-	-	-	-
butterfly milkweed	-	-	-	-	-	-	-	-	-	-	-	0.03
canada goldenrod	-	-	-	-	-	0.02	-	-	-	0.00	-	-
canada lettuce	-	-	-	-	-	-	-	-	-	-	-	0.72
canada milk vetch	-	-	-	-	-	-	0.01	-	-	-	-	0.03
common cinquefoil	0.06	0.46	-	1.18	1.19	2.73	4.10	0.35	4.73	1.92	2.64	0.56
common evening primrose	-	0.05	-	0.36	-	-	-	0.23	-	-	-	-
cup plant	-	-	1.30	-	-	-	-	-	-	-	-	-
eastern daisy fleabane	-	-	-	0.01	2.77	0.01	0.01	0.00	0.03	0.30	-	-
field thistle	-	-	-	0.03	0.01	-	0.01	-	-	-	-	-
foxglove beardtongue	-	-	-	0.13	0.25	0.26	0.02	0.31	0.77	-	0.01	0.53
golden alexanders	-	-	-	-	-	-	-	-	-	-	0.08	0.06
hoary vervain	0.08	0.02	0.01	0.07	0.19	0.24	0.11	0.07	0.07	-	0.01	0.36
ironweed	0.01	-	0.03	-	-	-	-	-	-	-	-	-
marastail	0.27	0.03	0.01	-	-	-	-	0.00	-	-	0.00	0.97
nodding stickseed	-	-	-	0.04	0.26	-	-	-	-	-	-	-
ox eye sunflower	1.25	1.42	0.09	1.38	1.90	4.77	1.83	1.67	0.03	0.36	1.45	4.27
pale purple coneflower	-	-	0.03	-	0.01	-	-	-	-	-	-	0.08
partridge pea	-	-	-	0.02	0.01	-	-	-	-	-	0.02	-
prairie cinquefoil	-	-	0.01	-	-	-	-	-	-	-	-	-
prostrate vervain	-	0.01	-	-	-	-	-	-	-	1.24	0.24	-
purple prairie clover	-	-	-	-	-	-	-	-	0.01	-	-	0.03
rough cinquefoil	-	-	-	-	-	-	-	-	-	-	-	0.56
stiff goldenrod	-	-	-	-	-	0.01	-	-	-	-	-	-
virginia mountain mint	-	-	-	0.12	-	-	-	-	0.45	-	-	-
white heath aster	-	-	-	-	-	-	-	-	0.01	0.46	-	-
wild bergamot	0.01	-	-	0.50	0.72	0.51	0.72	0.32	-	0.23	0.53	2.70
yellow coneflower	3.07	2.38	2.87	5.12	7.88	8.60	6.90	8.37	6.74	3.35	5.28	20.40
yellow wood sorrel	0.04	-	-	-	-	-	-	-	-	-	-	0.07

Table 65: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tappla	tbcrla	tbcrla	tbcrla	tbcrla	tpre2a	tpre3a	tpre4a	tpre5a	tpre6a	tpre7a	tpre8a	ttiel1a
alfalfa	0.01	-	-	-	-	-	-	-	-	-	-	-	-
black medic	-	1.71	-	-	1.08	0.33	0.03	0.03	0.22	-	0.44	0.37	-
bladder campion	-	-	-	-	0.03	-	0.22	0.15	-	-	-	-	-
canada thistle	0.17	-	-	-	0.15	0.05	0.02	-	-	-	-	-	0.78
catnip	-	-	-	-	-	-	0.11	-	-	-	-	-	-
field pennycress	-	0.27	2.02	-	-	-	-	-	-	-	-	-	-
musk thistle	-	-	-	-	-	0.44	0.03	-	-	-	-	-	-
pineapple weed	-	-	-	-	-	-	-	-	-	-	-	-	4.17
prickly lettuce	-	0.13	-	-	0.53	0.40	-	-	-	-	-	-	-
queen annes lace	-	-	-	-	-	-	-	-	-	-	0.10	-	-
red clover	5.81	3.53	-	-	0.21	0.02	-	-	-	-	-	-	-
shepherds purse	-	0.09	1.37	-	-	-	-	-	-	-	-	-	-
velvetleaf	-	-	0.03	-	-	-	-	-	-	-	-	-	-
white clover	1.03	14.34	0.03	9.91	9.91	1.09	12.45	24.20	19.70	9.97	5.04	13.73	0.16
white sweet clover	-	2.51	0.01	0.97	0.97	0.03	0.02	0.21	0.04	-	0.10	-	-
wild mustard	-	-	-	-	-	-	-	-	-	-	0.05	0.13	-
wild parsnip	0.01	-	-	-	-	-	-	-	-	-	-	-	-
yellow sweet clover	1.16	-	-	-	0.08	0.04	0.01	0.29	0.24	-	0.14	0.12	-

Table 66: 2018 Nectar plant species density (count / m2) across all rounds

Nectar Plant Species	tapp1a	tbcrla	tbcrla	tpr2a	tpr1a	tpr2a	tpr3a	tpr4a	tpr5a	tpr6a	tpr7a	tpr8a	tt1a
common dandelion	-	0.10	0.05	0.08	0.12	0.12	0.02	0.04	0.06	0.01	0.01	0.09	0.23
morning glory	-	0.03	-	-	-	-	-	-	-	-	-	-	-
smartweed	0.37	-	-	1.31	0.54	0.78	0.78	-	0.10	-	-	2.22	7.56

Table 67: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	terala	tuth3b
black eyed susan	0.00	0.05	0.05	2.29
blue vervain	-	-	0.02	-
brown eyed susan	-	-	-	0.03
butterfly milkweed	0.03	-	-	-
common cinquefoil	-	-	1.64	0.02
eastern daisy fleabane	-	-	0.34	-
foxglove beardtongue	0.06	0.09	-	-
golden alexanders	0.00	-	-	-
hoary vervain	0.09	0.01	0.02	0.00
maresetail	-	-	3.65	1.67
ox eye sunflower	2.36	1.44	0.69	0.13
pale purple coneflower	0.01	0.01	-	-
panicledleaf tick trefoil	-	-	-	0.03
partridge pea	-	-	-	0.08
prairie cinquefoil	-	0.00	-	-
purple prairie clover	-	-	0.00	-
swamp milkweed	-	0.01	-	-
tall boneset	-	-	0.01	-
white vervain	-	-	-	0.30
wild bergamot	0.68	2.26	-	0.13
yellow coneflower	5.90	6.87	1.66	1.82

Table 68: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
alfalfa	2.73	0.52	-	-
canada thistle	-	0.03	-	0.07
common mullein	-	0.00	-	0.04
musk thistle	-	-	-	0.05
prickly lettuce	-	-	0.05	-
red clover	2.06	1.11	9.45	-
white clover	28.82	13.27	10.94	1.20
white sweet clover	-	0.07	0.08	-
wild mustard	-	-	0.43	0.13
wild parsnip	0.15	0.14	-	2.38
yellow sweet clover	-	1.83	-	0.03

Table 69: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tbyd1a	tbyd2a	tcrala	tuth3b
common dandelion	0.01	0.01	-	-
morning glory	-	-	-	0.00

Table 70: 2018 Nectar plant species density: average density (count / m2) across all rounds

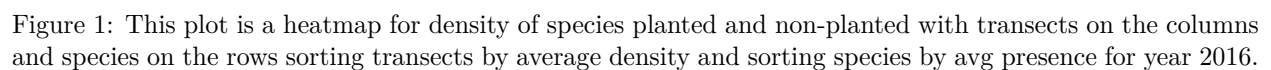
Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvavla	tvosla
black eyed susan	0.04	-	0.11	0.02	6.33	1.67	2.88
canada milk vetch	-	-	-	-	0.03	-	-
common cinquefoil	-	-	0.03	-	-	-	-
common evening primrose	0.08	-	-	0.01	-	-	0.09
cup plant	-	-	-	0.02	-	-	-
eastern daisy fleabane	-	-	-	1.33	-	-	-
field thistle	-	-	-	0.03	-	-	0.01
foxglove beardtongue	0.47	-	-	-	-	-	0.63
golden alexanders	0.13	-	-	-	-	-	0.14
groundcherry	0.06	-	-	-	-	-	-
hoary vervain	-	-	0.64	0.04	1.36	-	-
ironweed	-	-	0.02	-	-	-	-
maristail	0.01	-	0.06	-	-	-	-
ox eye sunflower	0.95	-	0.74	0.26	1.69	3.35	0.77
pale purple coneflower	-	-	-	-	0.01	0.03	-
partridge pea	-	-	-	-	0.01	0.01	-
purple prairie clover	-	-	-	-	-	0.58	-
wild bergamot	0.48	-	-	-	-	0.40	1.85
yellow coneflower	3.15	-	4.10	0.63	0.49	0.46	4.85
yellow wood sorrel	-	-	-	0.35	-	-	-

Table 71: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdavla	tfisla	tharla	tjonla	tniela	tvania	tvosla
alfalfa	-	-	-	0.03	-	-	9.23
birdsfoot trefoil	-	-	0.03	-	-	-	-
black medic	-	-	0.78	23.93	0.33	19.20	-
bladder campion	-	-	0.22	-	-	-	-
canada thistle	0.39	-	-	-	0.12	-	-
chicory	-	-	-	0.67	-	-	-
hoary alyssum	-	-	17.97	-	-	-	-
lesser burdock	-	-	0.11	-	-	-	-
prickly lettuce	-	-	-	-	-	-	1.20
queen ames lace	-	-	0.03	-	-	0.40	-
red clover	-	-	13.11	1.95	25.49	1.04	-
velvetleaf	0.01	-	-	-	-	-	-
white clover	-	-	4.44	0.37	-	7.33	-
white sweet clover	21.26	-	-	0.75	1.23	1.33	23.58
wild parsnip	21.51	-	-	9.38	-	4.11	2.00
yellow sweet clover	0.47	-	0.22	1.41	0.20	4.27	6.89

Table 72: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tdav1a	tfs1a	thar1a	tjon1a	tniel1a	tvani1a	tvos1a
smartweed	0.33	-	0.06	-	-	-	-



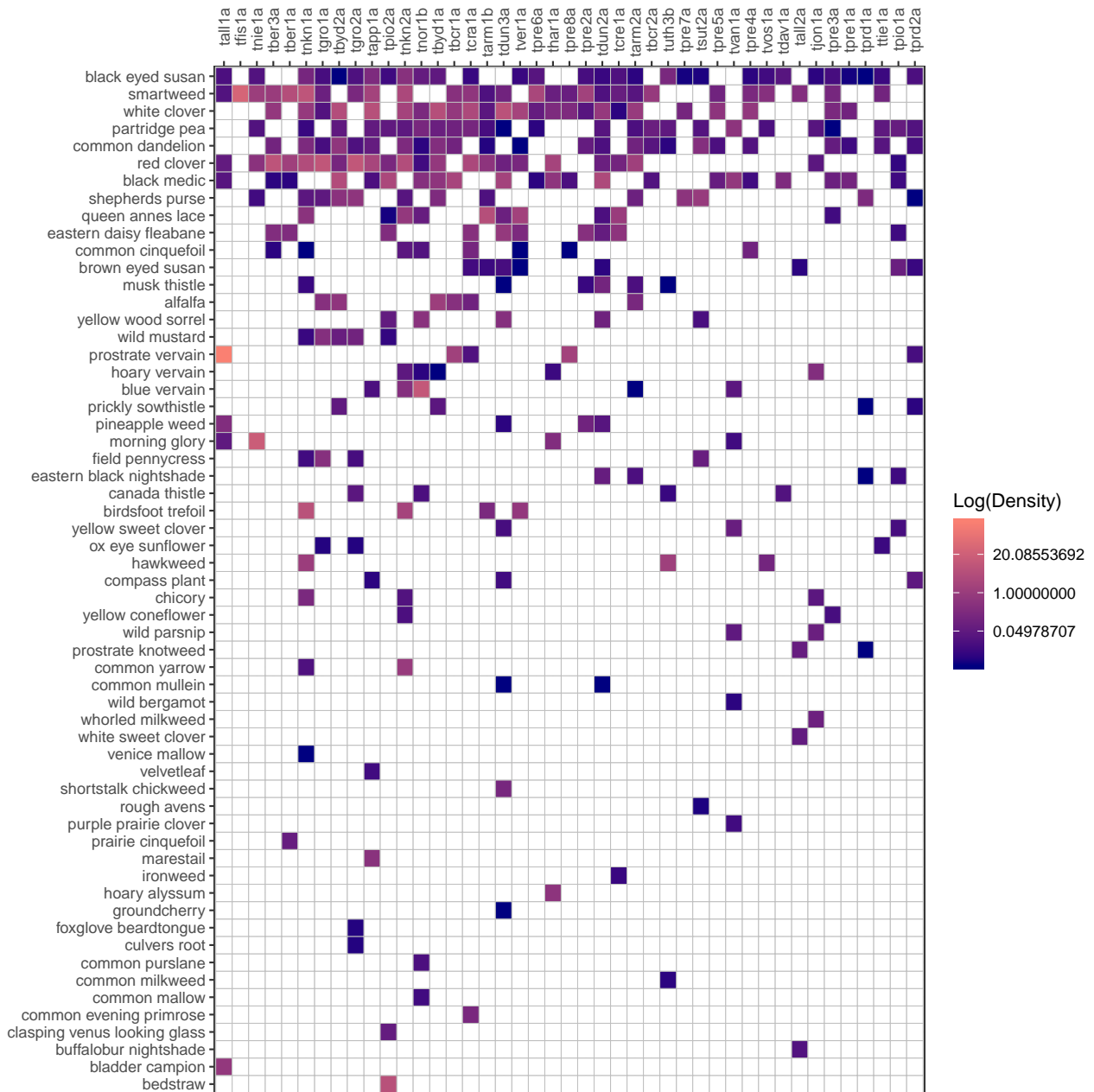


Figure 2: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

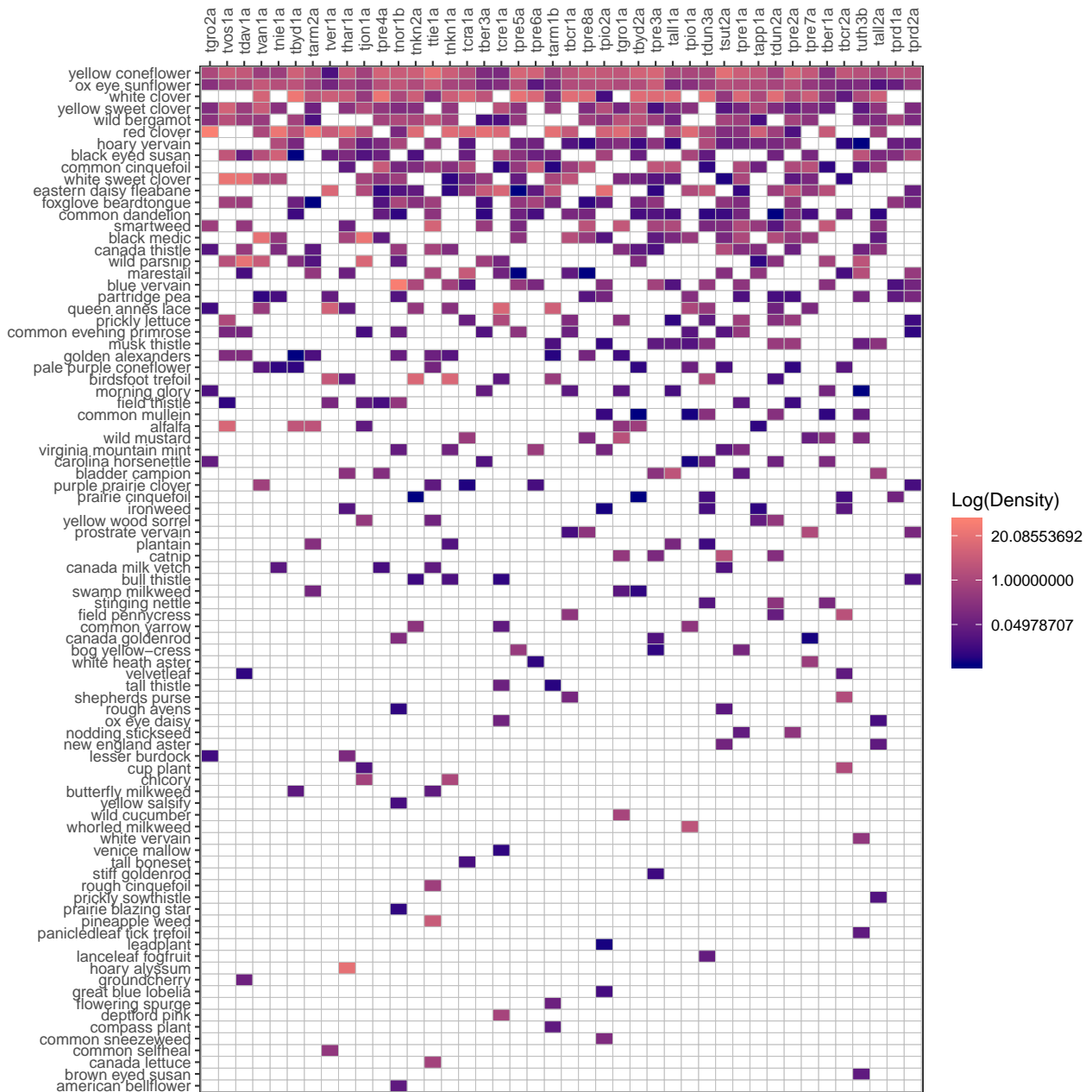
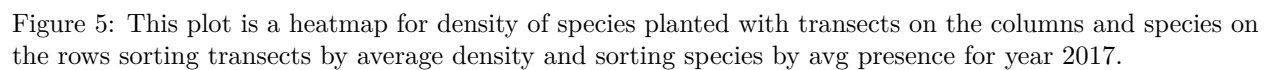
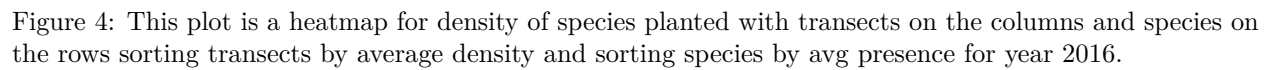
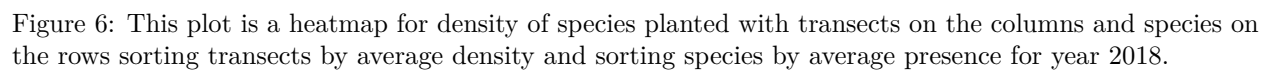


Figure 3: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2018.





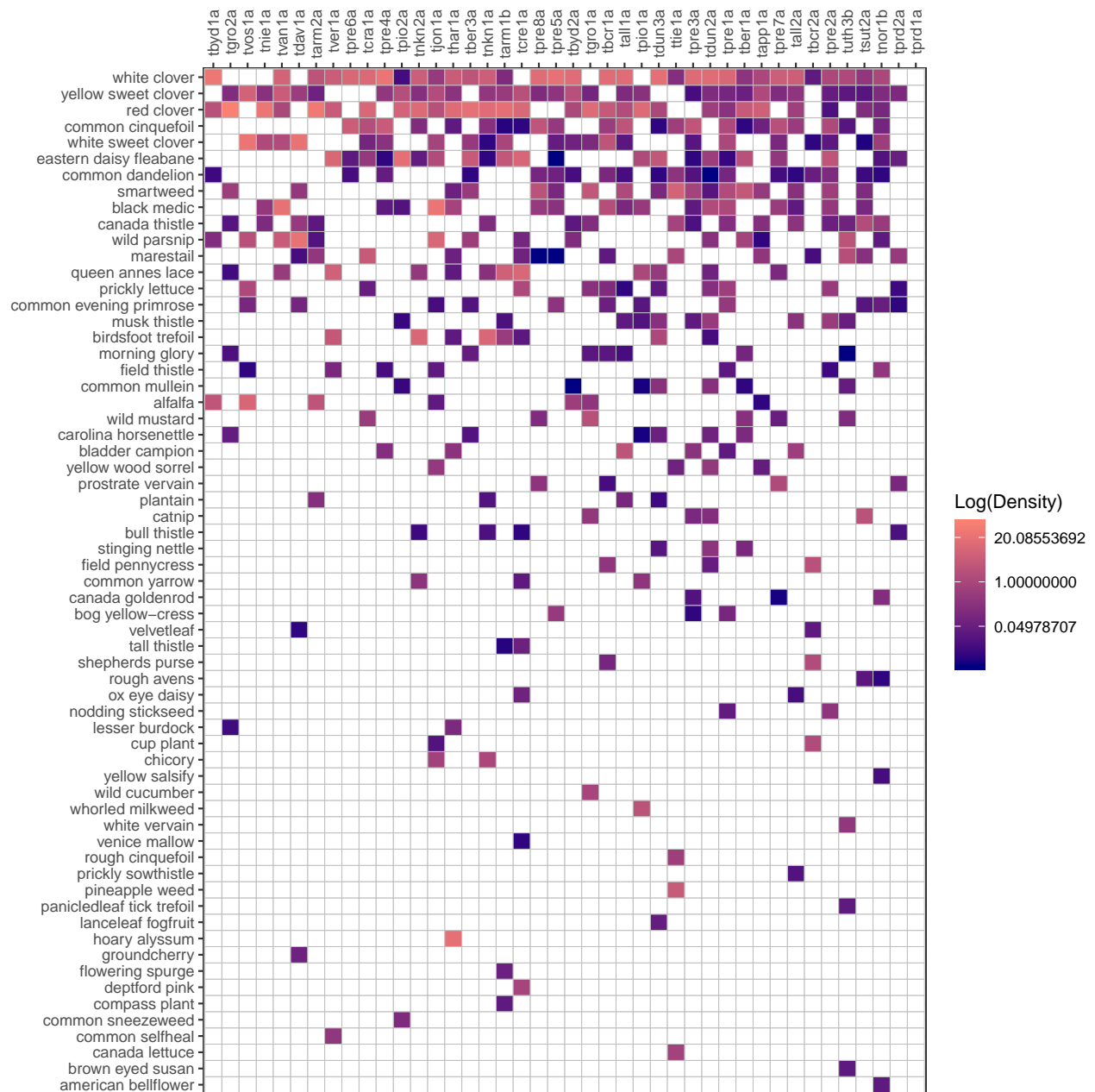


Figure 9: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.