

ISU Monarch Data Summary for NCIG

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2019-07-15

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 | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcre1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| black eyed susan | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.63 | - | - | - | - | - |
| common milkweed | - | - | - | - | - | - | - | - | - | 0.01 | 0.02 | - | - | - | - | - | - | - | - | - |
| golden alexanders | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ox eye sunflower | - | - | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tere1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| alfalfa | - | - | - | 0.08 | - | - | - | - | - | 4.53 | 0.34 | - | - | - | - | - | - | - | - | - |
| birdsfoot trefoil | - | - | 0.31 | - | - | - | 0.10 | - | - | - | - | - | 0.67 | - | - | - | - | - | - | 1.91 |
| black medic | - | 0.17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| bladder campion | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| canada goldenrod | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - |
| canada thistle | - | 0.04 | - | - | - | - | - | 0.01 | - | 1.56 | 0.76 | - | - | - | - | - | 0.00 | 0.08 | - | - |
| carolina horsenettle | - | - | - | - | 0.15 | 0.05 | 0.03 | 0.33 | 0.10 | - | 0.19 | - | - | - | 0.17 | - | - | - | - | - |
| common cinquefoil | - | - | - | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| common dandelion | 0.03 | 0.02 | - | - | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| common evening primrose | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.22 | - | - | - | - | - |
| common mallow | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| common mullein | 0.03 | 0.05 | - | - | - | - | - | 0.00 | - | - | - | - | - | - | 0.02 | - | - | - | - | - |
| common yarrow | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - | - | - | - |
| compass plant | 0.02 | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| eastern daisy fleabane | - | - | - | - | 0.01 | - | 0.02 | 0.12 | - | - | - | - | - | - | 0.02 | - | - | - | - | 3.73 |
| flowering spurge | - | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 3: 2016 Nectar plant species density: average density (count / m²) across all rounds for NCIG grant transects

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcre1a | tdum2a | tdum3a | tgrola | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tpri1a | tpri2a | tsut2a | tver1a |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| lanceleaf fogfruit | - | - | - | - | - | - | - | - | 0.17 | - | - | - | - | - | - | - | - | - | - | - |
| morning glory | 4.63 | - | - | - | 0.01 | - | - | - | - | 0.43 | 0.18 | - | - | - | - | - | - | - | - | - |
| plantain | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.04 |
| prickly lettuce | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.04 | - | - |
| queen annes lace | - | - | 1.73 | - | - | - | 0.86 | - | - | - | - | - | 0.07 | - | - | - | - | - | - | 0.11 |
| red clover | 0.08 | - | 0.04 | 3.77 | 0.01 | 2.48 | 1.38 | - | - | 1.37 | 6.93 | 0.15 | 0.50 | - | - | - | - | - | - | 0.32 |
| smartweed | 0.03 | 0.03 | - | - | 0.23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| stinging nettle | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - |
| velvetleaf | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| white clover | 7.77 | 9.47 | - | 0.08 | - | 0.32 | 0.18 | 0.02 | - | - | - | 2.09 | 4.74 | - | - | - | - | - | - | 0.72 |
| whitestar | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.17 | - | - | - | - | - |
| whorled milkweed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - |
| wild mustard | - | - | - | - | - | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| yellow sweet clover | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.04 | - | - |

Table 4: 2016 Nectar plant species density: average density (count / m²) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tapp1a | tbcr1a | tbcr2a | tdav1a | tfs1a | thar1a | tjon1a | tnie1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttie1a | tvan1a | tvos1a |
|-----------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| black eyed susan | - | - | - | - | - | - | - | 0.05 | - | - | - | - | - | - | - | - | - | 1.42 | - |
| blue vervain | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| common milkweed | - | - | - | - | - | 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 5: 2016 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tapp1a | tbcrla | tbcrla | tdav1a | tfls1a | tharl1a | tjon1a | tniel1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttiel1a | tvan1a | tvosl1a |
|------------------------|--------|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---------|
| alfalfa | - | - | - | - | - | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | 2.01 |
| brown eyed susan | - | - | - | - | - | - | - | 0.15 | - | - | - | - | - | - | - | - | - | 0.69 | - |
| canada goldenrod | - | - | - | - | - | - | 1.07 | - | - | - | - | - | - | - | - | - | - | - | - |
| canada thistle | - | - | - | - | - | 1.02 | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - |
| chicory | - | - | - | - | - | - | 0.15 | - | - | - | - | - | - | - | - | - | - | - | - |
| common dandelion | - | - | - | - | - | - | - | - | 0.01 | 0.05 | 0.27 | 0.37 | 0.19 | 0.02 | 0.17 | 0.18 | - | - | - |
| eastern daisy fleabane | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tappl | tbcr1a | tbcr2a | tdav1a | tfs1a | thar1a | tjon1a | tnie1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttie1a | tvan1a | tvos1a |
|----------------------|-------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| morning glory | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - |
| musk thistle | - | - | - | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - |
| plantain | - | - | - | - | - | 0.81 | - | - | 1.23 | 0.07 | - | - | - | - | 0.22 | 0.37 | - | - | - |
| red clover | 0.33 | - | - | - | - | 0.62 | 1.29 | - | - | - | - | - | - | - | - | - | - | - | - |
| white clover | 0.07 | 0.84 | - | - | - | 1.10 | - | - | 1.46 | 0.13 | 7.63 | 6.37 | 6.24 | 0.83 | 3.49 | 3.66 | 0.69 | 0.39 | - |
| wild parsnip | - | - | - | 0.01 | - | - | 0.23 | - | - | - | - | - | - | - | - | - | - | 1.11 | 0.04 |
| yellow sweet clover | - | - | - | - | - | 0.14 | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - |

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

| Nectar Plant Species | tbyd1a | tbyd2a | tcr1a | tuth3b |
|----------------------|--------|--------|-------|--------|
| common milkweed | - | - | - | 0.00 |

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

| Nectar Plant Species | tbzyd1a | tbzyd2a | tcra1a | tuth3b |
|------------------------|---------|---------|--------|--------|
| alfalfa | 3.79 | 1.29 | - | - |
| black medic | - | 0.34 | - | - |
| blue wild indigo | - | - | - | 0.01 |
| brown eyed susan | - | - | - | 0.77 |
| canada goldenrod | - | - | - | 0.01 |
| canada thistle | - | - | - | 0.14 |
| common cinquefoil | - | - | 0.12 | - |
| common dandelion | - | 0.02 | 0.02 | - |
| eastern daisy fleabane | - | - | 0.05 | - |

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

| Nectar Plant Species | tbyd1a | tbyd2a | tera1a | tuth3b |
|----------------------|--------|--------|--------|--------|
| 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 10: 2017 Nectar plant species density: average density (count / m²) across all rounds for NCIG grant transects

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcre1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 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 | 0.00 | 0.01 |
| blue vervain | - | - | - | 0.00 | - | - | - | - | - | - | - | - | 0.30 | 10.02 | - | - | - | - | - | - |
| culvers root | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | - |
| foxglove beardtongue | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | - |
| hoary vervain | - | - | - | - | - | - | - | - | - | - | - | - | 0.04 | 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 | 0.03 | - |
| prairie cinquefoil | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| yellow coneflower | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcere1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tpri1a | tpri2a | tsut2a | tver1a |
|------------------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| alfalfa | - | - | - | 0.16 | - | - | - | - | - | 0.34 | - | - | - | - | - | - | - | - | - | - |
| bedstraw | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.36 | - | - | - | - |
| birdsfoot trefoil | - | - | 0.18 | - | - | - | - | - | - | - | - | 5.74 | 1.84 | - | - | - | - | - | - | 0.70 |
| black medic | 0.03 | - | - | - | 0.01 | 0.01 | - | 2.98 | 1.64 | - | - | - | - | 0.33 | 0.01 | 2.55 | - | - | - | - |
| bladder campion | 0.68 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| brown eyed susan | - | 0.01 | 0.01 | - | - | - | - | 0.01 | 0.02 | - | - | - | - | - | 0.07 | - | - | 0.01 | - | 0.00 |
| buffalobur nightshade | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| canada thistle | - | - | - | - | - | - | - | - | - | - | 0.04 | - | - | 0.02 | - | - | - | - | - | - |
| chicory | - | - | - | - | - | - | - | - | - | - | - | 0.18 | 0.03 | - | - | - | - | - | - | - |
| clasping venus looking glass | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.06 | - | - | - | - |
| common cinquefoil | - | - | - | - | - | 0.01 | - | - | - | - | - | 0.00 | 0.04 | 0.03 | - | - | - | - | - | 0.00 |
| common dandelion | - | - | 0.01 | 0.11 | - | 0.12 | - | 0.02 | - | 0.02 | 0.02 | 0.20 | 0.21 | 0.01 | - | - | - | 0.02 | 0.30 | 0.00 |
| common mallow | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - |
| common mullein | - | - | - | - | - | - | - | 0.00 | 0.00 | - | - | - | - | - | - | - | - | - | - | - |
| common purslane | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - |
| common yarrow | - | - | - | - | - | - | - | - | - | - | - | 0.02 | 0.89 | - | - | - | - | - | - | - |
| compass plant | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | 0.04 | - | - |
| eastern black nightshade | - | - | - | - | - | - | - | 0.07 | - | - | - | - | - | - | - | - | 0.00 | - | - | - |
| eastern daisy fleabane | - | - | - | 0.02 | - | 0.23 | 0.26 | 0.50 | 0.74 | - | - | - | - | - | 0.01 | 0.24 | - | - | - | 0.20 |
| field pennycress | - | - | - | - | - | - | - | - | - | 0.33 | 0.02 | 0.01 | - | - | - | - | - | - | 0.07 | - |
| groundcherry | - | - | - | - | - | - | - | - | 0.00 | - | - | - | - | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcere1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|----------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| hawkweed | - | - | - | - | - | - | - | - | - | - | - | 1.07 | - | - | - | - | - | - | - | - |
| morning glory | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| musk thistle | - | - | - | 0.02 | - | - | - | 0.13 | 0.00 | - | - | 0.01 | - | - | - | - | - | - | - | - |
| pineapple weed | 0.27 | - | - | - | - | - | - | 0.03 | 0.01 | - | - | - | - | - | - | - | - | - | - | - |
| prickly sowthistle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | 0.01 | - | - | - |
| prostrate knotweed | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | - | - | - |
| prostrate vervain | 240.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - |
| queen annes lace | - | - | 4.49 | - | - | - | 0.97 | 0.02 | 0.08 | - | - | 0.43 | 0.68 | 0.07 | - | 0.00 | - | - | - | 1.60 |
| 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 | - | - | - | 0.16 |
| rough avens | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - |
| shepherds purse | - | - | 0.02 | 0.09 | - | - | - | - | - | 0.04 | 0.53 | 0.04 | 0.03 | - | - | - | 0.21 | 0.00 | 0.86 | - |
| shortstalk chickweed | - | - | - | - | - | - | - | - | 0.15 | - | - | - | - | - | - | - | - | - | - | - |
| 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 | - | - | - | - | - | - | - |
| 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 | - | - | - | - | - | 1.85 |
| white sweet clover | - | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| wild mustard | - | - | - | - | - | - | - | - | - | 0.31 | 0.11 | 0.01 | - | - | - | 0.01 | - | - | - | - |
| yellow sweet clover | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | 0.02 | - | - | - | - | - |
| yellow wood sorrel | - | - | - | - | - | - | - | 0.10 | 0.32 | - | - | - | - | 0.40 | - | 0.05 | - | - | 0.02 | - |

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

| Nectar Plant Species | tapp1a | tbcr1a | tbcr2a | tdav1a | tfs1a | thar1a | tjon1a | tnie1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttie1a | tvan1a | tvos1a |
|-----------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| black eyed susan | 0.21 | - | - | 0.03 | - | - | 0.01 | 0.03 | 0.00 | 0.02 | 0.02 | 0.01 | - | 0.03 | 0.00 | - | 0.01 | - | 0.01 |
| blue vervain | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.04 | - |
| hoary vervain | - | - | - | - | - | 0.01 | 0.28 | - | - | - | - | - | - | - | - | - | - | - | - |
| ox eye sunflower | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - |
| partridge pea | 0.05 | 0.10 | 0.08 | - | - | - | 0.03 | 0.03 | - | - | 0.00 | - | - | 0.01 | - | - | 0.04 | 0.49 | 0.02 |
| purple prairie clover | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - |
| wild bergamot | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - |
| yellow cone flower | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - | - |

Table 14: 2017 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tappla | tbcr1a | tbcr2a | tdav1a | tfsla | thar1a | tjon1a | tnie1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttie1a | tvan1a | tvos1a |
|------------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| alfalfa | - | 0.33 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| black medic | 0.02 | 2.04 | 0.03 | 0.22 | - | 0.52 | - | - | 0.13 | - | 0.08 | 0.01 | 0.07 | 0.01 | - | 0.02 | - | 0.67 | - |
| canada thistle | - | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| chicory | - | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - |
| common cinquefoil | - | - | - | - | - | - | - | - | - | - | - | 0.11 | - | - | - | 0.00 | - | - | - |
| common dandelion | 0.06 | 0.11 | 0.03 | - | - | - | - | - | 0.01 | 0.06 | 0.06 | 0.03 | 0.02 | - | - | - | 0.03 | - | - |
| compass plant | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| eastern daisy fleabane | - | - | - | - | - | - | - | - | - | 0.33 | - | - | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tapp1a | tbcrla | tbcrla | tbcr2a | tdav1a | tfs1a | thar1a | tjon1a | tnle1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttle1a | tvan1a | tvos1a |
|----------------------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| hawkweed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.13 |
| hoary alyssum | - | - | - | - | - | - | 0.49 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| maretail | 0.41 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| morning glory | - | - | - | - | - | - | 0.26 | - | 15.23 | - | - | - | - | - | - | - | - | - | 0.01 | - |
| musk thistle | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | - |
| pineapple weed | - | - | - | - | - | - | - | - | - | - | 0.11 | - | - | - | - | - | - | - | - | - |
| prostrate vervain | - | 1.40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.55 | - | - | - |
| queen annes lace | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - |
| red clover | 2.11 | - | - | - | - | - | 1.82 | 0.04 | 0.41 | - | - | - | - | - | - | - | - | - | - | - |
| shepherds purse | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | 0.46 | - | - | - | - |
| smartweed | 1.68 | 0.35 | 0.79 | - | 28.25 | 0.08 | - | - | 1.09 | - | 1.51 | 0.15 | 0.18 | 0.11 | 2.38 | - | 0.07 | 0.12 | - | 0.34 |
| velvetleaf | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| white clover | 4.98 | 0.67 | - | - | - | - | 0.21 | - | - | 0.11 | 0.03 | 0.18 | 0.65 | 0.49 | 0.06 | 0.14 | 0.22 | - | - | - |
| whorled milkweed | - | - | - | - | - | - | - | 0.09 | - | - | - | - | - | - | - | - | - | - | - | - |
| wild parsnip | - | - | - | - | - | - | - | 0.08 | - | - | - | - | - | - | - | - | - | - | 0.05 | - |
| yellow sweet clover | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.07 | - |

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

| Nectar Plant Species | tbyd1a | tbyd2a | tcr1a | tuth3b |
|----------------------|--------|--------|-------|--------|
| black eyed susan | 0.05 | 0.00 | 0.01 | 0.17 |
| common milkweed | - | - | - | 0.01 |
| hoary vervain | 0.00 | - | - | - |
| partridge pea | 0.08 | 0.05 | 0.15 | 0.05 |

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

| Nectar Plant Species | tbyd1a | tbyd2a | tcr1a | tuth3b |
|-------------------------|--------|--------|-------|--------|
| alfalfa | 1.13 | 0.54 | 0.10 | - |
| black medic | 0.52 | 3.77 | - | - |
| brown eyed susan | - | - | 0.01 | - |
| canada thistle | - | - | - | 0.01 |
| common cinquefoil | - | - | 0.14 | - |
| common dandelion | 0.27 | 0.55 | - | 0.01 |
| common evening primrose | - | - | 0.17 | - |
| eastern daisy fleabane | - | - | 0.35 | - |

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

| Nectar Plant Species | tbyd1a | tbyd2a | tcr1a | tutb3b |
|----------------------|--------|--------|-------|--------|
| hawkweed | - | - | - | 1.28 |
| musk thistle | - | - | - | 0.00 |
| prickly sowthistle | 0.04 | 0.05 | - | - |
| prostrate vervain | - | - | 0.02 | - |
| red clover | 0.68 | 0.15 | 2.60 | - |
| shepherds purse | 0.23 | 0.41 | - | - |
| smartweed | - | - | 0.54 | - |
| white clover | 4.50 | 4.03 | 2.81 | - |
| wild mustard | - | 0.07 | - | - |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcere1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|------------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| black eyed susan | - | 0.11 | 0.09 | - | - | - | 1.11 | 0.07 | 0.04 | - | - | - | 0.02 | - | 0.88 | 0.72 | 0.15 | 1.27 | - | 0.05 |
| blue vervain | 0.02 | - | - | - | 0.19 | - | - | - | 0.35 | - | - | 0.62 | 1.03 | 45.77 | - | 0.17 | 0.02 | 0.08 | - | - |
| canada milk vetch | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.02 | - |
| 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 | - | - | - | - |
| leadplant | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.00 | - | - | - | - |
| 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 | 0.08 |
| pale purple coneflower | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.05 | - | - | - | 0.01 | - |
| partridge pea | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | 0.02 | 0.16 | 0.08 | 0.03 | 0.10 | - | 0.04 |
| prairie blazing star | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - |
| prairie cinquefoil | - | - | - | - | - | - | - | - | 0.01 | - | - | - | 0.00 | - | - | - | 0.07 | - | - | - |
| purple prairie clover | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - |
| swamp milkweed | - | - | - | 0.08 | - | - | - | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - |
| virginia mountain mint | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 | - |
| 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 | 0.02 |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tbcre1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tprd1a | tprd2a | tsut2a | tver1a |
|-------------------------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| alfalfa | - | - | - | 2.47 | - | - | - | - | - | 0.26 | - | - | - | - | - | - | - | - | - | - |
| american bellflower | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - | - | - | - | - |
| birdsfoot trefoil | - | - | 0.42 | - | - | - | 0.03 | 0.01 | 1.12 | - | - | 9.73 | 10.25 | - | - | - | - | - | - | 3.32 |
| 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 goldenrod | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.15 | - | - | - | - | - | - |
| canada thistle | - | 0.23 | - | 0.03 | - | - | - | - | - | 0.15 | 0.02 | 0.13 | - | 0.39 | - | - | - | - | 1.40 | - |
| carolina horsenettle | - | - | - | - | 0.11 | 0.02 | - | 0.06 | 0.05 | - | 0.04 | - | - | - | 0.00 | - | - | - | - | - |
| catnip | - | - | - | - | - | - | - | 0.16 | - | 0.33 | - | - | - | - | - | - | - | - | 2.21 | - |
| chicory | - | - | - | - | - | - | - | - | - | - | - | 1.07 | - | - | - | - | - | - | - | - |
| common cinquefoil | 2.53 | 0.42 | 0.01 | - | 0.01 | - | 0.01 | - | 0.01 | - | - | 0.18 | 0.13 | 0.08 | - | - | - | - | - | - |
| common dandelion | 0.01 | 0.01 | - | - | - | 0.01 | - | 0.00 | 0.01 | - | - | - | - | 0.01 | - | - | - | - | 0.01 | - |
| common evening primrose | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - | 0.05 | 0.02 | - | 0.01 | 0.02 | - | - |
| common mullein | - | - | - | - | 0.01 | - | - | 0.18 | 0.19 | - | - | - | - | 0.00 | 0.00 | 0.01 | - | - | - | - |
| common selfheal | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.30 | - |
| common sneezeweed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.12 | - | - | - | - |
| common yarrow | - | - | - | - | - | - | 0.03 | - | - | - | - | - | 0.24 | - | 0.26 | - | - | - | - | - |
| compass plant | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| deptford pink | - | - | - | - | - | - | 0.80 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 | - | 10.25 |
| field pennycress | - | - | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - | - |
| field thistle | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.31 | - | - | - | - | - | 0.10 |
| flowering spurge | - | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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

| Nectar Plant Species | tall1a | tall2a | tarm1b | tarm2a | tber1a | tber3a | tcre1a | tdun2a | tdun3a | tgro1a | tgro2a | tnkn1a | tnkn2a | tnor1b | tpio1a | tpio2a | tpdr1a | tpdr2a | tsut2a | tver1a |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| lanceleaf fogfruit | - | - | - | - | - | - | - | - | 0.04 | - | - | - | - | - | - | - | - | - | - | - |
| lesser burdock | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - | - |
| maretail | - | - | - | 0.31 | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | 0.39 | 0.18 | - |
| morning glory | 0.01 | - | - | - | 0.08 | 0.04 | - | - | - | 0.03 | 0.02 | - | - | - | - | - | - | - | - | - |
| musk thistle | 0.03 | 0.22 | 0.02 | - | - | - | - | 0.41 | 0.18 | - | - | - | - | - | 0.02 | 0.01 | - | - | - | - |
| ox eye daisy | - | 0.01 | - | - | - | - | 0.07 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| plantain | 0.09 | - | - | 0.17 | - | - | - | - | 0.01 | - | - | 0.02 | - | - | - | - | - | - | - | - |
| prickly lettuce | 0.01 | - | - | - | - | - | 1.18 | 0.17 | 0.03 | 0.19 | - | - | - | - | - | - | - | 0.01 | - | - |
| prickly sowthistle | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| prostrate vervain | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.10 | - | - |
| queen annes lace | - | - | 5.84 | - | - | - | 9.43 | 0.06 | 0.37 | - | 0.01 | 0.19 | 0.33 | - | 0.98 | - | - | - | - | 5.97 |
| red clover | 1.37 | 0.57 | 17.38 | 32.44 | 3.95 | 17.79 | 10.56 | 0.54 | 1.03 | 13.05 | 51.36 | 13.32 | 11.84 | 0.09 | 11.99 | 6.99 | - | - | 0.14 | 4.14 |
| rough avens | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | 0.03 | - |
| 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 | - | - | - | - | - | - | - | - | - | - | - |
| tall thistle | - | - | 0.01 | - | - | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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 | - | 0.01 | - | - | 0.31 | 4.88 |
| white sweet clover | 0.03 | - | 0.91 | - | - | 0.37 | - | - | - | 0.11 | - | 0.01 | - | 0.50 | - | - | - | - | 0.00 | - |
| whorled milkweed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.41 | - | - | - | - | - |
| wild cucumber | - | - | - | - | - | - | - | - | - | 0.84 | - | - | - | - | - | - | - | - | - | - |
| wild mustard | - | - | - | - | 0.18 | - | - | - | - | 1.94 | - | - | - | - | - | - | - | - | - | - |
| wild parsnip | - | - | - | 0.02 | 0.71 | 0.52 | 0.08 | 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 | - | 0.08 | 0.14 | 0.29 | 0.17 | 0.13 | 0.20 | 1.59 | - | 0.12 | 0.02 | - |
| yellow wood sorrel | - | - | - | - | - | - | - | 0.32 | - | - | - | - | - | - | - | - | - | - | - | - |

Table 22: 2018 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tapp1a | tbcr1a | tbcr2a | tdav1a | thsl1a | thar1a | tjon1a | tnle1a | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttle1a | tvana1a | tvos1a |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| black eyed susan | - | - | - | 0.04 | - | 0.11 | 0.02 | 6.33 | - | - | - | 0.05 | 0.20 | 0.05 | 0.09 | - | - | 1.67 | 2.88 |
| blue vervain | - | - | - | - | - | - | - | - | 0.25 | - | 0.66 | - | 0.35 | 0.10 | - | - | - | - | - |
| butterfly milkweed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.03 | - | - |
| canada milk vetch | - | - | - | - | - | - | - | 0.03 | - | - | - | 0.01 | - | - | - | - | 0.03 | - | - |
| foxglove beardtongue | - | - | - | 0.47 | - | - | - | - | 0.13 | 0.25 | 0.26 | 0.02 | 0.31 | 0.77 | - | 0.01 | 0.53 | - | 0.63 |
| golden alexanders | - | - | - | 0.13 | - | - | - | - | - | - | - | - | - | - | - | 0.08 | 0.06 | - | 0.14 |
| hoary vervain | 0.08 | 0.02 | 0.01 | - | - | 0.64 | 0.04 | 1.36 | 0.07 | 0.19 | 0.24 | 0.11 | 0.07 | 0.07 | - | 0.01 | 0.36 | - | - |
| ironweed | 0.01 | - | 0.03 | - | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ox eye sunflower | 1.25 | 1.42 | 0.09 | 0.95 | - | 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 | - | - | 0.03 | - | - | - | - | 0.01 | - | 0.01 | - | - | - | - | - | - | 0.08 | 0.03 | - |
| partridge pea | - | - | - | - | - | - | - | 0.01 | 0.02 | 0.01 | - | - | - | - | - | 0.02 | - | 0.01 | - |
| prairie cinquefoil | - | - | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| purple prairie clover | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | 0.03 | 0.58 | - |
| stiff goldenrod | - | - | - | - | - | - | - | - | - | - | 0.01 | - | - | - | - | - | - | - | - |
| virginia mountain mint | - | - | - | - | - | - | - | - | 0.12 | - | - | - | - | - | - | - | - | - | - |
| white heath aster | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| wild bergamot | 0.01 | - | - | 0.48 | - | - | - | - | 0.50 | 0.72 | 0.51 | 0.72 | 0.32 | - | 0.23 | 0.53 | 2.70 | 0.40 | 1.85 |
| yellow coneflower | 3.07 | 2.38 | 2.87 | 3.15 | - | 4.10 | 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 / m2) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tapla | tberla | tber2a | tdavla | tfsia | tharla | tjonia | tniela | tpre1a | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttiela | tvania | tvosla |
|-------------------------|-------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| alfalfa | 0.01 | - | - | - | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | 9.23 |
| birdsfoot trefoil | - | - | - | - | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| black medic | - | 1.71 | - | - | - | 0.78 | 23.93 | 0.33 | 1.08 | 0.33 | 0.03 | 0.03 | 0.22 | - | 0.44 | 0.37 | - | 19.20 | - |
| bladder campion | - | - | - | - | - | 0.22 | - | - | 0.03 | - | 0.22 | 0.15 | - | - | - | - | - | - | - |
| bog yellow-cress | - | - | - | - | - | - | - | - | 0.09 | - | 0.01 | - | 0.38 | - | - | - | - | - | - |
| canada goldenrod | - | - | - | - | - | - | - | - | - | - | 0.02 | - | - | 0.00 | - | - | - | - | - |
| canada lettuce | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.72 | - | - |
| canada thistle | 0.17 | - | 0.39 | - | - | - | - | 0.12 | 0.15 | 0.05 | 0.02 | - | - | - | - | - | 0.78 | - | - |
| catnip | - | - | - | - | - | - | - | - | - | - | 0.11 | - | - | - | - | - | - | - | - |
| chicory | - | - | - | - | - | - | 0.67 | - | - | - | - | - | - | - | - | - | - | - | - |
| common cinquefoil | 0.06 | 0.46 | - | - | - | 0.03 | - | - | 1.18 | 1.19 | 2.73 | 4.10 | 0.35 | 4.73 | 1.92 | 2.64 | 0.56 | - | - |
| common dandelion | - | 0.10 | 0.05 | - | - | - | - | - | 0.08 | 0.12 | 0.02 | 0.04 | 0.06 | 0.01 | 0.01 | 0.09 | 0.23 | - | - |
| common evening primrose | - | 0.05 | - | 0.08 | - | - | 0.01 | - | 0.36 | - | - | - | 0.23 | - | - | - | - | - | 0.09 |
| cup plant | - | - | 1.30 | - | - | - | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - |
| eastern daisy fleabane | - | - | - | - | - | - | 1.33 | - | 0.01 | 2.77 | 0.01 | 0.01 | 0.00 | 0.03 | 0.30 | - | - | - | - |
| field pennycress | - | 0.27 | 2.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| field thistle | - | - | - | - | - | - | 0.03 | - | 0.03 | 0.01 | - | 0.01 | - | - | - | - | - | - | 0.01 |
| groundcherry | - | - | - | 0.06 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 24: 2018 Nectar plant species density: average density (count / m2) across all rounds for Pork and Soy grant transects

| Nectar Plant Species | tappla | tbcr1a | tbcr2a | tdavla | tfsla | tharla | tjomla | tniela | tprela | tpre2a | tpre3a | tpre4a | tpre5a | tpre6a | tpre7a | tpre8a | ttiela | tvanla | tvosla |
|----------------------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| hoary alyssum | - | - | - | - | - | 17.97 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| lesser burdock | - | - | - | - | - | 0.11 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| maretail | 0.27 | 0.03 | 0.01 | 0.01 | - | 0.06 | - | - | - | - | - | - | 0.00 | - | - | 0.00 | 0.97 | - | - |
| morning glory | - | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| musk thistle | - | - | - | - | - | - | - | - | - | - | 0.44 | 0.03 | - | - | - | - | - | - | - |
| nodding stickseed | - | - | - | - | - | - | - | - | - | 0.04 | 0.26 | - | - | - | - | - | - | - | - |
| pineapple weed | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| prickly lettuce | - | 0.13 | - | - | - | - | - | - | - | 0.53 | 0.40 | - | - | - | - | - | 4.17 | - | 1.20 |
| prostrate vervain | - | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | 1.24 | 0.24 | - | - | - |
| queen annes lace | - | - | - | - | - | 0.03 | - | - | - | - | - | - | - | - | 0.10 | - | - | 0.40 | - |
| red clover | 5.81 | 3.53 | - | - | - | 13.11 | 1.95 | 25.49 | 0.21 | 0.02 | - | - | - | - | - | - | - | 1.04 | - |
| rough cinquefoil | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.56 | - | - |
| shepherds purse | - | 0.09 | 1.37 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| smartweed | 0.37 | - | - | 0.33 | - | 0.06 | - | - | 1.31 | 0.54 | 0.78 | - | 0.10 | - | - | 2.22 | 7.56 | - | - |
| velvetleaf | - | - | 0.03 | 0.01 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| white clover | 1.03 | 14.34 | 0.03 | - | - | 4.44 | 0.37 | - | 9.91 | 1.09 | 12.45 | - | - | - | - | - | - | 7.33 | - |
| white sweet clover | - | 2.51 | 0.01 | 21.26 | - | - | 0.75 | 1.23 | 0.97 | 0.03 | 0.02 | 24.20 | 19.70 | 9.97 | 5.04 | 13.73 | 0.16 | 1.33 | 23.58 |
| wild mustard | - | - | - | - | - | - | - | - | - | - | - | 0.21 | 0.04 | - | 0.10 | - | - | - | - |
| wild parsnip | 0.01 | - | - | 21.51 | - | - | - | - | - | - | - | - | - | - | 0.05 | 0.13 | - | - | - |
| yellow sweet clover | 1.16 | - | - | 0.47 | - | 0.22 | 1.41 | 0.20 | 0.08 | 0.04 | 0.01 | 0.29 | 0.24 | - | 0.14 | 0.12 | - | 4.11 | 2.00 |
| yellow wood sorrel | 0.04 | - | - | - | - | - | 0.35 | - | - | - | - | - | - | - | - | - | 0.07 | 4.27 | 6.89 |
| | | | | | | | | | | | | | | | | | | | |

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

| Nectar Plant Species | tbydl1a | tbydl2a | tcr1a | tutb3b |
|------------------------|---------|---------|-------|--------|
| black eyed susan | 0.00 | 0.05 | 0.05 | 2.29 |
| blue vervain | - | - | 0.02 | - |
| butterfly milkweed | 0.03 | - | - | - |
| foxglove beardtongue | 0.06 | 0.09 | - | - |
| golden alexanders | 0.00 | - | - | - |
| 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 | - | - |
| partridge pea | - | - | - | 0.08 |
| prairie cinquefoil | - | 0.00 | - | - |
| purple prairie clover | - | - | 0.00 | - |
| swamp milkweed | - | 0.01 | - | - |
| tall boneset | - | - | 0.01 | - |
| wild bergamot | 0.68 | 2.26 | - | 0.13 |
| yellow coneflower | 5.90 | 6.87 | 1.66 | 1.82 |

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

| Nectar Plant Species | tbvdl1a | tbvdl2a | tcr1a | tut3b |
|------------------------|---------|---------|-------|-------|
| alfalfa | 2.73 | 0.52 | - | - |
| brown eyed susan | - | - | - | 0.03 |
| canada thistle | - | 0.03 | - | 0.07 |
| common cinquefoil | - | - | 1.64 | 0.02 |
| common dandelion | 0.01 | 0.01 | - | - |
| common mullein | - | 0.00 | - | 0.04 |
| eastern daisy fleabane | - | - | 0.34 | - |

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

| Nectar Plant Species | tbyd1a | tbyd2a | trala | tuth3b |
|--------------------------|--------|--------|-------|--------|
| maretail | - | - | 3.65 | 1.67 |
| morning glory | - | - | - | 0.00 |
| musk thistle | - | - | - | 0.05 |
| panicleleaf tick trefoil | - | - | - | 0.03 |
| 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 | - |
| white vervain | - | - | - | 0.30 |
| wild mustard | - | - | 0.43 | 0.13 |
| wild parsnip | 0.15 | 0.14 | - | 2.38 |
| yellow sweet clover | - | 1.83 | - | 0.03 |

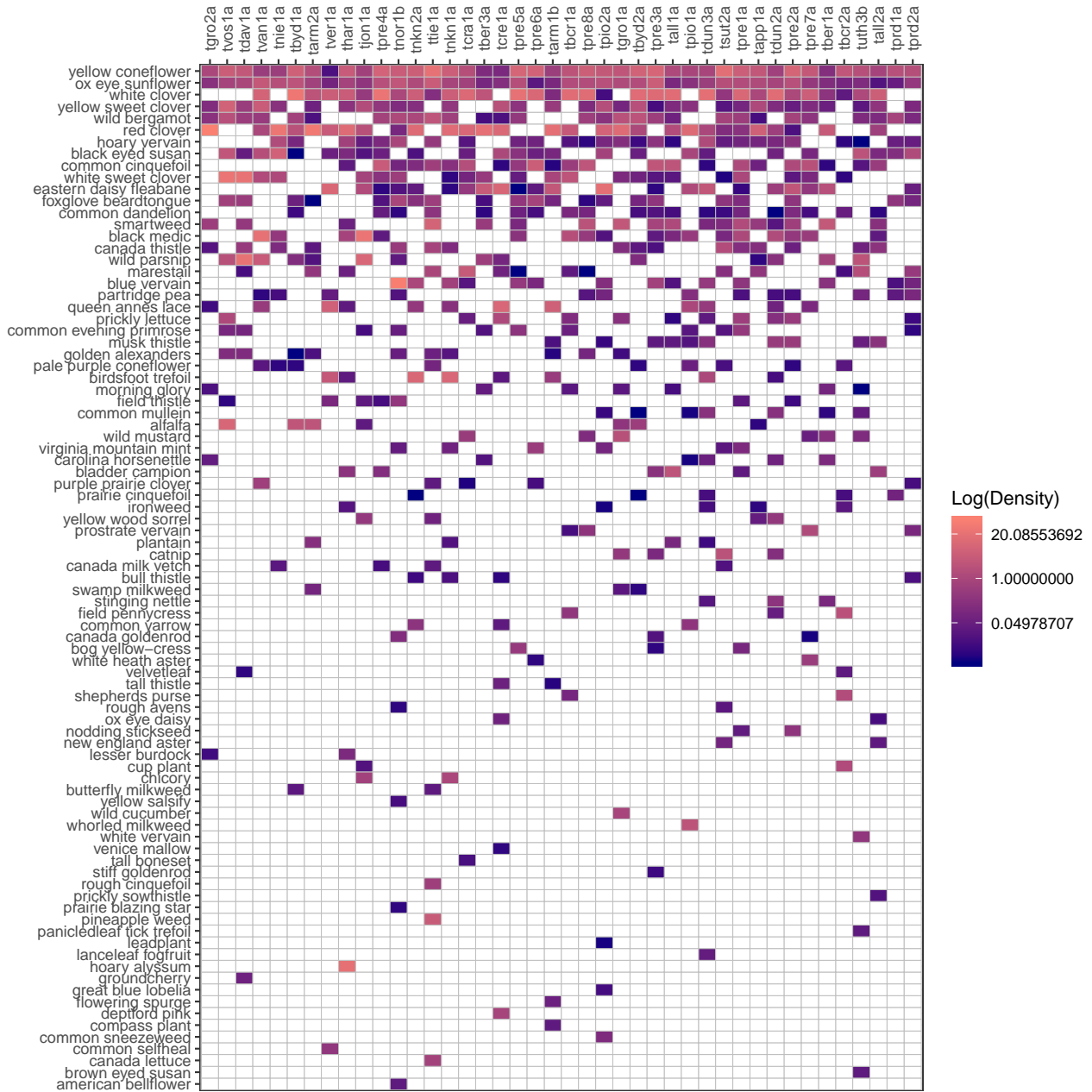


Figure 3: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2018.

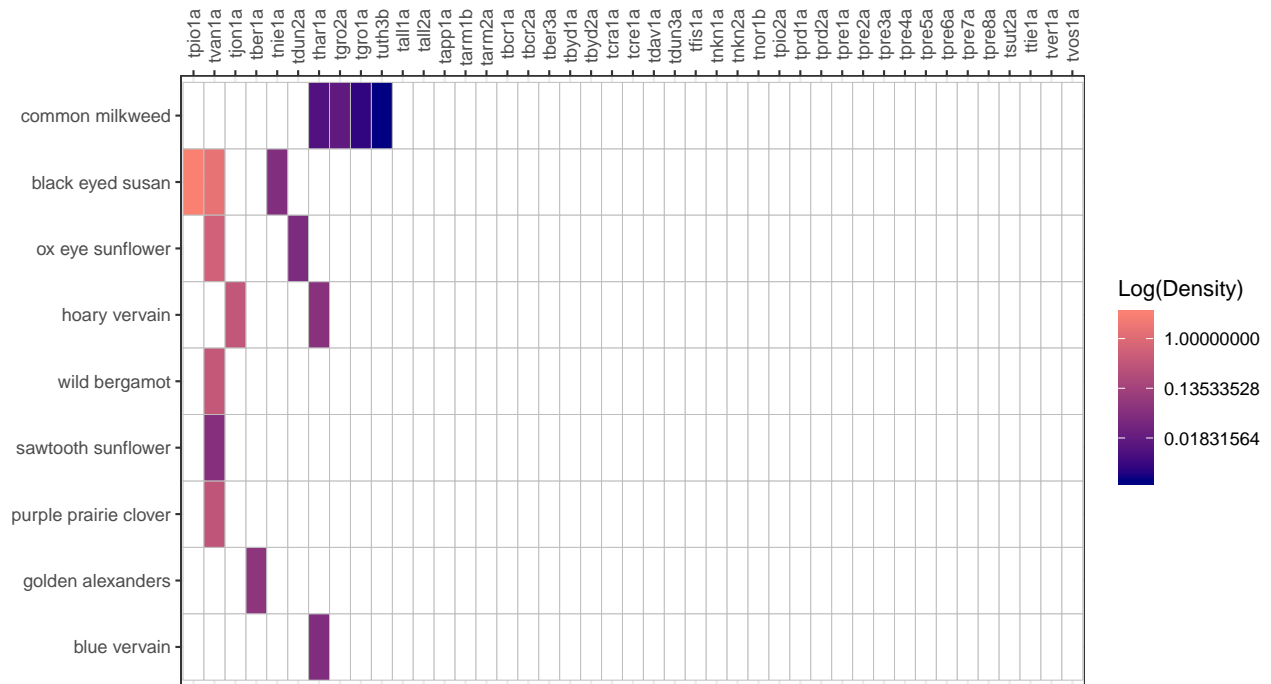


Figure 4: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

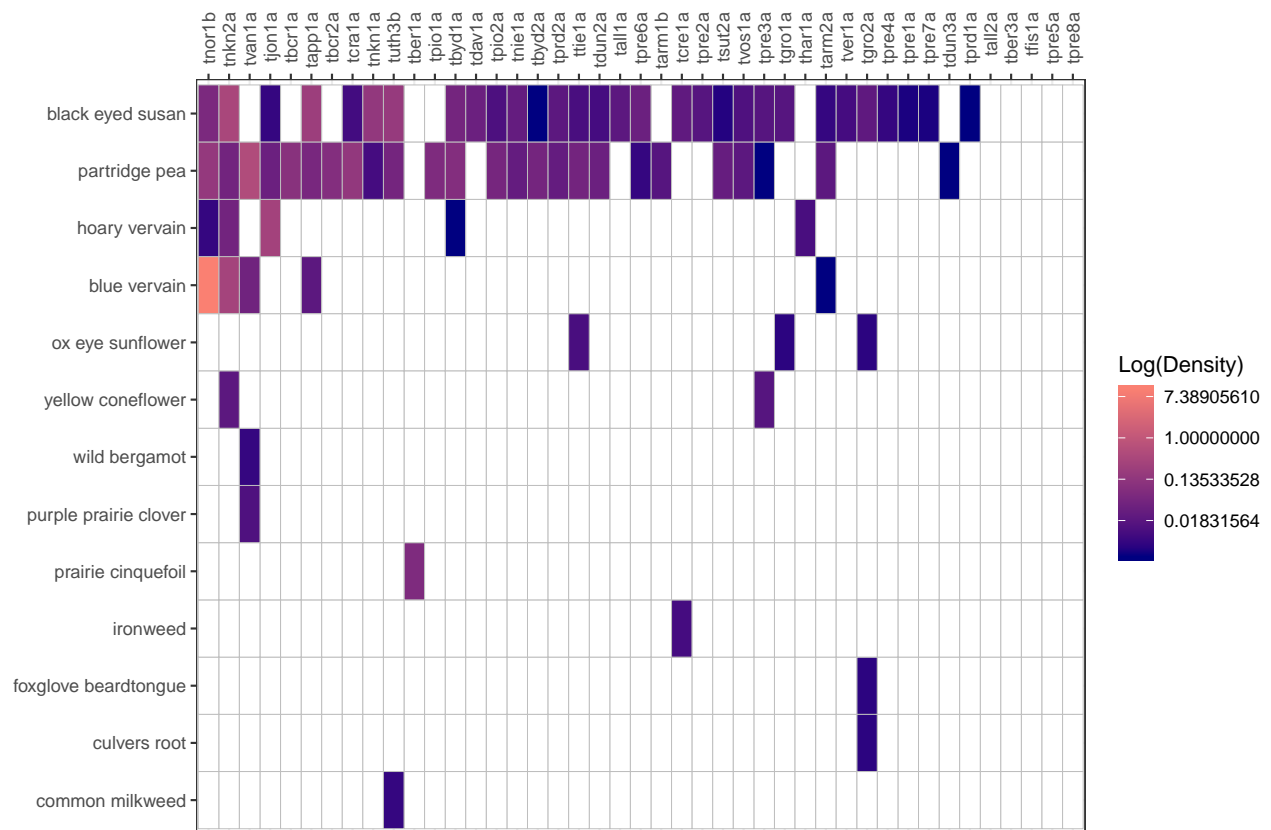
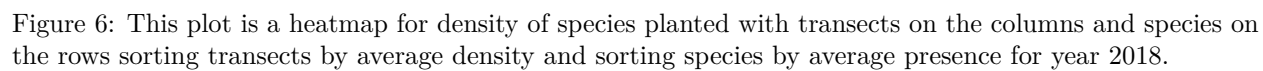


Figure 5: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.



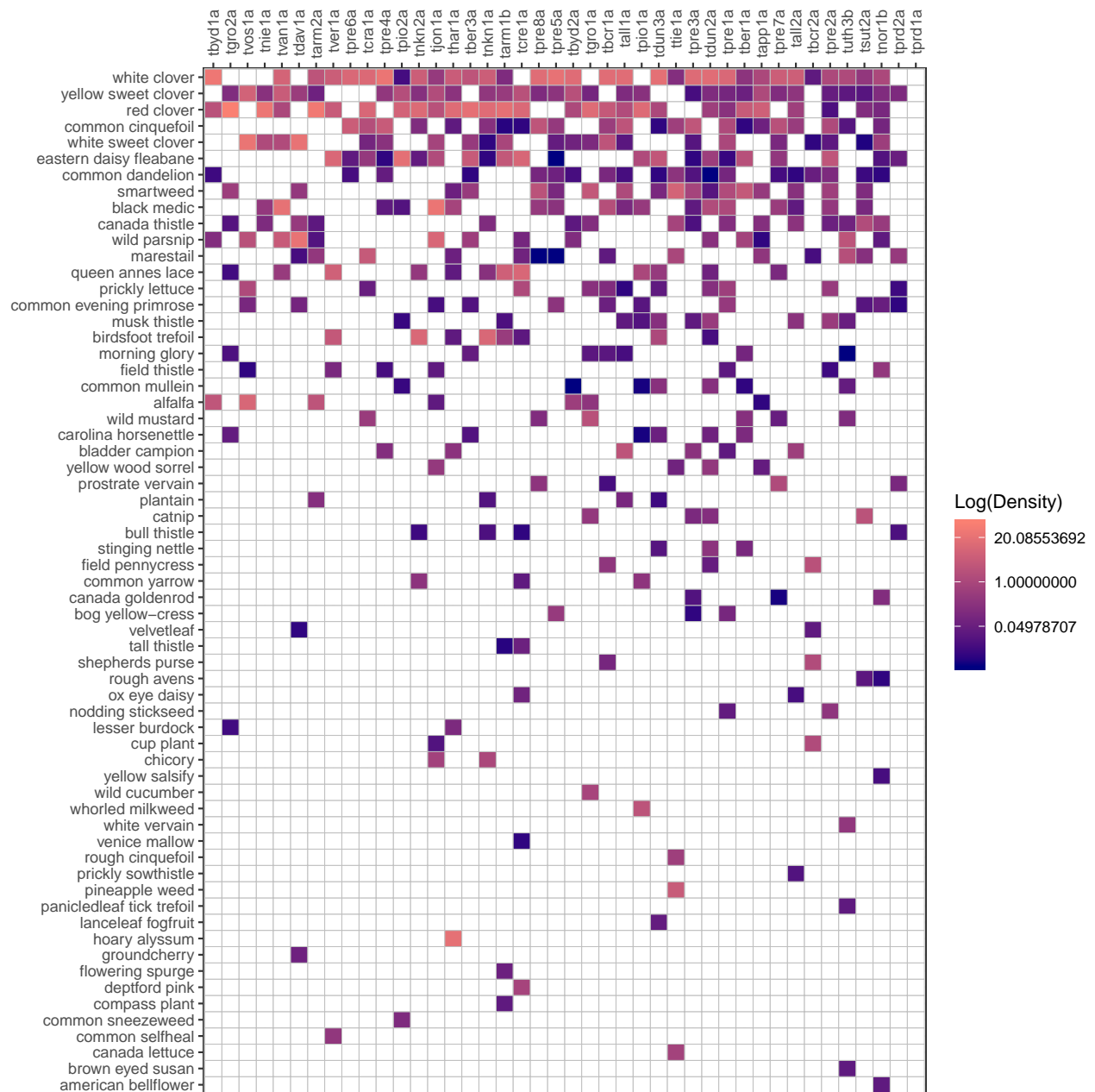


Figure 9: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.

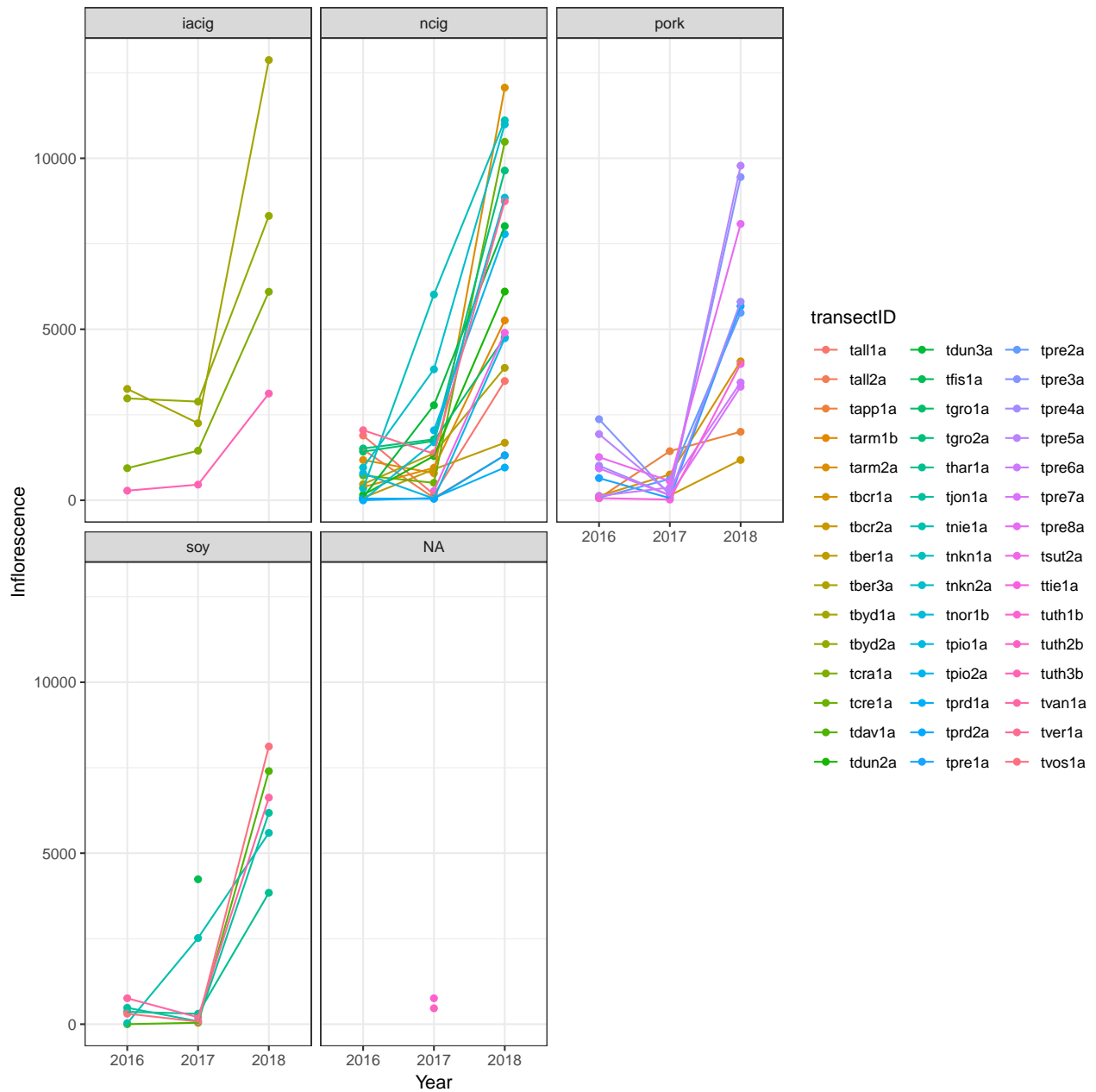


Figure 10: This plot shows the inflorescence for the nectar data across years and faceting the transects by grant excluding tall1a in 2017 for ncig sites.

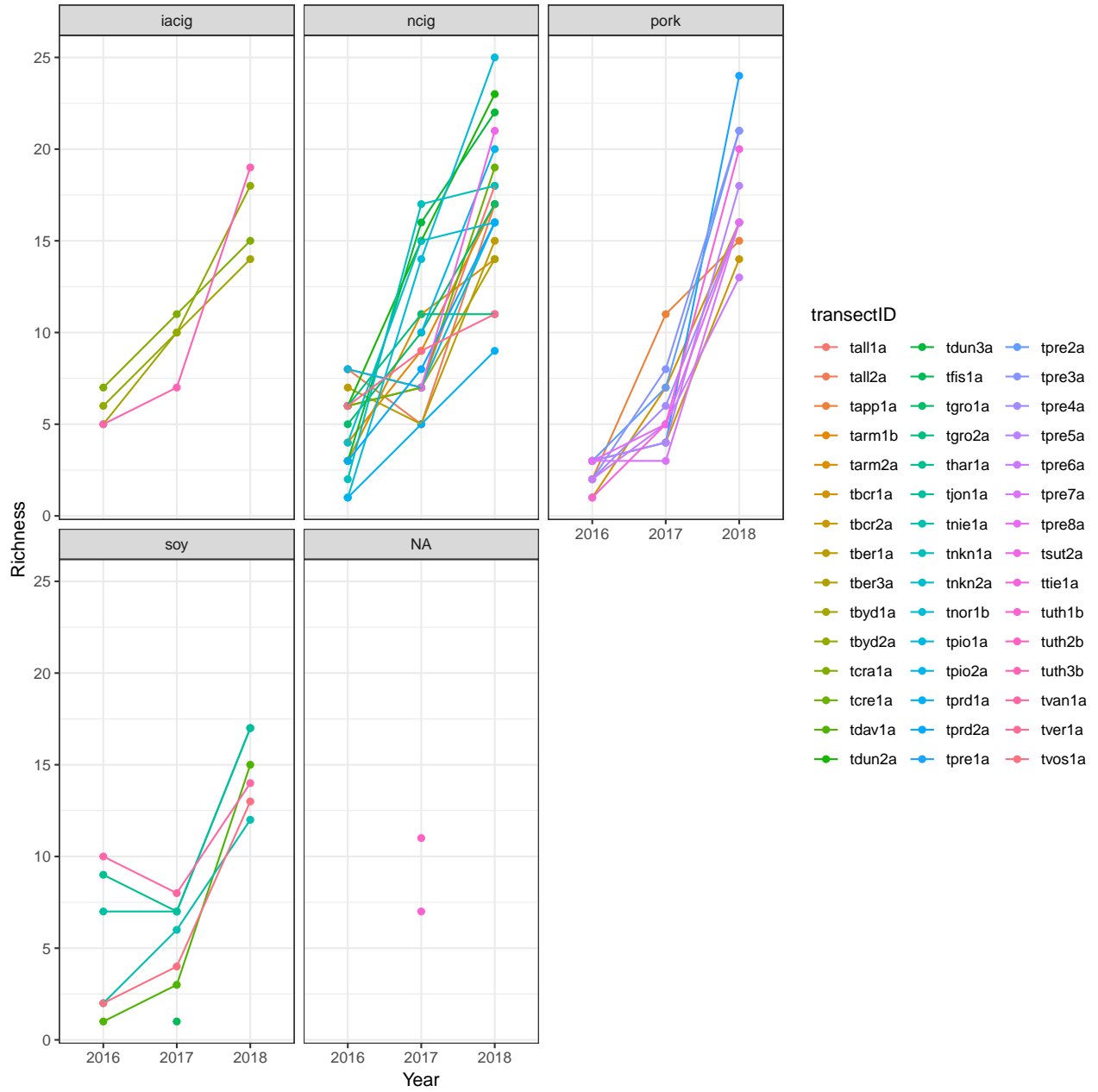


Figure 11: This plot shows the richness for the nectar data across years and faceting the transects by grant.

| | Df | Sum of Sq | RSS | AIC | F value | Pr(>F) |
|---------------------|----|-----------|------|-----------|---------|--------|
| <none> | | | 0.99 | -14435.67 | | |
| round | 2 | 0.00 | 0.99 | -14437.59 | 1.04 | 0.3537 |
| planted_non_planted | 1 | 0.00 | 0.99 | -14437.46 | 0.21 | 0.6459 |
| year | 2 | 0.00 | 0.99 | -14434.73 | 2.46 | 0.0855 |
| grant | 3 | 0.00 | 1.00 | -14435.28 | 2.13 | 0.0950 |

| | Df | Sum of Sq | RSS | AIC | F value | Pr(>F) |
|---------------------|----|-----------|-----------|---------|---------|--------|
| <none> | | | 106369.48 | 7698.87 | | |
| round | 2 | 1022.09 | 107391.57 | 7713.14 | 9.14 | 0.0001 |
| planted_non_planted | 1 | 640.20 | 107009.68 | 7708.33 | 11.45 | 0.0007 |
| year | 2 | 1868.27 | 108237.75 | 7728.14 | 16.70 | 0.0000 |
| grant | 3 | 885.08 | 107254.56 | 7708.70 | 5.28 | 0.0013 |