

# ISU Monarch Data Summary for NCIG

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Table 1 provides mean count of milkweed ramets averaged across all data collection events. Values in table represent the specific counting unit for each species, not necessarily a whole plant. Table 5 provides mean density of milkweed ramets (per 100m<sup>2</sup>) averaged across all data collection events. Values in table represent the specific counting unit for each species, not necessarily a whole plant.

Table 1: 2017 ramet plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tapp1a	tarm1b	tarm2a	tbcrla	tbcrla	tbcrla	tber3a	tbyd1a	tbyd2a	terala	terela	tdavia	tdun2a	tdun3a	tgro1a	tgro2a	tharla	tjon1a	tniela	tnkula	tnkn2a	tnor1b	tpiola
butterfly milkweed ramet	-	-	-	-	-	-	-	-	-	0.3	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0
common milkweed ramet	-	-	-	2.0	-	-	-	-	-	2.7	1.7	0.3	-	111.0	-	-	-	-	4.7	4.0	8.3	13.3	-	-	88.3
swamp milkweed ramet	-	-	-	0.3	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.0
																									1.7

Table 2: 2018 ramet plant species: mean count across all surveys

Nectar Plant Species	tall1a	tall2a	tappl1a	tarm1b	tarm2a	tbcrl1a	tbcrl2a	tber1a	tber3a	tbydl1a	tbydl2a	teral1a	terel1a	tdav1a	tdun2a	tdun3a	tfisl1a	tgrol1a	igro2a	tharl1a	tjon1a	tnic1a	tnkn1a	tnkn2a	tnor1b
butterfly milkweed ramet	-	-	-	-	-	0.3	-	-	-	0.3	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-
common milkweed ramet	2.7	-	0.3	-	0.3	1.3	0.3	1.0	0.3	2.3	1.7	2.3	0.3	1.7	-	1.0	-	0.7	4.7	5.7	2.3	16.0	-	0.3	9.3
swamp milkweed ramet	-	-	0.3	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	0.3	-	-	-	-	-	1.7	-

Table 3: 2017 ramet plant species: mean count across all surveys

Nectar Plant Species	tall2a	tarm1b	ther3a	tnkn1a
milkweed strip: common milkweed ramet	0.3	20.3	-	-

Table 4: 2018 ramet plant species: mean count across all surveys

Nectar Plant Species	tall2a	tarm1b	ther3a	tnkn1a
milkweed strip: common milkweed ramet	4.0	14.3	-	-

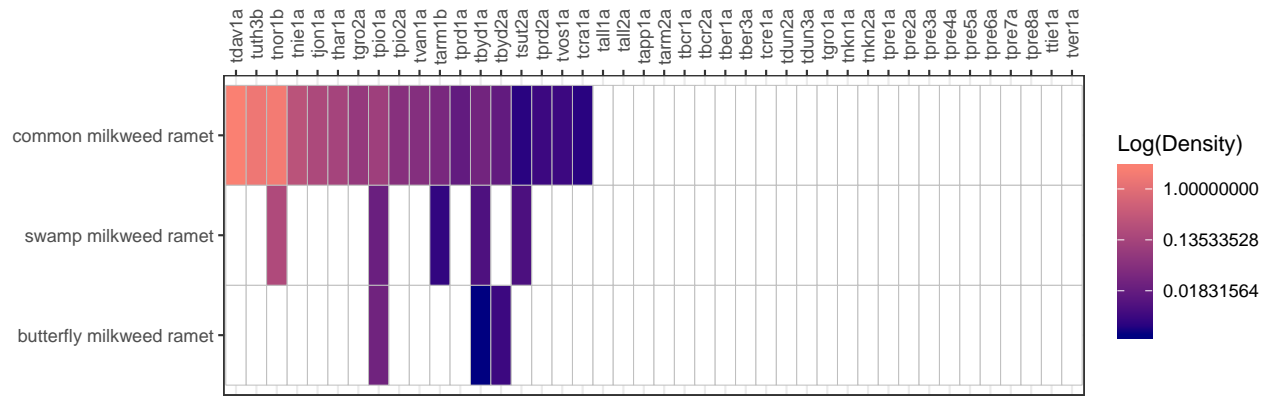


Figure 1: This is a heatmap for density of ramet species with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2017. Caption 1111

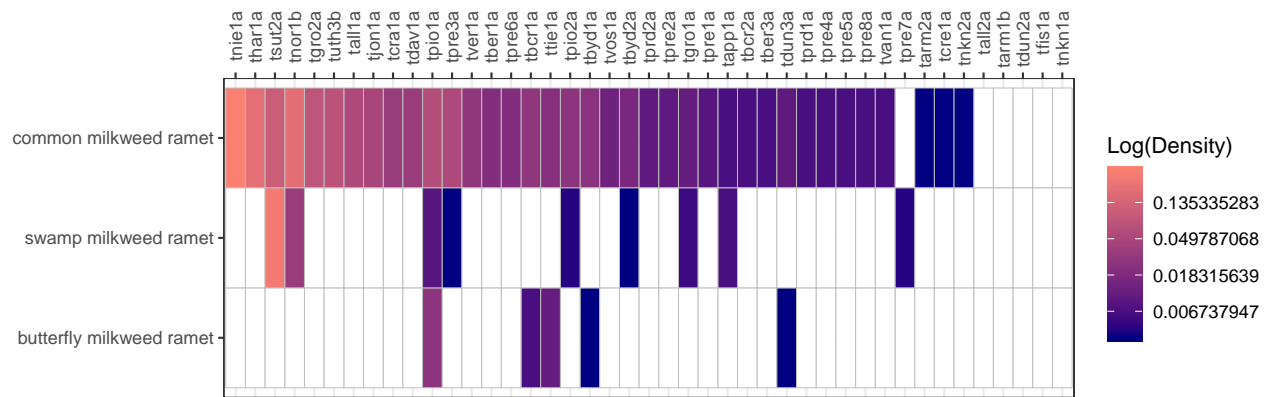


Figure 2: This is a heatmap for density of ramet species with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018. Caption 1112

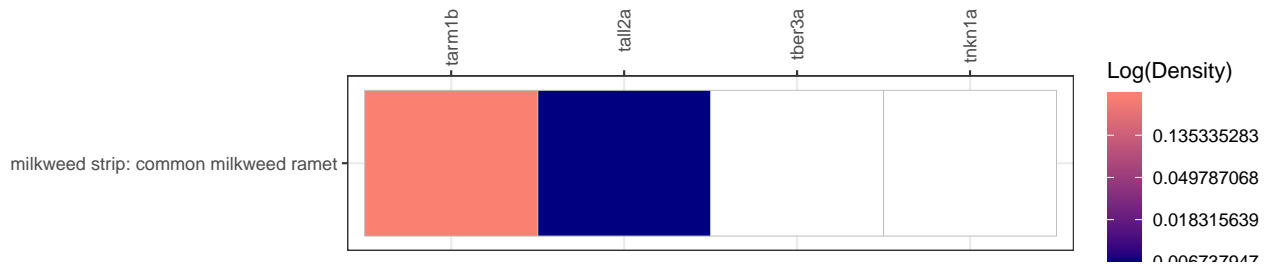


Figure 3: This is a heatmap for density of milkweed species with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2017. Caption 1113

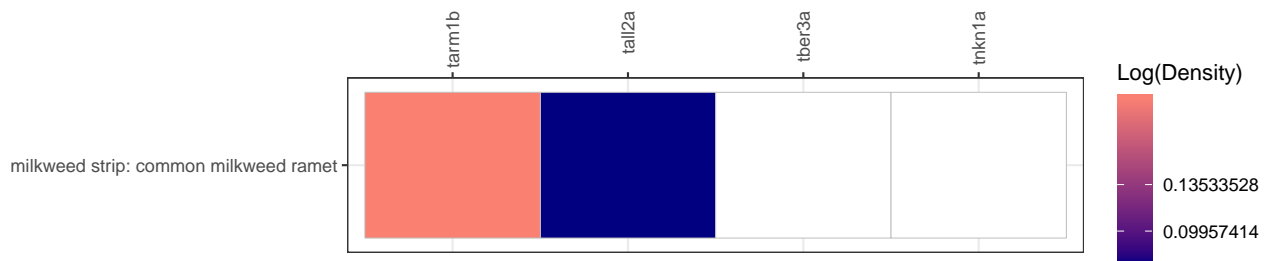


Figure 4: This is a heatmap for density of milkweed species with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018. Caption 1114

Table 5: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tapp1a	tarm1b	tarm2a	tbcrla	tbcrla	tber1a	tber3a	tbyd1a	tbyd2a	terala	terela	tdav1a	tdun2a	tdun3a	tgro1a	tgro2a	thar1a	tjon1a	tniela	tnkula	tnkn2a	tnor1b	tpola	
butterfly milkweed ramet	-	-	-	-	-	-	-	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	
common milkweed ramet	-	-	-	0.03	-	-	-	-	-	0.03	0.02	0.00	-	2.22	-	-	-	-	0.08	0.13	0.17	0.27	-	-	1.77	0.10
swamp milkweed ramet	-	-	-	0.01	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	0.02

Table 6: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall1a	tall2a	tapp1a	tarm1b	tarm2a	tbcrla	tber1a	tber3a	tbyd1a	tbyd2a	terala	terela	tdav1a	tdun2a	tdun3a	tfisla	tgrola	igro2a	thar1a	tjon1a	tnic1a	tnkn1a	tnkn2a	tnor1b
butterfly milkweed ramet	-	-	-	-	-	-	0.01	-	0.00	-	-	-	-	-	-	0.00	-	-	-	-	-	-	-	-
common milkweed ramet	0.05	-	0.01	-	0.00	0.03	0.01	0.02	0.01	0.02	0.02	0.03	0.00	0.03	-	0.01	-	0.01	0.08	0.19	0.05	0.32	-	0.19
swamp milkweed ramet	-	-	0.01	-	-	-	-	-	-	-	0.00	-	-	-	-	-	0.01	-	-	-	-	-	-	0.03



Table 7: 2017 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tal2a	tarm1b	ther3a	tnkn1a
milkweed strip: common milkweed	0.01	0.34	-	-

Table 8: 2018 Nectar plant species density: average density (count / m2) across all rounds

Nectar Plant Species	tall2a	tarm1b	ther3a	tnkn1a
milkweed strip: common milkweed	0.08	0.24	-	-