**Daubenmire (bold=**new 2017) 2016,2017 no other changes

"section",csg,wsg,forbs,milkweed,common\_ramet,swamp\_ramet,butterfly\_ramet,woody\_species,bare\_ground,leaf\_litter,litter\_depth

"0m",

"10m",

"20m",

"30m",

"40m",

"50m",

"60m",

"70m",

"80m",

"90m",

**Robel** 2016,2017 no changes (under Daubenmire as .csv2)

"Direction",0m,10m,20m,30m,40m,50m,60m,70m,80m,90m

“n”,

“e”,

“s”,

“w”,

**Nectar** (**bold=**new 2017) 2016: sections were 20m long. 2017: sections are 10m long.

“Nectar Plant Species”,0-10m,10-20m,20-30m,30-40m,40-50m,50-60m,60-70m,70-80m,80-90m,90-100m

“common milkweed ramet”,

“swamp milkweed ramet”,

“butterfly milkweed ramet”,

“milkweed strip: common milkweed ramet”, \*\*(only applicable at all2, arm1, ber3, nkn1)

**Bee** (**bold=**new 2017)

2016: sections were 20m long. 2017: sections are 10m long.

2016: “Pollinator Species”. 2017: renamed “Bee Species”

2016: “Nectar Plant Species” is first column. 2017: “Bee Species” is first column. (switched order of first two columns)

“Start Time”,

"Bee Species","Nectar Plant Species",0-10m,10-20m,20-30m,30-40m,40-50m,50-60m,60-70m,70-80m,80-90m,90-100m

**Monarch** \*many changes

(2017) do I need to include an end time?

“start\_time”,

“#\_inside\_plot”,

“#\_outside\_plot”,

“extra\_monarchs”,

“common\_ramets”,

“common\_eggs”,

“common\_1instar”,

“common\_2instar”,

“common\_3instar”,

“common\_4instar”,

“common\_5instar”,

“swamp\_ramets”,

“swamp\_eggs”,

“swamp\_1instar”,

“swamp\_2instar”,

“swamp\_3instar”,

“swamp\_4instar”,

“swamp\_5instar”,

“butterfly\_ramets”,

“butterfly\_eggs”,

“butterfly\_1instar”,

“butterfly\_2instar”,

“butterfly\_3instar”,

“butterfly\_4instar”,

“butterfly\_5instar”,

“palmer\_amaranth”,

2016 R1/2: sections used

2016 R3: bins used

2016 R2

"wind",

"sky",

"temp",

"start\_time",x:xxAM

"end\_time",x:xxAM

"extra\_monarch",

"0-10m”,

"10-20m",

"20-30m",

"watch\_monarch",

"stems",

"eggs",

"1instar",

"2instar",

"3instar",

"4instar",

"5instar",

2016 R3

"wind",

"sky",

"temp",

"start\_time",x:xxAM

"end\_time",x:xxAM

"extra\_monarch",

"bin0-5m",

"bin5-50m",

"bin>50m",

"stems",

"eggs",

"1instar",

"2instar",

"3instar",

"4instar",

"5instar",

**Environment**

1. how to write out currently flowering plants %?

2. 2016 ‘monarch’ said ‘temp’, can 2017 say ‘temperature’ or should it stay ‘temp’?

3. what to do with multiple dominant flowering species? Or none?

2017

“temperature”,

“wind”,

“sky”,

“milkweed\_ramet”,

“currently\_flowering\_plants”,

“dominant\_flowering\_species”,

2016 R1

"direction",milkweed,flowering\_plants

"general",yes,yes

2016 R2/R3

"direction",milkweed,flowering\_plants

"n",yes,yes

"e",yes,yes

"s",yes,no

"w",yes,no