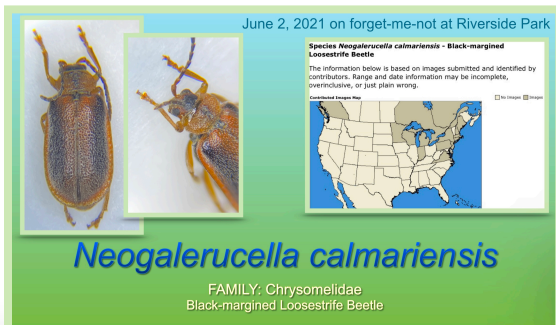


Beetle Briefing Seasonal Summary 2021

Now that we are in early Fall, I feel this is a good time to share reflections and beetle survey data highlights. This has been a very exciting summer learning more about beetle phenology, habitat and life cycle in the Urban Ecology Center parks! Overall, this year I have documented **23 new beetles** that I have not seen in the parks before (see significant data table below) and **three first identified in Wisconsin**. These include:



Interestingly, *Kissingeria amaura* was last documented in Kansas at the end of **June 1979!** This beetle is normally seen in the Great Plains and western states. Perhaps my increased rate of surveys, habitat destruction from wildfires, or drought may be reasons for identification of this species in the Midwest. Thanks to the naturalists at bugguide.net for confirming these and all the countless submissions I provide! With well over 350,000 species of beetles worldwide, extra help identifying is much appreciated!

Starting on page 2, you will see the phenology of the most common beetles counted in UEC parks starting from mid-July. Next year, I plan to collect quantitative data earlier in the season. Additionally, I have included common habitat and size ranges of these frequently identified beetles.

URBAN ECOLOGY CENTER - Riverside Park (RP), Washington Park (WP), Three Bridges Park (TBP)

Date	Location	Weather (°F)	GPS	Where Located	Size (mm)	Family	Genus	Species	Common Name	Comments
5.26.21	TBP	72	N 43.02513 W 87.95598	Swamp white oak	5	Chrysomelidae	<i>Coleothorpa</i>	<i>dominicana</i>	Case-bearing leaf beetle	Beetles p. 451 bugguide.net - confirmed
6.1.21	TBP	74	N 43.02480 W 87.95612	Ninebark	7	Cantharidae	<i>Atalantycha</i>	<i>bilineata</i>	Soldier beetle	Beetles p. 239 bugguide.net - confirmed
	TBP	74	N 43.02529 W 87.95566	Oxeye Daisy	2.5	Chrysomelidae	Acanthoscelides	seminulum	Pea and bean weevil	Beetles p. 431 bugguide.net -
6.2.21	RP	70	N 43.06847 W 87.89461	Forget-me-not	5	Chrysomelidae	<i>Neogalerucella</i>	<i>calmariensis</i>	Black-margined loosestrife beetle	Beetles p. 448 bugguide.net - confirmed & 1st WI
6.7.21	RP	77	N 43.06770 W 87.89390	Purplestem angelica	11	Elateridae	<i>Corymbitodes</i>	<i>tarsalis</i>	Click beetle	Beetles p. 448 bugguide.net - confirmed
			N 43.06838 W 87.89256	Milkweed	6.5	Curculionidae	<i>Rhysomatus</i>	<i>lineaticollis</i>	Snout and bark beetle	Beetles p. 493 bugguide.net - confirmed
			N 43.06868 W 87.89258	Milkweed	2.5	Curculionidae	<i>Ceutorhynchus</i>		Minute seed weevil	Beetles p. 480 bugguide.net - confirmed
6.11.21	TBP	88	N 43.02430 W 87.95893	Prairie coneflower	3.5	Curculionidae	<i>Madarellus</i>	<i>undulatus</i>	Flower weevil	Beetles p. 479 bugguide.net -
			N 43.06851 W 87.89437	Reed canary grass	13	Cantharidae	<i>Cantharis</i>	<i>livida</i>	Soldier beetle	Beetles p. 238 bugguide.net -
6.29.21	TBP	76	N 43.02429 W 87.95916	Fleabane	4	Curculionidae	<i>Odontocorynus</i>	<i>salebrosus</i>	Flower weevil	Beetles p. 492 bugguide.net -
			N 43.02493 W 87.95841	Spotted knapweed	6.5	Curculionidae	<i>Larinus</i>	<i>obtusus</i>	Knapweed seedhead weevil	Beetles p. 492 bugguide.net -
6.30.21	RP	81	N 43.06844 W 87.89215	Ground path	7.5	Carabidae	<i>Trichotichnus</i>	<i>autumnalis</i>	Ground beetle	Beetles p. 492 bugguide.net -
7.8.21	TBP	65	N 43.02620 W 87.95131	Eastern cottonwood	8	Chrysomelidae	<i>Chrysochus</i>	<i>auratus</i>	Dogbane beetle	Beetles p. 492 bugguide.net -
7.14.21	TBP	81	N 43.02531 W 87.95566	Prairie coneflower	3	Brentidae	<i>Kissingeria</i>	<i>amaura</i>	Pear-shaped weevil	Beetles p. 468 bugguide.net - confirmed, 1st WI
7.25.21	RP	92	N 43.06727 W 87.89253	On ground near prairie	22	Scarabaeidae	<i>Osmoderma</i>	<i>eremicola</i>	Fruit and flower chafers	Beetles p. 175 bugguide.net - confirmed
7.9.21	WP	72	N 43.05485 W 87.96654	Switchgrass	3.5	Chrysomelidae	<i>Phyllotreta</i>	<i>aeneicollis</i>	Skeletonizing leaf and flea beetle	Beetles p. 492 bugguide.net -
			N 43.05418 W 87.96960	Under bird carcass	8	Dermestidae	<i>Dermestes</i>	<i>caninus</i>	Carpet beetle	Beetles p. 246 bugguide.net - genus confirmed
7.20.21	RP	79	N 43.06722 W 87.89247	Queen Anne's lace	4	Dermestidae	<i>Cryptorhopalum</i>	<i>triste</i>	Carpet beetle	Beetles p. 248 bugguide.net -
7.22.21	RP	77	N 43.06768 W 87.89304	Queen Anne's lace	12	Cerambycidae	<i>Typocerus</i>	<i>velutinus</i>	Banded longhorn	Beetles p. 400 bugguide.net - cconfirmed
7.24.21	WP	92	N 43.05426 W 87.96621	Riverbank grape shrub	6	Chrysomelidae	<i>Microhopala</i>	<i>vittata</i>	Goldenrod leaf miner	Beetles p. 437 bugguide.net -
7.29.21	RP	89	N 43.06779 W 87.89417	Giant mustard	2	Coccinellidae	<i>Scymnus</i>	<i>kansanus</i>	Dusky lady beetle	Beetles p. 312 bugguide.net -
			N 43.06783 W 87.89401	Woodbine	15	Melandryidae	<i>Enchodes</i>	<i>sericea</i>	False darling beetle	Beetles p. 330 bugguide.net - confirmed, 1st WI
			N 43.06706 W 87.89295	Giant ragweed	5	Chrysomelidae	<i>Diabrotica</i>	<i>barberi</i>	Northern corn rootworm	Beetles p. 449 bugguide.net -

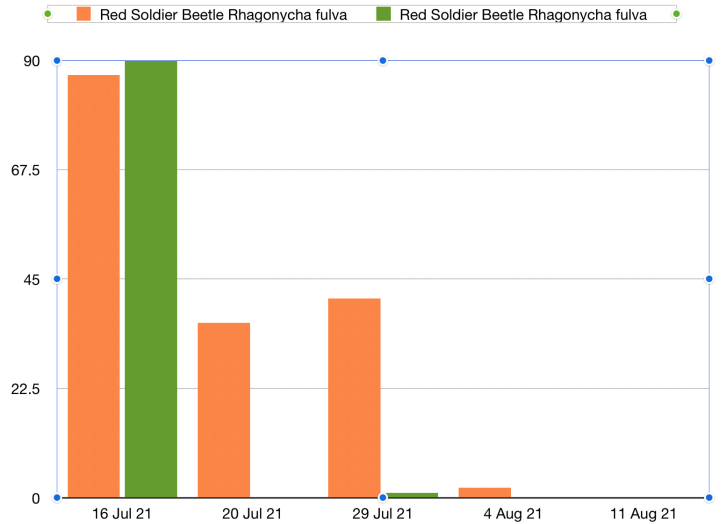
BEETLE HABITAT AND SIZE

	Blister Beetle	Red Soldier Beetle	Red Milkweed Beetle	Cucumber Beetle	Sap Beetle	Goldenrod Soldier Beetle	Black Blister Beetle
	<i>Zonitis vittigera</i>	<i>Rhagonycha fulva</i>	<i>Tetraopes tetrophthalmus</i>	<i>Diabrotica cristata</i>	<i>Conotelus obscurus</i>	<i>Chauliognathus pensylvanicus</i>	<i>Epicauta pensylvanica</i>
Habitat	Asteraceae, Leguminosae, Solanaceae Black-eyed Susans	Apiaceae, Asteraceae fields, meadows, hedgerows; adults often found on flowerheads of herbaceous plants during the day	Asclepius (red milkweed), Apocynum	Poaceae (grasses), Rathaus sativus (radish), Cucurbita foetidissima, Phaseolus lunatus (lima bean), Asteraceae	Cronus (dogwoods) Field and hedge bindweed primarily in parks.	Solidago (goldenrod)	Asteraceae (goldenrods and asters)
Size	7 - 12 mm	7 - 10 mm	8 - 15 mm	4.1 - 4.7 mm	3.5 - 4.5 mm	9 - 12 mm	7 - 15 mm

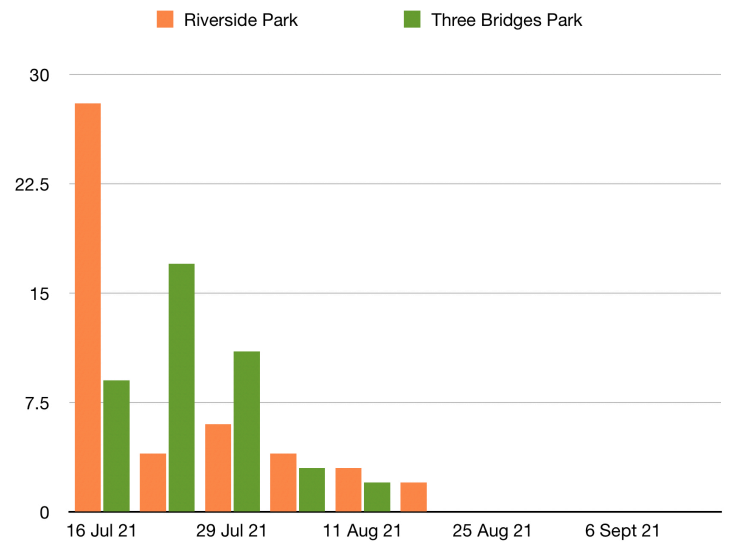
Here are some of my favorite beetle survey moments this summer:

- Identifying beetles in solitary habitats
 - Example: *Zonitis vittigera* (blister beetle) found only on Black-eyed Susans
 - Example: *Chauliognathus pensylvanicus* (Goldenrod soldier beetle) found only on goldenrods
 - Example: *Conotelus obscurus* (Sap beetle) found only in hedge and field bindweed
- Identifying a new water beetle at Washington Park using the paddle boats!
 - *Peltodytes edentulus* (Crawling water beetle)
- Learning and differentiating native from non-native prairie wildflowers
- Recording large numbers of individual beetle populations
 - Example: *Chauliognathus pensylvanicus* - 559 individuals on August 18th at Riverside and Three Bridges Parks combined
- Capturing a lady beetle life cycle from larva to adult at Washington Park
 - *Harmonia axyridis* (Multicolored Asian Lady Beetle)

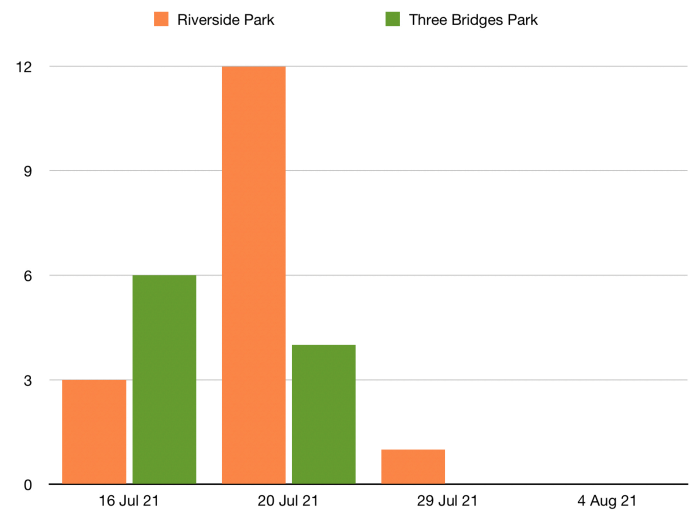
	Red Soldier Beetle	Red Soldier Beetle
	<i>Rhagonycha fulva</i>	<i>Rhagonycha fulva</i>
	Riverside Park	Three Bridges Park
16 Jul 21	87	90
20 Jul 21	36	0
29 Jul 21	41	1
4 Aug 21	2	0
11 Aug 21	0	0



	Red Milkweed Beetle	Red Milkweed Beetle
	<i>Tetraopes tetrophthalmus</i>	<i>Tetraopes tetrophthalmus</i>
	Riverside Park	Three Bridges Park
16 Jul 21	28	9
20 Jul 21	4	17
29 Jul 21	6	11
4 Aug 21	4	3
11 Aug 21	3	2
18 Aug 21	2	0
25 Aug 21	0	0
31 Aug 21	0	0
6 Sept 21	0	0
12 Sept 21	0	0



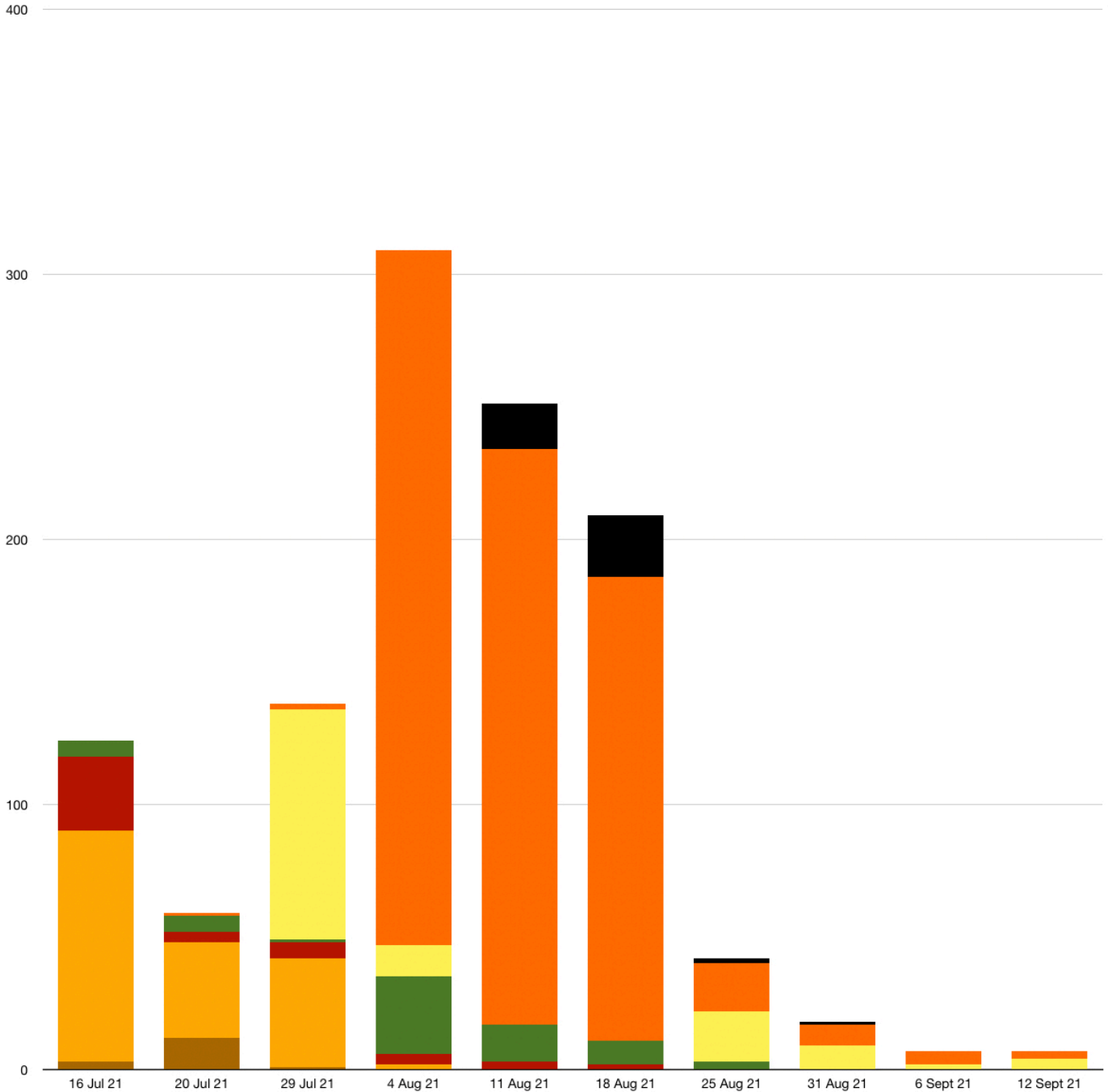
	Blister Beetle	Blister Beetle
	<i>Zonitis vittigera</i>	<i>Zonitis vittigera</i>
	Riverside Park	Three Bridges Park
16 Jul 21	3	6
20 Jul 21	12	4
29 Jul 21	1	0
4 Aug 21	0	0



URBAN ECOLOGY CENTER - Riverside Park

	Blister Beetle	Red Soldier Beetle	Red Milkweed Beetle	Cucumber Beetle	Sap Beetle	Goldenrod Soldier Beetle	Black Blister Beetle
	<i>Zonitis vittigera</i>	<i>Rhagonycha fulva</i>	<i>Tetraopes tetrophthalmus</i>	<i>Diabrotica cristata</i>	<i>Conotelus obscurus</i>	<i>Chauliognathus pensylvanicus</i>	<i>Epicauta pensylvanica</i>
16 Jul 21	3	87	28	6	0	0	0
20 Jul 21	12	36	4	6	0	1	0
29 Jul 21	1	41	6	1	87	2	0
4 Aug 21	0	2	4	29	12	262	0
11 Aug 21	0	0	3	14	0	217	17
18 Aug 21	0	0	2	9	0	175	23
25 Aug 21	0	0	0	3	19	18	2
31 Aug 21	0	0	0	0	9	8	1
6 Sept 21	0	0	0	0	2	5	0
12 Sept 21	0	0	0	0	4	3	0

■ Blister Beetle
 ■ Red Soldier Beetle
 ■ Red Milkweed Beetle
 ■ Cucumber Beetle
 ■ Sap Beetle
 ■ Goldenrod Soldier Beetle
 ■ Black Blister Beetle



URBAN ECOLOGY CENTER - Three Bridges Park

	Blister Beetle	Red Soldier Beetle	Red Milkweed Beetle	Cucumber Beetle	Sap Beetle	Goldenrod Soldier Beetle	Black Blister Beetle
	<i>Zonitis vittigera</i>	<i>Rhagonycha fulva</i>	<i>Tetraopes tetrophthalmus</i>	<i>Diabrotica cristata</i>	<i>Conotelus obscurus</i>	<i>Chauliognathus pensylvanicus</i>	<i>Epicauta pensylvanica</i>
14 Jul 21	6	90	9	79	0	0	0
20 Jul 21	4	0	17	155	0	0	0
29 Jul 21	0	1	11	75	2	3	0
4 Aug 21	0	0	3	106	8	151	0
11 Aug 21	0	0	2	67	0	208	13
18 Aug 21	0	0	0	46	1	384	23
25 Aug 21	0	0	0	10	0	117	56
31 Aug 21	0	0	0	6	0	73	13
6 Sept 21	0	0	0	1	0	7	1
12 Sept 21	0	0	0	1	0	16	0

Blister Beetle Red Soldier Beetle Red Milkweed Beetle Cucumber Beetle Sap Beetle Goldenrod Soldier Beetle Black Blister Beetle

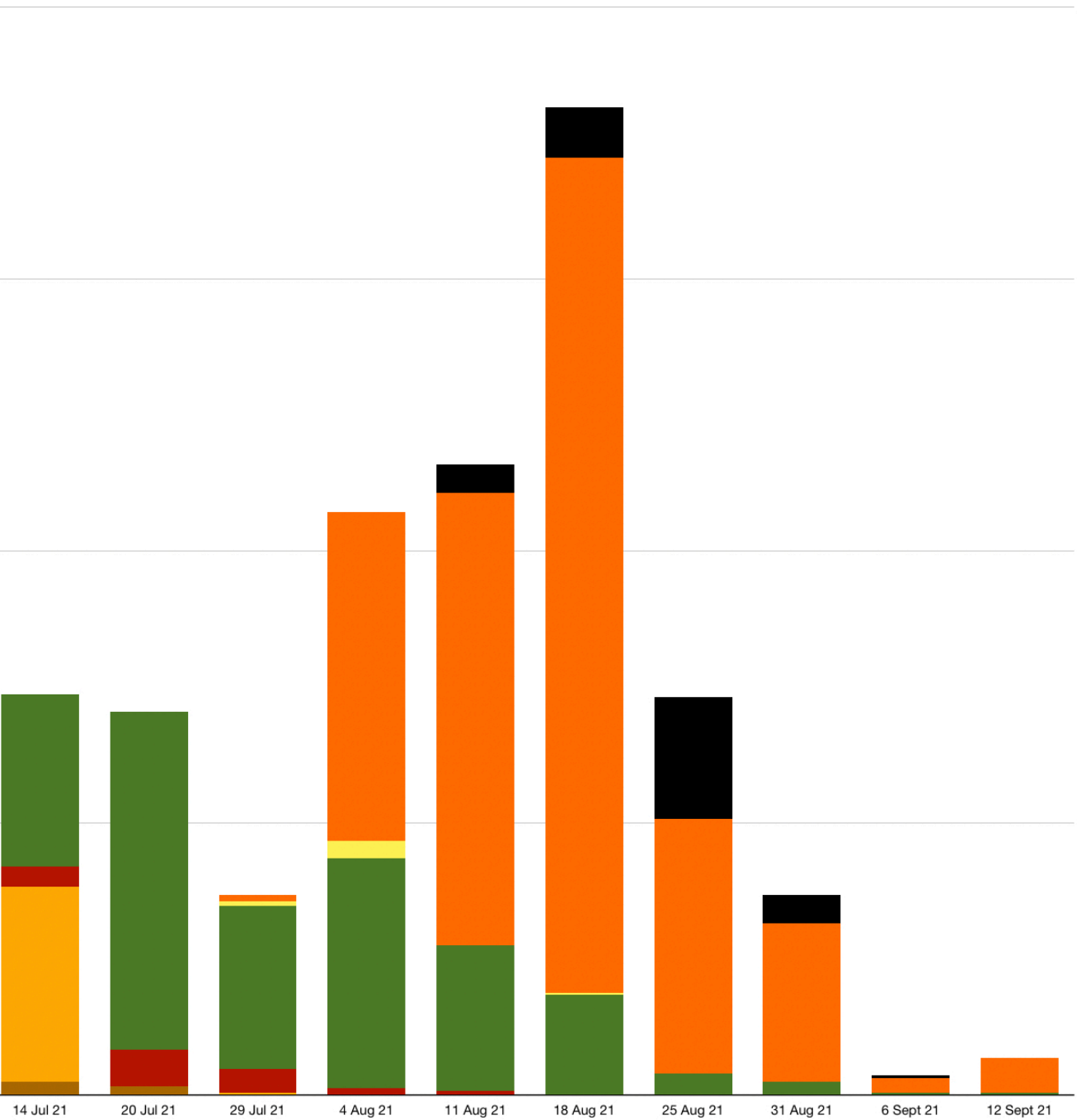
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375

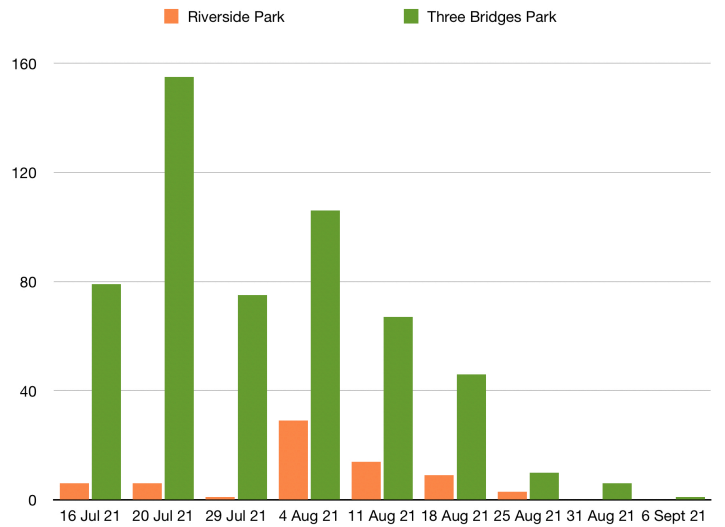
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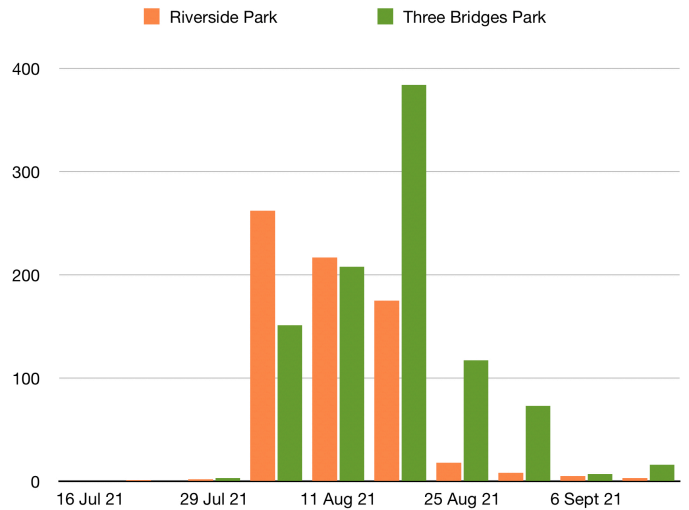
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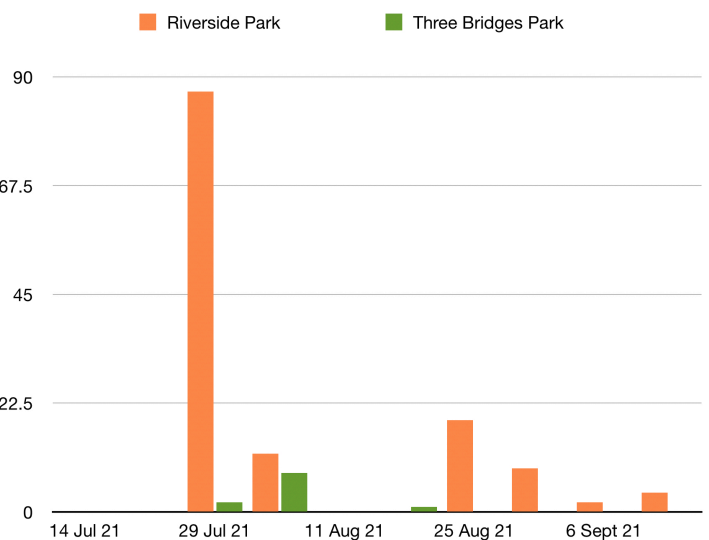
	Cucumber Beetle	Cucumber Beetle
	<i>Diabrotica cristata</i>	<i>Diabrotica cristata</i>
	Riverside Park	Three Bridges Park
16 Jul 21	6	79
20 Jul 21	6	155
29 Jul 21	1	75
4 Aug 21	29	106
11 Aug 21	14	67
18 Aug 21	9	46
25 Aug 21	3	10
31 Aug 21	0	6
6 Sept 21	0	1



	Goldenrod Soldier Beetle	Goldenrod Soldier Beetle
	<i>Chauliognathus pensylvanicus</i>	<i>Chauliognathus pensylvanicus</i>
	Riverside Park	Three Bridges Park
16 Jul 21	0	0
20 Jul 21	1	0
29 Jul 21	2	3
4 Aug 21	262	151
11 Aug 21	217	208
18 Aug 21	175	384
25 Aug 21	18	117
31 Aug 21	8	73
6 Sept 21	5	7
12 Sept 21	3	16



	Sap Beetle	Sap Beetle
	<i>Conotelus obscurus</i>	<i>Conotelus obscurus</i>
	Riverside Park	Three Bridges Park
14 Jul 21	0	0
20 Jul 21	0	0
29 Jul 21	87	2
4 Aug 21	12	8
11 Aug 21	0	0
18 Aug 21	0	1
25 Aug 21	19	0
31 Aug 21	9	0
6 Sept 21	2	0
12 Sept 21	4	0



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