

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #31
August 1-7, 2021

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Central Mass. Mosquito Control Project
Weekly Report- 8/1/21-8/7/21
EPI Week #31

Cumulative Surveillance Summary

Target Species	<i>Ae. vex</i>	<i>Cq. per</i>	<i>Cs. mel</i>	<i>Oc. can</i>	<i>Culex</i>	All Species
No. Pools	188	576	73	208	438	2636
Total Specimens	1837	41764	229	2626	3918	57453
No. Pools WNV +	0	0	0	0	0	0
No. Pools EEE +	0	0	0	0	0	0

Weather Summary (Northborough, MA): The weather for this particular week averaged 69.49°F with a recorded high temperature of 91.40°F and a recorded low temperature of only 51.50°F. For this week there was also a total of 0.66 inches of rain observed. Compared to the previous week, it was approximately 0.03°F warmer on average, and rained about 0.26 inches less. There has been 0.66 inches of rain accumulated in August, after 9.53 inches for the month of July.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
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<i>Aedes vexans</i>	+68.21%	+118.8%	Clinton, Leominster, Westford
<i>Coquilleltidia perturbans</i>	+25.07%	+50.57%	Natick, Berlin
<i>Culiseta melanura</i>	+165.4%	-17.03%	Boylston, Gardner
<i>Ochlerotatus canadensis</i>	+131.1%	+2.740%	Lancaster, Gardner
<i>Culex</i> Species	+51.53%	+45.67%	Northborough, Littleton, Wilmington
All Species	+49.48%	+49.30%	Natick, Northborough, Berlin

The predominant mosquito for the week was *Coquilleltidia perturbans* followed by *Culex*.

General narrative:

The temperatures for EPI week 31 averaged approximately 0.03°F warmer than the previous week, with 0.66 inches of precipitation observed. *Coquilleltidia perturbans* was again the most abundant mosquito for the week, followed this week by *Culex*. All target mosquitoes were more abundant in EPI week 31 compared to the previous week. Compared to the 2020 season, overall mosquito surveillance numbers are up this year, primarily due to increases in *Coquilleltidia perturbans* and *Aedes vexans*. Every submitted mosquito pool from EPI week 30 tested negative for mosquito-borne disease. *Aedes albopictus* surveillance using ovitraps has continued, with an additional 928 eggs submitted to the Massachusetts Department of Public Health.

Ae. albopictus egg collections:

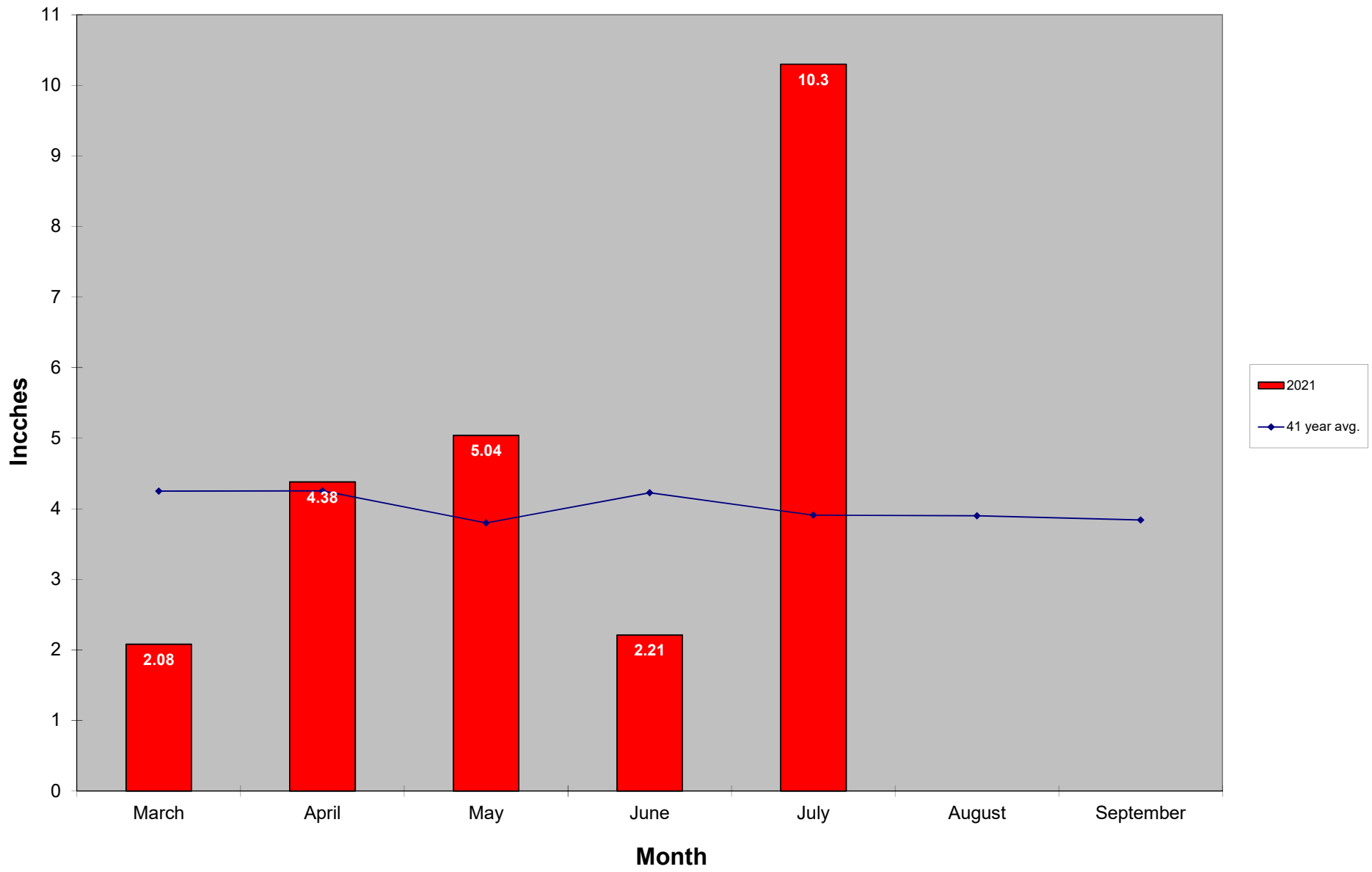
Epi week#	# eggs Collected	Epi week#	# eggs Collected
23	0	28	362
24	43	29	46
25	530	30	21
26*	512	31	928
27	399		
	TOTAL	2,841	
*ATM detected in Lowell			

Service requests are 33.7% greater than the 18-year average but a 14.6% decrease over 2020 numbers to date. Requests decreased 60.8% from the previous week as mosquito emergence from earlier rain events have been mediated by control measures. All work crews are performing catch basins treatments for *Culex* control. 5,552 catch basins were treated in Epi week 31, bringing the total to 76,055 basins to date.

Out Asian Tiger Mosquito (ATM) protocols were instituted in Epi week 28 in Lowell after confirmation of a positive specimen from one of our ovitraps. To date no additional ATM has been identified in this area, and we will continue to monitor for this invasive species throughout the remainder of the season.

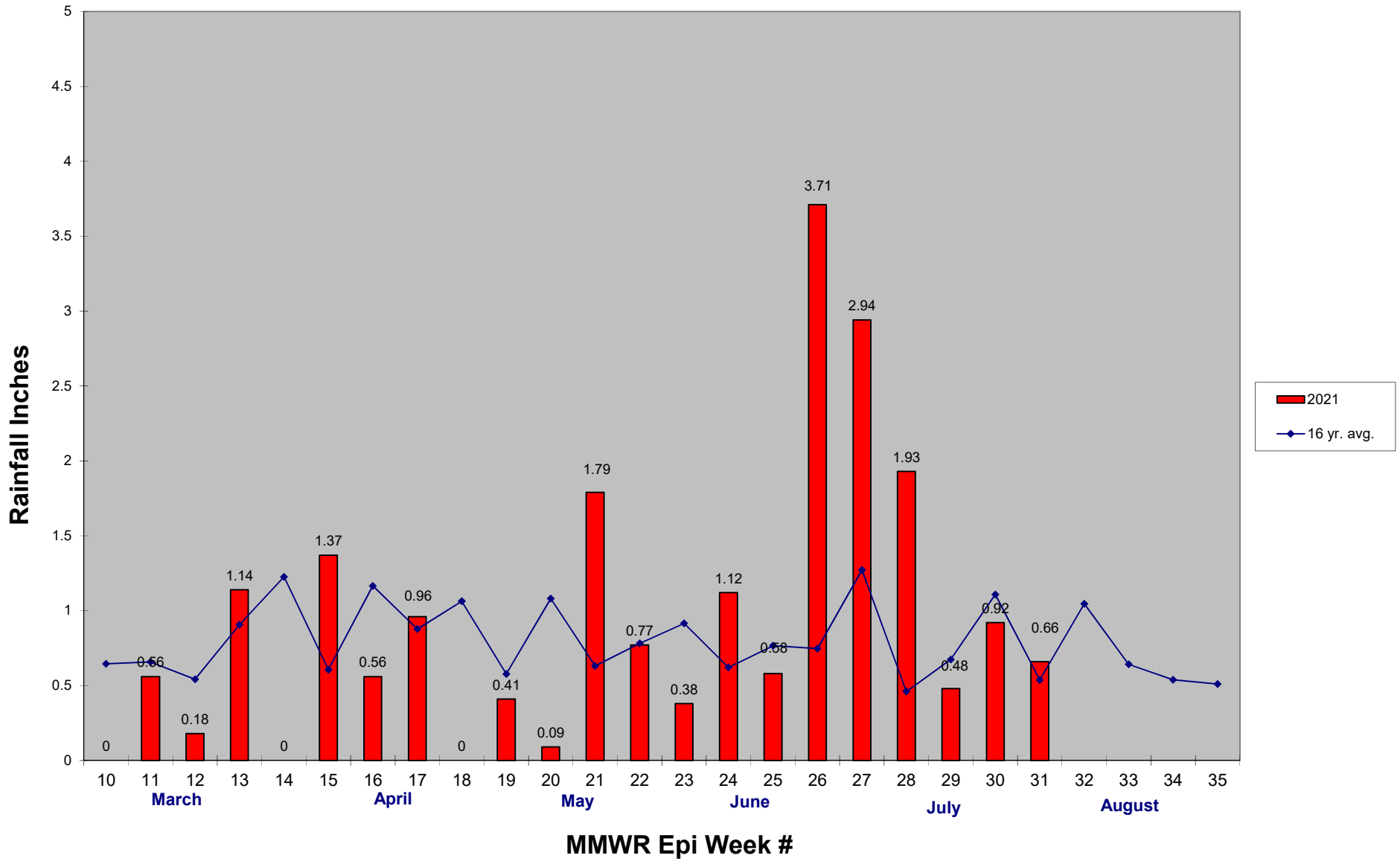
Results of the water sampling and bioassays showed that *Spinosad* is only minimally penetrating the crypts, and the control effect declines quickly inside and outside of the crypts. Data is being collected and analyzed from emergence traps in *Cq. perturbans* habitat but initial results are showing efficacy.

2021 Mass. Rainfall Data vs. 41 Year Average*



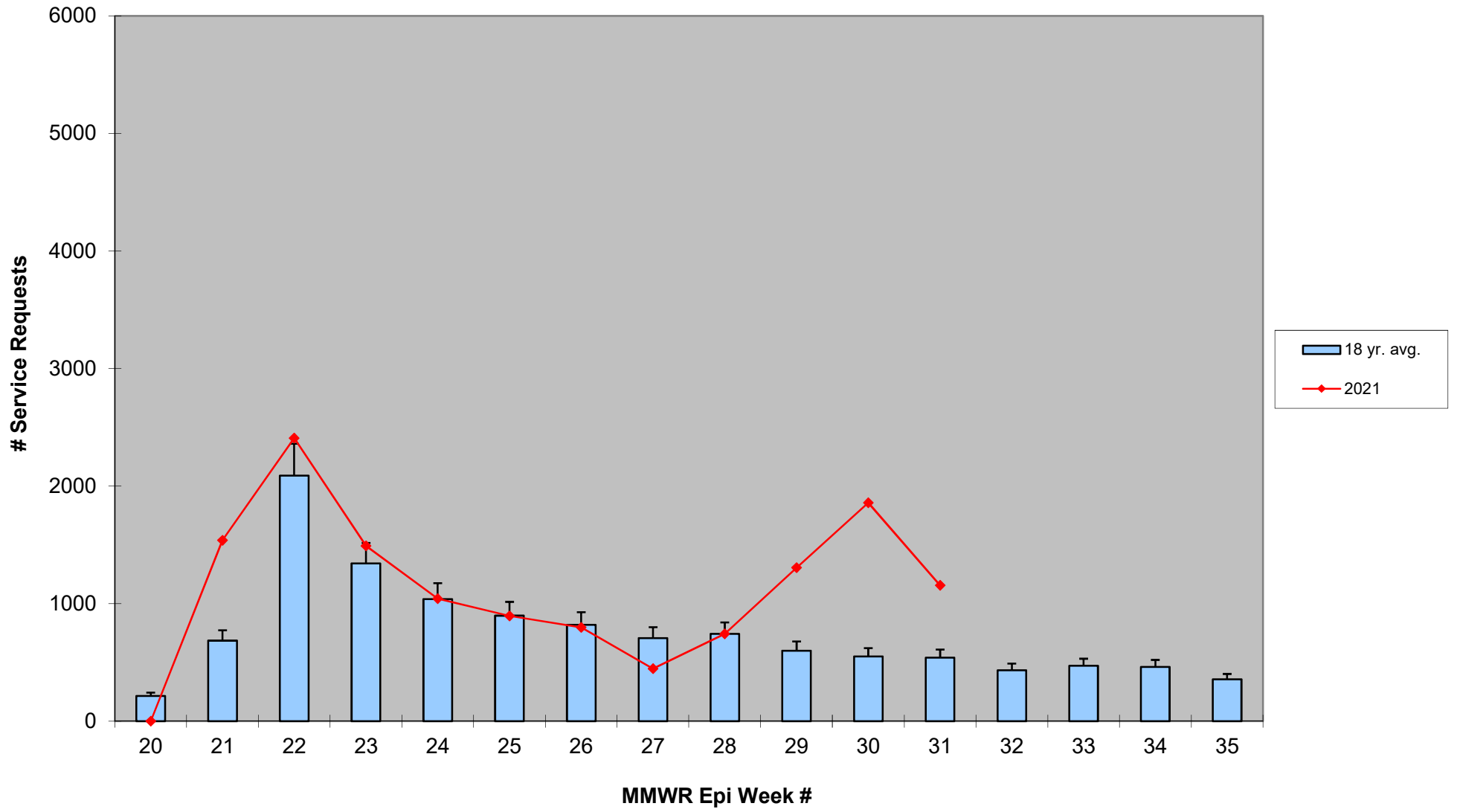
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2021 CMMCP Weekly Rainfall vs. 16 Year Average*



*source: CMMCP weather station Northborough, MA

ULV Service Request History 2003-2021



2021 Rainfall vs. Requests

