

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #39
Sept. 20-26, 2020

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Central Mass. Mosquito Control Project
Weekly Report- 9/20/20-9/26/20
EPI Week #39

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	233	750	112	198	661	4096
Total Specimens	2252	32584	336	2825	4571	49703
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 57.51°F with a recorded high temperature of 82.90°F and a recorded low temperature of only 31.90°F. There was no recordable rain observed this week. Compared to the previous week, it was approximately 1.85°F cooler on average, and rained about 0.01 inches less. There has been 0.77 inches of rain accumulated in September, after 3.00 inches for the month of August.

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>	-76.15%	+48.54%	Millbury, Acton
<i>Coquilleltidia perturbans</i>	-50.00%	-80.55%	Ayer, Stow
<i>Culiseta melanura</i>	-55.56%	-85.87%	Westborough
<i>Ochlerotatus canadensis</i>	+00.00%	-48.31%	N/A
<i>Culex</i> Species	+260.0%	-71.46%	Boxborough
All Species	-15.87%	-76.36%	Boxborough

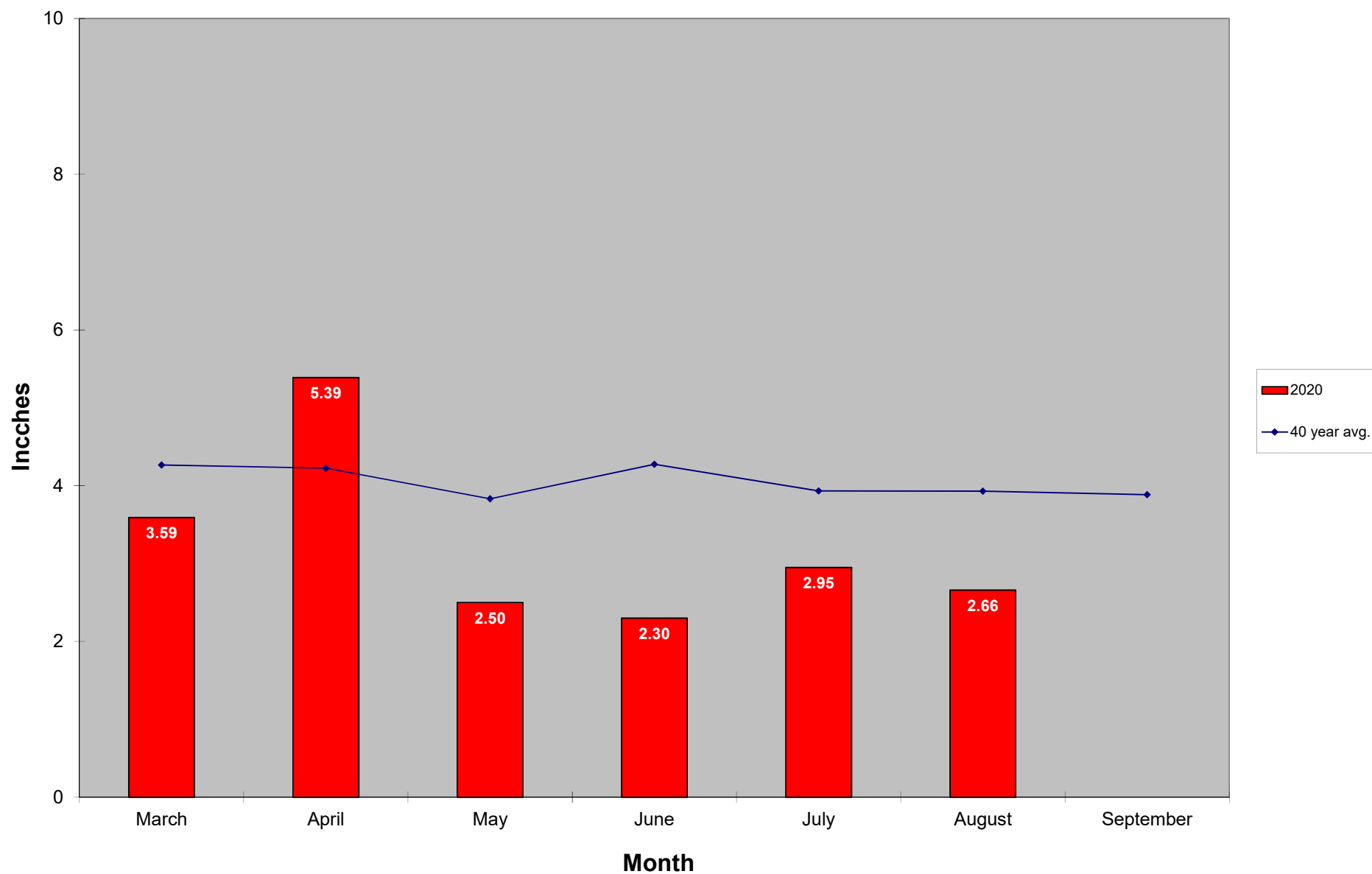
The predominant mosquito for the week was *Culex* spp.,
followed by *Ochlerotatus japonicus*.

General narrative: The average temperature for EPI week 39 was approximately 1.85°F cooler than the previous week, with no recordable precipitation observed. This week decreased emergence was observed for all target mosquitoes except for *Culex* spp. The most abundant mosquito this week was *Culex* spp, followed now by *Ochlerotatus japonicus*. Compared to the 2019 season, overall mosquito surveillance numbers are down this year. All target species are lower this season, except for *Aedes vexans*. Every submitted mosquito pool from EPI week 38 tested negative for mosquito-borne disease. *Aedes albopictus* surveillance using ovitraps continued, with 10 eggs collected and submitted for identification this week. No identifications of this invasive species have been confirmed by MDPH this season in our egg collections. CMMCP GAT (Gravid Aedes Trap) traps were deployed on Willow Road in Ayer from Sept. 11–25 in the woods alongside large abandoned tires, and collected 2 specimens of *Ae. albopictus*, one male and one female. CMMCP staff treated the tires with FourStar® extended release Bti to

eliminate any larval hatch, and APHC Mosquito Trap-N-Kill® lethal ovitraps (active ingredient 10% DDVP) were deployed in the area to capture and control any additional adult specimens that may and try to oviposit. ULV spraying in the area was not a consideration due to low overall trap counts and cool nighttime temperatures that would lower or even prohibit efficacy.

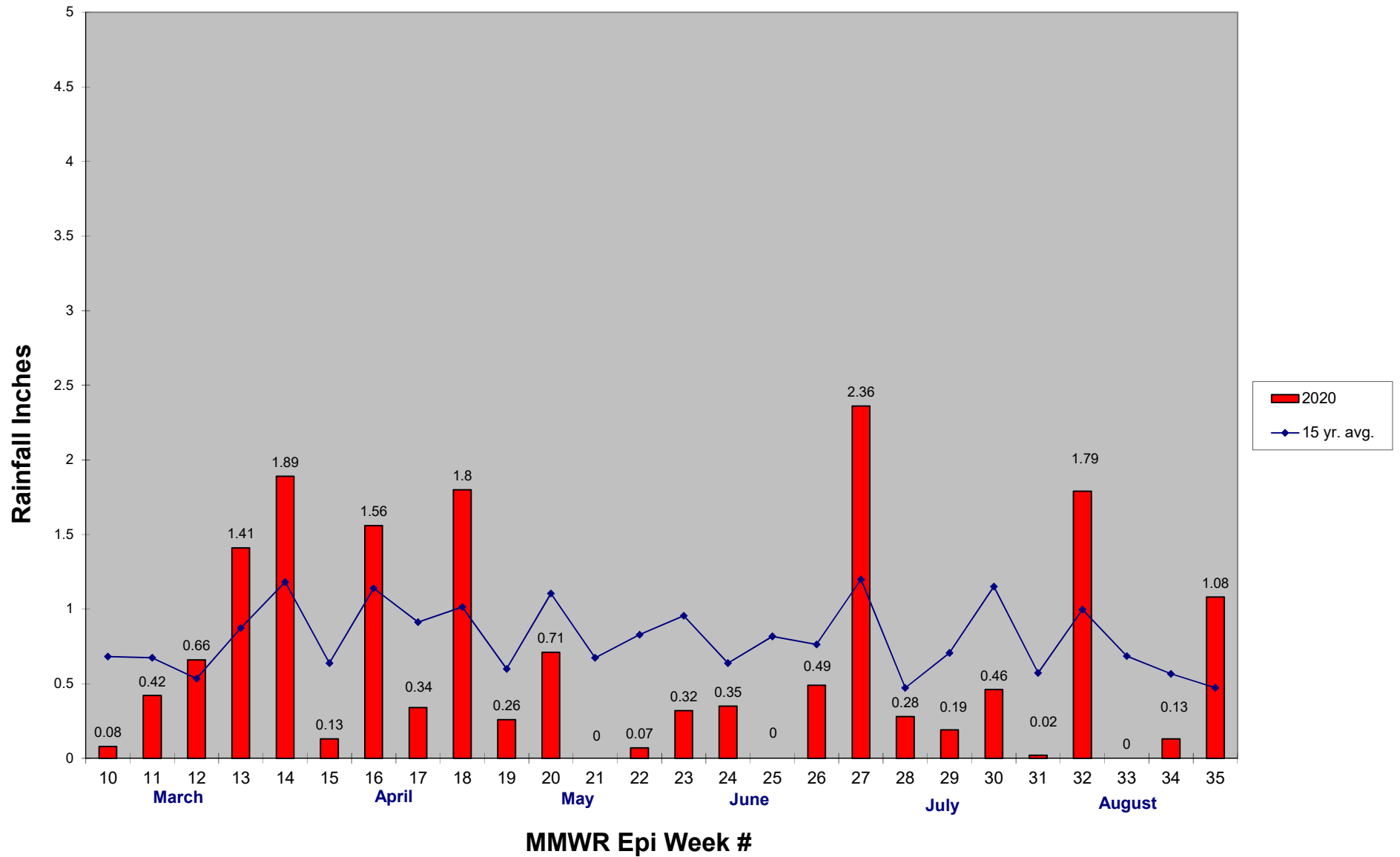
Service requests for the year ended up 56.7% greater than the 17-year average and an 17.7% decrease over 2019 numbers. Weekly catch basin treatments for *Culex* control have ended, bringing the final total for the year to 88,650 basins. Final results are still pending from the analysis laboratories but initial results do not look positive for control in most *Cs. melanura* crypt habitat. Data is still being collected and analyzed from emergence traps in *Cq. perturbans* habitat.

2020 Mass. Rainfall Data vs. 40 Year Average*



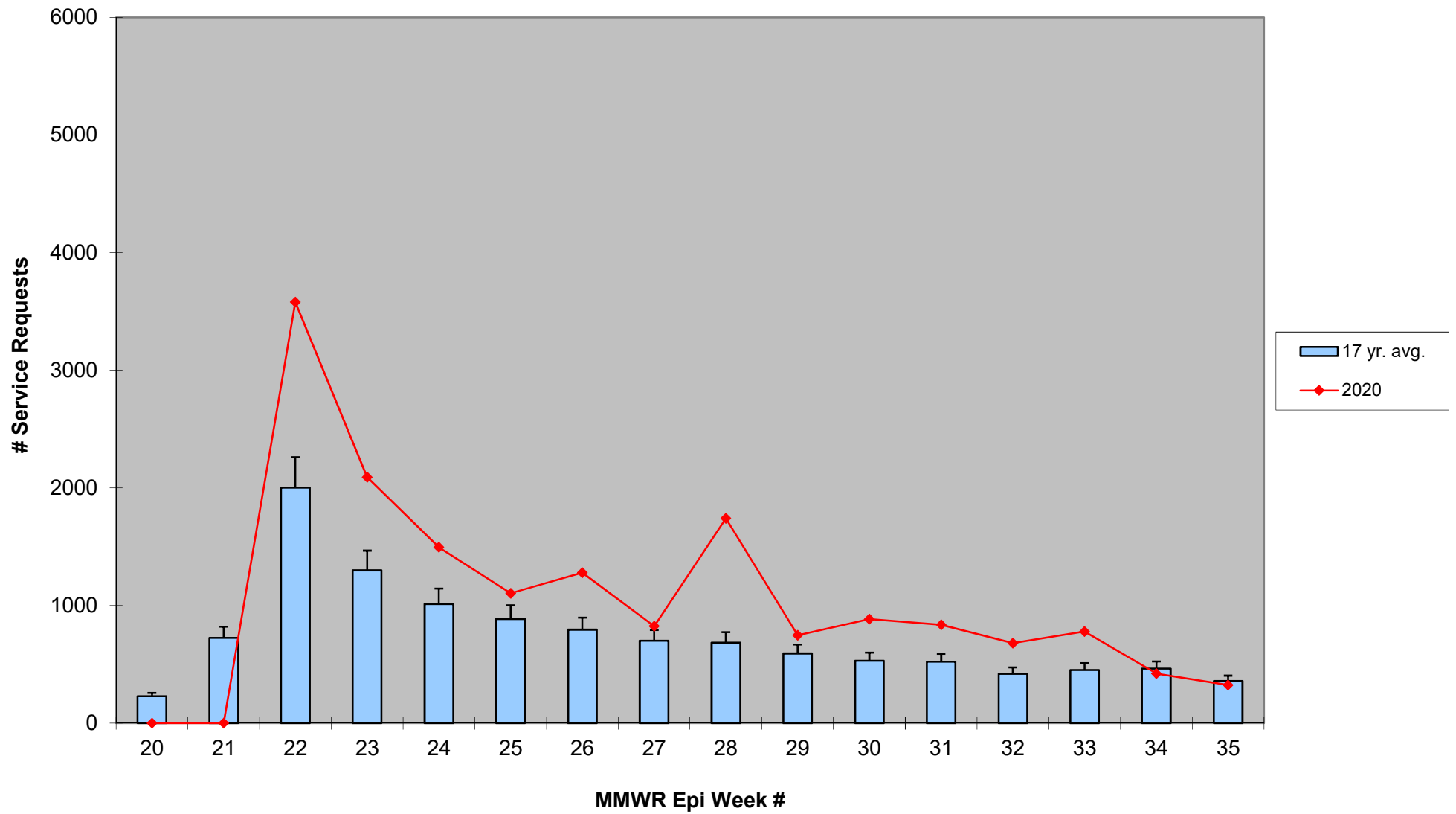
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

2020 CMMCP Weekly Rainfall vs. 15 Year Average*



*source: CMMCP weather station Northborough, MA

ULV Service Request History Comparison 2003-2020



2020 Rainfall vs. Requests

