

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #40
Sept. 27 – Oct. 3, 2020

Frank Cornine, Staff Biologist
Curtis Best, Staff Entomologist
David Mullins, Field Biologist
Tim McGlinchy, Director of Operations
Tim Deschamps, Executive Director

Central Mass. Mosquito Control Project
Weekly Report- 9/27/20-10/3/20
EPI Week #40

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	252	753	115	198	673	4198
Total Specimens	2304	32587	341	2825	4586	49838
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 63.87°F with a recorded high temperature of 82.20°F and a recorded low temperature of only 39.80°F. There was 0.69 inches of rain observed this week. Compared to the previous week, it was approximately 6.36°F warmer on average, and rained about 0.69 inches more. There has been 0.02 inches of rain accumulated in October, after 1.44 inches for the month of September.

CMMCP Mosquito Summary-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
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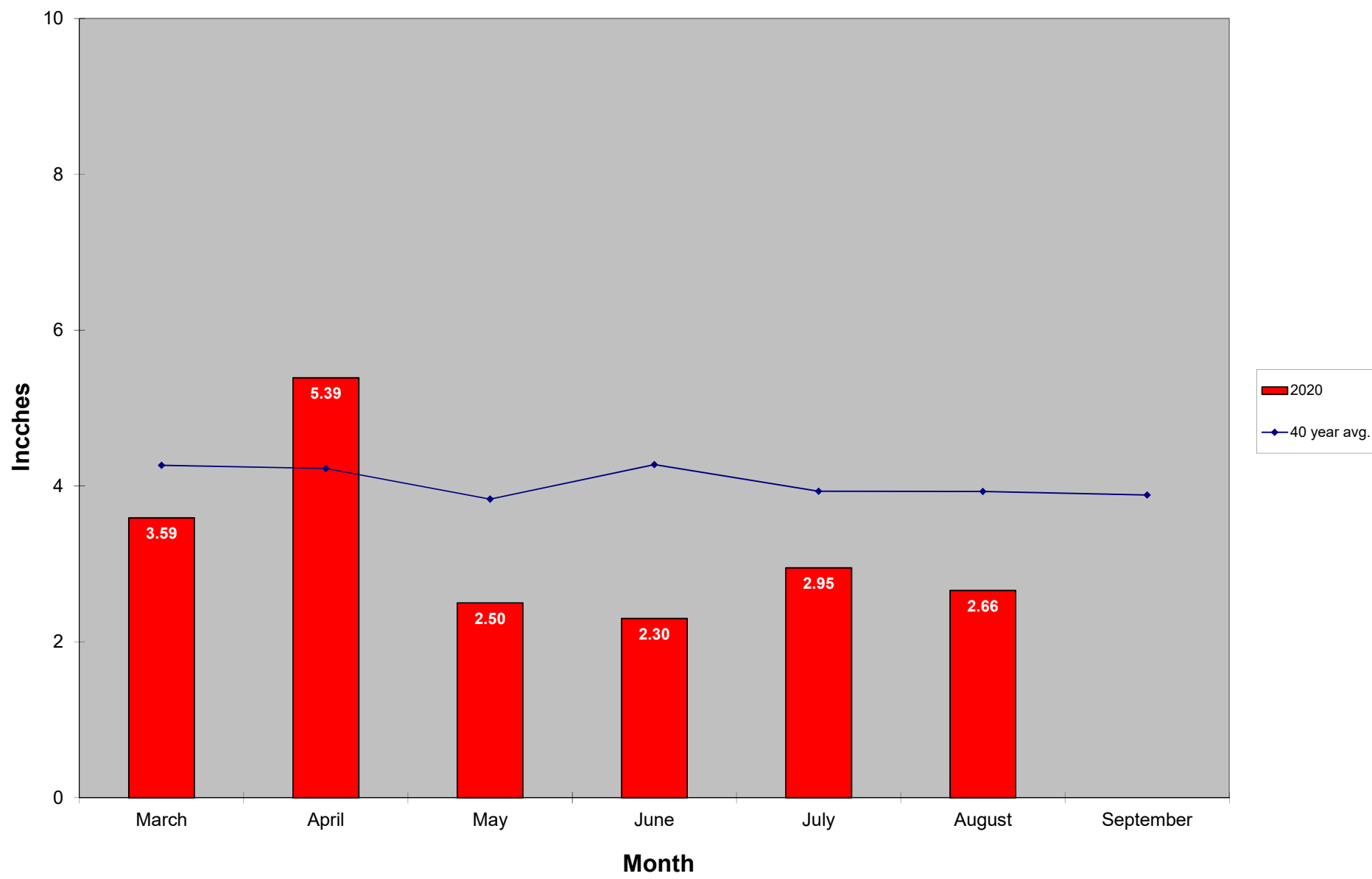
<i>Aedes vexans</i>	+61.29%	+51.18%	Hopedale, Billerica
<i>Coquilleltidia perturbans</i>	+00.00%	-80.55%	Sturbridge, Worcester
<i>Culiseta melanura</i>	+25.00%	-86.19%	Tewksbury
<i>Ochlerotatus canadensis</i>	+00.00%	-48.32%	N/A
<i>Culex</i> Species	-88.89%	-71.45%	Worcester, Shrewsbury
All Species	-44.74%	-76.33%	Ayer, Hopedale, Billerica

The predominant mosquito for the week was *Aedes vexans*,
followed by *Ochlerotatus japonicus*.

General narrative: The average temperature for EPI week 40 was approximately 6.36°F warmer than the previous week, with 0.69 inches of precipitation observed. This week decreased emergence was observed for only *Culex* spp. The most abundant mosquito this week was *Aedes vexans*, followed 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 39 tested negative for mosquito-borne disease. Adult *Aedes albopictus* were collected from the CMMCP service area. *Aedes albopictus* surveillance using ovitraps continued, with 366 eggs collected and submitted for identification this week. 16 additional *Ae. albopictus* females were collected in our GAT traps from our trap site in Ayer. Larval collections (prior to treatment) only resulted in *Ae. japonicus* adult emergence.

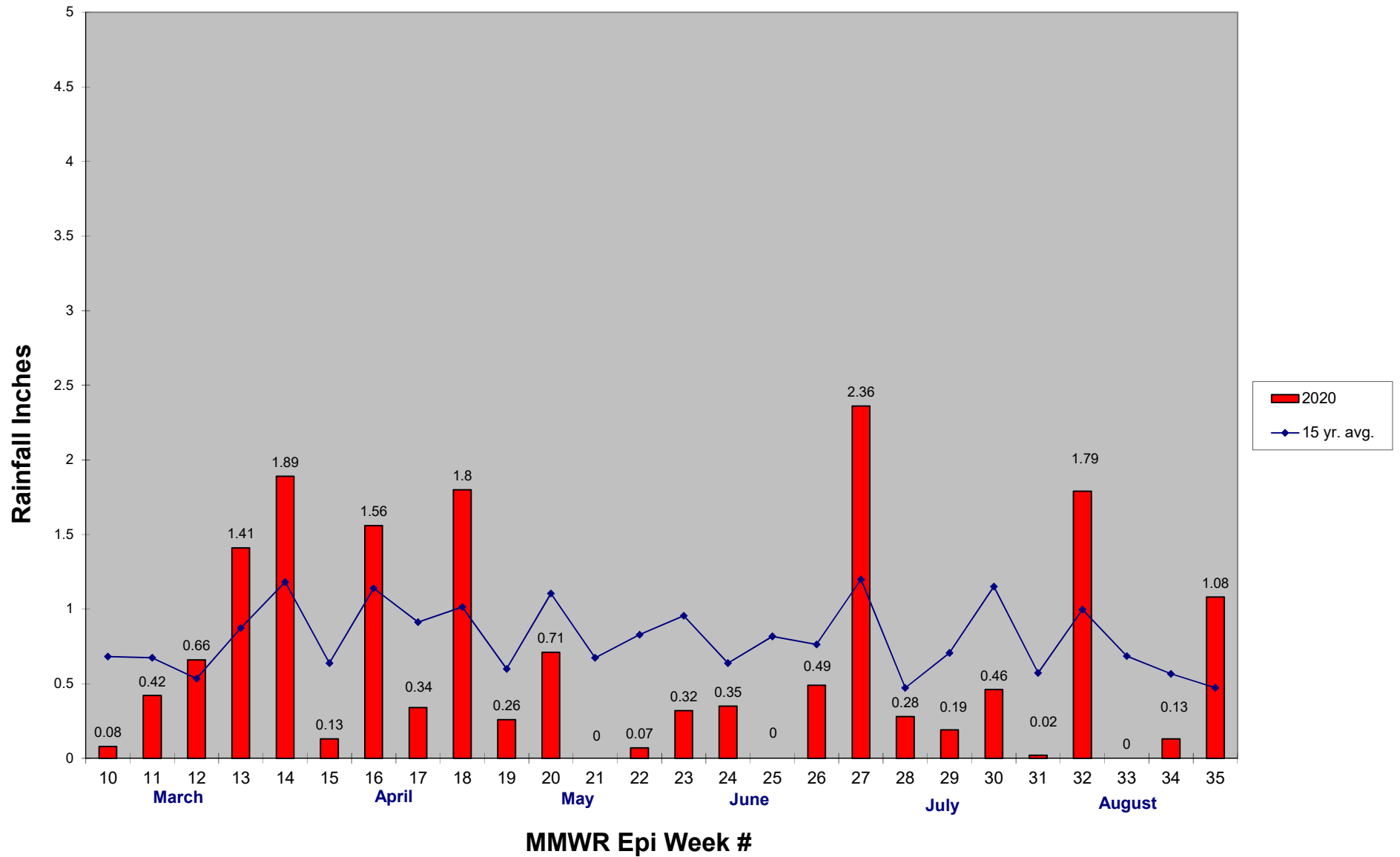
Service requests for the year ended up 56.7% greater than the 17-year average and an 17.7% decrease over 2019 numbers. Weekly catch basin treatments for *Culex* control have ended, bringing the final total for the year to 88,650 basins. Final results are still pending from the analysis laboratories but 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*



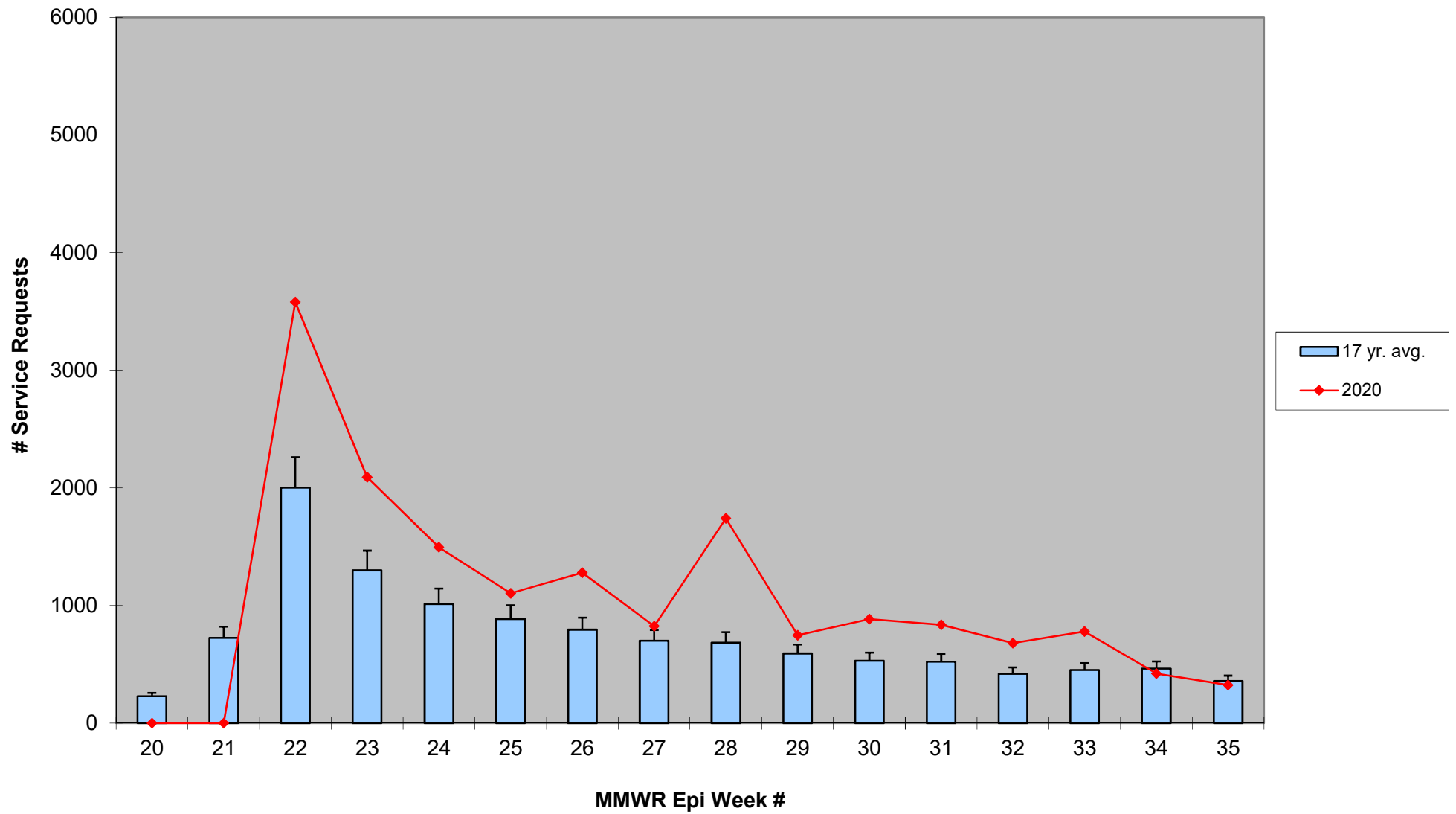
*source: <http://www.nrcc.cornell.edu/regional/tables/tables.html>

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

