



## **Zoonotic Disease Report**

### **September 8 – September 14, 2019 (Week 37)**

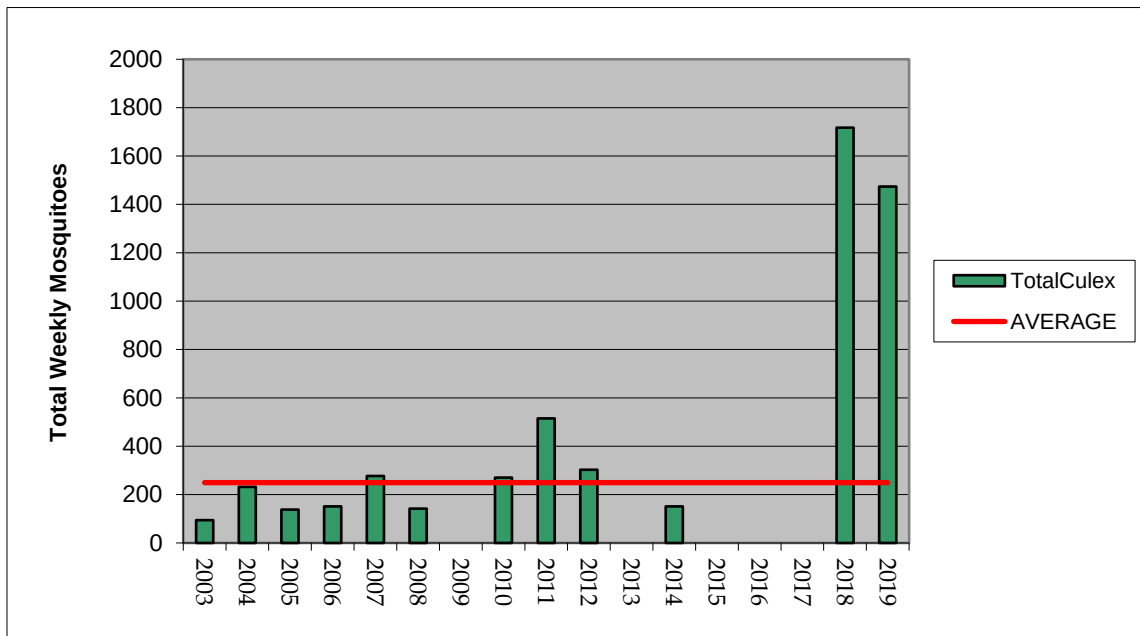
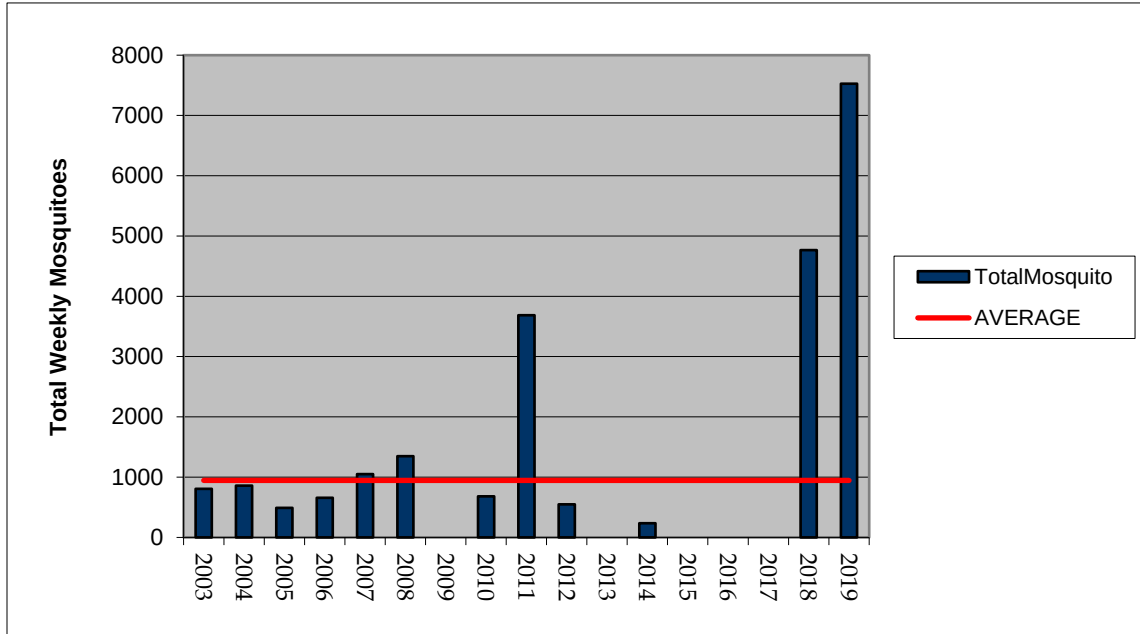
#### **Executive Summary**

- No mosquito pools were submitted from Zones 1, 2, or 3 this week for WNV testing.
- Another focused round of trapping will continue next week to keep an eye on active areas.
- No additional human cases of WNV have been reported this week.
- One hundred twelve mosquito pools have tested positive for WNV in Colorado this season: Larimer (52), Weld (33), Boulder (8), La Plata (6), Mesa (6), Pueblo (5), Adams (5), Delta (7).
- Mosquito traps this week were significantly higher than average with nuisance and vector species. Of the 7,526 recorded mosquitoes, 20% were *Culex*.
- A rabbit, found in Lafayette, tested positive for tularemia this week.
- Statewide, 143 specimens have tested positive for rabies in 2019.
- 2019 Colorado rabies positive specimens: Skunk (90), Bat (43), Raccoon (2), Dog (2), Fox (1), Bovine (1), Cat (1), Camelid (1)
- Two bats and one raccoon were submitted for rabies testing this week; all tested negative.
- Boulder County has three positive rabies specimens to date, all are bats.

#### **West Nile virus (WNV) Activity**

| <b>SEASON-TO-DATE (Aug. 6) HUMAN WEST NILE VIRUS (WNV) ACTIVITY</b> |                                            |                                        |               |
|---------------------------------------------------------------------|--------------------------------------------|----------------------------------------|---------------|
| <b>Location</b>                                                     | <b>Non-Neuroinvasive<br/>Disease Cases</b> | <b>Neuroinvasive<br/>Disease Cases</b> | <b>Deaths</b> |
| <b>Boulder County</b>                                               | 5                                          | 0                                      | 0             |
| <b>Colorado</b>                                                     | 10                                         | 4                                      | 0             |
| <b>United States</b>                                                | 119                                        | 207                                    | 15            |

## Mosquito Activity



## West Nile virus (WNV) Vector Index

The vector index is a function of calculated infection rate, adjusted for *Culex* mosquito population size, within a given area. It is used to estimate human West Nile virus (WNV) transmission risk. A vector index of **0.75** or above in Boulder County is an indicator of high risk for WNV transmission to humans, and influences the Mosquito Control District's adult mosquito emergency control measures. A vector index is calculated for [three monitoring zones in Boulder County](#).

| VECTOR INDEX |              |              |              |
|--------------|--------------|--------------|--------------|
|              | ZONE 1       | ZONE 2       | ZONE 3       |
| Season Week  | Vector Index | Vector Index | Vector Index |
| Week 21      | ----         | ----         | ----         |
| Week 22      | ----         | ----         | ----         |
| Week 23      | ----         | ----         | ----         |
| Week 24      | 0.00         | 0.00         | 0.00         |
| Week 25      | 0.00         | 0.00         | 0.00         |
| Week 26      | 0.00         | 0.00         | 0.00         |
| Week 27      | 0.00         | 0.00         | 0.00         |
| Week 28      | 0.00         | 0.00         | 0.00         |
| Week 29      | 0.00         | 0.00         | 0.00         |
| Week 30      | 0.00         | 0.00         | 0.00         |
| Week 31      | 0.00         | 0.00         | 0.00         |
| Week 32      | 0.00         | 0.32         | 0.00         |
| Week 33      | 0.23         | 0.71         | 0.00         |
| Week 34      | 0.24         | 0.00         | 0.27         |
| Week 35      | 0.00         | 0.30         | 0.20         |
| Week 36      | ----         | ----         | ----         |
| Week 37      | ----         | ----         | ----         |

## Animal Disease Activity

Each week, Boulder County and municipal Animal Control Units responds to animal complaints throughout the county. When deemed necessary, these specimens are sent to state laboratories for zoonotic disease testing.

### Caveats

- Data are provided from the Colorado Department of Public Health and Environment (CDPHE) Zoonotic database and may not include samples submitted for testing prior to publishing of this report.
- Data reflect all samples submitted by Boulder County Public Health by other agencies or private veterinary practices.
- 'Positive Vectors' include only samples that have tested positive. Some samples submitted may be deemed untestable.
- 'Submitted Vectors' denoted with (\*) indicate that at least one sample was untestable. Untestable samples may be treated as positive for follow-up protocol.

## Submissions and Results by Disease

| TESTED VECTORS |        |        |           |           |             |       | POSITIVE VECTORS |         |            |            |              |       |
|----------------|--------|--------|-----------|-----------|-------------|-------|------------------|---------|------------|------------|--------------|-------|
|                | RABIES | PLAGUE | TULAREMIA | WNV POOLS | HANTA VIRUS | TOTAL | RABIES+          | PLAGUE+ | TULAREMIA+ | WNV POOLS+ | HANTA VIRUS+ | TOTAL |
| Wk 1-20        | 18     | 2      | 2         | 0         | 0           | 22    | 1                | 0       | 0          | 0          | 0            | 1     |
| Wk21           | 1      | 0      | 0         | 0         | 0           | 1     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk22           | 2      | 0      | 0         | 0         | 0           | 2     | 1                | 0       | 0          | 0          | 0            | 1     |
| Wk23           | 5      | 0      | 0         | 0         | 0           | 5     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk24           | 4      | 0      | 0         | 3         | 0           | 7     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk25           | 4      | 0      | 0         | 3         | 0           | 7     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk26           | 3      | 0      | 0         | 3         | 0           | 6     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk27           | 4      | 0      | 0         | 5         | 0           | 9     | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk28           | 9      | 0      | 0         | 19        | 0           | 28    | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk29           | 8      | 2      | 2         | 27        | 0           | 39    | 1                | 0       | 0          | 0          | 0            | 1     |
| Wk30           | 8      | 1      | 0         | 31        | 0           | 40    | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk31           | 8      | 0      | 0         | 36        | 0           | 44    | 0                | 0       | 0          | 0          | 0            | 0     |
| Wk32           | 4      | 0      | 0         | 32        | 0           | 36    | 0                | 0       | 0          | 1          | 0            | 1     |
| Wk33           | 1      | 0      | 0         | 16        | 0           | 17    | 0                | 0       | 0          | 3          | 0            | 3     |
| Wk34           | 6      | 0      | 0         | 18        | 0           | 24    | 0                | 0       | 0          | 2          | 0            | 2     |
| Wk35           | 4      | 0      | 0         | 13        | 0           | 17    | 0                | 0       | 0          | 2          | 0            | 2     |
| Wk36           | 8      | 0      | 0         | 0         | 0           | 8     | 0                | 0       | 1          | 0          | 0            | 0     |
| Wk37           | 3      | 0      | 1         | 0         | 0           | 4     |                  |         |            |            |              |       |
| Wk38           |        |        |           |           |             |       |                  |         |            |            |              |       |
| Wk39           |        |        |           |           |             |       |                  |         |            |            |              |       |
| Wk40           |        |        |           |           |             |       |                  |         |            |            |              |       |
| TOTAL TO DATE  | 100    | 5      | 5         | 206       | 0           | 316   | 3                | 0       | 1          | 8          | 0            | 12    |

## Submissions and Results by Species

| SEASON-TO-DATE DISEASE TESTING BY SPECIES |            |          |           |          |
|-------------------------------------------|------------|----------|-----------|----------|
| <i>Species</i>                            | Rabies     | Plague   | Tularemia | Hanta    |
| Bat                                       | 69         | 0        | 0         | 0        |
| Skunk                                     | 2          | 0        | 0         | 0        |
| Raccoon                                   | 10         | 0        | 0         | 0        |
| Squirrel                                  | 0          | 0        | 0         | 0        |
| Cat                                       | 7          | 2        | 1         | 0        |
| Flea                                      | 0          | 1        | 0         | 0        |
| Dog                                       | 7          | 2        | 2         | 0        |
| Fox                                       | 0          | 0        | 0         | 0        |
| Prairie Dog                               | 0          | 0        | 0         | 0        |
| Rabbit                                    | 0          | 0        | 2         | 0        |
| Other                                     | 5          | 0        | 0         | 0        |
| <b>TOTALS</b>                             | <b>100</b> | <b>5</b> | <b>5</b>  | <b>0</b> |

| SEASON-TO-DATE DISEASE POSITIVES BY SPECIES |          |          |           |          |
|---------------------------------------------|----------|----------|-----------|----------|
| <i>Species</i>                              | Rabies   | Plague   | Tularemia | Hanta    |
| Bat                                         | 3        | 0        | 0         | 0        |
| Skunk                                       | 0        | 0        | 0         | 0        |
| Raccoon                                     | 0        | 0        | 0         | 0        |
| Squirrel                                    | 0        | 0        | 0         | 0        |
| Cat                                         | 0        | 0        | 0         | 0        |
| Flea                                        | 0        | 0        | 0         | 0        |
| Dog                                         | 0        | 0        | 0         | 0        |
| Fox                                         | 0        | 0        | 0         | 0        |
| Prairie Dog                                 | 0        | 0        | 0         | 0        |
| Rabbit                                      | 0        | 0        | 1         | 0        |
| Other                                       | 0        | 0        | 0         | 0        |
| <b>TOTALS</b>                               | <b>3</b> | <b>0</b> | <b>1</b>  | <b>0</b> |

## Testing Efforts by Disease

