

Vectorborne Surveillance in Ohio

January 6, 2023



Mosquito Surveillance

Here is a summary of mosquitoes identified and tested for West Nile virus (WNV) to date. For each jurisdiction, the table reports the total number of mosquitoes identified in traps, the number of resulting pooled samples tested or pending (up to 50 mosquitoes per sample), and those positive for WNV. The table shows only the mosquitoes that have been identified and processed as of noon on 11/07/2022:

| 2022 Ohio Mosquito Surveillance Summary | | | | | | | |
|---|---|--------------------------|----------------------|------------------|--------------------|---------------|-------------------|
| Counties (51 total) | Agencies (64 total) | Mosquitoes Identified | Mosquitoes Tested | Pools Pending | Pools Reported* | WNV+ Pools | % WNV Positive |
| Allen | City of Delphos | 29 | 18 | 0 | 3 | 0 | 0.0% |
| Ashland | Ashland County Health Department | 200 | 55 | 0 | 5 | 0 | 0.0% |
| Ashtabula | Ashtabula City Health Department | 756 | 649 | 0 | 17 | 0 | 0.0% |
| Athens | Athens City County Health Department | 5,330 | 4,887 | 0 | 156 | 2 | 1.3% |
| Carroll | Carroll County General Health District | 3,297 | 2,796 | 0 | 96 | 2 | 2.1% |
| Champaign | Champaign Health District | 54 | 16 | 0 | 3 | 0 | 0.0% |
| Clark | Clark County Combined Health District | 15,310 | 14,548 | 0 | 389 | 39 | 10.0% |
| Clermont | Clermont County Public Health | 4,153 | 3,946 | 0 | 133 | 2 | 1.5% |
| Columbiana | Columbiana County Health District | 74 | 56 | 0 | 4 | 1 | 25.0% |
| | Salem City Health Department | 195 | 122 | 0 | 5 | 0 | 0.0% |
| Coshocton | Coshocton County Health Department | 53 | 19 | 0 | 2 | 0 | 0.0% |
| Crawford | Galion City Health Department | 1,213 | 1,055 | 0 | 51 | 2 | 3.9% |
| Cuyahoga | Cuyahoga County Board of Health | 3,226 | 3,041 | 0 | 101 | 11 | 10.9% |
| Darke | Darke County General Health District | 311 | 30 | 0 | 7 | 0 | 0.0% |
| Delaware | Delaware Public Health District | 3,459 | 2,619 | 0 | 122 | 2 | 1.6% |
| Fairfield | Fairfield Department of Health | 2,113 | 1,535 | 0 | 96 | 1 | 1.0% |
| | Franklin County Public Health | 3,192 | 2,322 | 0 | 64 | 4 | 6.3% |
| Franklin | Franklin County Public Health | 94,219 | 72,425 | 0 | 1,989 | 163 | 8.2% |
| | Columbus Public Health | 125,290 | 120,347 | 0 | 2,810 | 544 | 19.4% |
| | Ohio State University - Meuti Lab | 79 | 79 | 0 | 48 | 2 | 4.2% |
| Gallia | Gallia County General Health District | 17 | 3 | 0 | 1 | 0 | 0.0% |
| Greene | Greene County Public Health | 453 | 389 | 0 | 19 | 0 | 0.0% |
| Hamilton | Hamilton County Public Health | 1,238 | 984 | 0 | 43 | 0 | 0.0% |

2022 Ohio Mosquito Surveillance Summary

| Counties (51 total) | Agencies (64 total) | Mosquitoes Identified | Mosquitoes Tested | Pools Pending | Pools Reported* | WNV+ Pools | % WNV Positive |
|--------------------------------|---|----------------------------------|------------------------------|--------------------------|----------------------------|-----------------------|---------------------------|
| Hamilton | Cincinnati Health Department | 3,531 | 3,074 | 0 | 124 | 2 | 1.6% |
| Hancock | Hancock Public Health | 3,846 | 3,481 | 0 | 134 | 9 | 6.7% |
| Henry | Henry County Health Department | 833 | 800 | 0 | 28 | 1 | 3.6% |
| Hocking | Hocking County Health Department | 351 | 150 | 0 | 14 | 0 | 0.0% |
| Knox | Knox Public Health | 1,327 | 1,109 | 0 | 36 | 1 | 2.8% |
| Lake | Lake County General Health District | 2,063 | 1,493 | 0 | 96 | 3 | 3.1% |
| Licking | Licking County Health Department | 2,089 | 1,940 | 0 | 122 | 0 | 0.0% |
| | Ohio Department of Health | 848 | 120 | 0 | 3 | 0 | 0.0% |
| Lorain | Lorain County Public Health | 27,577 | 23,642 | 0 | 617 | 15 | 2.4% |
| Lucas | Toledo Area Sanitary District | 63,130 | 24,987 | 0 | 1,517 | 56 | 3.7% |
| Mahoning | Mahoning County Public Health | 2,731 | 2,024 | 0 | 98 | 1 | 1.0% |
| Medina | Medina County Health Department | 3,715 | 3,204 | 0 | 126 | 0 | 0.0% |
| Meigs | Meigs County Health Department | 798 | 498 | 0 | 45 | 1 | 2.2% |
| Montgomery | Public Health - Dayton & Montgomery County | 351 | 277 | 0 | 27 | 5 | 18.5% |
| Morgan | Morgan County Health Department | 240 | 137 | 0 | 7 | 0 | 0.0% |
| Muskingum | Zanesville-Muskingum County Health Department | 12 | 8 | 0 | 1 | 0 | 0.0% |
| Ottawa | Ottawa County Health Department | 1,538 | 1,353 | 0 | 94 | 0 | 0.0% |
| Pickaway | Pickaway County Public Health | 67 | 35 | 0 | 5 | 0 | 0.0% |
| Pike | Pike County General Health District | 1,168 | 975 | 0 | 38 | 0 | 0.0% |
| Portage | Portage County Health District | 15,732 | 14,103 | 0 | 417 | 6 | 1.4% |
| | Kent City Health Department | 29,869 | 20,528 | 0 | 589 | 5 | 0.8% |
| Richland | Richland Public Health | 15,891 | 13,892 | 0 | 339 | 6 | 1.8% |
| | Shelby City Health Department | 2,315 | 2,225 | 0 | 66 | 3 | 4.5% |
| Ross | Ross County Health District | 7,021 | 6,344 | 0 | 210 | 5 | 2.4% |
| Scioto | Scioto County Health Department | 9,507 | 8,784 | 0 | 244 | 3 | 1.2% |
| | Portsmouth City Health Department | 469 | 172 | 0 | 24 | 0 | 0.0% |
| Shelby | City of Sidney | 383 | 9 | 0 | 2 | 0 | 0.0% |
| Stark | Stark County Health Department | 6,690 | 6,234 | 0 | 242 | 2 | 0.8% |
| | Canton City Public Health | 10,701 | 9,440 | 0 | 317 | 2 | 0.6% |
| | Alliance City Health Department | 2,285 | 1,761 | 0 | 52 | 2 | 3.8% |

| 2022 Ohio Mosquito Surveillance Summary | | | | | | | |
|---|--|--------------------------|----------------------|------------------|--------------------|---------------|-------------------|
| Counties (51 total) | Agencies (64 total) | Mosquitoes Identified | Mosquitoes Tested | Pools Pending | Pools Reported* | WNV+ Pools | % WNV Positive |
| Summit | Summit County Public Health | 32,316 | 28,669 | 0 | 865 | 10 | 1.2% |
| | Barberton Norton Mosquito Abatement District | 24,393 | 18,251 | 0 | 643 | 9 | 1.4% |
| Trumbull | Trumbull County Combined Health District | 157 | 99 | 0 | 9 | 0 | 0.0% |
| Tuscarawas | Tuscarawas County Health Department | 4,107 | 3,915 | 0 | 103 | 3 | 2.9% |
| | New Philadelphia City Health Department | 301 | 200 | 0 | 14 | 0 | 0.0% |
| Union | Union County Health Department | 10,811 | 10,222 | 0 | 287 | 15 | 5.2% |
| Vinton | Vinton County Health Department | 3,003 | 2,767 | 0 | 107 | 2 | 1.9% |
| Warren | Warren County Health District | 1,602 | 1,496 | 0 | 61 | 1 | 1.6% |
| Wayne | College of Wooster | 193 | 54 | 0 | 6 | 0 | 0.0% |
| Wood | Bowling Green State University | 12,692 | 1,851 | 0 | 119 | 1 | 0.8% |
| | Village of Pemberville | 888 | 859 | 0 | 30 | 2 | 6.7% |
| Wyandot | Wyandot County Public Health | 528 | 463 | 0 | 25 | 0 | 0.0% |
| Totals: | | 572,330 | 453,586 | 0 | 14,067* | 946 | 6.7% |

| *Testing Agency | Assay Used | # of Pools Reported |
|-----------------------------------|------------|---------------------|
| Ohio Department of Health | RT-PCR | 9,917 |
| Franklin County Public Health | RAMP | 1,358 |
| Columbus Public Health | VecTOR | 555 |
| | RAMP | 602 |
| Licking County Health Department | RAMP | 118 |
| Toledo Area Sanitary District | qPCR | 1,517 |
| Total # of Pools Reported: | | 14,067 |

Here is a breakdown by mosquito species identified:

| Mosquito Species Identified | |
|-----------------------------|-------|
| Species | Total |
| <i>Aedes albopictus</i> | 4,325 |
| <i>Aedes atropalpus</i> | 1 |
| <i>Aedes canadensis</i> | 266 |
| <i>Aedes cantator</i> | 38 |

| Mosquito Species Identified | |
|------------------------------------|--------------|
| Species | Total |
| <i>Aedes cinereus</i> | 106 |
| <i>Aedes communis</i> | 70 |
| <i>Aedes dorsalis</i> | 2 |
| <i>Aedes excrucians</i> | 1 |
| <i>Aedes grossbecki</i> | 115 |
| <i>Aedes hendersoni</i> | 5 |
| <i>Aedes implicatus</i> | 1 |
| <i>Aedes intrudens</i> | 2 |
| <i>Aedes japonicus</i> | 28,235 |
| <i>Aedes provocans</i> | 1 |
| <i>Aedes riparius</i> | 5 |
| <i>Aedes sollicitans</i> | 77 |
| <i>Aedes sp.</i> | 2,862 |
| <i>Aedes sticticus</i> | 974 |
| <i>Aedes stimulans</i> | 962 |
| <i>Aedes tormentor</i> | 4 |
| <i>Aedes triseriatus</i> | 3,324 |
| <i>Aedes trivittatus</i> | 11,865 |
| <i>Aedes vexans</i> | 19,508 |
| <i>Anopheles barberi</i> | 150 |
| <i>Anopheles crucians</i> | 1 |
| <i>Anopheles earlei</i> | 1 |
| <i>Anopheles perplexens</i> | 331 |
| <i>Anopheles punctipennis</i> | 2,875 |
| <i>Anopheles quadrimaculatus</i> | 3,139 |
| <i>Anopheles sp.</i> | 54 |
| <i>Anopheles walkeri</i> | 496 |
| <i>Coquillettidia perturbans</i> | 3,966 |
| <i>Culex erraticus</i> | 1,982 |
| <i>Culex pipiens</i> | 6,548 |
| <i>Culex restuans</i> | 689 |
| <i>Culex salinarius</i> | 5 |
| <i>Culex sp.</i> | 477,214 |
| <i>Culex tarsalis</i> | 1 |
| <i>Culex territans</i> | 234 |
| <i>Culiseta morsitans</i> | 1 |

| Mosquito Species Identified | |
|------------------------------------|----------------|
| Species | Total |
| <i>Orthopodomyia signifera</i> | 178 |
| <i>Orthopodomyia sp.</i> | 3 |
| <i>Psorophora ciliata</i> | 7 |
| <i>Psorophora columbiae</i> | 404 |
| <i>Psorophora cyanescens</i> | 1 |
| <i>Psorophora ferox</i> | 335 |
| <i>Psorophora horrida</i> | 19 |
| <i>Psorophora howardii</i> | 2 |
| <i>Psorophora sp.</i> | 5 |
| <i>Toxorhynchites rutilus</i> | 2 |
| <i>Uranotaenia sapphirina</i> | 849 |
| unknown species | 89 |
| Total: | 572,330 |

Here is the breakdown of *Ae. albopictus* collections by agency:

| Breakdown of <i>Aedes albopictus</i> Identified | | |
|--|---------------------------------------|--------------|
| County | Agency | Total |
| Athens | Athens City County Health Department | 41 |
| Champaign | Champaign Health District | 4 |
| Clark | Clark County Combined Health District | 35 |
| Clermont | Clermont County Public Health | 34 |
| Crawford | Galion City Health Department | 2 |
| Cuyahoga | Cuyahoga County Board of Health | 5 |
| Darke | Darke County General Health District | 49 |
| Delaware | Delaware Public Health District | 60 |
| Fairfield | Fairfield Department of Health | 83 |
| | Franklin County Public Health | 39 |
| Franklin | Franklin County Public Health | 2,757 |
| | Columbus Public Health | 2 |
| Gallia | Gallia County General Health District | 5 |
| Greene | Greene County Public Health | 6 |
| Hamilton | Hamilton County Public Health | 59 |
| | Cincinnati Health Department | 155 |
| Hancock | Hancock Public Health | 5 |

| Breakdown of <i>Aedes albopictus</i> Identified | | |
|--|--|--------------|
| County | Agency | Total |
| Hocking | Hocking County Health Department | 52 |
| Lake | Lake County General Health District | 10 |
| Licking | Ohio Department of Health | 7 |
| Lorain | Lorain County Public Health | 6 |
| Lucas | Toledo Area Sanitary District | 112 |
| Meigs | Meigs County Health Department | 76 |
| Montgomery | Public Health - Dayton & Montgomery County | 2 |
| Morgan | Morgan County Health Department | 7 |
| Pickaway | Pickaway County Public Health | 2 |
| Pike | Pike County General Health District | 19 |
| Portage | Kent City Health Department | 1 |
| Ross | Ross County Health District | 186 |
| Scioto | Scioto County Health Department | 243 |
| | Portsmouth City Health Department | 120 |
| Stark | Stark County Health Department | 8 |
| | Canton City Public Health | 60 |
| Summit | Summit County Public Health | 9 |
| | Barberton Norton Mosquito Abatement District | 2 |
| Tuscarawas | Tuscarawas County Health Department | 4 |
| | New Philadelphia City Health Department | 14 |
| Union | Union County Health Department | 14 |
| Vinton | Vinton County Health Department | 13 |
| Warren | Warren County Health District | 15 |
| Wood | Bowling Green State University | 2 |
| Total: | | 4,325 |

Here is the breakdown of *Ae. triseriatus* collections by agency:

| Breakdown of <i>Aedes triseriatus</i> Identified | | |
|---|--|--------------|
| County | Agency | Total |
| Ashland | Ashland County Health Department | 19 |
| Ashtabula | Ashtabula City Health Department | 2 |
| Athens | Athens City County Health Department | 33 |
| Carroll | Carroll County General Health District | 13 |
| Clark | Clark County Combined Health District | 18 |

Breakdown of *Aedes triseriatus* Identified

| County | Agency | Total |
|---------------|--|--------------|
| Clermont | Clermont County Public Health | 39 |
| Columbiana | Columbiana County Health District | 7 |
| Crawford | Galion City Health Department | 14 |
| Cuyahoga | Cuyahoga County Board of Health | 9 |
| Darke | Darke County General Health District | 9 |
| Delaware | Delaware Public Health District | 22 |
| Fairfield | Fairfield Department of Health | 33 |
| | Franklin County Public Health | 8 |
| Franklin | Franklin County Public Health | 201 |
| | Columbus Public Health | 11 |
| Gallia | Gallia County General Health District | 1 |
| Greene | Greene County Public Health | 3 |
| Hamilton | Hamilton County Public Health | 11 |
| | Cincinnati Health Department | 67 |
| Hancock | Hancock Public Health | 43 |
| Henry | Henry County Health Department | 1 |
| Hocking | Hocking County Health Department | 12 |
| Knox | Knox Public Health | 8 |
| Lake | Lake County General Health District | 22 |
| Licking | Ohio Department of Health | 10 |
| Lorain | Lorain County Public Health | 135 |
| Lucas | Toledo Area Sanitary District | 661 |
| Mahoning | Mahoning County Public Health | 65 |
| Medina | Medina County Health Department | 25 |
| Meigs | Meigs County Health Department | 19 |
| Montgomery | Public Health - Dayton & Montgomery County | 3 |
| Morgan | Morgan County Health Department | 5 |
| Ottawa | Ottawa County Health Department | 17 |
| Pike | Pike County General Health District | 6 |
| Portage | Portage County Health District | 325 |
| | Kent City Health Department | 115 |
| Richland | Richland Public Health | 254 |
| | Shelby City Health Department | 1 |
| Ross | Ross County Health District | 97 |
| Scioto | Scioto County Health Department | 72 |
| | Portsmouth City Health Department | 19 |

| Breakdown of <i>Aedes triseriatus</i> Identified | | |
|---|--|--------------|
| County | Agency | Total |
| Stark | Stark County Health Department | 5 |
| | Canton City Public Health | 24 |
| | Alliance City Health Department | 26 |
| Summit | Summit County Public Health | 438 |
| | Barberton Norton Mosquito Abatement District | 242 |
| Trumbull | Trumbull County Combined Health District | 1 |
| Tuscarawas | Tuscarawas County Health Department | 19 |
| | New Philadelphia City Health Department | 8 |
| Union | Union County Health Department | 30 |
| Vinton | Vinton County Health Department | 20 |
| Warren | Warren County Health District | 4 |
| Wayne | College of Wooster | 27 |
| Wood | Bowling Green State University | 39 |
| | Village of Pemberville | 2 |
| Wyandot | Wyandot County Public Health | 4 |
| Total: | | 3,324 |

Here is the breakdown of *C. perturbans* collections by agency:

| Breakdown of <i>Coquillettidia perturbans</i> Identified | | |
|---|---------------------------------------|--------------|
| County | Agency | Total |
| Ashtabula | Ashtabula City Health Department | 7 |
| Clark | Clark County Combined Health District | 1 |
| Darke | Darke County General Health District | 1 |
| Fairfield | Fairfield Department of Health | 1 |
| Franklin | Franklin County Public Health | 31 |
| Lucas | Toledo Area Sanitary District | 700 |
| Mahoning | Mahoning County Public Health | 1 |
| Ottawa | Ottawa County Health Department | 2 |
| Portage | Portage County Health District | 3 |
| | Kent City Health Department | 2,328 |
| Richland | Richland Public Health | 1 |
| Ross | Ross County Health District | 1 |
| Stark | Stark County Health Department | 2 |
| Summit | Summit County Public Health | 4 |

Breakdown of *Coquillettidia perturbans* Identified

| County | Agency | Total |
|---------------|--|--------------|
| Summit | Barberton Norton Mosquito Abatement District | 816 |
| Wood | Bowling Green State University | 67 |
| Total: | | 3,966 |



Tick Surveillance*

*Identifications provided by the Ohio Department of Health, the Ohio State University and local health agencies.

Here is a breakdown by tick species identified:

| Tick Species Identified in Ohio, 2022 as of 01/06/2023 | | | | | |
|---|---------------|-------------|------------|--------------|--------------|
| Species | Life Stage | | | | Totals: |
| | Adult Females | Adult Males | Nymphs | Larvae | |
| <i>Amblyomma americanum</i> (Lone Star tick) | 63 | 36 | 166 | 35 | 300 |
| <i>Amblyomma maculatum</i> (Gulf Coast tick) | 6 | 11 | | | 17 |
| <i>Dermacentor variabilis</i> (American Dog tick) | 636 | 522 | | | 1,158 |
| <i>Haemaphysalis leporispalustris</i> (Rabbit tick) | | | 1 | | 1 |
| <i>Haemaphysalis longicornis</i> (Asian Longhorned tick) | | | 1 | | 1 |
| <i>Ixodes cookei</i> (Groundhog tick) | 1 | | 1 | | 2 |
| <i>Ixodes scapularis</i> (Blacklegged tick) | 423 | 150 | 278 | 421 | 1,272 |
| <i>Ixodes sp.</i> (unidentified Ixodid tick) | 77 | 112 | 153 | 4,245 | 4,587 |
| Totals: | 1,206 | 831 | 600 | 4,701 | 7,338 |

Here is a breakdown of *Ix. scapularis* submissions by county:

| Breakdown of Blacklegged Ticks Identified | | | | | |
|---|---------------|-------------|--------|--------|---------|
| County | Life Stage | | | | Totals: |
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Allen | | | 1 | | 1 |
| Ashland | 2 | | 1 | | 3 |
| Ashtabula | 10 | 5 | 5 | 1 | 21 |
| Athens | 18 | 2 | 3 | | 23 |
| Belmont | 2 | 1 | 12 | 4 | 19 |
| Brown | 1 | | | | 1 |
| Butler | 2 | | | | 2 |
| Carroll | 4 | | 2 | 2 | 8 |

Breakdown of Blacklegged Ticks Identified

| County | Life Stage | | | | Totals: |
|------------|---------------|-------------|--------|--------|---------|
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Champaign | | | | 1 | 1 |
| Clark | 1 | | | | 1 |
| Clermont | 1 | | 4 | | 5 |
| Columbiana | 43 | 48 | 62 | | 153 |
| Coshocton | 61 | 47 | | | 108 |
| Cuyahoga | 26 | 5 | 4 | 2 | 37 |
| Defiance | 1 | | | | 1 |
| Delaware | 2 | | | | 2 |
| Erie | 3 | | 2 | | 5 |
| Fairfield | 3 | | | | 3 |
| Franklin | 10 | 2 | 19 | 156 | 187 |
| Gallia | 1 | 1 | 58 | 5 | 65 |
| Geauga | 10 | 3 | 5 | | 18 |
| Greene | | | 1 | | 1 |
| Guernsey | 6 | 4 | 31 | 22 | 63 |
| Hamilton | 17 | | 3 | | 20 |
| Harrison | 1 | | | | 1 |
| Henry | 1 | | | | 1 |
| Highland | 2 | | 2 | 11 | 15 |
| Hocking | 3 | 2 | 8 | 177 | 190 |
| Holmes | 2 | 2 | 1 | | 5 |
| Huron | 3 | | | | 3 |
| Jackson | 1 | | 1 | | 2 |
| Jefferson | 8 | | 6 | 1 | 15 |
| Knox | 12 | | 1 | | 13 |
| Lake | 21 | 5 | 4 | | 30 |
| Licking | 5 | 1 | 4 | | 10 |
| Lorain | 7 | 2 | | | 9 |
| Lucas | 2 | | | | 2 |
| Mahoning | 9 | | | | 9 |
| Medina | 7 | 1 | | | 8 |
| Meigs | | | | 2 | 2 |
| Mercer | | 1 | | | 1 |
| Miami | 1 | | | | 1 |
| Monroe | 1 | | 3 | | 4 |

| Breakdown of Blacklegged Ticks Identified | | | | | |
|---|---------------|-------------|------------|------------|--------------|
| County | Life Stage | | | | Totals: |
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Montgomery | 3 | | | | 3 |
| Morrow | | 1 | | | 1 |
| Muskingum | 1 | 1 | 1 | | 3 |
| Noble | 1 | | | | 1 |
| Ottawa | 1 | | | | 1 |
| Perry | 1 | | | | 1 |
| Pickaway | | | 4 | 13 | 17 |
| Pike | | | 1 | 22 | 23 |
| Portage | 11 | 2 | 2 | | 15 |
| Richland | 4 | | 2 | | 6 |
| Ross | 1 | 3 | 12 | | 16 |
| Scioto | 1 | | | | 1 |
| Stark | 12 | | 1 | | 13 |
| Summit | 35 | 1 | 6 | | 42 |
| Trumbull | 9 | | | | 9 |
| Tuscarawas | 3 | | 2 | | 5 |
| Vinton | 1 | | 2 | 1 | 4 |
| Warren | 1 | | | | 1 |
| Washington | 2 | 1 | | | 3 |
| Wayne | 9 | 5 | 2 | 1 | 17 |
| Williams | 2 | | | | 2 |
| Wood | 4 | 1 | | | 5 |
| Wyandot | 10 | 3 | | | 13 |
| unknown | 1 | | | | 1 |
| Totals: | 423 | 150 | 278 | 421 | 1,272 |

Here is a breakdown of *D. variabilis* submissions by county:

| Breakdown of American Dog Ticks Identified | | | | | |
|--|---------------|-------------|--------|--------|---------|
| County | Life Stage | | | | Totals: |
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Adams | 2 | | | | 2 |
| Allen | 1 | 1 | | | 2 |

Breakdown of American Dog Ticks Identified

| County | Life Stage | | | | Totals: |
|------------|---------------|-------------|--------|--------|---------|
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Ashland | 3 | 1 | | | 4 |
| Ashtabula | 2 | 2 | | | 4 |
| Athens | 21 | 18 | | | 39 |
| Auglaize | 1 | | | | 1 |
| Belmont | 1 | 3 | | | 4 |
| Butler | 7 | 8 | | | 15 |
| Carroll | 1 | 2 | | | 3 |
| Clark | 3 | | | | 3 |
| Clermont | 8 | 3 | | | 11 |
| Columbiana | 4 | 4 | | | 8 |
| Coshocton | 10 | 3 | | | 13 |
| Crawford | 1 | 1 | | | 2 |
| Cuyahoga | 21 | 18 | | | 39 |
| Darke | | 2 | | | 2 |
| Delaware | 7 | 5 | | | 12 |
| Erie | 9 | 8 | | | 17 |
| Fairfield | | 3 | | | 3 |
| Franklin | 19 | 10 | | | 29 |
| Gallia | 22 | 16 | | | 38 |
| Geauga | 5 | 1 | | | 6 |
| Greene | 3 | 5 | | | 8 |
| Guernsey | 1 | | | | 1 |
| Hamilton | 16 | 9 | | | 25 |
| Hancock | 2 | 2 | | | 4 |
| Hardin | 1 | | | | 1 |
| Harrison | | 1 | | | 1 |
| Highland | 2 | 1 | | | 3 |
| Hocking | 1 | 2 | | | 3 |
| Holmes | 1 | | | | 1 |
| Huron | 6 | | | | 6 |
| Jackson | | 2 | | | 2 |
| Jefferson | 1 | 1 | | | 2 |
| Knox | 1 | | | | 1 |
| Lake | 5 | 5 | | | 10 |
| Licking | 12 | 5 | | | 17 |

Breakdown of American Dog Ticks Identified

| County | Life Stage | | | | Totals: |
|----------------|---------------|-------------|----------|----------|--------------|
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Logan | 3 | 1 | | | 4 |
| Lorain | 310 | 298 | | | 608 |
| Lucas | 6 | 4 | | | 10 |
| Madison | 2 | | | | 2 |
| Mahoning | 5 | 2 | | | 7 |
| Marion | | 1 | | | 1 |
| Medina | 20 | 13 | | | 33 |
| Miami | 2 | | | | 2 |
| Montgomery | 24 | 14 | | | 38 |
| Morgan | 1 | 3 | | | 4 |
| Morrow | 1 | | | | 1 |
| Muskingum | 2 | | | | 2 |
| Ottawa | 2 | 2 | | | 4 |
| Perry | 1 | | | | 1 |
| Pickaway | 1 | | | | 1 |
| Pike | 1 | | | | 1 |
| Portage | 6 | 8 | | | 14 |
| Preble | | 1 | | | 1 |
| Putnam | 1 | | | | 1 |
| Richland | 4 | 4 | | | 8 |
| Sandusky | 1 | 1 | | | 2 |
| Seneca | 1 | 1 | | | 2 |
| Stark | 5 | 1 | | | 6 |
| Summit | 20 | 12 | | | 32 |
| Trumbull | 3 | 3 | | | 6 |
| Tuscarawas | | 1 | | | 1 |
| Warren | 4 | 3 | | | 7 |
| Wayne | 3 | 2 | | | 5 |
| Wood | 6 | 3 | | | 9 |
| Wyandot | 1 | 1 | | | 2 |
| unknown | | 1 | | | 1 |
| Totals: | 636 | 522 | 0 | 0 | 1,158 |

Here is a breakdown of *A. americanum* submissions by county:

| Breakdown of Lone Star Ticks Identified | | | | | |
|--|----------------------|--------------------|---------------|---------------|----------------|
| County | Life Stage | | | | Totals: |
| | Adult Females | Adult Males | Nymphs | Larvae | |
| Adams | 3 | 2 | 6 | | 11 |
| Athens | 11 | | 4 | | 15 |
| Auglaize | | 1 | | | 1 |
| Brown | | | 1 | | 1 |
| Clark | 1 | | | | 1 |
| Clermont | | 1 | | | 1 |
| Delaware | | | 1 | | 1 |
| Franklin | 1 | | | | 1 |
| Gallia | 22 | 15 | 101 | 1 | 139 |
| Hamilton | 1 | 3 | 1 | | 5 |
| Hocking | 2 | | 4 | | 6 |
| Jackson | 1 | 1 | 1 | | 3 |
| Knox | 1 | | | | 1 |
| Lucas | | | 1 | | 1 |
| Meigs | | 1 | | | 1 |
| Montgomery | 1 | | | | 1 |
| Muskingum | 1 | | | | 1 |
| Portage | | 1 | | | 1 |
| Ross | 13 | 10 | 45 | | 68 |
| Scioto | 1 | 1 | | | 2 |
| Stark | 1 | | | | 1 |
| Vinton | 1 | | 1 | 34 | 36 |
| unknown | 2 | | | | 2 |
| Totals: | 63 | 36 | 166 | 35 | 300 |