



Florida Tick-Borne Disease Surveillance June 13 – July 25, 2012

Tick-borne disease surveillance in Florida includes confirmed and probable cases of *Ehrlichia chaffeensis* or human monocytic ehrlichiosis (HME), *Anaplasma phagocytophilum* or human granulocytic anaplasmosis (HGA), Rocky Mountain spotted fever (RMSF) or other spotted fever rickettsiosis (SFR), and Lyme disease that meet case definitions. The following cases have been reported from June 13th to July 25th, 2012.

Florida acquired HME: Two cases, with exposures in Alachua and Lafayette County were reported. Case county of residence was county of exposure for each case.

Non-Florida or unknown acquired HME: Two cases, with exposures in Arkansas and Tennessee were reported. Case's county of residence was Lee and Duval respectively.

Non-Florida or unknown acquired HGA: One case with exposure in Virginia was reported. Case county of residence was Pasco.

Florida acquired RMSF / SFR: One case with exposure in Leon County and county of residence in Orange County was reported.

Non-Florida or unknown acquired RMSF / SFR: One case with exposure in Arkansas was reported. Case county of residence was Miami-Dade.

Florida acquired acute Lyme disease: Four cases, with exposures in Dixie County, Holmes County, Orange County, and Suwannee County were reported. Case's county of residence was Pinellas, Holmes, Miami-Dade, and St. Lucie respectively.

Non-Florida or unknown acquired acute Lyme disease: Seven cases, with exposures in New York (4), North Carolina (1), and Pennsylvania (2) were reported. Case's county of residence included Broward (1), Hillsborough (2), Lee (1), Pinellas (1), and Volusia (2).

Year to Date Tick-Borne Disease Summary

Florida acquired HME: Ten cases with an onset date in 2012 have been reported. Cases were exposed in Alachua (4), Leon (3), Flagler (1), Lafayette (1), and Wakulla (1). Cases were reported by Leon (3), Alachua (2), Bay (1), Brevard (1), Flagler (1), Lafayette (1) and Wakulla (1) counties.

Non-Florida or unknown acquired HME: Three cases with an onset date in 2012 have been reported. Exposures were determined to be Arkansas (1), North Carolina (1),



and Tennessee (1). Cases were reported by Lee, Sumter, and Duval counties respectively.

Florida acquired HGA: One case with an onset date in 2012 has been reported. Exposure and county of residence was Columbia County.

Non-Florida or unknown acquired HGA: One case with an onset date in 2012 has been reported. Exposure was in Virginia and county of residence was Pasco County.

Florida acquired RMSF / SFR: Four cases with an onset date in 2012 have been reported. Cases were exposed in Alachua (1), Lake (1), Leon (1) and Marion (1) counties. Cases were reported by Alachua (1), Brevard (1), Orange (1), and Sumter (1) counties.

Non-Florida or unknown acquired RMSF/ SFR: Three cases with an onset date in 2012 have been reported. Locations of exposure: Arkansas (1), Georgia (1), and unable to be determined (1). Cases were reported by Jackson (1), Miami-Dade (1) and Putnam (1) counties.

Florida acquired acute Lyme disease: Thirteen cases with an onset date in 2012 have been reported. Cases were exposed in Alachua (1), Citrus (1), Dixie (1), Hillsborough (1), Holmes (1), Manatee (1), Orange (1), Pinellas (1), Putnam (1), Seminole (1), St. Lucie (1), Suwannee (1), and Volusia (1) counties. Cases were reported by Citrus (1), Hillsborough (2), Holmes (1), Manatee (1), Miami-Dade (1), Pinellas (2), Putnam (1), Seminole (1), St. Lucie (2), and Volusia (1).

Non-Florida or unknown acquired acute Lyme disease: Ten cases with an onset date in 2012 have been reported. Locations of exposure: New York (4), North Carolina (1), Oklahoma (1), Pennsylvania (3), and Puerto Rico (1). Florida counties reporting these cases include: Broward (1), Hillsborough (2), Lee (1), Palm Beach (1), Pasco (1), Pinellas (1), St. Lucie (1), and Volusia (2).

Year to Date Tick-Borne Diseases by Geographic Location

| 2012 Cases of Tick-borne Infections Exposure Location | | | |
|--|-------------------|-----------------|-------------------|
| Location | # of cases | Location | # of cases |
| Florida | 28 | Oklahoma | 1 |
| New York | 4 | Puerto Rico | 1 |
| Pennsylvania | 3 | Tennessee | 1 |
| Arkansas | 2 | Virginia | 1 |
| North Carolina | 2 | Undetermined | 1 |
| Georgia | 1 | | |

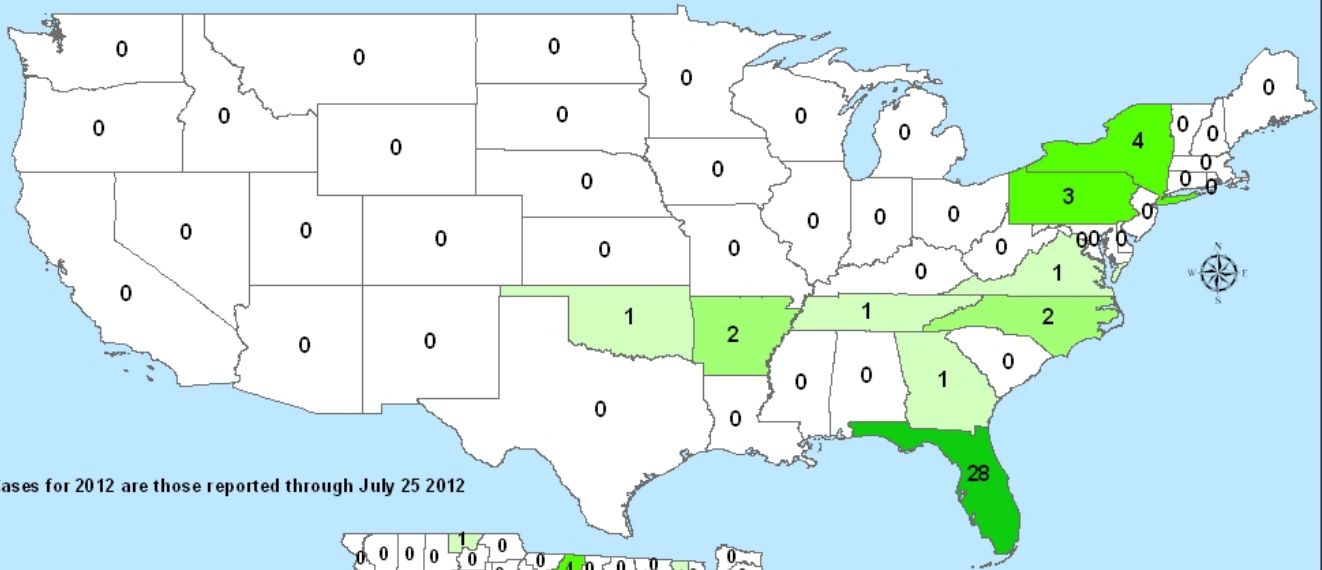
Year to Date Tick-Borne Disease Cases by County



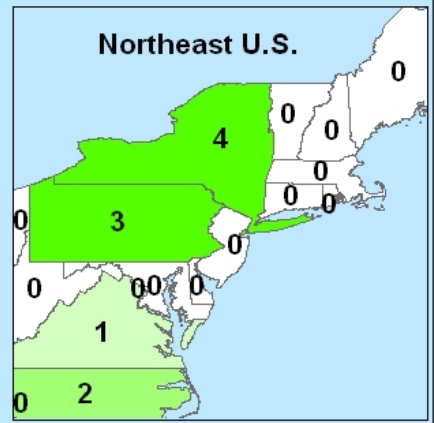
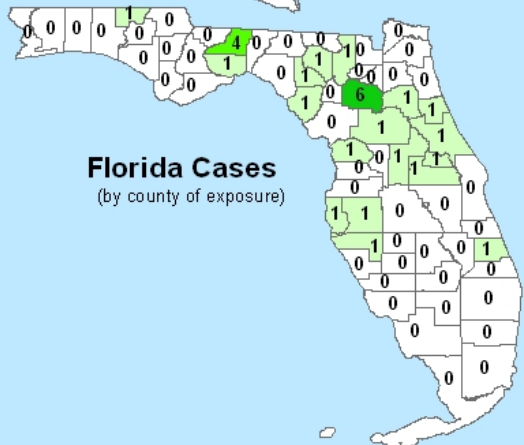
| Tick-Borne Disease Activity by County of Exposure | | | | | | | | | |
|---|-----------|----------|----------|----------|----------|----------|------------|-----------|-----------|
| Disease | HME | | HGA | | RMSF/SFR | | Acute LYME | | Totals |
| | FL | Non-FL | FL | Non-FL | FL | Non-FL | FL | Non-FL | All |
| Alachua | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 |
| Broward | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (I) | 1 |
| Citrus | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Columbia | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Dixie | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Duval | 0 | 1 (I) | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Flagler | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Hillsborough | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 (I) | 3 |
| Holmes | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Jackson | 0 | 0 | 0 | 0 | 0 | 1 (U) | 0 | 0 | 1 |
| Lafayette | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lake | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Lee | 0 | 1 (I) | 0 | 0 | 0 | 0 | 0 | 1 (I) | 2 |
| Leon | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 |
| Manatee | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Marion | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Miami-Dade | 0 | 0 | 0 | 0 | 0 | 1 (I) | 0 | 0 | 1 |
| Orange | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Palm Beach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (I) | 1 |
| Pasco | 0 | 0 | 0 | 1 (I) | 0 | 0 | 0 | 1 (I) | 2 |
| Pinellas | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 (I) | 2 |
| Putnam | 0 | 0 | 0 | 0 | 0 | 1 (I) | 1 | 0 | 2 |
| Seminole | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| St. Lucie | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 (I) | 2 |
| Sumter | 0 | 1 (I) | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Suwannee | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Volusia | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 (I) | 3 |
| Wakulla | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Totals | 10 | 3 | 1 | 1 | 4 | 3 | 13 | 10 | 45 |

Legend: FL = Florida acquired, Non-FL=Non-Florida or unknown origin, I=imported, U=Unknown

Origin of Tick-borne Illness Geographic Exposure for Florida Reported Cases for 2012



Cases for 2012 are those reported through July 25 2012



Legend

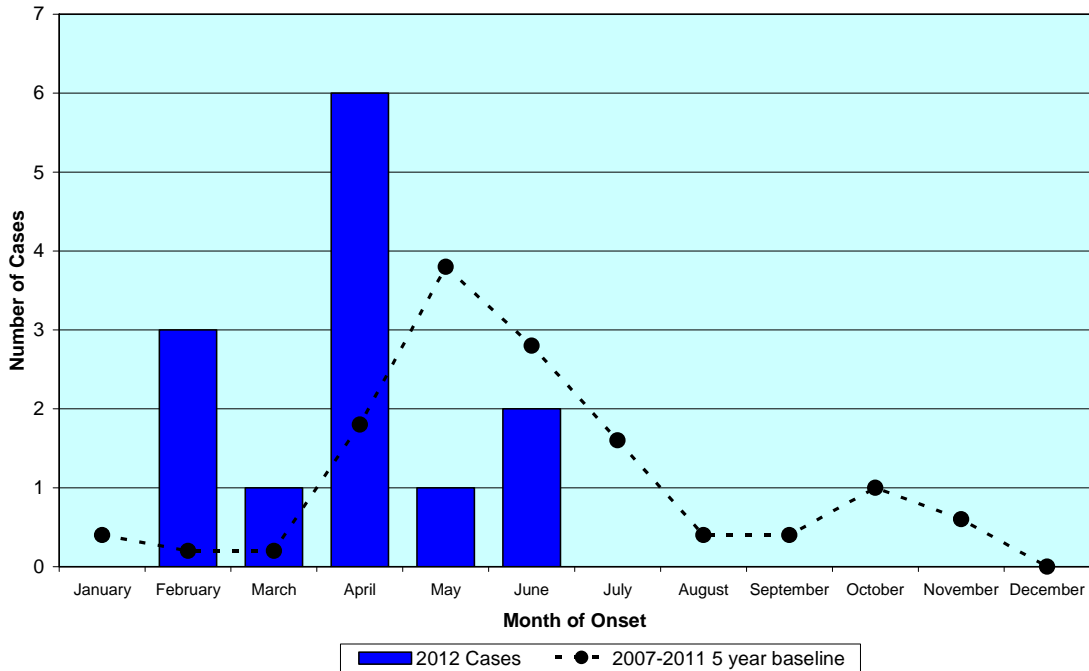
Number of Cases

- 0 Cases
- 1 Case
- 2 Cases
- 3 - 4 Cases
- 5 or More Cases

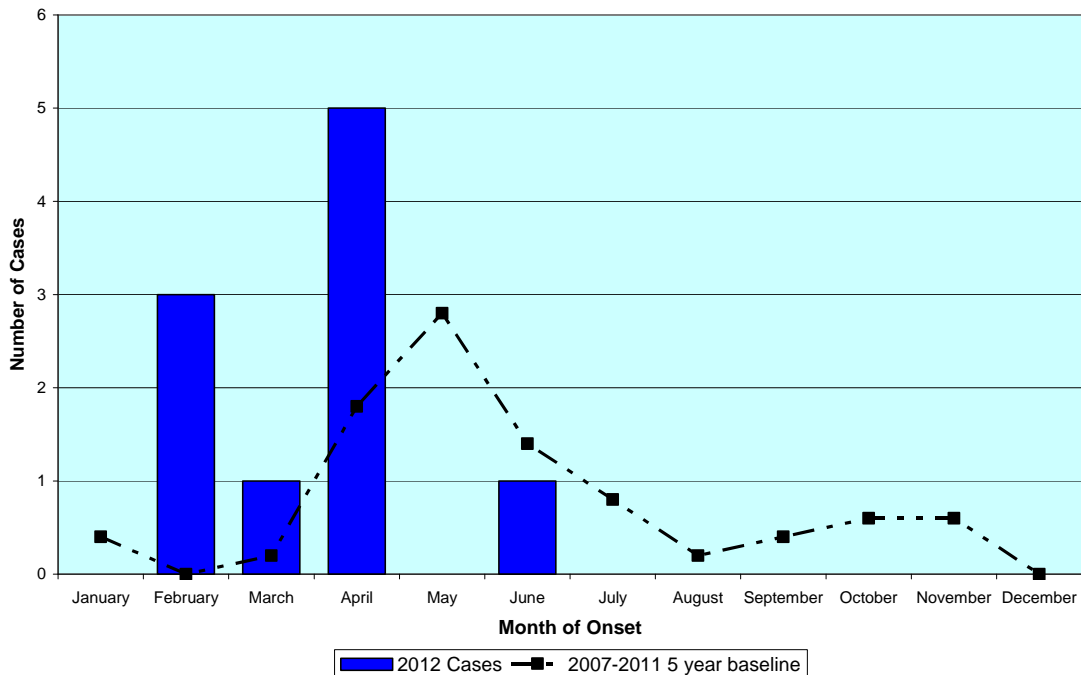


Monthly Tick-Borne Disease Summary

Total *Ehrlichia chaffeensis* / HME Cases By Month



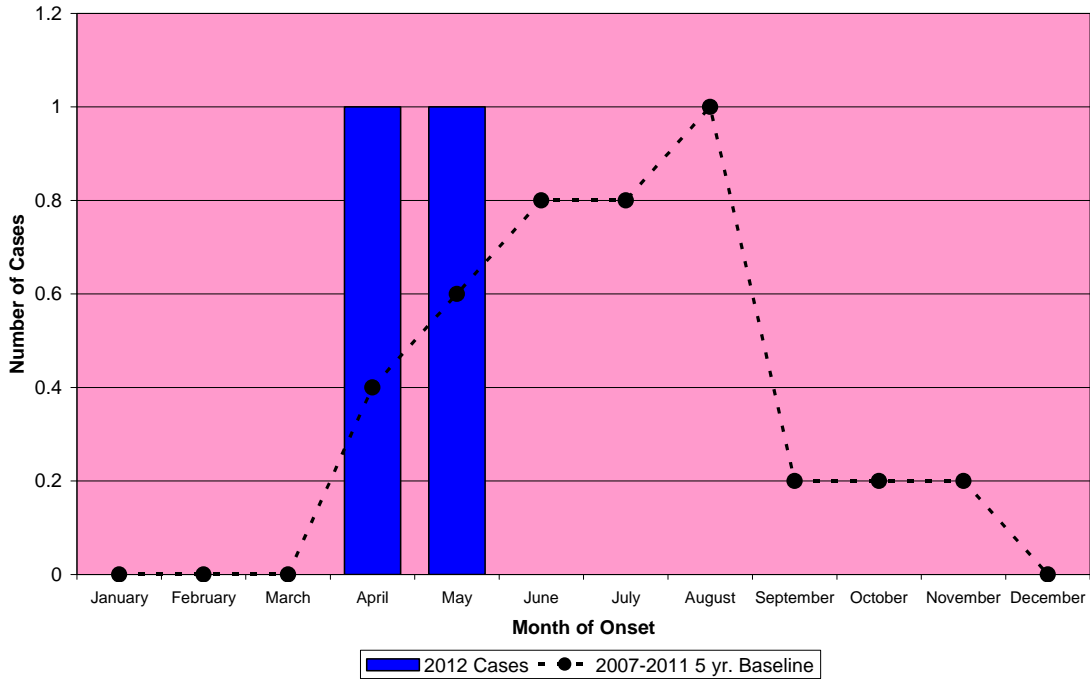
Florida Acquired Cases of *Ehrlichia chaffeensis* / HME By Month



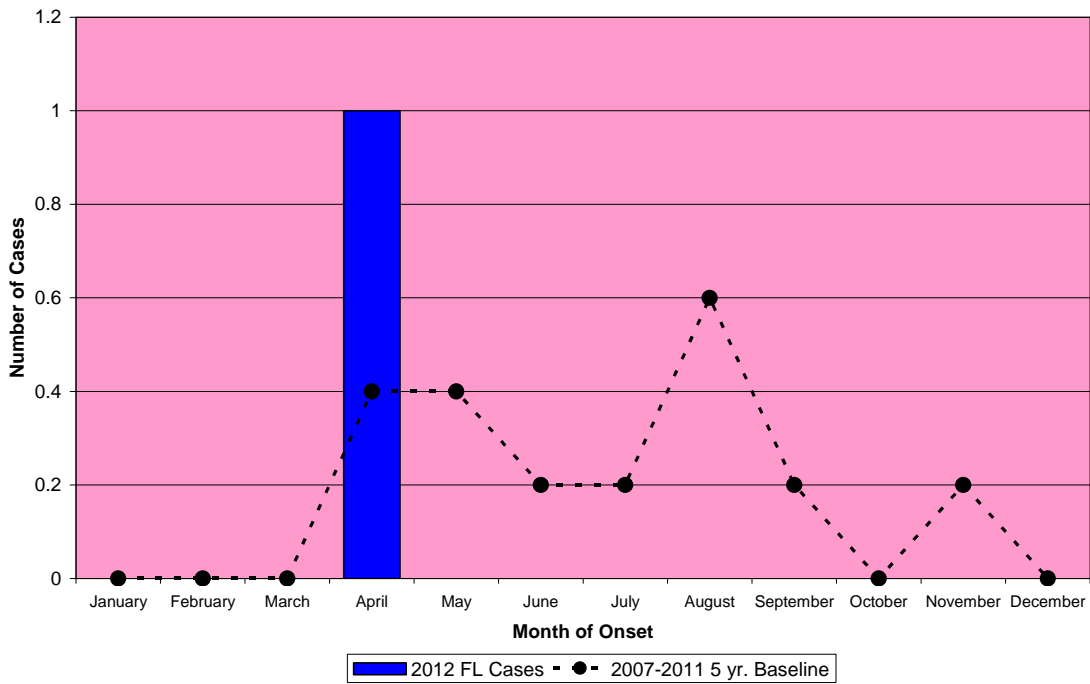
All cases displayed above are based on symptom onset date.



Total *Anaplasma phagocytophilum* / HGA Cases By Month



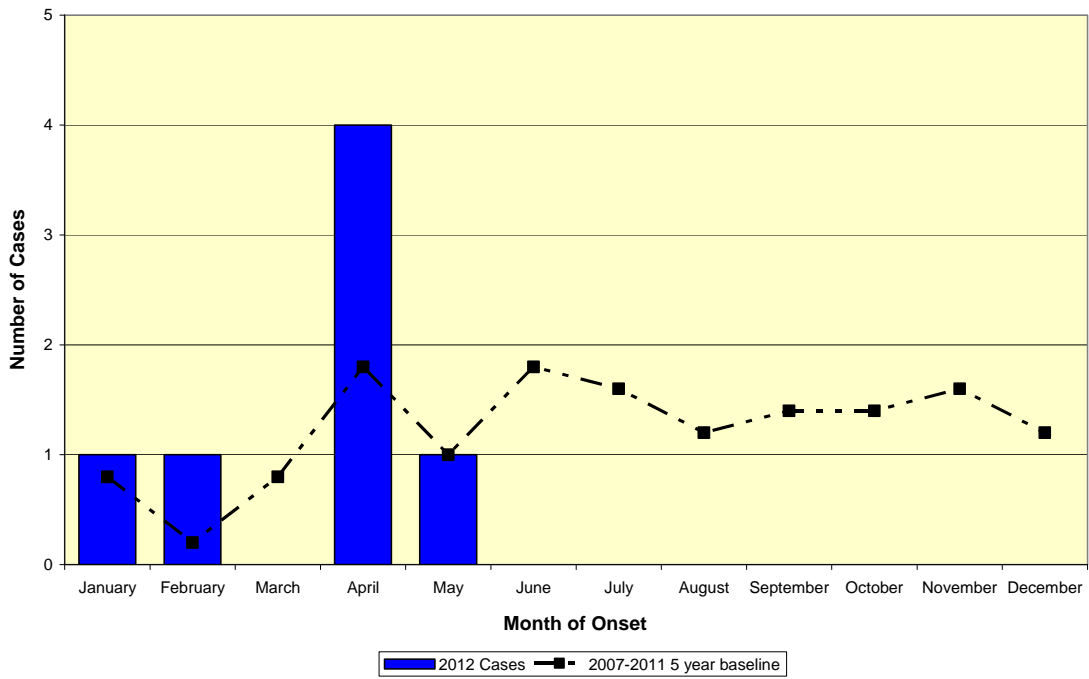
Florida Acquired *Anaplasma phagocytophilum* / HGA Cases By Month



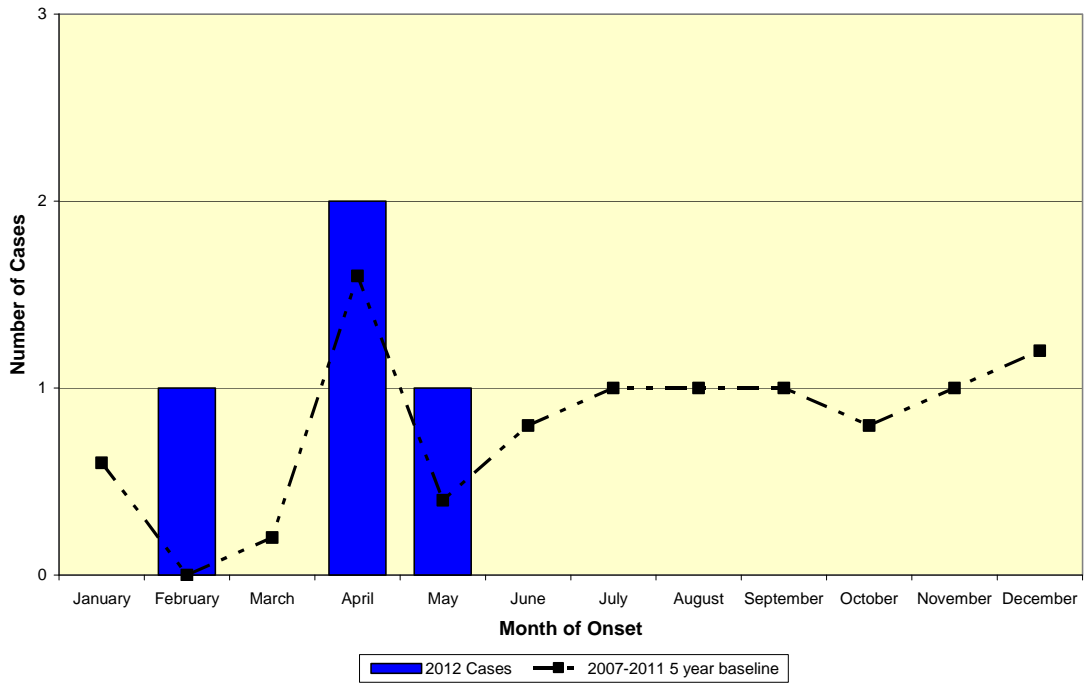
All cases displayed above are based on symptom onset date.



Total RMSF / SFR Cases By Month



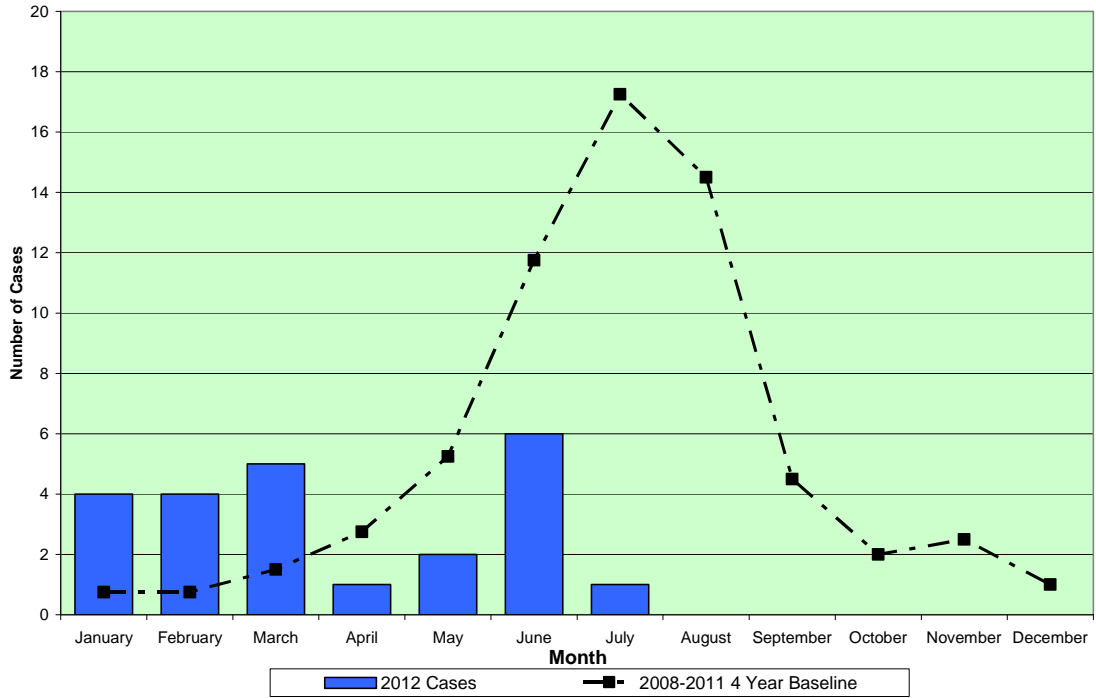
Florida Acquired Cases of RMSF / SFR By Month



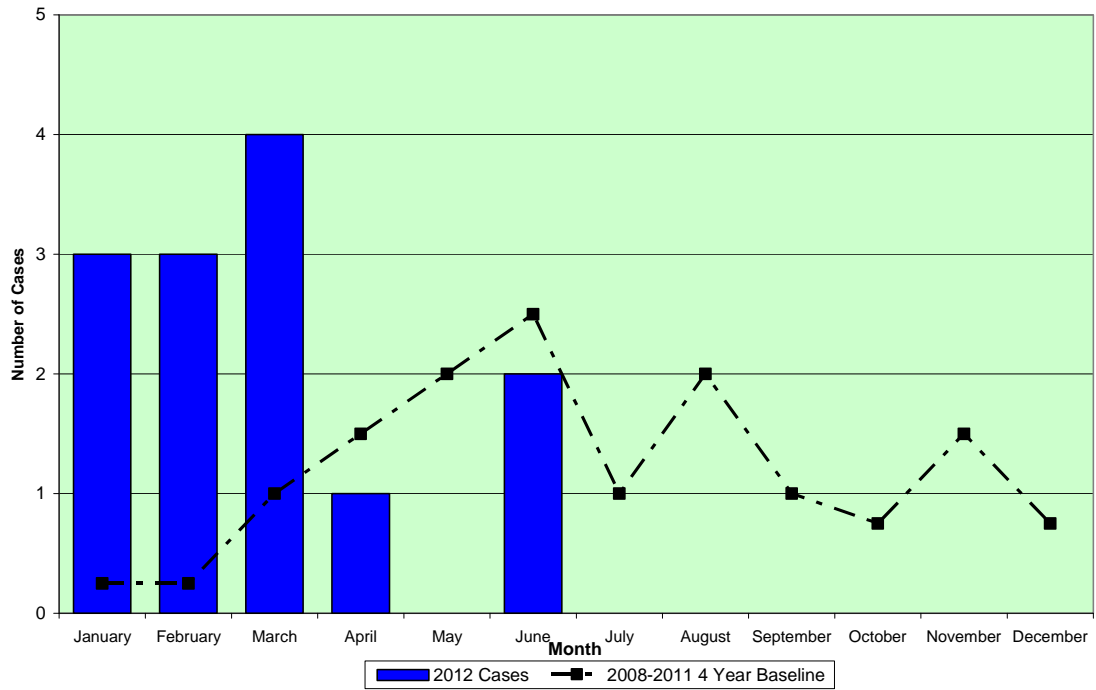
All cases displayed above are based on symptom onset date.



Total Acute Lyme Disease Cases By Month

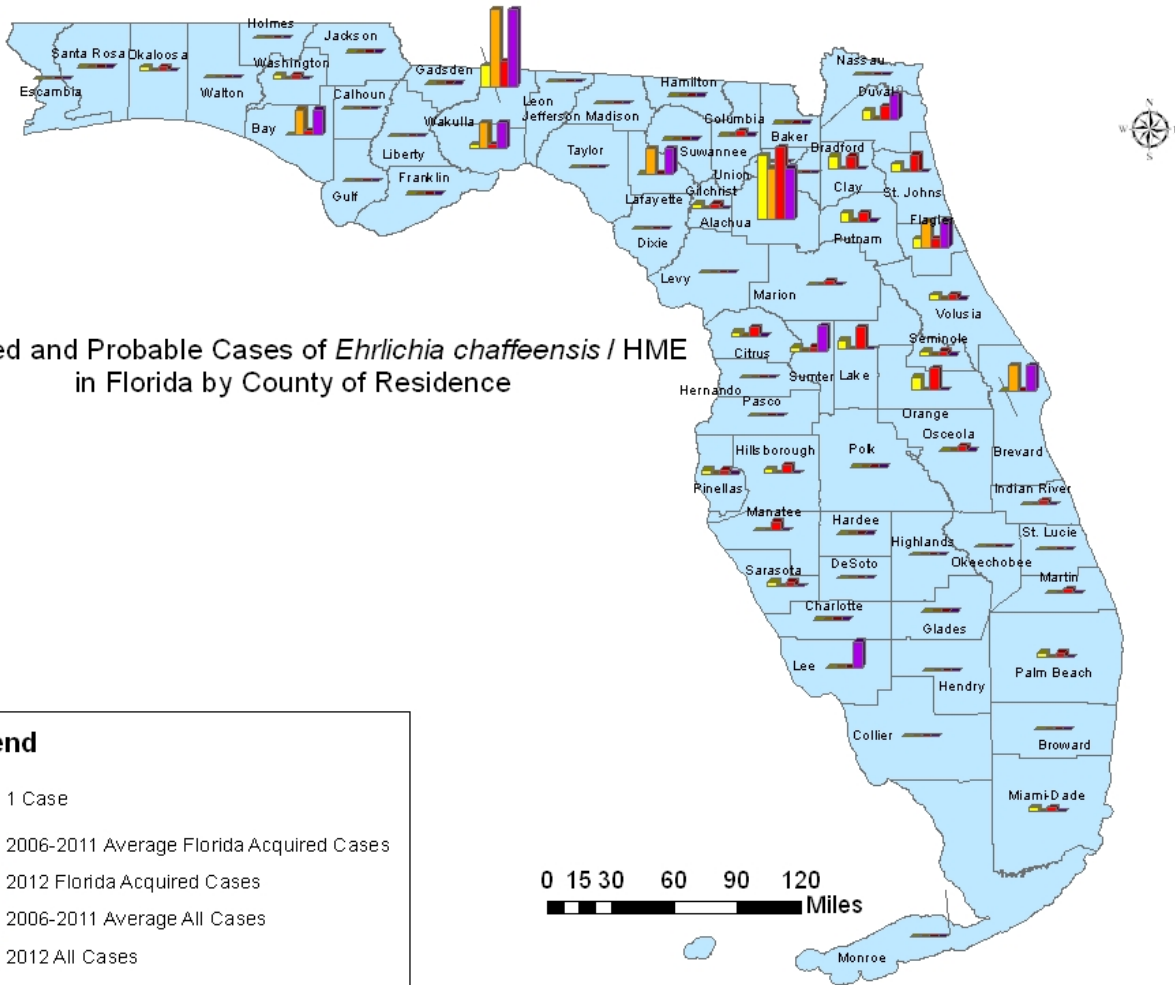


Florida Acquired Acute Cases of Lyme Disease By Month

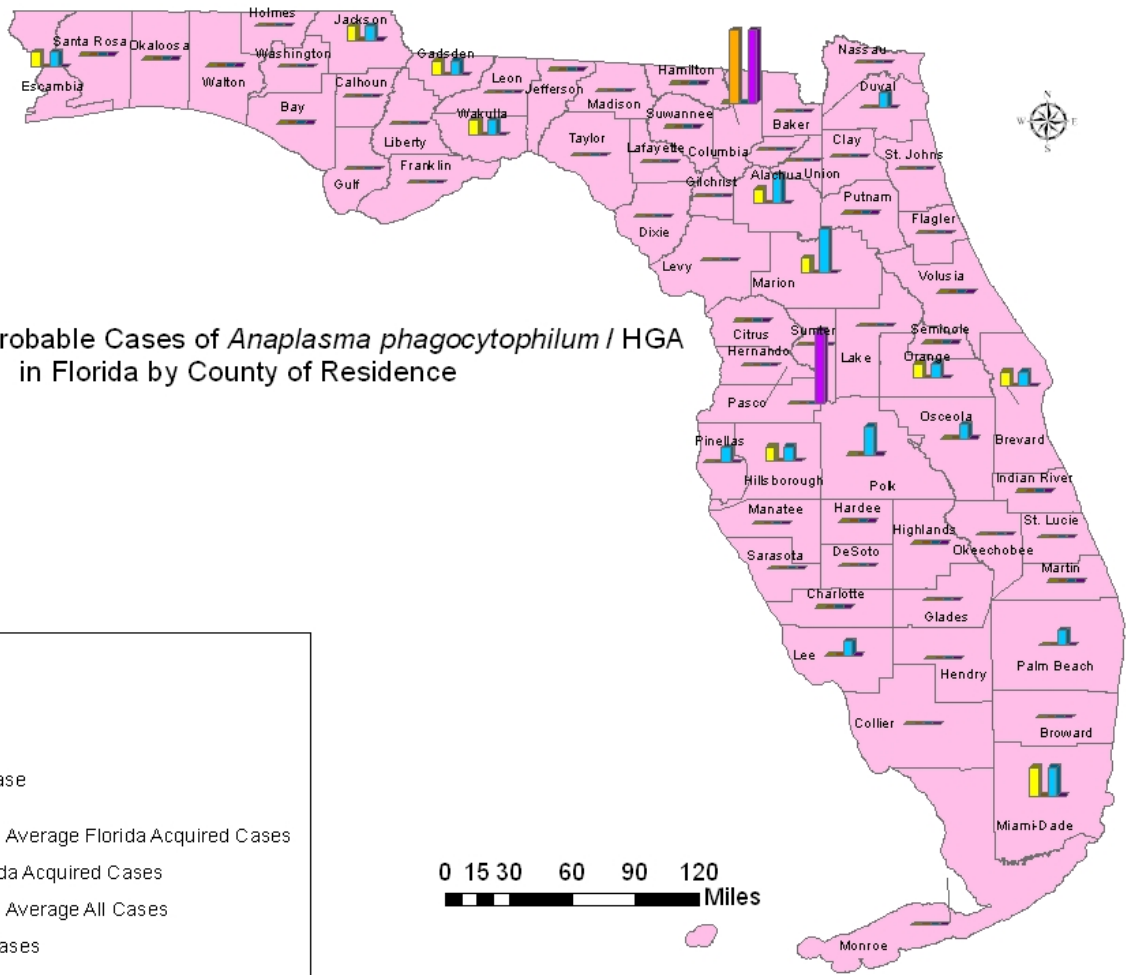


All cases displayed above are based on symptom onset date.

Maps of Tick-Borne Disease Cases by County

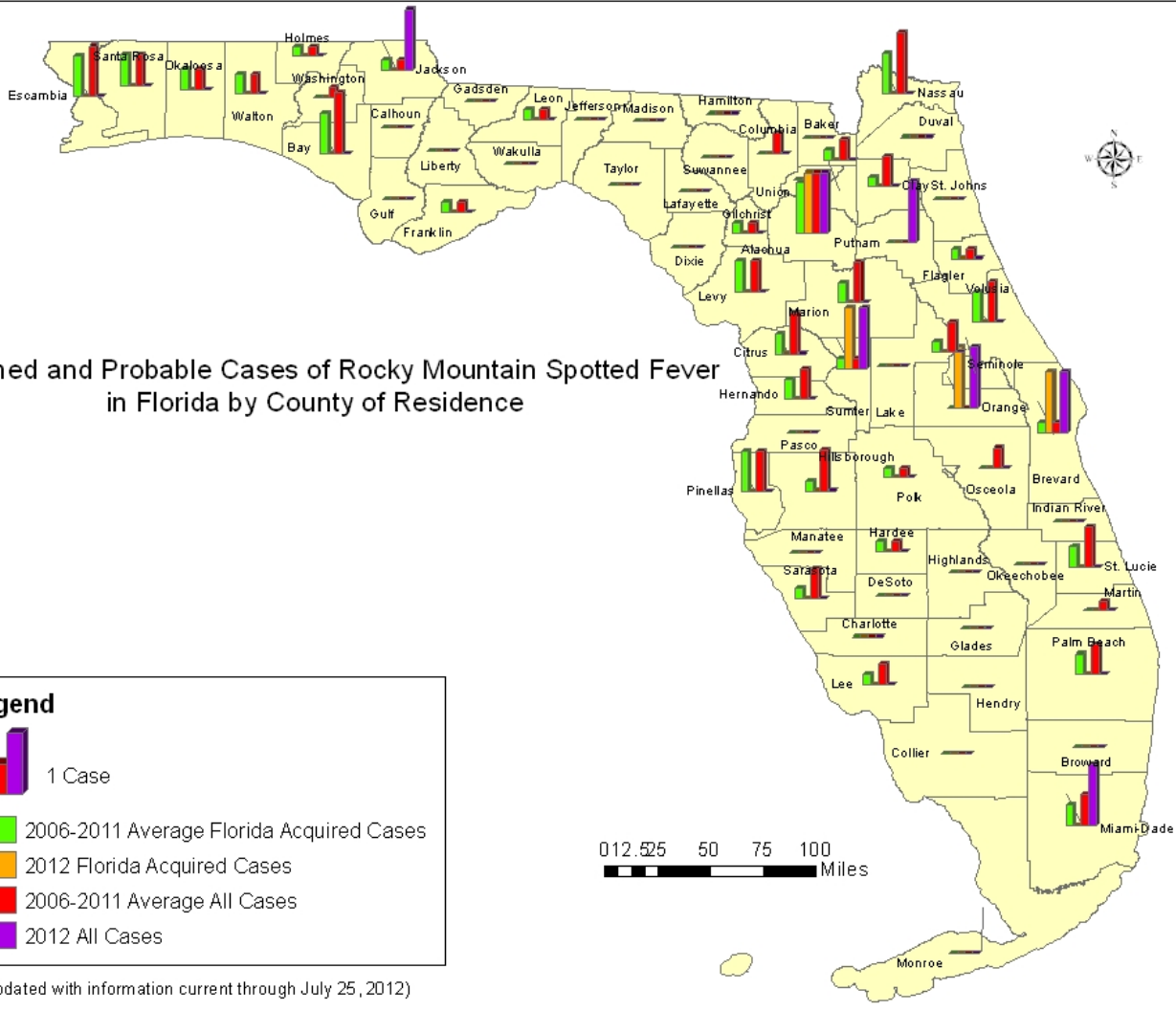


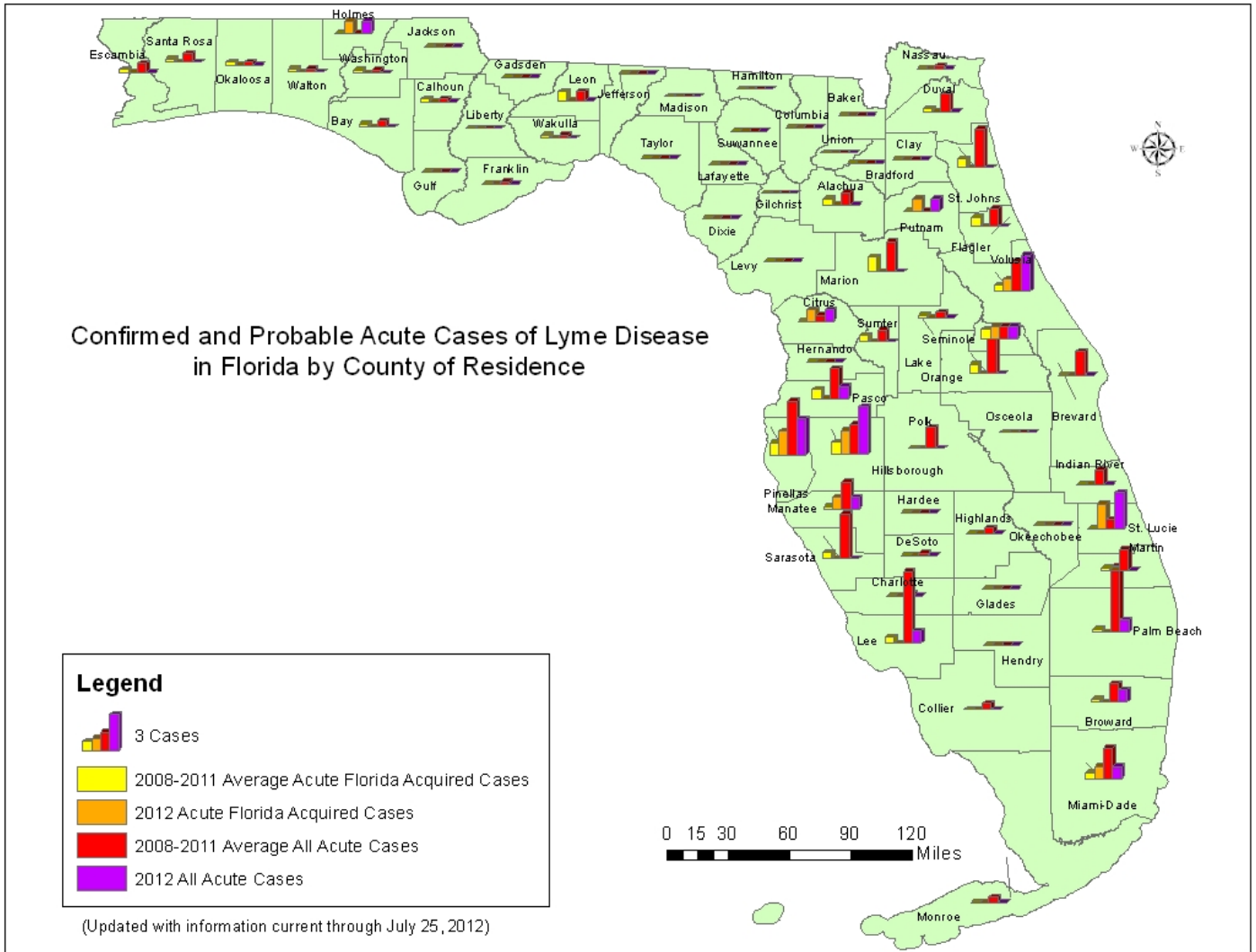
(Updated with information current through July 25, 2012)



Confirmed and Probable Cases of *Anaplasma phagocytophilum* / HGA in Florida by County of Residence

(Updated with information current through July 25, 2012)







Acknowledgements and Data Sources

Contributors: James Matthias, MPH, Danielle Stanek, DVM, and Carina Blackmore, DVM, PhD, Florida Department of Health.

For more surveillance information, please see the DOH website at:

[http://www.doh.state.fl.us/Environment/medicine/arboviral/Tick Borne Diseases/Tick Index.htm](http://www.doh.state.fl.us/Environment/medicine/arboviral/Tick_Borne_Diseases/Tick_Index.htm)

Data is provided by county health departments, Department of Health Bureau of Laboratories-Jacksonville, private health care providers and laboratories. Tallies are organized into those where exposure to the infected tick most likely occurred: in Florida or a total case count which includes cases with exposures in and outside Florida as well as cases that exposure location was not definitively determined. This report is in large part designed to increase awareness of current tick disease transmission so the report focuses on cases acquired in 2011. Acute Lyme cases include patients with symptoms of less than 30 days duration, without late clinical signs such as intermittent arthritis. Reporting is inherently delayed as most testing for tick-borne illness is based on antibody testing which can take 2-4 weeks to form and generally requires an acute and convalescent serum sample to be definitive.