



Florida Tick-Borne Disease Surveillance September 11 – September 24, 2011

Tick-borne disease surveillance in Florida conducts surveillance for Florida acquired *E. chaffeensis* / Human Monocytic Ehrlichiosis (HME), *A. phagocytophilum* / Human Granulocytic Ehrlichiosis (HGE), Rocky Mountain spotted fever, and Lyme disease cases. In addition, cases of these tick-borne diseases acquired by Florida residents outside the state of Florida are identified. During the period September 11 - September 24, 2011, the following tick-borne disease activity was reported in Florida:

Florida acquired HME: no cases reported from September 11 - September 24.

Non-Florida or unknown acquired HME: no cases reported from September 11 - September 24.

Florida acquired Rocky Mountain Spotted Fever: 1 case in Escambia County (onset August 2011).

Non-Florida or unknown acquired Rocky Mountain Spotted Fever: no cases reported from September 11 - September 24.

Florida acquired acute Lyme disease: 1 case in Manatee County (onset August 2011).

Non-Florida or unknown acquired acute Lyme disease: 5 cases: 1 case in Alachua County (onset August 2011), 1 case in Collier County (onset July 2011), 1 case in Orange County (onset July 2011), 1 case in Pinellas County (onset August 2011), and 1 case in Sumter County (onset August 2011).

Year to Date Tick-Borne Disease Summary

Florida acquired HME: 9 cases of *E. chaffeensis* / HME with an onset date in 2011 have been reported in individuals as being acquired in Florida. Florida counties with HME cases include: Alachua (2), Duval (1), Gilchrist (1), Leon (3), Miami-Dade (1), and Orange (1).

Non-Florida or unknown acquired HME: 4 additional cases of *E. chaffeensis* / HME with an onset date in 2011 have been reported in individuals as being acquired outside the state of Florida or of an unknown origin. Florida counties reporting these cases include: Alachua (1), Duval (1), Flagler (1), and Leon (1).



Florida acquired HGE: 1 case of *A. phagocytophilum* / HE with an onset date in 2011 has been reported in an individual as being acquired in Florida. Florida counties with HGE cases include: Alachua (1).

Non-Florida or unknown acquired HGE: As of September 24, 2011 there have been no reported cases of *A. phagocytophilum* / HGE with an onset date in 2011 reported in individuals as being acquired outside the state of Florida or of an unknown origin.

Florida acquired Rocky Mountain Spotted Fever: 5 cases of Rocky Mountain Spotted Fever with an onset date in 2011 have been reported in individuals acquired in Florida. Florida counties with Rocky Mountain Spotted Fever cases include: Escambia (1), Hernando (1), Levy (1), Miami-Dade (1), and Pasco (1).

Non-Florida or unknown acquired Rocky Mountain Spotted Fever: 1 case of Rocky Mountain Spotted Fever with an onset date in 2011 has been reported in an individual as being acquired outside the state of Florida or of an unknown origin. Florida counties reporting these cases include: Marion (1)

Florida acquired acute Lyme disease: 11 cases of acute Lyme disease with an onset date in 2011 have been reported in individuals acquired in Florida. Florida counties with Lyme disease cases include: Flagler (1), Hillsborough (1), Lee (1), Leon (2), Manatee (1), Marion (1), Pinellas (1), Sumter (2), and Volusia (1).

Non-Florida or unknown acquired acute Lyme disease: 36 additional cases of acute Lyme disease with an onset date in 2011 have been reported individuals as being acquired outside the state of Florida or of an unknown origin. Florida counties reporting these cases include: Alachua (1), Brevard (2), Broward (2), Collier (1), Hillsborough (2), Lee (3), Manatee (1), Marion (1), Martin (1), Nassau (1), Orange (2), Palm Beach (6), Pasco (3), Pinellas (3), Polk (2), St. Lucie (1), Sumter (2), and Volusia (2).

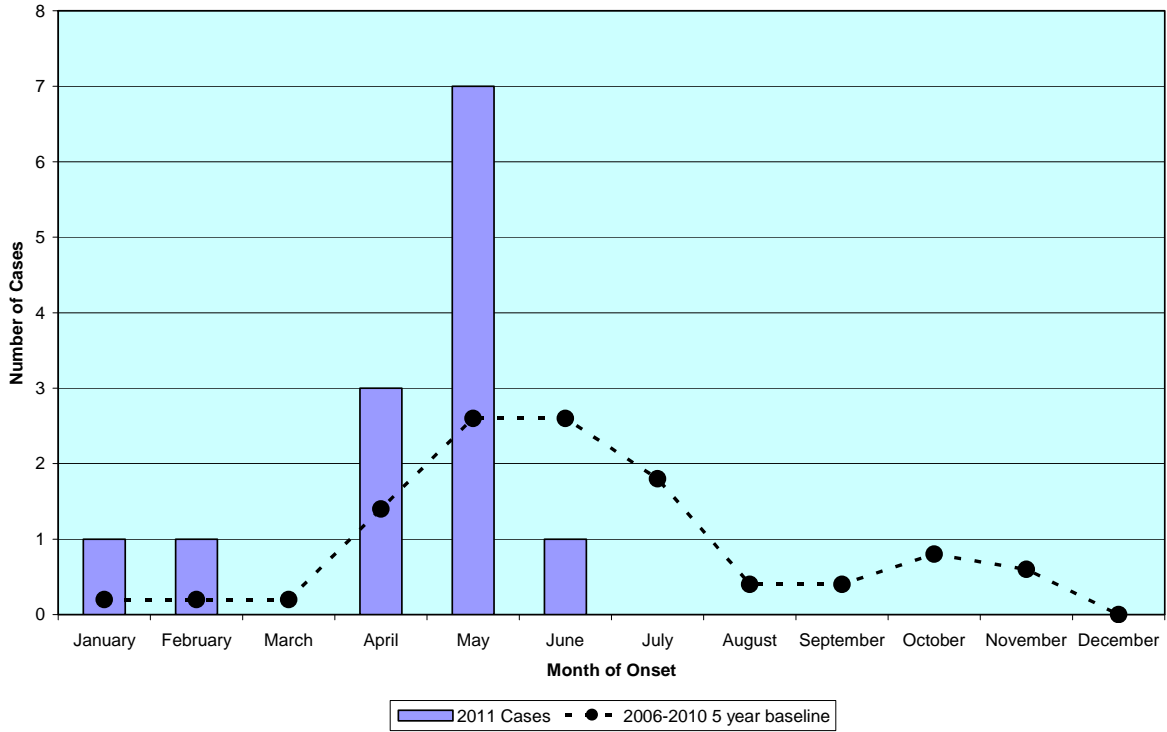
Year to Date Tick-Borne Disease cases by County

Tick-Borne Disease Activity							
Disease Origin	HME		RMSF		Acute LYME		Totals All
	FL	Non-FL	FL	Non-FL	FL	Non-FL	
Alachua*	2	1 (U)	0	0	0	1 (I)	3
Brevard	0	0	0	0	0	2 (I)	2
Broward	0	0	0	0	0	2 (I)	1
Collier	0	0	0	0	0	1 (I)	1
Duval	1	1 (I)	0	0	0	0	2
Escambia	0	0	1	0	0	0	1
Flagler	0	1 (I)	0	0	1	0	2
Gilchrist	1	0	0	0	0	0	1
Hernando	0	0	1	0	0	0	1
Hillsborough	0	0	0	0	1	2 (I)	3
Lee	0	0	0	0	1	3 (I)	4
Leon	3	1 (U)	0	0	2	0	6
Levy	0	0	1	0	0	0	1
Manatee	0	0	0	0	1	1 (I)	2
Marion	0	0	0	1 (U)	1	1 (I)	3
Martin	0	0	0	0	0	1 (I)	1
Miami-Dade	1	0	1	0	0	0	2
Nassau	0	0	0	0	0	1 (I)	1
Orange	1	0	0	0	0	2 (I)	3
Palm Beach	0	0	0	0	0	6 (I)	6
Pasco	0	0	1	0	0	3 (I)	3
Pinellas	0	0	0	0	1	3 (I)	4
Polk	0	0	0	0	0	2 (I)	2
St. Lucie	0	0	0	0	0	1 (I)	1
Sumter	0	0	0	0	2	2 (I)	4
Volusia	0	0	0	0	1	2 (I)	3
Totals	9	4	5	1	11	36	66

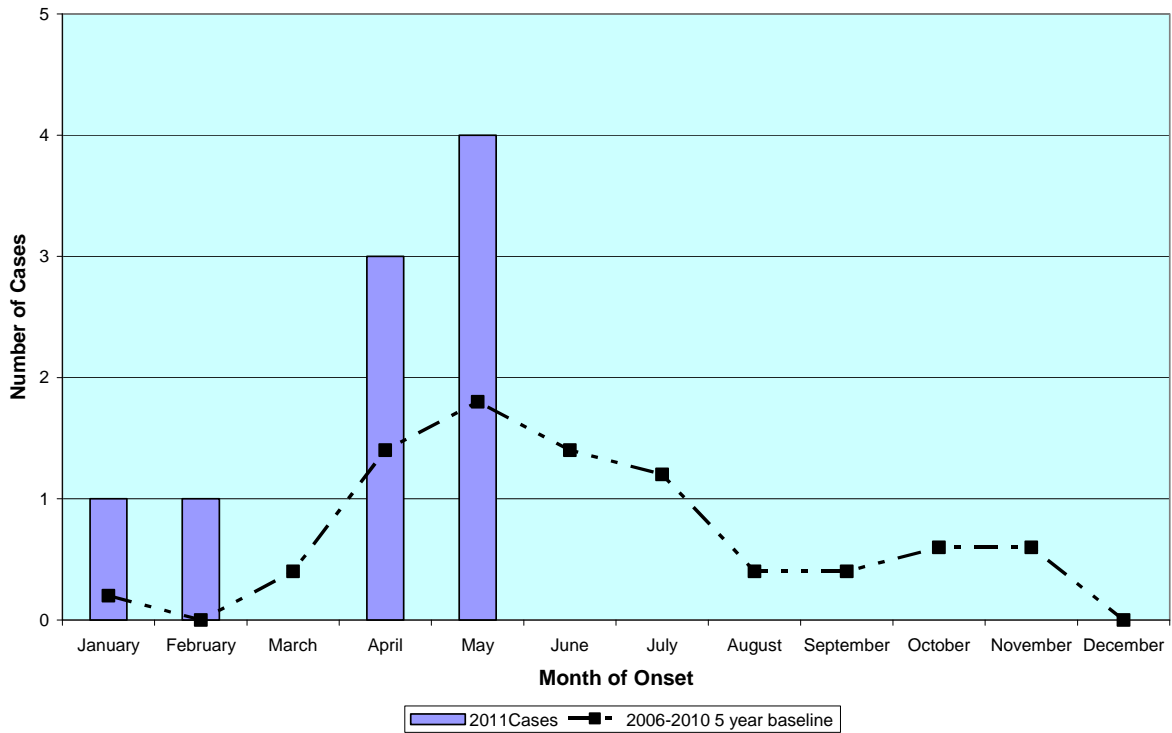
Legend: HME = human monocytic ehrlichiosis, RMFS = Rocky Mountain Spotted Fever
 FL = Florida acquired, Non-FL=Non-Florida or unknown origin, I=imported, U=Unknown
 * Alachua county also reports 1 case of *A. phagocytophilum* / HGE.

Monthly Tick-Borne Disease Summary

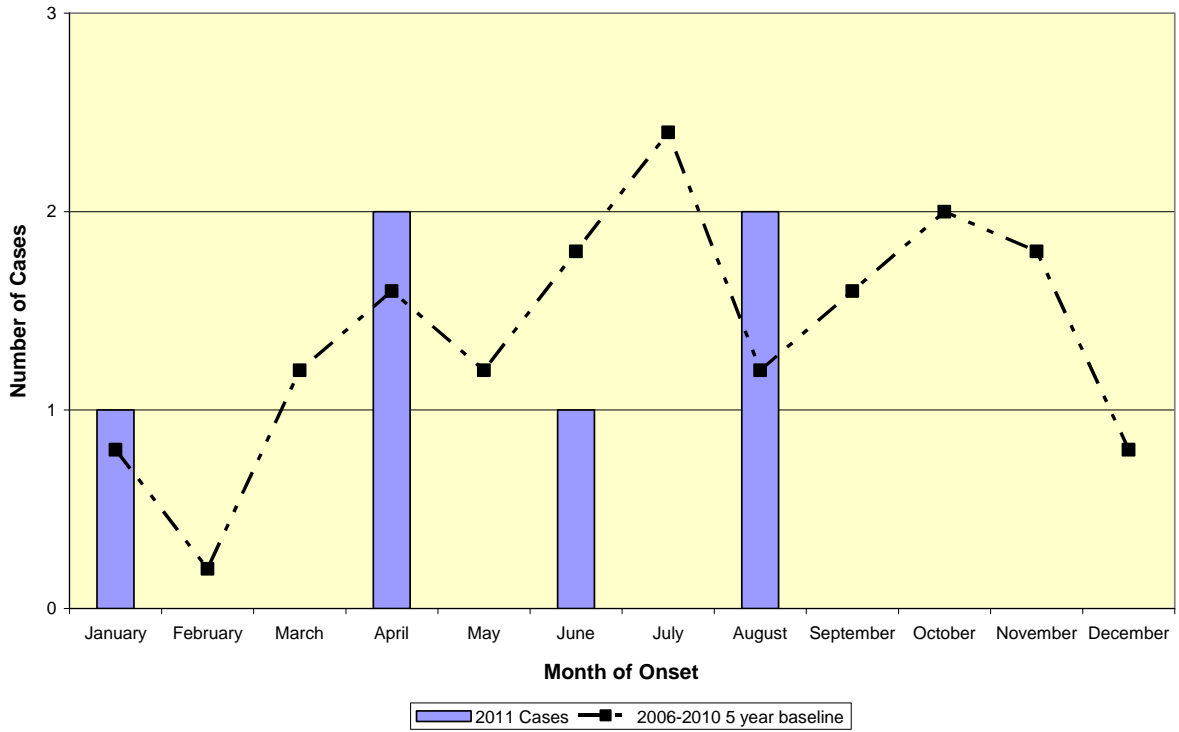
Total *Ehrlichia chaffeensis* / HME Cases By Month



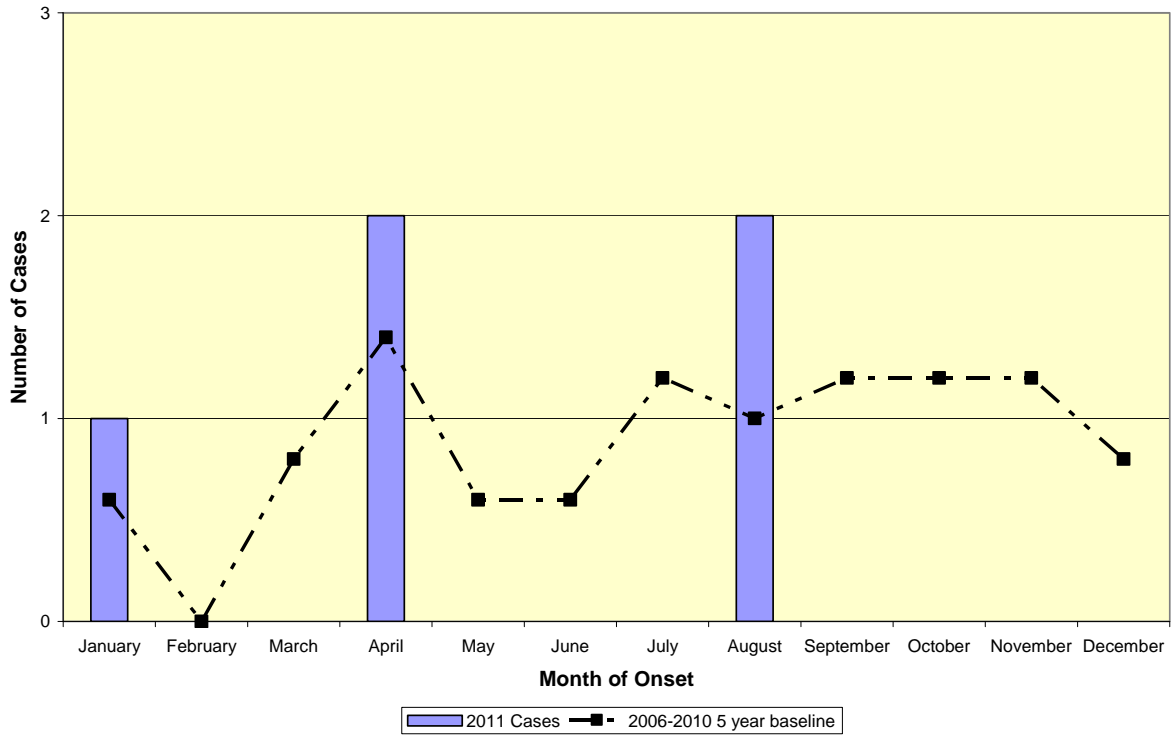
Florida Acquired Cases of *Ehrlichia chaffeensis* / HME By Month



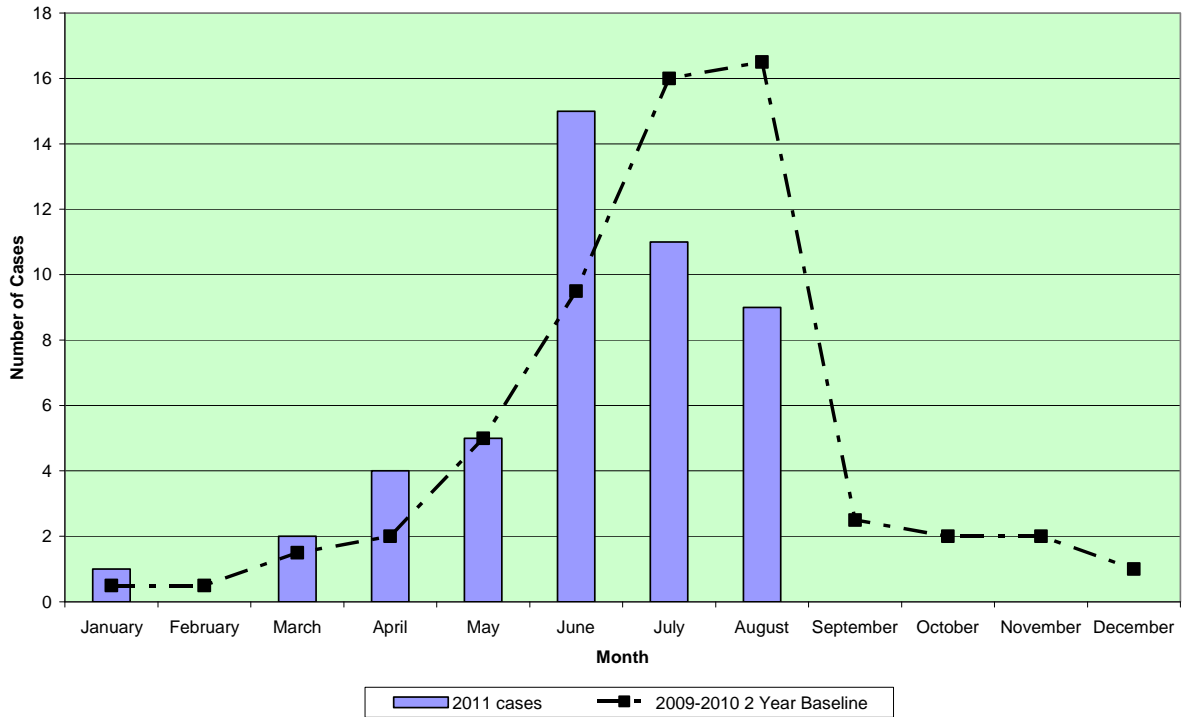
Total Rocky Mountain Spotted Fever Cases By Month



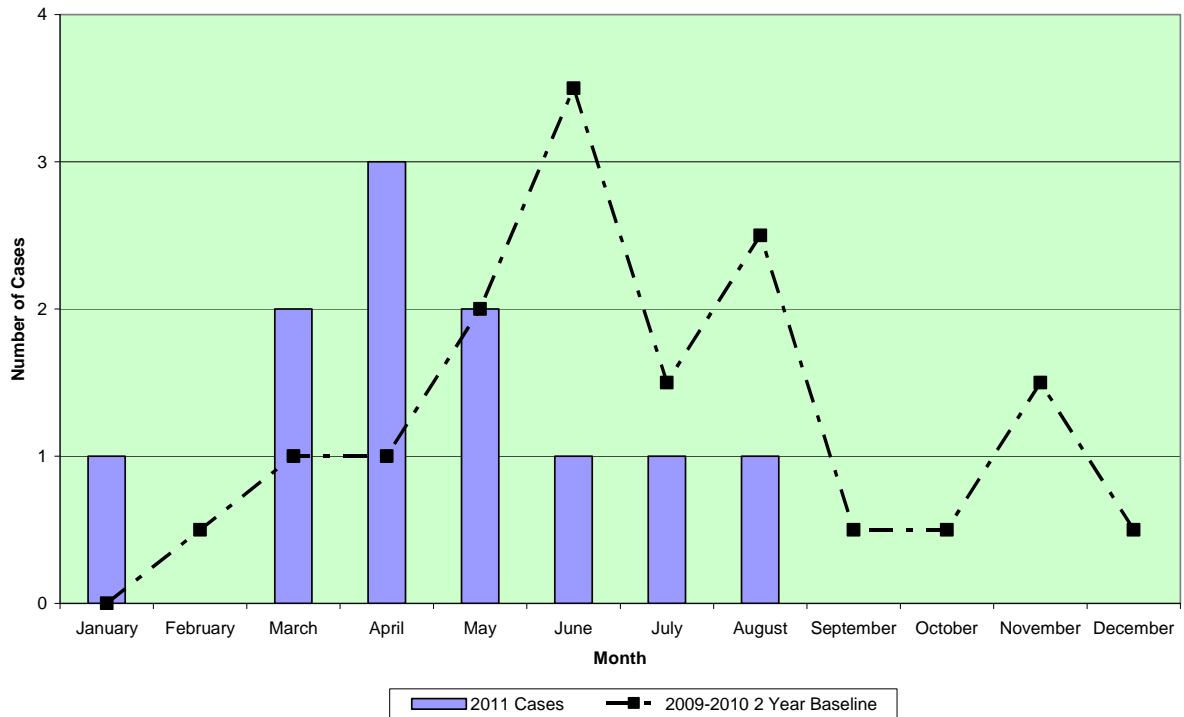
Florida Acquired Cases of Rocky Mountain Spotted Fever By Month



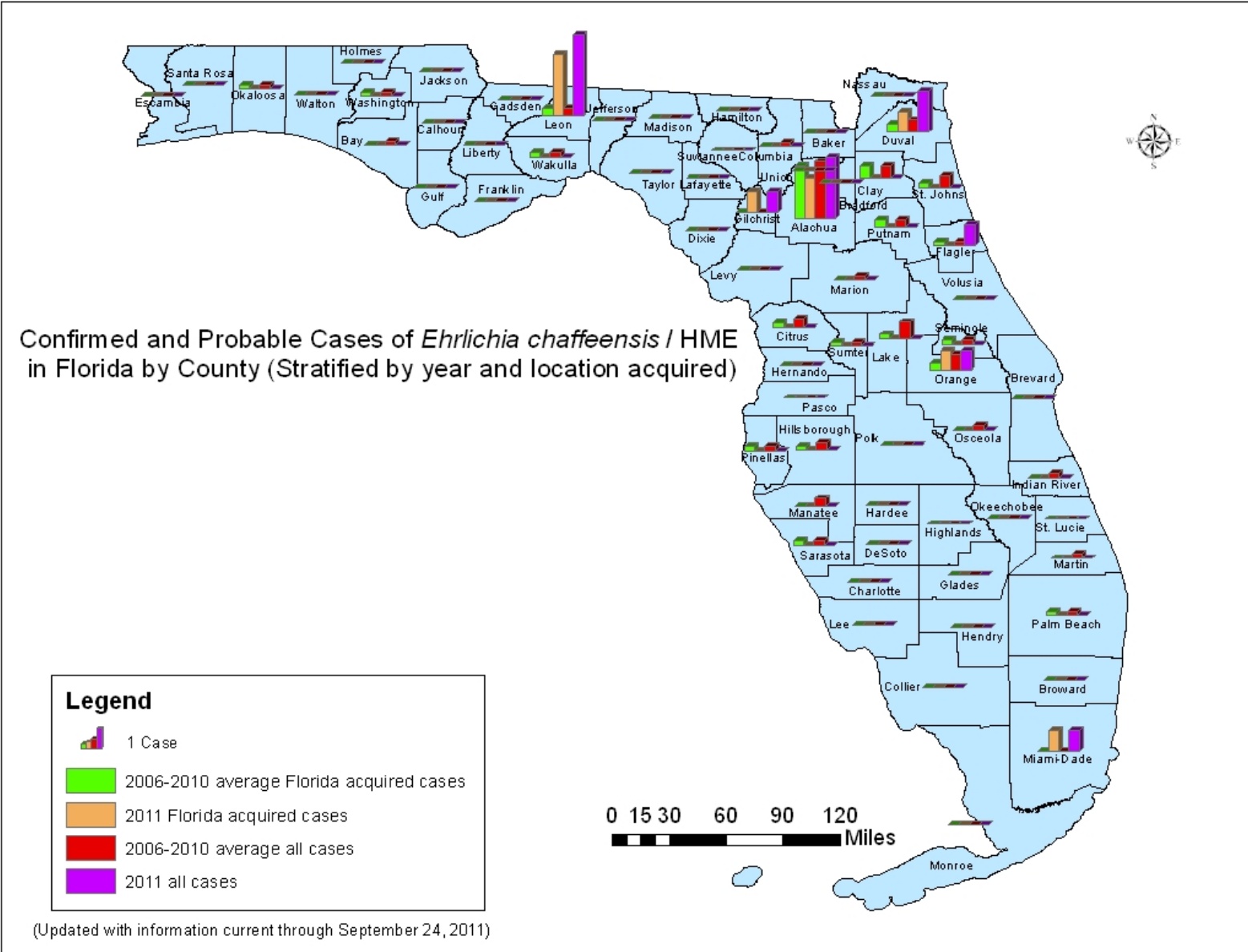
Total Acute Lyme Disease Cases By Month

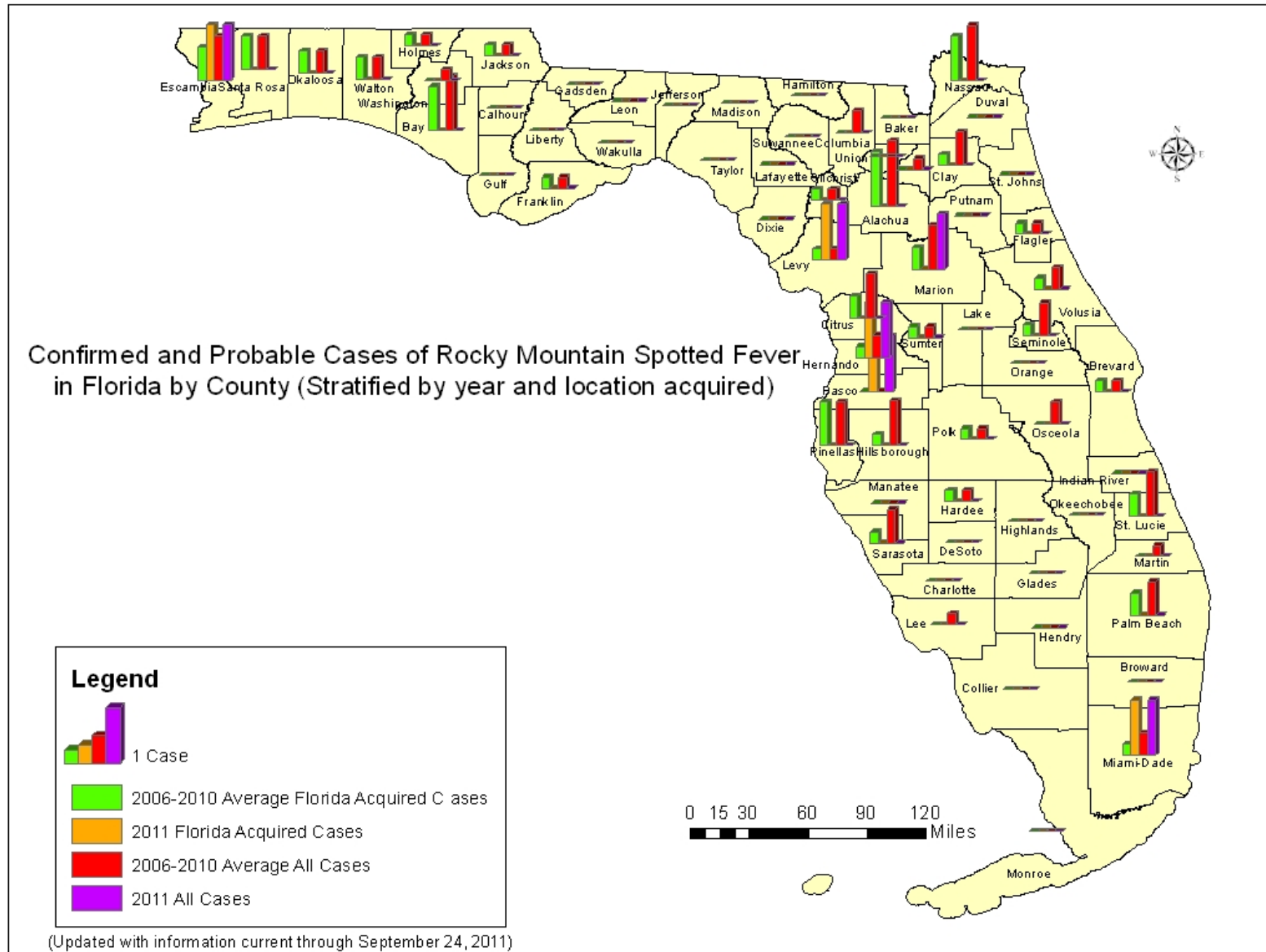


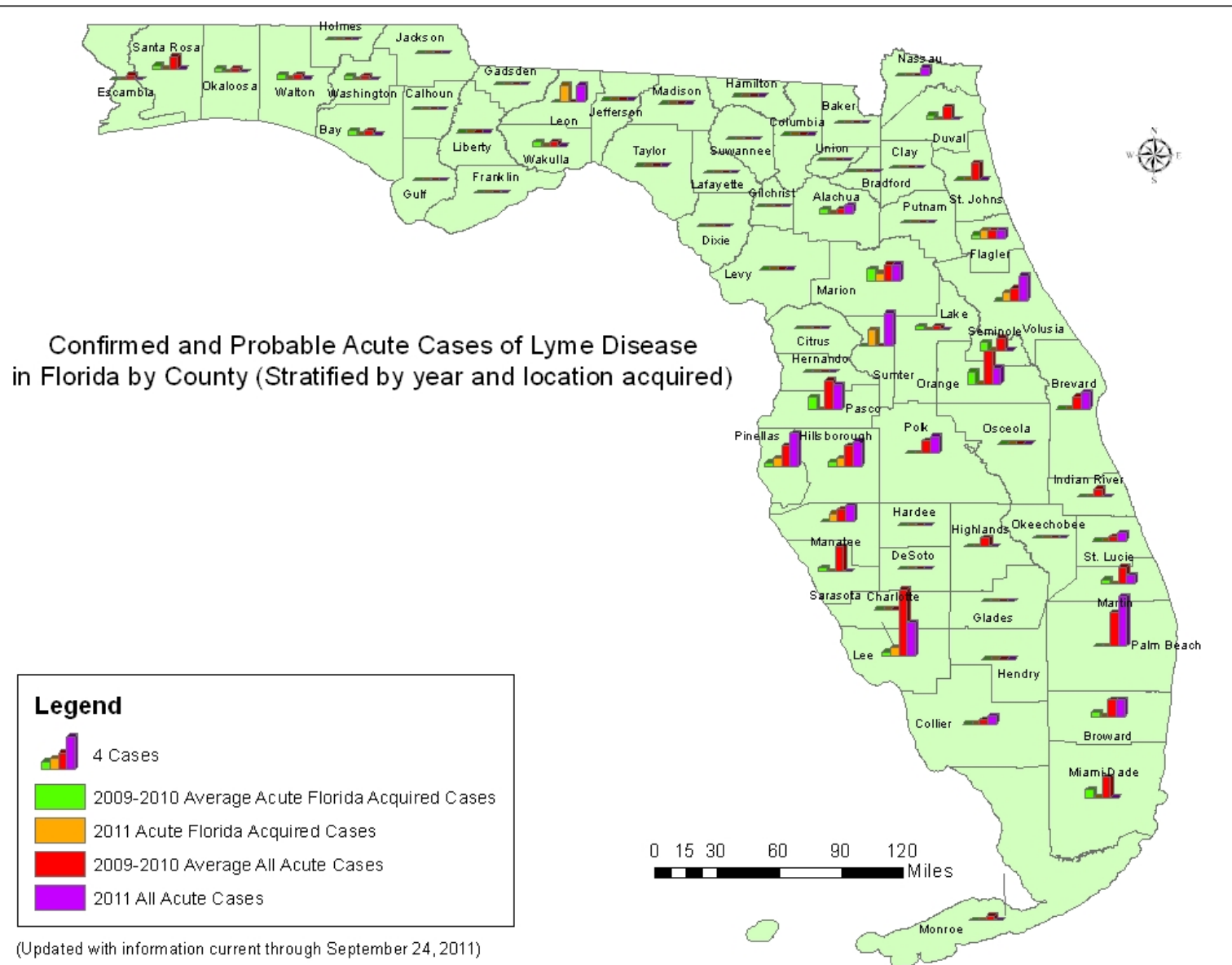
Florida Acquired Acute Cases of Lyme Disease By Month



Maps of Tick-Borne Disease Cases by County







Acknowledgements and Data Sources

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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

Data is provided by county health departments and Department of Health Laboratories.

Featured tick pathogen

Rickettsia parkeri: *Rickettsia parkeri* is transmitted by the Gulf Coast tick, *Amblyomma maculatum* (see image below). This tick is present throughout Florida including areas that may be too dry for some other species of ticks. The adult tick is particularly active during the late summer and fall, which is when most Florida infections have occurred. Symptoms appear 2-10 days after a tick bite, starting with papule formation at the site of the tick bite which then develops into an eschar type lesion where the bacteria multiplies. Other signs and symptoms may include fever, myalgia, headache, lymphadenopathy, and rash. *Rickettsia parkeri* is one of several spotted fever rickettsia that can be detected using commercial Rocky Mountain spotted fever (RMSF) serologic assays. Antibody can take up to 4 weeks to form, therefore it is important to collect a convalescent serum sample at least 4 weeks following symptom onset. Speciation via serologic test is often not possible; however speciation is possible via PCR testing of skin samples from patients either pre-treatment or 1-2 days following initiation of treatment. PCR testing can be performed on sterile moistened swabs collected at the site of the eschar, or from skin biopsies of the eschar or rash lesions

www.cdc.gov/rmsf/resources/SkinSwabCollectionInstruction.docx . Testing is available through local county health departments and the DOH state health lab for cases that are clinically compatible with history of recent tick exposure. Per CDC recommended treatment is doxycycline as for RMSF:

<http://www.cdc.gov/rmsf/symptoms/index.html#treatment>

Female Gulf Coast tick (*Amblyomma maculatum*)

