

Mosquito threat emerges as season peaks, researchers report

August 31 2011, by Robert H. Wells

Mosquitoes aren't just a nuisance, they're also an economic and health concern, say University of Florida researchers.

July, August, and September are peak months for mosquito activity in Florida, and the state spends about \$151 million each year trying to control the biting insects.

Controlling mosquitoes is important for economic development and tourism, said Jonathan Day, a University of Florida medical entomology professor at UF's Florida Medical Entomology Lab in Vero Beach.

"Looking at Florida's history, there are large tracts of land that simply would not have been developed had it not been for mosquito control," Day said.

And if there are mosquito-borne disease outbreaks one year, there can be severe financial impact on the state's tourism industry the next, Day said.

"We actually saw that in 1991," he said. "The year following the St. Louis encephalitis epidemic in 1990, we saw a real downswing in tourism."

The medical entomology lab, part of UF's Institute of Food and Agricultural Sciences, is tracking mosquito-borne diseases in the state including eastern equine encephalitis, West Nile virus, St. Louis encephalitis, and dengue virus.

The spring drought reduced mosquito-borne diseases so far this year, Day said, but residents and visitors should still be cautious.

He noted that mosquito numbers are high this year because many mosquitoes have drought-resistant eggs that stayed dormant until the summer rainy season triggered them to hatch. Mosquito landing rates, which are the number of mosquitoes that land on a person in a given time, have ranged from 10 to 50 per minute this summer at the Vero Beach lab.

And although mosquito-borne diseases often cause mild symptoms such as fever and muscle pain, they can be fatal for some.

Roxanne Connelly, a medical entomologist at the Vero Beach lab, said people die from mosquito-borne diseases every year.

“It seems that Eastern equine encephalitis is the deadliest,” Connelly said. “That is one that kind of affects all age ranges of people. Whether you’re young or old, if you get it, it seems to be one that is very difficult to recover from.”

Eastern equine encephalitis has been detected in three Florida horses this year – two in Holmes County and one in Marion County, and there are currently no human cases. [Mosquitoes](#) become infected with the disease by feeding on infected birds and then transmit the disease to humans and horses.

Eleven human cases of West Nile virus have been confirmed this year in Duval County, with one suspected death.

One sentinel chicken in Indian River County has tested positive for St. Louis encephalitis, but there have been no human cases so far.

Lab officials are closely watching the Key West area to see if dengue virus emerges there this year as it has the past two years. Two locally acquired cases of dengue have been confirmed in the state in 2011 — one in Martin County and one in Miami-Dade County. The virus is transmitted from person to person via mosquito.

To protect themselves, residents are encouraged to remove standing water from their property, avoid outside activity during early morning and late evening hours, wear protective clothing, and use insect repellent.

Provided by University of Florida

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