

West Nile Control: Fairfax Entomologist Biting Back on Mosquitoes

With West Nile Well Established, the Focus Turns to Prevention

By Raymond McCaffrey

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During a career that has spanned more than 30 years, Jorge Arias has hunted down disease-carrying insects in the most remote regions of the planet, including the jungles of the Amazon.

These days, he can be found peering beneath manhole covers in Fairfax County, searching the storm drainage system for trapped mosquitoes bearing the West Nile virus.

Hunting for West Nile in the suburbs of Washington, Arias said, is "pretty much the same" as charting, say, the spread of malaria in less-developed parts of the world. There is "a vector" -- in the case of West Nile, the mosquito -- and "an incidental host," namely man.

Arias, who became Fairfax's entomologist in April, embodies the escalating war on West Nile, which killed 11 people in Maryland, Virginia and the District last year. Since the first case in the United States was detected in 1999, state and federal authorities have led the fight to curtail the spread of the deadly virus.

But local jurisdictions are assuming a greater role. In rural counties like Calvert, that can mean deployment of mosquito control units that, if necessary, will spray in areas where adult mosquitoes thrive.

In increasingly suburban counties, such as Anne Arundel and Prince William, the effort involves health officials working to eliminate places where mosquitoes breed, such as standing water at construction sites or in poorly maintained swimming pools. And in more urban counties, where mosquitoes are less common, the fight has been waged with public-information campaigns. Those who volunteer for Montgomery County's "West Nile aNILEator" program canvass targeted areas and tell residents how to protect themselves against the disease.

The days when the West Nile fight seemed mostly about collecting dead birds to determine the path of the virus are finished. Experts don't need evidence to tell them West Nile is here. It is endemic, they say. In Fairfax, officials "want to do some things that are proactive," Arias said.

"We have a million people in 400 square miles," he said. "We are becoming densely populated. We have to address this problem seriously."

Officials are bracing for a greater West Nile problem this year, as a wetter winter and spring have created potentially more favorable conditions for mosquito breeding. Moreover, as the number of regional deaths tied to the virus grew last year, West Nile also spread from such population centers as the Baltimore and Washington suburbs to Maryland's Eastern Shore and other rural areas where mosquitoes are more common.

"We are gearing up for an active West Nile virus season," said Ashley Conway, a public health nurse in Calvert County.

Consequently, the effort to detect the spread of West Nile in humans, birds and mammals will be different this year, according to Maryland, Virginia and District officials. Though some jurisdictions will collect and test a limited number of dead birds, the emphasis will be on curtailing the growth of culex mosquitoes carrying West Nile and informing residents on the steps they can take to protect themselves.

In Calvert, for instance, the county has discussed mailing a brochure to every household. But that effort would be less practical in Montgomery, which has more than 10 times the population.

"I think that one of the things that people need to understand is each county has to have their own approach to it," said Lynn Frank, Montgomery County's chief of public health.

Not only is Montgomery bigger than Calvert, but the county does not have the types of salt marshes and natural mosquito breeding grounds found in Southern Maryland. Moreover, Montgomery has "excellent storm water" drainage systems, and its natural bodies of water are moving freely, Frank said.

And, perhaps as important, the sensibility in Montgomery is different than in what has long been farm country. "The whole issue of spraying, I think there's going to be some inherent conflicts between values, between protecting the environment and protecting the public's health," Frank said.

Spraying of adult mosquitoes is considered an emergency measure, even in communities where it has been done. Loudoun, for example, hired a contractor to spray last year after an outbreak of malaria. There are no plans to do it this year unless "there's a need for it," said David Goodfriend, director of the Loudoun County Health Department.

"Adult mosquito spraying involves potentially toxic chemicals," Goodfriend said.

Even communities with active mosquito control units shy away from spraying, which is seen as less effective and has to be restricted to "a time when the adult

mosquitoes are out," such as the early evening, said John Meehan, environmental health manager for the Prince William Health District.

Like most jurisdictions, Loudoun prefers to focus on eliminating mosquito larvae. Larvicide, Goodfriend said, is "a very safe product" -- so much so that some of his health employees recently received training in how to apply it when they inspect potential breeding grounds.

"If there is a problem, we can take care of it right at that time," Goodfriend said. Members of the community are playing a greater role, too, calling health departments to complain about standing water at construction sites or neighborhood properties.

"We get quite a few complaints, particularly regarding untended or unused swimming pools," said Gerard Zitnik, manager for the housing and food protection program with the Anne Arundel County Department of Health.

Officials agree that citizen help will be essential.

"It's not going to disappear by itself," Arias said.

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