

New York Times

June 22, 2003

All 50 States Now Warn of West Nile Virus Threat

By PETER T. KILBORN

LIDELL, La., June 21 — George Polk, an inspector for the St. Tammany Parish Mosquito Abatement District in Slidell, 30 miles northeast of New Orleans, dips a long-handled ladle into a puddle beside a suburban lawn. He pulls out a cup of motionless black eggs and specks that wriggle like tadpoles. "These are flood-water mosquitoes," Mr. Polk says.

"When flood water dries up," he says, "the female mosquito lays eggs in the mud. When it rains or the tide comes back in, the eggs hatch.

You can get different brews. If you have rain today and more rain tomorrow, you have staggered brews" of eggs and larva. In the laboratory, some could be found to be infected with the West Nile virus.

St. Tammany Parish — with 50,000 acres of marshland and 300 miles of home front ditches carrying septic tank effluent where the southern house mosquito breeds — has become an epicenter of the West Nile virus. Of the 25 people who died of the virus in Louisiana last year, 4 lived in St. Tammany.

West Nile first struck the northern hemisphere in Queens, N.Y., four years ago and killed four people. This year, all 50 states are warning of an outbreak from any of the 30 mosquito species known to carry it. From 62 severe cases in 1999, confirmed human cases of the virus spread to 39 states in 2002, and it killed 284 people.

No one has caught it yet this year, but since January, the Centers for Disease Control and Prevention reported, the virus has shown up in 23 states.

It has been found in horses from Alabama and Arkansas to Minnesota and North Dakota, in dozens of dead crows and in a bald eagle near Allentown, Pa. On Wednesday, the Pennsylvania Department of Environmental Protection found infected larva near Pittsburgh, Ronald Ruman, a spokesman, said. In Louisiana, 52 dead birds have tested positive.

"I would say that these early season reports of West Nile are distressing," said Michael L. Bunning, an epidemiologist at the National Center for Infectious Diseases in Fort Collins, Colo., who tracks the outbreak in birds and animals.

"We're seeing the same level of activity as last year, which is not a good sign. We haven't seen any sign that things are on a downward cycle." He added, "It's just a matter of time before we have the first human case."

Public health officials say they see little reason to doubt that the virus will kill hundreds of people this year, mostly frail and elderly. Last year, the virus struck the first person, in Washington, D.C., in May and the next two, in Louisiana, in June. Last year 4,156 people, many around Chicago and Cleveland, had

confirmed cases.

No West Nile vaccine has been developed for humans, although there is one for horses. The virus cannot be stopped by quarantining people, because birds and mosquitoes that carry it cannot be quarantined.

"There are no revolutionary strategies out there that are on the brink of implementation," said Dan O'Leary, an epidemiologist at the infectious disease center.

In St. Tammany Parish, mosquitoes were just a fact of life until major companies began building plants and offices here 40 years ago.

A. G. Woodside, then a General Electric executive and now 85, said the mosquitoes stopped skilled workers from wanting to settle here, so he persuaded officials of 2 of the 10 wards to establish the control district, financed by property taxes. For 10 years, he was chairman of the district's board, now covering all the wards, and is its spokesman.

"There are 3,000 species of mosquitoes of which there are 50 in Louisiana and 10 here," Mr. Woodside said. To control them, the district has one of the nation's biggest local mosquito-control arsenals, with 16 full-time biologists, inspectors and technicians, 17 part-time spray truck drivers, a laboratory, three airplanes, three airboats and about 20 trucks, 55 light traps to catch female mosquitoes and about 20 sentinel chickens from which inspectors draw blood for signs of infection.

"We've got about 1,500 breeding sites throughout the parish that we check," said Charles T. Palmisano, an entomologist and director of the mosquito abatement district here. "The males live four or five days, long enough to mate. The females mate just once and live 40 or 50 days." After mating, the female seeks a blood meal to nourish the eggs, deposits some, gets another blood meal and deposits more.

"Most species prefer to feed on birds," Mr. Palmisano said. They contract the virus from the birds and pass it on through their saliva when they next bite a human or an animal. In a survey last year of about 1,300 parish residents, Mr. Palmisano said about 2.6 percent tested positive for the virus. But most people recover without showing symptoms.

West Nile is baffling, officials say, because it has not established predictable patterns. Louisiana began finding infected birds much earlier this year than last, meaning there might be human cases sooner than last year.

But none have been reported yet. "What does it show when you cannot predict what is coming?" Raoul Rotard, Louisiana's state epidemiologist, asked. "It shows that you do not understand."

In Louisiana and Mississippi, the virus comes with the rain. Yet it killed eight people in drought-starved Nebraska last year, largely because of mosquitoes that bred in stagnant pools of irrigation ditches.

"This year is wet," said Wayne Kramer, medical entomologist with Nebraska's

Department of Health and Human Services, so the problem could be worse. "We've got a high population of mosquitoes on the wing right now," he said. "We found our first positive dead bird on May 28, a full month earlier than last year." Each year, more mosquito species are found to carry the virus. Near La Crosse, Wis., said Linda Glaser, the state's West Nile virus surveillance coordinator, it has been found in the tree hole mosquito, named for its customary habitat. Ms. Glaser found the state's first infected horse in May this year. It survived, but another found this month had to be put to death.

To contain the virus, much depends on the resources that communities commit to spraying and lacing ditches and ponds with larvicide; the protective measures people take, like wearing repellants and long sleeves and staying indoors at dusk in infested areas; and the participation of homeowners, whose old rain-filled tires, flower pots and receptacles as small as a soda bottle cap can harbor eggs and their larva.

Even Hawaii, so far immune to the disease, is ready for it this year. On its Web page, the Hawaii Department of Health lists pictures of susceptible birds and asks the public to bring in any dead ones. Many states — notably those with the most deaths last year: Illinois, Michigan, Ohio and Louisiana — have made West Nile virus their No. 1 public health issue this summer.

With "Fight the Bite" public information campaigns, states are installing hot lines to call about dead birds, distributing mosquito repellants to tourists and hanging notices on door knobs.

Linn Haramis, entomologist with the Illinois Department of Public Health, said, "There is a certain amount of responsibility for citizens to protect themselves." West Nile virus could follow the course of another mosquito-borne virus. St. Louis encephalitis hit hard in 1975 and then abated.

"Usually you have a downturn," Dr. Bunning at the Centers for Disease Control said. "We haven't seen that yet with West Nile. We don't know where the top is."