



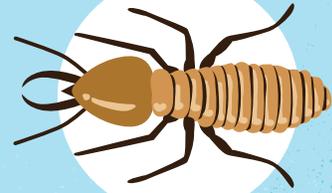
MANY INSECTS THRIVE

in the lush vegetation and warm climate of Louisiana. Most pose little threat to humans, animals and plants, but several are considered pests. LSU AgCenter scientists and extension agents are constantly researching them and educating the public about the value of insects and their threats.



EMERALD ASH BORER

9 parishes in north Louisiana (AgCenter). More than 20 million tons of ash trees at risk in entire state.



TERMITES

Louisiana accounts for 50% of costs from termite damage and control in the U.S. every year (LSU).

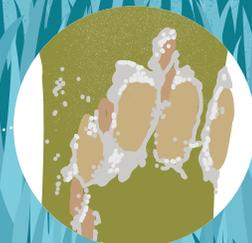


MOSQUITOES

2 deaths, 20 cases of West Nile Virus in 2019 (CDC). 0 Saint Louis Encephalitis cases.

ROSEAU CANE

225,000 acres of wetlands affected in south Mississippi River Valley (AgCenter).



INVESTIGATING INSECTS

Entomologists from the LSU AgCenter study insects that threaten crops and the health of humans as well as those that are beneficial and help control the populations of other pests. Out of the hundreds of thousands of insects that have been identified in America, these four are receiving a great deal of attention from scientists because of the ways they affect our lives.



Termites

The most common urban termite pest in Louisiana, the Formosan subterranean termite, is found in 41 of the 64 parishes of Louisiana. Known for swarming in the spring, Formosan termites are native to China and entered Louisiana through the port of New Orleans in the 1960s. Termite treatment and damage cost \$500 million a year in Louisiana, according to a 2015 study by AgCenter researchers.

AgCenter entomologist Claudia Husseneder is studying a modified yeast that can kill gut organisms used in digestion, and AgCenter entomologist Karen Sun is studying how Formosan termites communicate chemically and how they respond to the environment. "We hope to understand why this termite is so successful and figure out ways to aid in pest control by manipulating their social behavior," Sun said.



Mosquitoes

Mosquitoes may be the most despised pest in Louisiana. In addition to annoying many animals and humans, these tiny insects also carry disease. Throughout the 1800s, yellow fever, spread by the *aedes aegypti* mosquito, could kill thousands in Louisiana each year. Mosquito-borne diseases remain dangerous. St. Louis encephalitis still sickens Americans each year, and West Nile virus kills Louisiana residents each year. To monitor and control mosquitoes, 22 parishes fund mosquito control districts. Also, AgCenter extension agents and researchers continue to study these insects and educate the public about ways to protect themselves and their animals.



Roseau cane scale

Roseau cane is an important Louisiana Gulf Coast marsh grass that provides habitat for fish, birds and other wildlife and reduces erosion. When die-offs of roseau cane in the Mississippi River Delta were noticed in 2016, scientists suspected many causes. One of the major stressors, researchers suspect, is the roseau cane scale, an invasive insect from China and Japan. The scales feed on plant tissues and are attacked by three parasitoid wasps. LSU AgCenter entomologist Rodrigo Diaz is researching the scale and is working with state and federal agencies and private citizens to better understand the problem and protect the coast.



Emerald ash borer

Since its discovery in Michigan in 2002, the emerald ash borer has destroyed millions of trees in more than 30 states. In 2015, the small metallic green insect was found infesting trees in Webster Parish, Louisiana. It has now been found in nine parishes in northern Louisiana. At risk are more than 20 million tons of ash trees in rural Louisiana — 5% of hardwood trees in the state, according to an AgCenter analysis. The pest has also been found to affect olive trees and white fringe trees, both popular ornamental species in the state. AgCenter entomologist Nathan Lord has received a National Science Foundation grant to study jewel beetles, which include emerald ash borers. Lord is researching the visual systems of these beetles to determine how they see and use color. The research could make it possible to alter their vision and reduce or prevent their ability to locate mates or host plants.