

Tree-killing fungus officially named by scientists

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The USDA Forest Service Southern Research Station (SRS) today announced that an SRS scientist and other researchers have officially named the fungus responsible for killing redbay and other trees in the coastal plains of northeastern Florida, Georgia, and South Carolina.

Lead author and Iowa State University Plant Pathologist Tom Harrington, co-author and SRS Plant Pathologist Stephen Fraedrich, and Azerbaijan National Academy of Sciences Researcher D.N. Aghayeva unveiled the name, *Raffaelea lauricola*, in an article published in the April-June 2008 issue of *Mycotaxon*, the international journal of fungal taxonomy and nomenclature.

"Until now, the fungus was known as 'the laurel wilt pathogen' because of the devastating disease it causes in redbay trees and other laurel species like sassafras and avocado trees in the Southeast," said Fraedrich, based in Athens, GA. "Now arborists, foresters, researchers, and regulatory officials have a formal, scientific name and description of the fungus, as well as a detailed explanation of how the pathogen compares to similar fungi."

Raffaelea lauricola is one of many species of fungi carried by ambrosia beetles, a group of highly specialized wood-boring insects that feed on symbiotic fungi, which they carry from tree to tree in specialized sacs. The beetles feed on their own special ambrosia fungi, much as the Greek gods were believed to exist on their "ambrosia." *R. lauricola* is the principle ambrosia fungus of an invasive species from Asia, the redbay

ambrosia beetle. *R. lauricola* is the only known tree pathogen among the ambrosia fungi and differs from other *Raffaelea* species in its DNA sequence and spore sizes. The fungus also grows faster than similar fungi.

Ambrosia beetles introduce the fungus into redbay or other laurel tree species by burrowing into the trees and laying eggs. The fungus serves as a food source for beetle larvae. The pathogen moves through a tree's vessels causing a vascular wilt disease similar to Dutch elm disease.

In an April 3 press release, SRS announced the first description of the fungus and its association with the redbay ambrosia beetle and laurel wilt. The press release, posted online at <http://www.srs.fs.fed.us/news/153>, provides more information about the fungus and the threat it poses to the laurel family.

Source: USDA Forest Service

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