



DEPARTMENT OF LAND AND NATURAL RESOURCES

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JOINT NEWS RELEASE

FOR IMMEDIATE RELEASE

March 13, 2020

**Rapid ‘Ōhi‘a Death Found at Limahuli and Waipā on Kaua‘i’s North Side
-Enhanced bio-sanitation efforts are strongly encouraged-**

(Līhu‘e) - The Kaua‘i Rapid ‘Ōhi‘a Death Working Group announced today two new detection sites where the fungal disease has killed ‘ōhi‘a, the most prevalent tree in Hawai‘i’s native forests and a tree critical for the preservation of Hawai‘i’s watersheds.

Upon seeing ‘ōhi‘a consistent with the external symptoms of Rapid ‘Ōhi‘a Death (ROD) at Limahuli Garden and Preserve, director Lei Wann had the tree sampled. Wood from the tree’s sapwood, where the fungus grows, is necessary to test for the presence of the disease. USDA Agricultural Research Service (ARC) in Hilo ran their molecular testing protocol and confirmed the presence of *Ceratocystis huliiohia*.

Two different species of fungal pathogens result in the rapid killing of ‘ōhi‘a trees. Both enter trees through a wound, be it a broken limb, twig or perhaps, a scuffed up exposed root. Whereas *C. huliiohia* may take months to years to kill ‘ōhi‘a, *C. lukuohia* can kill a tree within weeks.

“We suspected it was only a matter of time before we might see ROD in our valley, so we were watching for it,” Wann said. “We also knew that recent catastrophic weather events likely wounded ‘ōhi‘a in the valley, making them vulnerable to infection.”

A day after the Limahuli results, two other ‘ōhi‘a tested positive—one tree for *C. huliiohia* and the other for *C. lukuohia*. These trees were targeted for sampling after they were spotted during recent island-wide helicopter surveys by the DLNR Division of Forestry and Wildlife (DOFAW) and Kaua‘i Invasive Species Committee (KISC). Both are located between 446-feet and 870-feet elevation in a remote region of Waipā valley.

Limahuli Garden is part of the National Tropical Botanical Garden (NTBG), a network of five botanical gardens, preserves and research facilities encompassing nearly 2,000 acres in Hawai‘i and Florida. The infected tree was located ten feet off the garden’s forest walk pathway. Within a day of learning the test results, a crew from DOFAW felled and tarped the tree to contain the spread of the disease. . Wann is working with KISC to implement a site-specific management plan that includes monitoring trees via drone imagery, installing bio-sanitation stations, increased messaging and education with guests, among other activities.

“Bio-security has always been an important process of all parts of operations at Limahuli, whether you are coming to visit the garden or a scientist flying on a helicopter into our upper preserve,” Wann said. “Yet since this detection, we have increased our efforts. We aim to be a leading example of bio-security best practices for the state. This will help to protect not only our ‘ōhi‘a but all species in Limahuli valley.”

Also on the north shore, Waipā is a 1,600-acre ahupua‘a owned by Kamehameha Schools. “Our mission is to restore Waipā’s vibrant natural systems and resources and inspire healthy, thriving communities connected to their resources,” said Stacy Sproat-Beck, executive director for Waipā Foundation, the nonprofit organization and living learning center that manages the ahupua‘a. “While we are all saddened that ROD has come to Waipā, the diseased trees are in areas that we never access, so we know that it was brought by vectors beyond our control, and we’re increasing our bio-sanitation and education efforts to help raise awareness and save ‘ōhi‘a in all its locations.”

The microscopic fungal spores that infect ‘ōhi‘a are released into the environment in the frass (sawdust-like refuse) of boring beetles and can be blown in wind and move around the island in mud. “Theoretically, all it takes is one spore to infect an ‘ōhi‘a tree,” said Tiffani Keanini, project manager of KISC. Increased bio-sanitation measures will help prevent the spread of Rapid ‘Ōhi‘a Death, as well as other invasive species.

“‘Ōhi‘a play an important part of our native ecosystems and are equally important culturally to Native Hawaiians and support our foundation as a lāhui,” said Coty “Buffy” Trugillo, Kamehameha Schools Regional Director for Kaua‘i & Ni‘ihau. “Āina Pauahi is ‘āina Kaua‘i and we will work fervently alongside our neighbors and partners to address Rapid ‘Ōhi‘a Death while respecting the needs and concerns of our entire Kaua‘i community.”

The disease is now found in pockets across the island with the lone exception being the northwest, one of the richest sites of biodiversity in the state. “For the sake of so many of our island’s rare and endemic species, it’s absolutely vital we do everything we can to keep Rapid ‘Ōhi‘a Death from Koke‘e State Park and the Alaka‘i Plateau,” said Sheri S. Mann, Kaua‘i District Manager for DOFAW.

‘Ōhi‘a die for many reasons, although symptoms consistent with Rapid ‘Ōhi‘a Death include the sudden browning of leaves on limbs or the entire crowns of trees. The fungus is not visible on the leaves or the bark but grows in the sapwood just below the bark and impacts the flow of water in the tree.

Since the first case of Rapid ‘Ōhi‘a Death was detected on Kaua‘i in 2018, the Kaua‘i ROD Working Group , a rapid response team including scientists and managers from DLNR/DOFAW, KISC, The Nature Conservancy, National Tropical Botanical Garden, U.S. Fish and Wildlife Service, Hawai‘i Department of Agriculture, and the University of Hawai‘i, has been working together to conduct sampling island-wide and implement management strategies.. Since the disease was first detected on Kaua‘i , 248 trees have been sampled. 67 have tested positive for *C. lukuohia* and 50 for *C. huliohia*. One tree has tested positive for both. The ROD Working Group has collected nearly nine million ‘ōhi‘a seeds and more than 300 ‘ōhi‘a seedlings have been given away to people. The group continues to reach people through various educational events that include presentations, documentary screenings, workshops on collecting and sowing ‘ōhi‘a seeds, and more.

As there is no known cure, experts encourage these practices:

- 1) Avoid injuring ‘ōhi‘a. Wounds serve as entry points for the fungus and increase the odds that the tree will become infected and die. Avoid pruning and contact with heavy equipment wherever possible. Avoid cutting new trails in ‘ōhi‘a forests and stepping on their roots.
- 2) Clean gear and tools, including shoes and clothes, before and after entering the forest and areas where ‘ōhi‘a may be present. Brush all soil off tools and gear, then spray with 70% rubbing alcohol. Wash clothes with hot water and soap and, if possible, dry on the high heat setting in the dryer.
- 3) Wash your vehicle with a high-pressure hose or washer if you’ve been off-roading or have picked up mud from driving. Clean all soil off tires—including mountain bikes and motorcycles—and vehicle undercarriage, preferably with soap and water.
- 4) Don’t move ‘ōhi‘a wood or ‘ōhi‘a parts, including adjacent soil. The disease can be spread to new areas by moving plants, plant parts, and wood from infected areas to non-infected areas.
- 5) Keep your eyes open. If you see ‘ōhi‘a with a limb or crown turning brown, take a picture and send it to KISC via email (saveohia@hawaii.edu) or phone (808-821-1490) and describe exactly where you saw the tree. Samples of the wood must be taken by trained technicians and tested in a laboratory to confirm the presence of the ROD fungi.

To learn more about Rapid ‘Ōhi‘a Death, visit www.rapidohiadeath.org and sign up for the Kaua‘i quarterly newsletter—‘Ōhi‘a: Tree of Life—at www.kauaiisc.org.

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RESOURCES

Video and Photos:

https://drive.google.com/drive/folders/1hhUw_KoML6EmT0SUWfTIWW6z7CzNn66_?usp=sharing

