RapidOhiaDeath.org

2018 Rapid ʻŌhiʻa Death Newsletter

Volume 2, Issue 2

~ I walea ka manu I ka ʻula o ka lehua ~

The bird is attracted by the redness of the lehua

This is our quarterly newsletter that was designed to update the community on current Rapid ʻŌhiʻa Death (ROD) issues. If you wish to UNSUBSCRIBE, scroll down to the bottom to do so.

Research Updates

- **Rapid ʻŌhiʻa Death (ROD) was confirmed on Kauaʻi in May 2018. The infestation site is located on the east side of the island on State of Hawaii Forest Reserve land. The less aggressive of the two *Ceratocystis* species (*C. huliohia*), which causes localized areas of dead woody tissue and eventually girdles and kills the tree, has been found. *Ceratocystis lukuohia*, the more aggressive pathogen that is responsible for more than 90% of the mortality on Hawaiʻi Island, has not been found on Kauaʻi or any other island. Scientists are currently working to better understand the outbreak by conducting aerial and drone surveys as well as ground sampling. While this new discovery presents an additional challenge for ROD Working Group efforts, we are pressing ahead with research and management.**

- **The two fungal pathogens responsible for ROD have been officially named and described. A collaborative group of researchers, working with Hawaiian cultural advisors, chose Hawaiian names for the new**

fungal species to pay tribute to their discovery in Hawai‘i. The more aggressive of the two species, *Ceratocystis lukuohia* (formerly C. species A), destroyer of ‘ōhi‘a, moves quickly through the sapwood of the tree causing it to wilt. *Ceratocystis huliohia* (formerly C. species B), disruptor of ‘ōhi‘a, grows slowly within the tree causing localized areas of dead woody tissue. Both fungi infect and kill ‘ōhi‘a, so both are considered causes of the disease commonly called ROD. To read the official journal article describing the new species and how they work, click here.

- **Governor Ige declared April 25, 2018 as ‘Ōhi‘a Lehua Recognition Day. Event festivities occurred at Queen Emma Summer Palace and included an opening protocol, hula, and a tree planting ceremony to celebrate the day. Read more here.**

- **On Hawai‘i Island, scientists from the U.S. Forest Service teamed up with students from the Volcano School of Arts and Sciences to conduct a citizen science project on ambrosia beetles, a suspected vector of ROD-causing fungus. Students created home-made beetle traps and set them out around their homes and local forests. They were able to catch a wide range of ambrosia beetles and gained an understanding of which beetles occur in which environments.The partnership is intended to increase scientific knowledge about beetle species distribution and abundance, and to invite communities to participate in the efforts to protect our ‘ōhi‘a trees.. Read more about this exciting project here.**

Management Tips

- **Do not injure or wound ʻōhiʻa trees. Keep weed-whackers, lawnmowers, and other equipment away from ʻōhiʻa trunks and roots. While hiking through ʻōhiʻa forest, be sure to stay off of exposed roots. Wounds serve as entry points for the fungus and increase the odds that the tree will become infected.**

- **If your ʻōhiʻa has ROD:**

WHEN TO CUT: If the infected tree is in an otherwise healthy forest and you see a lot of insect boring dust, work with a certified arborist to fell the tree. Be careful not to wound other ʻōhiʻa trees and use minimal cuts.

Keep the wood on site and well-covered with a tarp if possible. The wood may be safely used for fuel in an imu, fireplace, smokehouse, or barbeque.

WHEN TO MONITOR: You may choose to monitor the area if felling an infected ʻōhiʻa tree will wound nearby healthy trees, if you see little to no insect boring dust, or if the tree is in a forest with many other infected trees.

Upcoming Events

- **Hunt for the Forest (Puna, Hawai‘i Island) – June 16th (Nanawale Community Longhouse)**
- **‘Ōhi‘a Love Fest (Hilo, Hawai‘i Island) – August 26th (‘Imiloa Astronomy Center)**

- **Over the past year, the ROD Working Group on a Rapid ʻŌhiʻa Death documentary. The final documentary is almost complete, so save the date for a premier near you! Don't worry if you can't join us for the premiers! The documentary will be aired on local television channels later this summer. Visit www.rapidohiadeath.org later in May for further information.**

Meet Our People

Kalena Shiroma
U.S. Forest Service

Aloha, my name is Kalena Shiroma. I am a Rapid ʻŌhiʻa Death (ROD) field technician working on the ROD SQUAD for Dr. Flint Hughes, an ecologist with the U.S. Forest Service. Usually, we are out in the field installing monitoring plots which involves measuring the diameter breast height (DBH) of all trees in the plot. We also count ʻōhiʻa seedlings and saplings, as well as take samples from brown/symptomatic ʻōhiʻa trees to send to USDA Pacific Basin Agricultural Research Center for analysis to detect the presence of *Ceratocystis* fungi.

Island wide, we have established over 140 plots and conduct annual measurements to look at change over time amongst ʻōhiʻa trees within the plots. I hope that this study can help further the scientific knowledge and understanding of the spread of ROD and aid in finding a solution towards a sensible management plan. It's hard work but I really enjoy exploring the forests with my crew, and treat every day like a new adventure.

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