



RAPID 'ŌHI'A DEATH

CALL TO ACTION



BACKGROUND

- 'Ōhi'a (*Metrosideros polymorpha*) is Hawai'i's most widespread native forest tree, spanning nearly 1 million acres across the State. Its form and function are vital to watersheds; it provides habitat for many native species, and the spiritual and cultural importance of 'ōhia in and to Hawaiian culture is beyond compare.
- In 2014, a new fungal disease was identified as the cause of Rapid 'Ōhi'a Death (ROD). The pathogen is new to science, and its origin is unknown.
- Currently ROD is only found on Hawai'i Island where it is impacting 37,000 acres of 'ōhia forest. The disease kills 'ōhia of all ages in different elevations and climates. Recent research documents a near absence of 'ōhia seedlings and presence of non-native understory will result in the rapid conversion of native to invasive-dominated forests in areas heavily impacted by ROD
- Infects 'ōhia primarily through open wounds possibly created by high winds. The disease may take months or possibly a year to spread into and clog the tree's water transport. Once this occurs, the tree quickly turns brown and dies
- We do not yet know all of the ways this disease can spread. Closely related diseases can spread when beetles bore into infected trees, creating infected sawdust that can be spread by wind. Moving infected 'ōhia plants and logs can spread the disease, and the pathogen in soil can kill 'ōhia seedlings. Current quarantine rules restrict movement of these items from Hawai'i Island



STATUS OF RESPONSE

- Researchers are working to understand the biology of this pathogen, its relationship to similar pathogens, the potential for additional introductions into Hawai'i, how the pathogen is spreading in the environment, ways to reduce the spread, and experimental containment measures. Researchers are also monitoring levels and rates of tree death in affected areas to project possible impacts at the landscape scale. Monitoring for possible disease resistance and the collection and storing of seeds are underway
- There are currently no known treatments that could save infected trees at the landscape scale or prevent forest infection, although researchers are testing injectable fungicides, soil drenches and other treatments for commodities for inter-island shipment.
- Efforts are on-going to educate people about Rapid 'Ōhi'a Death and how to minimize spread. The public's tremendous cultural and emotional connection to 'ōhia is apparent in their response and cooperation
- A strategic response plan is being developed incorporating direction and needs for research, management, and outreach



SUPPORT

Work to-date has been coordinated and conducted as an emergency response to the rapid and significant loss of 'ōhia. Agencies and NGOs must transition the emergency response into a more sustainable effort to support the strategic response, including a focus on longer term planning and public engagement to protect 'ōhia forests as habitat, as the cornerstone watershed tree, and as one of the most cherished and culturally important plants in Hawai'i. Bridge funding is being sought to support the following aspects of this work for 2017-2018.



Research & Technology: \$1.5M

Containment, Early Detection & Rapid Response: \$945K

Public Outreach & Engagement: \$600K

More information about Rapid 'Ōhi'a Death can be found at RapidOhiaDeath.org. For more information on funding priorities, needs, or process contact Rob Hauff (808) 587-4174, robert.d.hauff@hawaii.gov, or Christy Martin (808) 722-0995, christym@hawaii.edu.