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HAWAII



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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committees on
WATER AND LAND
and
AGRICULTURE AND ENVIRONMENT

Monday, February 11, 2019
2:45 PM

State Capitol, Conference Room 224

In consideration of
SENATE BILL 650
RELATING TO RAPID 'ŌHI'A DEATH

Senate Bill 650 appropriates \$1,000,000 to support the efforts of the Department of Land and Natural Resources to combat Rapid 'Ōhi'a Death in the state. **The Department of Land and Natural Resources (Department) supports this measure with reservations, provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget request.**

Rapid 'Ōhi'a Death (ROD) threatens Hawaii's most important tree species that makes up 80% of the remaining native Hawaiian forests. It is caused by two recently arrived fungal species detected in 2014 and named and described by scientists in 2018. *Ceratocystis lukuohia* is an aggressive disease that quickly chokes off the supply of water to the tree canopy, and *Ceratocystis huliohia* causes a slower death and requires multiple infections. While both diseases can kill healthy 'ōhi'a trees, *C. lukuohia* is responsible for most of the mortality seen on Hawai'i island.

On Hawai'i island, approximately 135,000 acres are currently affected by ROD with some stands seeing over 90% mortality. Much of that area has lower levels of mortality and the Department is working with other agencies to contain new outbreaks and protect remaining healthy forests. Both fungal pathogens causing ROD were detected on the island of Kaua'i in 2018 requiring additional resources to respond there. The islands of Maui, Moloka'i, Lāna'i, and O'ahu still have no ROD detections, and statewide surveys are conducted two times a year to find new outbreaks before the disease is widely established. In addition to survey and response, funding is

needed for forest pathology research, disease diagnostics, monitoring using remote sensing techniques, removal of hooved animals from fenced areas to prevent additional ROD infections, and public outreach to inform communities what they can do to prevent the spread of ROD.

While the Department supports the appropriation of funds in this bill to support these statewide ROD response activities, the requirement for dollar-for-dollar matching funds from private entities will limit the overall response budget in two ways:

1) Although the project has received funds from several different private foundations since agencies originally came together to respond to ROD, we don't anticipate \$1,000,000 in fiscal year 2019-2020 from private sources alone. Private funds were especially crucial for starting activities before state and federal funds became available. Currently only \$80,000 in private funding has been secured for ROD for the 2019 calendar year, although we hope to increase that amount over the coming 2020 fiscal year.

2) Federal funds represent the majority of non-state funds for ROD. Most federal funding sources for ROD require a one to one non-federal match. The Department is seeking additional funding opportunities, both private and federal, but much of the non-state funding for the ROD research and containment effort will be coming from the federal government, with non-federal match requirements. The Department recently submitted a proposal to the United States Department of Agriculture Forest Service for \$350,000 for ROD response, which is in addition to \$200,000 in annual support anticipated for FY20. Both of these grants, for a total of \$550,000, require one to one cost-share which is normally provided with state funds. It is likely that other federal or private funds can be secured as match, but as the ROD response is of critical importance, and will have dramatic and long-lasting effects on state lands, the Department suggests the funds be appropriated without matching requirements, and the Department be encouraged to find private or federal matching funds to the extent possible.

The Department looks forward to working with the Legislature as well as federal and private funders to ensure that the statewide multi-agency Rapid 'Ōhi'a Death Response receives the support it needs to succeed.

Thank you for the opportunity to comment on this measure.

DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER
Acting Chairperson
Board of Agriculture

State of Hawaii
DEPARTMENT OF AGRICULTURE
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TESTIMONY OF THE DEPARTMENT OF AGRICULTURE

BEFORE THE SENATE COMMITTEES ON WATER & LAND AND AGRICULTURE &
ENVIRONMENT

FEBRUARY 11, 2019
2:45 P.M.
CONFERENCE ROOM 224

SENATE BILL NO. 650
RELATING TO RAPID OHIA DEATH

Chairpersons Kahele and Gabbard and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill 650, relating to rapid ohia death. The bill appropriates funds to the Department of Land and Natural Resources to combat rapid ohia death in the State, providing these funds are matched on a dollar for dollar basis by one or more private entities. The Department supports the intent of this bill and defers to DLNR.

Funding for combatting invasive species such as rapid ohia death is critical to ensure appropriate responses can be implemented and maintained. Providing additional funds to DLNR for continued support in combating ROD is critical and much needed. The Department supports the many efforts in researching and mitigating ROD throughout the State.

Thank you for the opportunity to testify on this measure.





UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Water and Land
and
Senate Committee on Agriculture and Environment
Monday, February 11, 2019 at 2:45 p.m.

LATE

By
Nicholas Comerford
Dean, College of Tropical Agriculture and Human Resources
And
Michael Bruno
Interim Vice Chancellor for Academic Affairs
Vice Chancellor for Research
University of Hawai'i at Mānoa

SB 650 – RELATING TO RAPID OHIA DEATH

Chairs Kahele and Gabbard, Vice Chairs Keith-Agaran and Ruderman, and members of the Senate Committee on Water and Land and Committee on Agriculture and Environment:

Thank you for this opportunity to testify on SB 650 relating to Rapid Ohia Death (ROD). The University of Hawai'i at Mānoa, College of Tropical Agriculture and Human Resources supports the intent of this bill to combat ROD, but opposes the matching requirement. ROD is a disease that is changing the natural landscape of Hawai'i on state and private lands. ROD is the greatest threat to our native forests, watersheds, and the endangered species that live there. Widespread ohia mortality would also be a severe loss for native Hawaiian culture.

A team of scientists from the U.S. Department of Agriculture, Agriculture Research Service, Pacific Basin Agricultural Research Center in collaboration with UH have:

- discovered the two new species of fungus that are attacking the ohia;
- developed molecular diagnostic tools to enable certain identification of the fungus;
- identified how the pathogen moves, both by human and natural means, in particular by boring beetles;
- shown that wounding of ohia trees allows them to become infected; and,
- UH Hilo has developed the drone methodology for detecting trees with ROD symptoms from the air.

The news that the fungus has reached Kaua'i demonstrates that this is a statewide problem, not just a Hawai'i Island problem. A recent detection of a virulent pathogen of

ROD, *Ceratocystis lukuohia* indicates that there might be more ROD infected trees or the spread of disease would be rapid on Kaua'i. Survey of trees with ROD, implementing the methods to reduce the disease spread and determining ways to manage the diseased tree, are important tools of the ROD control program and needs to be supported. The bill appropriates funds for combating ROD, but only if there is a one-to-one dollar match from private entities. Given the fact that this is a state-wide problem and is occurring on state as well as private lands, it appears to us that this need for a one-to-one match will only delay, if not avoid, the ability to combat the disease which may spread beyond Hawai'i Island and Kaua'i.

In summary, UHM/CTAHR supports the intent of fighting ROD, but opposes the need for a one-to-one match in fighting a disease that is in the process of changing the Hawai'i landscape.

Thank you for this opportunity to submit testify in support of SB 650.

SB-650

Submitted on: 2/10/2019 12:29:35 AM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
andy levin	Testifying for county of hawaii, Mayor's office	Support	No

Comments:

The initial shock of the discovery of Rapid Ohia Death has passed, and therefore the media has largely moved on. But the devastation of ROD and the loss of Ohia in Hawaii should not be ignored. Therefore, I am grateful to the authors of this bill, and to you and your Committees, for keeping this issue alive at the Legislature, and hopefully furthering the battle to defeat this terrible scourge.

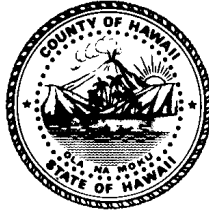
I will defer to the scientists as to how much funding can be productively used, and urge that, at the end of the Session, there be sufficient money allotted to find an ROD cause and cure, or at least treatment. I must also defer to the Committees' wisdom whether requiring a match for the State appropriation is necessary. Perhaps such a provision will make it more likely that SB 650 will be approved, but I would be concerned that it might scuttle the good work that you are trying to foster.

With whatever amendments are appropriate, please approve funding to combat ROD.

Respectfully submitted,

Harry Kim, Mayor

County of Hawai'i
Council District 9 -
North and South Kohala



Phone: (808) 961-8564
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Email: tim.richards@hawaiiicounty.gov

Chair: Committee on Agriculture,
Water, Energy, and Environmental
Management

Vice Chair: Committee on Finance

HERBERT M. "TIM" RICHARDS, III
HAWAI'I COUNTY COUNCIL - DISTRICT 9
25 Aupuni Street, Ste. 1402, Hilo, Hawai'i 96720

February 8, 2019

Senate Committee on Agriculture and Environment

Honorable Senator Mike Gabbard, Chair
Honorable Senator Russell E. Ruderman, Vice Chair

Committee on Water and Land

Honorable Senator Kaiali'i Kahele
Honorable Senator Gilbert S.C. Keith-Agaran, Vice Chair

Submission via online testimony

RE: **Support of SB 650**

Hearing Date/Time: February 11, 2019 at 2:45 p.m.

Dear Senators:

As the Chair of the Committee on Agriculture, Water, Energy, and Environmental Management and Vice Chair for the Committee on Finance for the Hawai'i County Council, I thank you for the opportunity to submit **testimony in SUPPORT of SB 650**. It is critical to appropriate funds to continue the efforts to combat Rapid 'Ohia Death (ROD) throughout the state; our beloved 'Ohia plays an exceptionally large role in maintaining the watersheds on our islands.

Please feel free to contact me should you need to discuss my position and knowledge of this matter further.

Sincerely,

HERBERT M. "TIM" RICHARDS, III
Hawai'i County Council, District 9

SB-650

Submitted on: 2/10/2019 7:59:07 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	Testifying for O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:



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Phone: (808) 848-2074; Fax: (808) 848-1921
e-mail info@hfbf.org; www.hfbf.org

LATE

February 11, 2019

HEARING BEFORE THE
SENATE COMMITTEE ON WATER AND LAND
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON SB 650
RELATING TO RAPID OHIA DEATH

Room 224
2:45 PM

Aloha Chairs Kahele and Gabbard, Vice Chairs Keith-Agaran and Ruderman, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

Hawaii Farm Bureau supports SB 650, which appropriates funds to the Department of Land and Natural Resources to combat rapid ohia death in the State.

Watersheds are the lifeblood of our communities. It is important not just to agriculture but to our social and environmental health. The spread of rapid ohia death has been alarming and its' management before spreading to other islands is very critical. Many of the other islands depend on surface water for their drinking and irrigation needs. Loss of trees will severely impact watersheds.

Thank you for the opportunity to testify in support of this bill.

Testimony of The Nature Conservancy of Hawai'i
Supporting SB 650 Relating to Rapid 'Ōhi'a Death
Senate Committee on Agriculture and Environment
Senate Committee on Water and Land
Monday, February 11, 2019, 2:45PM, Room 224

The Nature Conservancy of Hawai'i is a non-profit conservation organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 preserves and work in over 30 coastal communities to help protect the near-shore reefs, waters and fisheries of the main Hawaiian Islands. We forge partnership with government, private parties and communities to protect forests and coral reefs for their ecological values and the many benefits they provide to people.

The Nature Conservancy strongly supports SB 650 proposing to provide an **additional \$1,000,000** in matching funds to the Department of Land and Natural Resources to address Rapid Ōhia Death.

We appreciate the crisis situation that exists with respect to Rapid Ōhia Death as well as other pests of the environment, agriculture, and human health and well-being. We support a strong and coordinated response to this disease that is threatening the dominant native tree species in the Hawaiian forest—a tree that is central to the forests' ecological, cultural and watershed values statewide.

We also hope that providing the necessary and critical support for addressing Rapid 'Ōhi'a Death will continue to be additive. We are concerned about unintended financial impacts of a piecemeal approach to invasive species funding. For example, in Fiscal Year 2007 the Legislature's provision of specific funding for coqui frog control was really a shifting of existing funds from other important invasive species programs, which then caused layoffs in the Island Invasive Species Committees and a hiatus in the Hawai'i Invasive Species Council's research grant program.

The [Hawai'i Interagency Biosecurity Plan](#)—prepared by the Department of Agriculture with the support of its many government and non-government partners—addresses the full range of invasive species prevention, early detection, rapid response, control, research, and outreach priorities across the state. Beyond this bill's additive funding, we encourage the Legislature, the Administration and partners to enhance our collective attention and funding applied to the full range of pest issues across the islands as outlined in the comprehensive Biosecurity Plan.

Thank you for the opportunity to testify in support of this bill.

BOARD OF TRUSTEES

Mark E. Agne Duke E. Ah Moo Paul D. Alston Dr. C. Tana Burkert Richard A. Cooke III Ka'iulani de Silva Brian J. Doyle
Robert J. Dzielak Dr. Alan M. Friedlander James J.C. Haynes III Sean A. Hehir Brett MacNaughton Kathy M. Matsui
Janet Montag Alicia Moy James C. Polk Dustin E. Sellers Nathan E. Smith (Chair) Peter K. Tomozawa Richard N. Zwern

Ihupani Advisory Council: Christopher J. Benjamin Kenton T. Eldridge Eiichiro Kuwana Duncan MacNaughton Jean E. Rolles Crystal K. Rose
Founders: Samuel A. Cooke Herbert C. Cornuelle

SB-650

Submitted on: 2/10/2019 10:46:36 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Dale Sandlin	Testifying for Hawaii Cattlemens Council	Support	Yes

Comments:

LATE

SB-650

Submitted on: 2/11/2019 11:36:56 AM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Chelsea	Testifying for CGAPS	Support	Yes

Comments:

SB-650

Submitted on: 2/7/2019 6:53:03 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Erica Scott	Individual	Support	No

Comments:

SB-650

Submitted on: 2/8/2019 10:31:47 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Leimomi Khan	Individual	Support	No

Comments:

SB-650

Submitted on: 2/10/2019 2:31:52 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support SB650. The ohia tree is an important player in Hawaii's fragile ecosystem.

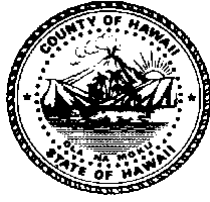
Due to habitat loss and degradation, as well as invasive species, Hawaii is known as the "endangered species capital of the world." Protecting the ohia tree is a step in the right direction.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei

County of Hawai'i
Council District 4 -
Lower Puna



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LATE

ASHLEY L. KIERKIEWICZ

HAWAII COUNTY COUNCIL – DISTRICT 4

Chair: Committee on Planning, and Committee on Government Relations & Economic Development
25 Aupuni Street • Hilo, Hawai'i 96720

February 10, 2019

Senate Committee on Water and Land
Senator Kaiali'i Kahele, Chair
Senator Gilbert Keith-Agaran, Vice-Chair

Senate Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Russell Ruderman, Vice-Chair

**RE: Support for SB650
relating to Resources to Combat Rapid 'Ōhi'a Death**

Aloha, Senators:

Thank you for the opportunity to submit testimony in support of SB650, which would allocate \$1,000,000 or so much thereof in matching funds for the Department of Land and Natural Resources to combat rapid 'ōhi'a death (ROD).

I support this measure as ROD is prevalent on Hawai'i Island, and has spread to Kaua'i, but I humbly request the bill be amended to include appropriations with no dollar-for-dollar matching requirement. ROD is too serious of an issue to not invest resources into addressing; 'ōhi'a are cornerstone to our native forests and key to maintaining healthy watersheds.

Mahalo nui loa,

Ashley Lehualani Kierkiewicz
Hawai'i County Council, District 4

LATE

SB-650

Submitted on: 2/10/2019 6:47:09 PM

Testimony for WTL on 2/11/2019 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dain Christensen	Individual	Support	No

Comments: