



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Water and Land and
Senate Committee on Agriculture and Environment
Wednesday, March 16, 2022 at 1:00 p.m.

By
Nicholas Comerford, Dean
College of Tropical Agriculture and Human Resources
And
Michael Bruno, PhD
Provost
University of Hawai'i at Mānoa

HB 1769 HD1 – RELATING TO RAPID OHIA DEATH

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

Thank you for this opportunity to testify in support of HB 1769 HD1 relating to rapid ohia death (ROD).

The University of Hawai'i at Mānoa has a long and productive history collaborating with the Hawai'i Department of Land and Natural Resources (DLNR) and the U.S. Forest Service. This cooperation and collaboration have extended to working to combat ROD. The University is a main component of the education/Extension task and has worked toward the objectives defined in the *Rapid Ohia Death Part 1: Strategic Response Plan*. The University appreciates the budget and the expenditure plan. Since ohia is an iconic plant for the state of Hawai'i, and because it is the dominant tree throughout most of the state, its salvation benefits much of the Hawai'i ecosystem.

We strongly support HB 1769 HD1, but defer to DLNR as to the ability to carry out the tasks with the proposed budget. Thank you for the opportunity to testify.

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

GLORIA CHANG
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY

TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE SENATE COMMITTEES ON WATER AND LAND
AND AGRICULTURE AND ENVIRONMENT
ON
HOUSE BILL NO. 1769, H.D. 1

**March 16, 2022
1:00 p.m.
Room 229 and Videoconference**

RELATING TO RAPID OHIA DEATH

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill No. 1769, H.D. 1, provides funds to the Department of Land and Natural Resources (DLNR) to study and combat rapid ohia death in the State and appropriates an unspecified amount of general funds for FY 23 to be expended by DLNR for this purpose.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.

DAVID Y. IGE
GOVERNOR OF
HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**Testimony of
SUZANNE D. CASE
Chairperson**

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

**Wednesday, March 16, 2022
1:00 PM**

State Capitol, Conference Room 229, Via Videoconference

**In consideration of
HOUSE BILL 1769, HOUSE DRAFT 1
RELATING TO RAPID OHIA DEATH**

House Bill 1769, House Draft 1 proposes to appropriate funds to the Department of Land and Natural Resources (Department) to study and combat Rapid Ohia Death (ROD) in the State. **The Department supports this measure provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget request.**

ROD continues to threaten ohia forests across the State. The Department is working closely with other agencies and university scientists to respond to this threat using the best science available. Researchers studying the two fungi associated with ROD have developed recommendations for managing the disease, but further study is needed to fully understand the complex relationships of the disease with introduced beetles, feral animals, storm events, and human activity.

While ROD has been found throughout Hawaii Island, the disease is limited in extent on the other islands. Regular aerial surveys are needed for early detection of new infestations so managers can quickly respond and contain the disease. On Hawaii Island, the disease is now found throughout most of the Island's forests, but forests where hooved animals have been removed have a much lower incidence. Removal of animals from areas that have already been fenced will help keep those forests healthy and limit ROD infections.

Public outreach is an important component of the multi-agency ROD response. Outreach specialists, working closely with scientists and managers, are educating the public on how to prevent the spread of ROD and why ohia is important.

A detailed, five-year response plan was developed in 2020 and is guiding activities to protect the state's ohia forests. The Department continues to lead this response through close coordination with its partners. State resources supporting the response are used to leverage federal and private funding.

In the original version of House Bill 1769, \$1,700,000 was appropriated to continue survey and response efforts, research new management tools, remove animals from fenced areas on Hawaii Island, and conduct public outreach about ROD. Additional funding of \$500,000 would allow the Department to increase existing capacity on Kauai where managers are aggressively responding to disease detections in high-value native forests, and on Oahu and the islands of Maui Nui, where *Ceratocystis lukuohia* has not been found and detection efforts could be increased.

Thank you for the opportunity to comment on this measure.

HB-1769-HD-1

Submitted on: 3/15/2022 10:24:40 AM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Robert Hauff	Testifying for DLNR	Support	Remotely Via Zoom

Comments:

I am available for questions to DLNR. Please allow me Zoom access.



The Senate
Committee on Water and Land
Committee on Agriculture
March 16, 2022
1:00 p.m. via Videoconference

Testimony in Support of HB 1769 HD1

Aloha Chairs Inouye and Gabbard, Vice Chairs Keith-Agaran and Nishihara, and Members of the Committees,

The Coordinating Group on Alien Pest Species (CGAPS) **is in support of HB 1769 HD1, Relating to Rapid ‘Ōhi‘a Death**. The aim of this measure is to provide funding for survey & response, applied research, reduction of ungulates in fenced areas to protect ‘ōhi‘a lehua from damage and infection, and public outreach to address Rapid ‘Ōhi‘a Death (ROD).

The 2020-2024 ROD Strategic Response Plan details the accomplishments and information learned following funding of the initial strategy, and lays out the most important areas to invest time and resources. This bill reflects these priorities. Many partners in this multi-agency & NGO response continue to provide in-kind support for this effort, and many also bring additional funds to support the ROD Strategic Response.

ROD is one of the most challenging and heartbreaking issues that we have ever worked on. There has never been a successful eradication of a fungal disease in natural areas, and the focus must be on protecting the forests we have, and finding ways to perpetuate disease-resistant ‘ōhi‘a. In addition, we are losing large tracts of former ‘ōhi‘a-dominated forests to invasive weeds, and research from those areas shows that there are virtually no ‘ōhi‘a seedlings even though there are plenty of seeds in the seedbank. Managing this rapid conversion of native forest to weeds will need to be the focus of biological control programs and restoration work in the near future.

Mahalo for your consideration of this bill.

Aloha,
Christy Martin
CGAPS

HB-1769-HD-1

Submitted on: 3/14/2022 3:54:42 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Maxx Phillips	Testifying for Center for Biological Diversity	Support	Written Testimony Only

Comments:

Aloha Chair Inouye and Chair Gabbard,

The Center for Biological Diversity in is **strong support of House Bill 1769 HD1**, which would fund the department of land and natural resources to study and combat rapid ‘ōhi‘a death. Our ‘ōhi‘a forests, and the myriad of endangered, threatened, and native species that depend on them are in peril.

Please support and pass House Bill 1769 HD1.

Mahalo,

Maxx Phillips

Hawai‘i Director and Staff Attorney

Center *for* Biological Diversity

1188 Bishop Street, Suite 2412

Honolulu, Hawai‘i 96813

www.biologicaldiversity.org



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e-mail info@hfbf.org; www.hfbf.org

March 16, 2022

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

TESTIMONY ON HB 1769, HD1
RELATING TO RAPID OHIA DEATH

Conference Room 229 & Videoconference
1:00 PM

Aloha Chairs Inouye and Gabbard, Vice-Chairs Keith-Agaran and Nishihara, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports HB 1769, HD1, which appropriates funds to the department of land and natural resources to study and 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.



HAWAII FOREST INDUSTRY ASSOCIATION (HFIA)

P. O. Box 66 ❖ 'O'ōkala, HI 96774

Phone: 808-933-9411

Email: hfia@hawaiiiforest.org

Website: www.hawaiiiforest.org

Date: 3/14/22

TO: WTL Chair Lorraine R. Inouye, WTL Vice Chair Gilbert S.C. Keith-Agaran, AEN Chair Mike Gabbard, AEN Vice Chair Clarence K. Nishihara, WTL committee members Bennette E. Misalucha, Gil Riviere, Kurt Fevella, and AEN Committee members Laura Acasio, Karl Rhoads and Kurt Fevella

FROM: Hawai'i Forest Industry Association (HFIA)

SUBJECT: Testimony in Support of HB1769 HD1 Relating to Rapid Ohia Death

Dear Hawaii Legislators,

On behalf of the Directors of the Hawai'i Forest Industry Association (HFIA), this testimony is in support of HB1769 HD1.

HFIA's long term mission has and remains to be to support and maintain Healthy and Productive Forests throughout Hawaii. If we seek to maintain healthy forests we must continue to fight against the threat that is Rapid Ohia Death (ROD). ROD does not just threaten the health, wellbeing and population of 'ōhi'a lehua trees, but because 80% of Hawaii's remaining native forests is composed of 'ōhi'a lehua, it also threatens the health and wellbeing of our entire native forest ecosystems. This includes the health and wellbeing of all other native trees and plants within 'ōhi'a lehua dominant forests, many endangered native bird and bat species that thrive in 'ōhi'a lehua dominant forests, and our islands' watersheds.

We must continue to behave proactively to identify outbreaks of ROD, research best management tools and practices to combat ROD, remove animals from fenced areas where ROD has been detected in order reduce spread of the fungal pathogen, and continue public outreach in regards to this matter. In order to do the above we must continue to allocate adequate funds to the Department of Land and Natural Resources.

We hope that you will support this resolution.

Mahalo,

Don Bryan

Don Bryan, President
Hawai'i Forest Industry Association

Established in 1989, HFIA's is a nonprofit organization founded by people committed to sustainable forest management.

HFIA's mission is to promote healthy and productive forests and a sustainable forest industry through management, education, planning, information exchange, and advocacy. HFIA has over 100 members including woodworkers, landowners, sawyers, foundations, foresters, growers, educators, environmentalists, architects, millers, ranchers, and others interested in HFIA's mission and goals.

HFIA Board of Directors

Officers: President Don Bryan, Vice-President Guy Cellier, Secretary Peter D. Simmons, Treasurer Wade Lee
Directors: Thomas Calhoun, Jeremy Campbell, Aaron Hammer, Nickolas Koch, Tai Lake, Gilles Lebbe, Michael Sowards, Irene Sprecher, Michael Tam, Jorma Winkler, Ron Wolfe, Aileen Yeh



**Department of Land and Natural Resources
Hawaii State Aha Moku
State of Hawaii
Post Office Box 621
Honolulu, Hawaii 96809**

Testimony of
Hawaii State Aha Moku

Before the Senate Committees on
Water and Land
Agriculture and Environment

Wednesday, March 16, 2022
1:00 P.M.

State Capitol, Conference Room 229 & Videoconference

In **SUPPORT** of
House Bill 1769 HD 1
Relating to Rapid Ohia Death

House Bill 1769 HD 1 appropriates funds to the department of land and natural resources to study and combat rapid ohia death in the State.

One of the most important endemic natural resources to the people of Hawaii, and particularly to the native Hawaiian communities, the Ohia is considered sacred. And although DLNR Division of Forestry and Wildlife (DOFAW) has expended a voluminous amount of manpower, community consultations and funding, it has not been enough to half the spread of Rapid Ohia Death on the islands.

House Bill 1769 HD1 provides the means for DLNR-DOFAW to continue to address this expanding problem.

We **SUPPORT** the passage of House Bill 1769 HD1 and ask that this measure be adopted. Mahalo nui for the opportunity to testify on this measure.

Leimana DaMate, Luna Alaka'i/Executive Director
Hawaii State Aha Moku
808-640-1214
Leimana.k.damate@hawaii.gov

Rocky Kaluhiwa, Kahu Nui O Kakuhihewa
Hawaii State Aha Moku
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HB-1769-HD-1

Submitted on: 3/12/2022 10:47:34 AM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

Rapid ohia death is a mortal threat to the vitality and survival of Hawaii's forests and to the tree species most important in establishing those forests. Please advance HB1769 to fight against the loss of this essential feature of our environment.

HB-1769-HD-1

Submitted on: 3/12/2022 10:09:49 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Camile Cleveland	Individual	Support	Written Testimony Only

Comments:

I strongly support this bill. Mahalo for the opportunity to testify.

HB-1769-HD-1

Submitted on: 3/13/2022 5:32:01 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Aileen K . F. Yeh	Individual	Support	Written Testimony Only

Comments:

I am in support of research to help find ways to prevent or reduce infection of Ohia by Ceratocystis.

HB-1769-HD-1

Submitted on: 3/13/2022 9:05:57 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Benton Kealii Pang, Ph.D.	Individual	Support	Written Testimony Only

Comments:

I am in support of HB1769 HD1.

The 2020-2024 Rapid Ohia Death (ROD) Strategic Response Plan details the accomplishments and information learned following funding of the initial strategy, and lays out the most important areas to invest time and resources. This bill reflects these priorities. Many partners in this multi-agency & NGO response continue to provide in-kind support for this effort, and many also bring additional funds to support the ROD response strategy.

Mahalo for the opportunity to comment.

Benton Kealii Pang, Ph.d.

HB-1769-HD-1

Submitted on: 3/14/2022 10:53:45 AM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Kalena Blakemore	Individual	Support	Written Testimony Only

Comments:

Dear Committee Members,

Please support HB 1769!

Mahalo nui-

Kalena Blakemore

HB-1769-HD-1

Submitted on: 3/14/2022 2:57:03 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Erin Foley	Individual	Support	Written Testimony Only

Comments:

Funding DLNR's budget is imperative for the effective management of rapid 'ohi'a disease (ROD). Additional research is needed to better understand the role of beetles, wind events, and hooved animals in spreading this disease. Please allocate the funding needed for the DLNR to manage ROD.

HB-1769-HD-1

Submitted on: 3/14/2022 9:31:52 PM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
James B Friday	Individual	Support	Written Testimony Only

Comments:

Aloha Chairs Inouye and Gabbard, Vice-chairs Keith-Agaran and Nishihara, and members of the Senate Committees on Water and Land and Agriculture and the Environment,

I am writing in support of HB1769 HD1. Rapid Ohia Death is a major threat to forests across our islands. We have made a lot of progress in learning how to manage the disease in the past eight years but funds are still needed to do research, monitor, manage, and get the word out about stopping the spread of ROD.

I am a professional forester by training and faculty at the UH Manoa College of Tropical Agriculture and Human Resources. My testimony here is my personal testimony and does not reflect official University positions.

I have been working on ROD since 2013, when we first were made aware of a new diseased killing ohia trees in Puna. In the years since then we have learned what causes the disease, where the disease has spread, and ways we can manage forests to protect them. Much more still needs to be done to be sure we don't lose our ohia forests.

The bill would fund surveys and management. Regular surveys, from helicopters or using remote sensing, followed up by on the ground sampling, are essential in finding new outbreaks of ROD. Small outbreaks can be controlled by felling infected trees. Regular surveys and prompt management will allow us to manage new outbreaks before the become widespread.

The bill would fund further research. We are investigating ways to use satellite images to detect ROD outbreaks, ways to repel the beetles that spread the disease from infected trees, and ways to treat wood so forest products don't spread ROD. We are learning about the role of feral ungulates in spreading the disease and how long the pathogens can exist in dead trees and in the soil. Every research question is aimed at providing information critical to management.

The bill would provide funds to remove hooved animals from fenced areas. We now have good evidence that feral animals lead to much higher rates of death from ROD in the forest. Investments in fencing are useless unless the animals are subsequently removed.

The bill would fund outreach and extension about Rapid Ohia Death. On Hawaii Island, where almost all of the ROD outbreaks have occurred, there are tens of thousands of small private

forest landowners who need to know how protect their forests from ROD. Forest users, such as hunters, hikers, and nature lovers, also feel strongly about the ohia forest, and public actions affecting the public forests require public support.

HB1769 HD1 would give us the support to protect our forests from this disease that has already killed over a million ohia trees. Thank you for your support.

Signed,

J. B. Friday, PhD

HB-1769-HD-1

Submitted on: 3/15/2022 8:55:19 AM

Testimony for WTL on 3/16/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Marc Hughes	Individual	Support	Written Testimony Only

Comments:

In regards to HB1769, to appropriate funds to the department of land and natural resources to study and combat Rapid Ohia Death in the State.

Dear Senate Committees on Water & Land and Agriculture & Environment,

My name is Marc Hughes, I am a forest pathologist and resident of Hawaii Island. I am in support of this bill. I believe that ohia lehua is the most important tree to the state of Hawaii and thus so, should have continued and ongoing support to combat the devastating effects of the tree disease Rapid Ohia Death. Ecologically, ohia is a keystone species that is foundational to the state's precious native forests and supports a variety of dependent plant and animal species, including our beloved threatened honeycreeper birds amongst many others. These precious natural areas are one of the most prominent reasons tourists visit the state and failing to support Rapid Ohia Death management will have long term cascading impacts to the environment and businesses reliant upon tourism and ecotourism. Ohia and the forests it creates are vital to our watersheds that provide residents clean and ample water that allow us to reside on these remote islands. Culturally, I believe ohia to be the most iconic symbol of Hawaii and its natural beauty. By supporting the multi-agency Rapid Ohia Death response with an appropriation to DLNR's budget, it will provide the recognition and ongoing support needed to continue monitoring, suppression and research efforts to minimize disease impacts, while fostering reforestation and conservation strategies to strengthen the resilience of our forests. I sincerely support HB1769.

Mahalo,

Marc Hughes