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DEPARTMENT OF LAND AND NATURAL RESOURCES
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committee on
WATER & LAND

Tuesday, January 30, 2024
9:00 AM

State Capitol, Conference Room 430 and Via Videoconference

In consideration of
HOUSE BILL 1581
RELATING TO WILDFIRE PREVENTION

House Bill 1581 proposes to appropriate funds to the Department of Land and Natural Resources to develop a native plant nurseries and seed bank initiative program. **The Department of Land and Natural Resources (Department) strongly supports this measure, provided that its passage does not replace or adversely impact priorities indicated in the Executive FY 2025 Supplemental Budget Request, and offers the following comments.**

Native seed availability is a critical bottleneck for post-fire rehabilitation on lands across the state. The Department's Division of Forestry and Wildlife has been working to increase statewide nursery and seed banking capacity to meet the urgent need for post-fire treatments. The funds appropriated by this bill would help the Department meet this need.

The Department also notes that while re-vegetation with native plants can be an important way to mitigate future risk, resources beyond seed availability can limit successful native revegetation efforts. Some areas require fencing to exclude hoofed animals which can quickly devour native vegetation. Drier areas might require irrigation for native plants to successfully establish, and sustained management such as invasive plant control is often required on an ongoing basis.

Mahalo for the opportunity to provide testimony in support of this measure.



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
House Committee on Water & Land
Tuesday, January 30, 2024 at 9:00 a.m.

By

Don Drake

Interim Director

Harold L. Lyon Arboretum

And

Michael Bruno, PhD

Provost

University of Hawai'i at Manoa

HB 1581 – RELATING TO WILDFIRE PREVENTION

Chair Ichiyama, Vice Chair Poepoe, and Members of the Committee:

The University of Hawai'i supports HB 1581, which appropriates funds to the Department of Land and Natural Resources to develop native plant nurseries and a seed bank initiative program.

The Wildfire Prevention Working Group's draft report (11/1/2023) identifies wildfire as a serious threat to the people, infrastructure, and natural environment in the Hawaiian Islands. Most wildfires occur on land dominated by introduced plants, especially invasive grass species. One way to reduce the risk and impacts of future fires is to replace these invasive grasses with native woody plant species that are less prone to wildfire. Ideally, this should be done before fires occur, but it can also be done after fires to prevent fire-prone grasses from regenerating and fueling repeated wildfires.

A key step toward restoring burned—or cleared—grassland to native shrublands and forests can be achieved by sowing the land with seeds of native plants. Currently, the capacity to do that is limited by the availability of sufficient quantities of appropriate native seeds. A system for generating and storing seeds of common forest species is required to make this possible.

The Wildfire Prevention Working Group estimates that 20,000 acres of land burns every year in Hawai'i. Sowing that land with enough native seeds to regenerate native forest would require hundreds of millions of seeds. Some of those seeds might be sourced from wild plant populations, but a more effective source would be from dedicated seed orchards in which native plants are grown to produce seeds for post-fire restoration. These seeds could be stored in seed banking facilities until needed.

Storage of dried, frozen seeds in a seed bank is a well-tested and cost-efficient way of maintaining viable seeds of many species. Research at the Seed Science Laboratory at University of Hawai'i's Lyon Arboretum has determined that 79% of Hawaiian native flowering plant species produce seeds that can be stored viably in a seed bank for many years—often decades. Lyon Arboretum is home to the state's largest and most diverse seed bank, housing over 30 million seeds of more than 600 native plant species. Other seed banks throughout the state also store seeds of rare native plants. Their activities are coordinated through the Hawai'i Seed Bank Partnership, which is facilitated by Laukahi, the Hawai'i Plant Conservation Network.

Hawai'i's existing seed banks excel at the critical task of conserving the state's many endangered plant species. However, they lack the resources and capacity to bank the hundreds of millions of seeds of common species that would be required for large-scale restoration of the thousands of acres of land that burn every year. A dedicated seed processing and seed banking facility would be required to bank seeds at the scale needed to restore land at a significant scale.

We support HB 1581's recommendation for an initiative to increase the capacity of native plant nurseries and seed banks to provide native plants to restore native ecosystems and reduce fire risk.

It is worth noting that the Federal Government is already supporting fire recovery initiatives, providing opportunities for synergistic programs with the state. In FY24, the U.S. National Parks (USNP) and U.S. Fish and Wildlife Service (USFWS) received funding for the project "Protecting the Native Hawaiian Flora from Wildfire" under the Bipartisan Infrastructure Law's Burned Area Rehabilitation funding opportunity. This will support seed collection and storage, seed and plant production, and restoration and out-planting on Department of Interior lands throughout Hawai'i. It includes collecting seeds from rare plants threatened by wildfire, and from more common native species that support healthy, resilient habitats. One of the goals of this project is to support the design and development of the native plant supply chain in Hawai'i. USNP and USFWS will be working with partners, including Lyon Arboretum on this project.



TESTIMONY FROM THE DEMOCRATIC PARTY OF HAWAII

HOUSE COMMITTEE ON WATER AND LAND

JANUARY 30, 2024

HB 1581, RELATING TO WILDFIRE PREVENTION

POSITION: SUPPORT

The Democratic Party of Hawai'i **supports** HB 1581, relating to wildfire prevention. Pursuant to the “Public Safety and Disaster and Emergency Preparedness” section of the Democratic Party of Hawai'i platform, the party supports “policy that protects the people of Hawai'i and their property against natural and man-made disasters,” and “believes that climate change is real, affirms human activity as its primary cause and main driver, and supports emergency preparedness and planning efforts to mitigate its impacts.”

Last year, we witnessed the impact of the climate emergency on our shores. On August 8, 2023, wildfires swept across Maui and killed at least 100 people, making it one of the nation's deadliest natural disasters. The spread of the fires has been attributed to climate change conditions, such as unusually dry landscapes and the confluence of a strong high-pressure system to the north and Hurricane Dora to the south.

The wildfires destroyed over 2,200 structures, including numerous residential buildings, historic landmarks, and school facilities. In September 2023, a report from the United States Department of Commerce estimated the total economic damage of the wildfires to be roughly \$5.5 billion.

According to a report issued by the University of Hawaii Economic Research Organization on September 22, 2023, the unemployment rate on Maui was expected to soar above 11 percent by the end of 2023 and remain above 4 percent through 2026. A total of 10,448 new claims for unemployment in Maui County were filed in the four weeks following the wildfires, about 9,900 more than the preceding four weeks. Displaced families and workers who lost their jobs are still attempting to recover from the disaster, with a full recovery expected to take many years to achieve.

Accordingly, we must do all we can to prevent tragedies like this from occurring again on our shores, including by investing in native plant and watershed restoration programs that reestablish natural fire patterns and improve natural ecosystem resilience to future emergencies. As was widely reported after the Maui wildfires, including in the New York Times, invasive species have been turning parts of our island home into a tinderbox.

After the demise of sugar cane plantations in the 1990s, large tracts of land were abandoned, allowing drought-resistant invasive grasslands to become unmanaged sources of fuel for wildfires. Clay Trauernicht, a fire ecologist at the University of Hawai'i at Manoa, has noted that the annual area burned by wildfires in our state has risen by as much as 300 percent in recent decades, a figure that will increase as the climate crisis worsens.

Over the last few years, researchers have been testing strategies in Hawai'i to limit the spread of wildfires in areas dominated by fire-promoting grasses. Green fire breaks—strategically planted strips of vegetation—have been effectively used in the continental U.S. as a complement to traditional firefighting methods. Water-rich and inflammable native plants can help deprive wildfires of fuel, while also serving as habitat for other native species and a seed source for further restoration projects.

Mahalo nui loa,

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LATE *Testimony submitted late may not be considered by the Committee for decision making purposes.



MAUI
CHAMBER OF COMMERCE
VOICE OF BUSINESS

**HEARING BEFORE THE HOUSE COMMITTEE ON WATER & LAND
HAWAII STATE CAPITOL, HOUSE CONFERENCE ROOM 430
TUESDAY, JANUARY 30, 2024 AT 9:00AM**

To The Honorable Representative Linda Ichiyama, Chair
The Honorable Representative Mahina Poepoe, Vice Chair
Members of the Committee on Water & Land,

COMMENTS ON HB1581 RELATING TO WILDFIRE PREVENTION

The Maui Chamber of Commerce supports the intent and idea of HB1581 to develop native plant nurseries and a seed bank initiative.

We feel this initiative would be better suited for the private sector. We have many amazing nurseries statewide and would rather see incentives and/or grants for private sector nursery businesses to move in this direction and grow more native plants rather than start a program at DLNR. The University of Hawaii also has a seed program and we would like to see the private sector work with UH and the State on creating a seed bank that nursery businesses and the public can utilize. We feel this would create a multitude of growers through industry professionals, backyard growers/hobbyists, and those interested in sustainability and using native plants.

With respect to wildfire recovery and prevention, we also feel it is important to have a comprehensive plan that addresses the economic, environmental, social, and cultural needs and prioritizes spending in each of these areas. While we support encouraging the use of more native plants and see the benefits toward fire prevention and for watershed restoration, we would like to see where this falls in an overall comprehensive plan.

Mahalo for the opportunity to testify on this matter.

Sincerely,

Pamela Tumpap
President

To advance and promote a healthy economic environment for business, advocating for a responsive government and quality education, while preserving Maui's unique community characteristics.