



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

**Date:** 02/08/2022

**Time:** 02:00 PM

**Location:** 309 Via Videoconference

**Committee:** House Education

House Economic Development

**Department:** Education

**Person Testifying:** Interim Superintendent Keith Hayashi  
Hawaii State Department of Education

**Title of Bill:** HB 2330 RELATING TO FISH HATCHERY EDUCATION.

**Purpose of Bill:** Requires DOE to establish a native fish hatchery pilot program at Waianae high school. Appropriates funds.

**Department's Position:**

The Hawaii State Department of Education (Department) supports HB 2330 and appreciates the positions and funding to establish the native fish hatchery pilot program. The Department does ask that any additional funding does not affect the Department's top budget priorities to restore funds that were reduced as a result of the fiscal fallout from COVID-19 and the funding of existing budget shortfalls that were included in the Department's supplemental budget request. Without those funds, the Department will face severe constraints on its ability to continue to promote equity and access to needed resources and support for all students.

The native fish hatchery pilot program at Waianae High School will provide hands-on and real-world experiences focused on aquaculture and native fish propagation to students on the Waianae coast and will support Hawaii's sustainable future and food security efforts. The partnership between industry professionals and teachers will increase student learning opportunities that are critical to post-secondary and workforce success.

Thank you for the opportunity to provide testimony in support of HB 2330.



**HB-2330**

Submitted on: 2/7/2022 9:26:52 AM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Keith Hayashi	Hawaii Department of Education	Support	Yes

Comments:

Support

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

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

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 HOUSE COMMITTEES ON EDUCATION AND ECONOMIC DEVELOPMENT  
ON  
HOUSE BILL NO. 2330

**February 8, 2022**  
**2:00 p.m.**  
**Room 309 and Videoconference**

RELATING TO FISH HATCHERY EDUCATION

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

House Bill No. 2330 requires the Department of Education to: 1) establish a native fish hatchery pilot program at Waianae High School; 2) submit a report on the progress of the pilot program and any findings and recommendations, including any proposed legislation, to the Legislature no later than 20 days prior to the convening of the regular sessions of 2023, 2024, and 2025; and 3) cease the pilot program on June 30, 2025. The bill also establishes 3.00 full-time equivalent positions and appropriates \$855,000 in general funds for FY 23 for the purposes of this measure.

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.



Testimony Before The  
House Committee on Education  
House Committee on Economic Development  
**IN SUPPORT OF HB 2330**  
Tuesday, February 8, 2022, 2:00PM, Room 309

My name is Kevin Chang and I am the Executive Director of [Kua'āina Ulu 'Auamo \(or KUA\)](#). KUA works to empower grassroots rural and Native Hawaiian mālama 'āina groups to celebrate their places and pass on their traditions to better Hawai'i and achieve 'āina momona— an abundant, productive ecological system that supports community well-being.

KUA employs a community-driven approach that currently supports a statewide network of 36 mālama 'āina community groups collectively referred to as E Alu Pū (moving forward together), 40 fishpond projects and practitioners called the Hui Mālama Loko I'a, and a growing group of over 60 Limu practitioners and supporters called the Limu Hui. Participants in our networks have had long term dreams of bringing fishponds, food fish and limu back to our shorelines and dinner tables.

**KUA supports HB 2330 as an incremental step on a pathway towards 'āina momona.**

This bill would require DOE to establish a native fish hatchery pilot program at Wai'anae high school and appropriate the funds to do so.

KUA's coordinators and network participants in all three of our networks have built stronger connections to the education community, including the DOE, the DLNR and the aquaculture community knowing very well that to reach a vision of greater food self-sufficiency we need to transform our culture, values and institutions together. Participants in our Limu Hui have long worked to continue the legacy of the Marine Science Learning Center to support this kind project in Wai'anae, a place literally known as "mullet water" for the 'anae or mullet that was once abundant there. This existing program at Wai'anae High School has much of the infrastructure, curriculum, and experience to implement this pilot program.

As the bill mentions, several reports have already articulated the need for native fish hatcheries to support the ongoing restoration efforts of loko i'a, traditional Hawaiian fishponds. Many practitioners envision a future when loko i'a can be stocked again from natural populations of prized species such as 'anae, but since those fisheries are depleted in many areas across Hawai'i, hatchery-raised fingerlings are an important component of the restoration efforts for loko i'a and their surrounding waters. In our conversations with the Hui Mālama Loko I'a, practitioners from over 20 loko i'a on 5 different islands have indicated this opinion in the past several years.

Indeed, as we look to the future our communities are raising the kupa'āina who want to have jobs focused on mālama 'āina. I am sure some of the submitted applications that recently inundated and exceeded the capacity of the DOCARE Academy enrollment portal came from these young people. We appreciate this creative and collaborative approach that builds the capacity and skills of the next generation with intention, and in a way that benefits ongoing community efforts at loko i'a.

The communities we work with are committed to ensuring the long-term health of our biocultural resources. They have depended on them for generations. We believe our environment, the foundation of our very existence, is about long-term investment and a vision of 'āina momona. To get there it requires among other things taking the steps toward greater self-sufficiency, development of a pipeline of new and more innovative career pathways, mindsets, relationships and resource flows for mālama 'āina. Passing this bill out of your committee will open a pathway toward reaching this vision.

Mahalo for this opportunity to testify in support.

Aloha 'Āina Momona.



# Food+ Policy Internship 2022

[food@purplemaia.org](mailto:food@purplemaia.org)

February 7, 2022

To: Chair Woodson, Chair Quinlan, Vice Chair Kapela, Vice Chair Holt, and members of the House Education and Economic Development Committees

Subject: Testimony in **SUPPORT of HB2330**, Relating to Fish Hatchery Education

Aloha mai kākou,

I am writing on behalf of Hawai'i Food+ Policy to express our support for HB2330, relating to Fish Hatchery Education. This measure would establish a pilot program to perpetuate a practice of sustainable food production through education and community engagement.

At one time, there were estimated to be about 300-350 *loko i'a* (fishponds) in Hawai'i and they were thought to have produced about 300-500 pounds of fish per acre at their peak (Keala, 2007). Seafood is a staple food of Hawai'i people. According to Loke et al. (2012), Hawai'i residents spend \$133 million annually on seafood for home consumption, and \$275 million annually at restaurants. In 2005, a total of \$664 million was spent on seafood by residents and visitors combined (Loke et al., 2012). Based on this knowledge and the fact that Hawai'i is dependent upon importation for up to 90 percent of its food, this bill has the potential to solve issues with overdependence on outside sources for protein sustenance.

Overall, this will help our communities to become far more resilient as our dependency upon outside sources for food is lessened. Related effects of more self-sufficient food systems include access to safer seafoods, decreased carbon emissions associated with shipping food to Hawai'i, enhanced community interaction on several levels, and a greater awareness of how precious our oceans and ocean resources are to our way of life.

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**The Food+ Policy internship** develops student advocates who learn work skills while increasing civic engagement to become emerging leaders. We focus on good food systems policy because we see the importance and potential of the food system in combating climate change and increasing the health, equity, and resiliency of Hawai'i communities.

In 2022, the cohort of interns are undergrads and graduate students from throughout the UH System. They are a mix of traditional and nontraditional students, including parents and veterans, who have backgrounds in education, farming, public health, nutrition, and Hawaiian culture.





# Food+ Policy Internship 2022

[food@purplemaia.org](mailto:food@purplemaia.org)

Mahalo,

Ioane & the Food+ Interns  
#fixourfoodsystem

## References

Keala, G.B (2007). *Loko Ia: A manual on Hawaiian Fishpond Restoration and Management*.

Loke, M. K., Geslani, C., Takenaka, B., & Leung, P. (2012). Seafood consumption and supply sources in Hawaii, 2000-2009. *Marine Fisheries Review*, 74(4), 44-51.

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**KO'OLAU WAIALUA**  
**A L L I A N C E**

Feb 7, 2022

Dear Chair and Committee Members,

The Ko'olau Waialua Alliance would like to express support for HB2330. Fish pond education with a native fish hatchery provides a unique opportunity to incorporate science education with place-based, cultural learning. This project should be fully funded because it is of paramount importance that the young people on the leeward coast of Oahu access this opportunity to research and apply knowledge and skills. This is the kind of project that inspires students to continue learning and experiences. It creates understanding of natural cycles and systems and generates the desire to preserve them. We hope that this pilot project will be expanded to other areas on our islands.

Mahalo nui for the opportunity to testify!

Angela Huntmer for the members of the Ko'olau Waialua Alliance.

808-224-3101

[koolauwaialuaalliance@protonmail.com](mailto:koolauwaialuaalliance@protonmail.com)

The Ko'olau Waialua Alliance is a grassroots network of residents and community groups across Oahu's north and windward shores that believes that our health and well-being are woven together in the same cloth, that problems affecting one community in the region threaten us all, and that works to foster a just and sustainable region for current and future generations.

**HB-2330**

Submitted on: 2/7/2022 10:08:31 AM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Johnnie-Mae L. Perry	Individual	Support	No

Comments:

This alternative hands-on education experiences for the Waianae High School students will encouraged them that they are “community/student” contributors in a place that they call home. I hope the students successfully endeavors will surpass everyone’s expectations. Fish is one of the Hawaiian diets, and hopefully with this type of production, the cost of fresh fish cost can be lowered.

I, Johnnie-Mae L. Perry in **SUPPORT** of HB 2330.

Thank you for your consideration of my testimony.

**HB-2330**

Submitted on: 2/7/2022 12:56:25 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Tierra Bartolotti	Individual	Support	No

Comments:

Aloha Hawai'i State Legislators,

I was first exposed to aquaculture education during my time as an undergraduate student at The University of Hawai'i Maui College. As a student exploring different technical pathways, this experience exposed me to the tremendous opportunities that aquaculture could provide Native Hawaiians in terms of regenerative, locally-sourced, aquatic protein sources. Now as a Senior in the Sustainable Community Food Systems program at UH West O'ahu, many of my fellow classmates currently reside in Waianae. Establishing a fish hatchery pilot program at Waianae High School would not only greatly enhance local sustainability efforts — but inspire, educate, and equip our next generation to enter technical jobs in the green workforce. I therefore stand in full support for HB2330.

**HB-2330**

Submitted on: 2/7/2022 1:12:30 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Jane Au	Individual	Support	No

Comments:

Members of the Limu Hui have long worked to continue the legacy of the Marine Science Learning Center to support this kind project in Wai‘anae, a place literally known as “mullet water” for the ‘anae or mullet that was once abundant there. This existing program at Wai‘anae High School has much of the infrastructure, curriculum, and experience to implement this pilot program.

Many practitioners envision a future when loko i‘a can be stocked again from natural populations of prized species such as ‘anae, but since those fisheries are depleted in many areas across Hawai‘i, hatchery-raised fingerlings are one important component of the restoration efforts for loko i‘a and their surrounding waters. In our conversations with the Hui Mālama Loko I‘a, practitioners from over 20 loko i‘a on 5 different islands have indicated this opinion in the past several years.

Our communities are raising the kupa‘āina who want to have jobs focused on mālama ‘āina. We believe our environment, the foundation of our very existence, is about long-term investment and a vision of ‘āina momona. To get there it requires taking the steps toward greater self-sufficiency, development of a pipeline of new and innovative career pathways, mindsets, relationships and resource flows for mālama ‘āina.

Passing this bill out of your committee will open a pathway toward reaching this vision.

**HB-2330**

Submitted on: 2/7/2022 1:53:32 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Kerstyn Afuso	Individual	Support	No

Comments:

**Subject: Support of HB2330**

**Aloha e Chair Woodson and Vice Chair Kapela, Chair Quinlan and Vice Chair Holt,**

**My name is Kerstyn Afuso. Growing up in Hawai‘i my whole life, I was taught that eating shoyu poke and spicy ahi was a part of the local lifestyle, stopping at Foodland before every family party. Poke is often referred to as Hawaii’s original street food by poke fanatics around the world. But, little do people know that many of the ahi in our poke bowls were previously frozen and originating from countries like the Philippines, Indonesia, Taiwan, Vietnam and Fiji, according to a [Honolulu Magazine article](#). Only 51% of Hawai‘i’s fish eaten came from local supply, UH [reported](#). I therefore fully support HB2330 and the introduction of a native fish hatchery pilot program at Wai‘anae High School.**

**Hawai‘i’s loko i‘a once supplied 2 million pounds of fish per year, not including the ocean fishing done. Loko i‘a have the potential to support our food security. But, Hawai‘i is also losing the native fish species that were brought up in ancient loko i‘a. Today, only a minority of people would be able to recognize native fish that once roamed our fishponds like the ‘ama‘ama (mullet), ‘anae (mullet), awa (milkfish), ‘opae (shrimp), or ‘ahole (sea-pig), let alone recognize the taste of them. Our palates have been retrained to the liking of frozen ahi, that are all shipped in here on boats from far away countries. I am guilty of this fact, but it was also because I never once was presented the opportunity to try ‘ama‘ama or ‘ahole in my 23 years here in Hawai‘i. HB2330 could change that fact.**

**The potential of loko i‘a education and a native fish hatchery at Wai‘anae High School provides a momentous opportunity to provide food security for our future, reintroduction of native fish species to our plates and palates, and reconnection to our ‘āina through this ancient cultural practice of tending to loko i‘a. I therefore fully support HB2330.**

**Mahalo me ke aloha,**

**Kerstyn Afuso**

**HB-2330**

Submitted on: 2/7/2022 3:41:34 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Dara Carlin, M.A.	Individual	Support	No

Comments:

Stand in Support.

**HB-2330**

Submitted on: 2/7/2022 4:23:37 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Curen Ohama	Individual	Support	No

Comments:

This is powerful in so many ways. Long over due for West Oahu



**HB-2330**

Submitted on: 2/7/2022 10:01:58 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Kapua Medeiros	Individual	Support	Yes

Comments:

Aloha Chairs and Committee Members,

I SUPPORT HB2330. These kinds of education programs for our keiki and ‘opio are greatly needed to insure Food Sustainability for our future generations.

Wai‘anae was once known for their many fishponds of ‘Anae or Mullet...hence the name Wai‘anae...when the Waters surrounding that District would be full of Mullet.

Due to historical diversion of water by Plantations and even till today by many other entities...such as golf courses, the muliwai and streams that would feed those fishponds have become barely to even nonexistent.

I humbly ask that you support HB2330 to insure the rebuilding and restoration of our loko i‘a, or fishponds, which will help to insure the abundance of Fish for Food Sustainability for generations to come.

‘O wau nō me ka ha‘aha‘a,

Kapua Medeiros

**HB-2330**

Submitted on: 2/7/2022 10:16:57 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Makanoe Hufana	Individual	Support	No

Comments:

Aloha Chairs and Committee Members, I SUPPORT HB2330. These kinds of education programs for our Keiki and for 'opio like me who would greatly need to ensure Food Sustainability for our future generations. Wai'anae was once known for their many fishponds of 'Ane or Mullet...hence the name Wai'anae...when the Waters surrounding that District would be full of Mullet. Due to historical diversion of water by Plantations and even till today by many other entities...such as golf courses, the muliwai and streams that would feed those fishponds have become barely to even nonexistent. I humbly ask that you support HB2330 to insure the rebuilding and restoration of our loko i'a, or fishponds, which will help to ensure the abundance of Fish for Food Sustainability for generations to come. < Mahalo.

Makanoe Hufana

E 'ai i kekāhi, e kāpī kekāhi.

Eat some, salt some.

Said to young people: Eat some now and save some for another time.

**HB-2330**

Submitted on: 2/7/2022 11:16:12 PM

Testimony for EDN on 2/8/2022 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Bronson Azama	Individual	Support	No

Comments:

I support efforts that provide hands-on workforce training for fellow ‘ōpio. We need food in the future, and this skill will be extremely useful in the long haul toward food sovereignty!