



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

**DAVID Y. IGE**  
GOVERNOR

**LUIS P. SALAVERIA**  
DIRECTOR

**MARY ALICE EVANS**  
DEPUTY DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Website: [dbedt.hawaii.gov](http://dbedt.hawaii.gov)

Telephone: (808) 586-2355  
Fax: (808) 586-2377

Statement of  
**LUIS P. SALAVERIA**  
Director

Department of Business, Economic Development, and Tourism

before the  
**HOUSE COMMITTEE ON FINANCE**  
Wednesday, February 28, 2018  
11:00 a.m.  
State Capitol, Conference Room 308

in consideration of  
**HB 2041, HD1**  
**RELATING TO AQUACULTURE.**

Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance.

The Department of Business, Economic Development & Tourism (DBEDT) supports HB 2041, HD1, which appropriates \$500,000 to the Natural Energy Laboratory of Hawaii Authority (NELHA) for the establishment of an aquaculture incubator.

An aquaculture incubator at NELHA would greatly benefit and contribute to Hawaii's efforts to develop an aquaculture industry.

Thank you for the opportunity to testify.



# NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

*An Authority of the State of Hawaii attached to the Department of Business, Economic Development & Tourism*



Statement of  
**Gregory P. Barbour**  
**Executive Director**

Natural Energy Laboratory of Hawaii Authority  
before the

## **HOUSE COMMITTEE ON FINANCE**

Wednesday, February 28, 2018  
11:00 am  
State Capitol, Conference Room 308

in consideration of

### **HB 2041 H.D.1 RELATING TO AQUACULTURE.**

The Natural Energy Laboratory of Hawaii Authority (NELHA) strongly supports HB 2041 HD1 which appropriates \$500,000 to NELHA for the establishment of an aquaculture proof of concept center which we refer to as the Hawaii Center for Aquaculture Sustainability (HCAS).

Aquaculture is the world's fastest growing agriculture sector and produces more than 50% of global seafood supply. By 2020 the industry value is expected to reach \$200Bn; a 38% increase from today. As the world demands more and more seafood; the wild fisheries are no longer able to support that, and any future growth of seafood is going to have to be together with industrial scale aquaculture. Accordingly, there is a clear global trend and demand for more innovative industrial scale aquaculture, particularly in open marine environments.

Recognizing recent initiatives on the Federal level, adoption of this measure will put as "ahead of the curve" in competing with other States. The federal government has recently stated the desire to open up the Pacific, for the first time, to offshore aquaculture. It is also important to note

that the U.S. Department of Commerce released their 2018-2022 Strategic Plan on February 13, 2018. Interestingly enough, the plan highlights aquaculture in one of the five key objectives and specifically states that “pre-competitive commercial scale demonstration facilities in collaboration with—and co-funded by— industry and coastal seafood communities” will be supported.

Recognizing these developments, the world’s capital markets are beginning to invest into the marine aquaculture sector and there has been a noticeable increase in investor interest in aquaculture companies. Hawaii has built a very credible global reputation over the past 20 years in aquaculture and is already recognized as a pioneer in this industry as we are home to the global brood shrimp industry and a pioneer in open ocean fish farming.

The HCAS will provide proof-of-concept (POC) and commercialization services to start-ups in Hawaii’s aquaculture cluster. This initiative is focused on attracting investor capital and a follow-on fund for aquaculture in Hawaii to develop technical and intellectual property that can benefit a global industry. The general approach is to create a facility and program at NELHA, using the existing world-class facilities, to attract entrepreneurs in startups to help them get into the market and find a commercial space for their project. The initiative will target companies that service global markets, develop new cultured species, pioneer new feed sources and the technologies needed to support open ocean and land-based aquaculture.

Finally, it is important to note that developing technical expertise and intellectual property relevant to a global aquaculture industry will complement and benefit existing efforts of the University of Hawaii and other State agencies currently involved in aquaculture with a focus on research and growing food for local consumption.

Thank you for the opportunity to offer these comments.

DAVID Y. IGE  
Governor

DOUGLAS S. CHIN  
Lt. Governor



State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

SCOTT E. ENRIGHT  
Chairperson, Board of Agriculture

PHYLLIS SHIMABUKURO-GEISER  
Deputy to the Chairperson

**TESTIMONY OF SCOTT E. ENRIGHT  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE HOUSE COMMITTEE ON FINANCE**

**FEBRUARY 28, 2018  
11:00 A.M.  
CONFERENCE ROOM 308**

**HOUSE BILL NO. 2041 HD1  
RELATING TO AQUACULTURE**

Chairperson Luke and Members of the Committee:

Thank you for the opportunity to testify on House Bill No. 2041 HD1, relating to aquaculture. This bill appropriates funds to the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority (NELHA). The Department supports this bill provided it does not impact the Department's priorities listed in the Executive Budget.

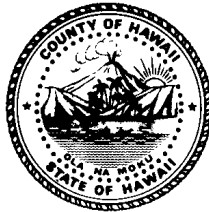
Aquaculture is a fast-developing industry that offers solutions to the ever-increasing demand of animal protein by a growing global population. It attracts investment capitals, talented researchers, and aspiring entrepreneurs. An aquaculture incubator provides catalysts for new ventures to be created.

NELHA is an excellent site to host such an aquaculture incubator because of easy access to both freshwater and seawater at different temperatures, and the large number of successful aquaculture businesses already present.

Thank you for the opportunity to testify on this measure.



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



Phone: (808) 961-8564  
(808) 887-2069

Email: [tim.richards@hawaiiicounty.gov](mailto:tim.richards@hawaiiicounty.gov)

**Chair:** Committee on Agriculture,  
Water & Energy

**Vice Chair:** Committee on  
Environmental Management

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

February 27, 2018

House Committee on Finance  
Honorable Representative Sylvia Luke, Chair  
Honorable Representative Ty J.K. Cullen, Vice Chair

Email: [repluke@capitol.hawaii.gov](mailto:repluke@capitol.hawaii.gov)

Email: [repcullen@capitol.hawaii.gov](mailto:repcullen@capitol.hawaii.gov)

**RE: Support of HB2041 HD1**

Hearing Date/Time: February 28, 2018 at 11:00 a.m.

Dear House Representatives:

Thank you for the opportunity to submit **testimony in STRONG SUPPORT of HB2041 HD1**, which appropriates funds for the Department of Business, Economic Development, and Tourism (DBEDT) to establish an aquaculture incubator at the National Energy Laboratory of Hawai'i Authority (NELHA) to bring together entrepreneurs and investors to develop Hawai'i's aquaculture industry.

The passing of and the implementation of this bill is important to the County of Hawai'i as well as the state's economic footprint in the aquaculture industry. Aquaculture entities already in business at NELHA are thriving; additional entrepreneurs and investors will be drawn to the establishment of an aquaculture incubator at such a technologically-advanced site such as NELHA. Aquaculture is a growing industry and if provided the opportunity, Hawai'i can lead the way with its seawater infrastructure at NELHA. I therefore strongly urge the enactment of HB2041HD1.

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

Sincerely,

TIM RICHARDS

Hawai'i County Council, District 9



HAWAII  
STRATEGIC  
DEVELOPMENT  
CORPORATION

No. 1 Capitol District Building  
250 South Hotel Street, Suite 509  
P.O. Box 2359  
Honolulu, Hawaii 96804  
Telephone: (808) 587-3830

Statement of  
**Karl K. Fooks**  
**President**

Hawaii Strategic Development Corporation

Before the  
**HOUSE COMMITTEE ON FINANCE**

Wednesday, February 28, 2018  
11:00 AM  
State Capitol, Conference Room 308

In support of

**HB 2041 HD1**  
**RELATING TO AQUACULTURE**

Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance:

The Hawaii Strategic Development Corporation (HSDC) **supports** HB 2041 HD1, which appropriates funds to the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the Natural Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

The global aquaculture industry is poised for a sustained period of growth and expansion. Hawaii is home to both pioneering industry research efforts and commercial activities that have made significant contributions to the global industry. If Hawaii is to capitalize on the commercial opportunity in the global aquaculture industry it will have to undertake a concerted and collaborative effort to raise its global visibility in marine aquaculture. Public and private stakeholders in Hawaii's aquaculture industry have agreed to support a development initiative to build scale in important industry inputs like feed sources and processing capacity and to clarify permitting issues.

This development initiative also needs to support the attraction and growth of innovative companies that will create the biological, engineering and operational solutions that will be demanded by an industrial scale global industry. The proposed aquaculture incubator at NELHA will address this need by establishing a facility that will leverage the NELHA's world class marine resources, with its strong base of global aquaculture companies, to attract entrepreneurs and investors to startup their companies here in Hawaii.

The success of programs supporting entrepreneurial companies in the global aquaculture industry like Fish 2.0 and Hatch, the world's first aquaculture accelerator,

have demonstrated a strong investor and strategic corporate interest in investing in this growing industry sector.

With the Legislature's support for this initiative, NELHA will be able to have the aquaculture incubator staffed and operational by the time the global aquaculture conference, Aquaculture America 2020, is held in Hawaii in February 2020. This will allow Hawaii to signal a strong commitment to remaining at the forefront of innovation to the global aquaculture community that will attend the conference and position Hawaii as a leader in providing innovative solutions to the global aquaculture industry.

HSDC supports the bill as long as it does not either replace or adversely impact the Administration's priorities.

Thank you for the opportunity to provide testimony.





Written Statement of  
**Robbie Melton**  
Executive Director & CEO  
Hawaii Technology Development Corporation  
before the  
**House Committee on Finance**  
Wednesday, February 28, 2018  
11:00 a.m.  
State Capitol, Conference Room 308

In consideration of  
**HB2041, HD1**  
**RELATING TO AQUACULTURE**

Chair Luke, Vice Chair Cullen, and Members of the Committee on Finance.

The Hawaii Technology Development Corporation (HTDC) **supports** HB2041, HD1 that appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

As part of HTDC's vision to create 80,000 new innovation jobs in Hawaii earning \$80,000 or more by 2030, HTDC supports initiatives aimed at promoting technology and innovation jobs. Hawaii has a history of success with aquaculture and the Hawaii Small Business Innovation Research (HSBIR) program and has a world class research facility at NELHA. Through HTDC's Neighbor Island Initiative (NI3) program, HTDC has an office at NELHA Hale Iako facility with an experienced business mentor. HTDC's NI3 program has worked together with the Hawaii Small Business Development Center (HiSBDC) and NELHA in providing numerous training workshops this past year at NELHA covering topics such as pitching to investors, winning grants, state matching grant programs, food safety training, business planning, and others.

HTDC defers to NELHA on the implementation of this measure.

HTDC supports this initiative as long as it does not replace our priorities requested in the Executive Budget. HTDC respectfully requests correction of the defective effective date. Thank you for the opportunity to offer these comments.



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail [info@hfbf.org](mailto:info@hfbf.org); [www.hfbf.org](http://www.hfbf.org)

February 28, 2018

HEARING BEFORE THE  
HOUSE COMMITTEE ON FINANCE

**TESTIMONY ON HB 2041, HD1**  
**RELATING TO AQUACULTURE**

Room 308  
11:00 AM

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committees:

I am Randy Cabral, President 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.

**The Hawaii Farm Bureau supports HB 2074, HD1**, which appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority (NELHA) to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

The bill's preamble correctly notes the tremendous increase in aquaculture investment worldwide in recent years, and the opportunities for expansion of the industry locally if more of this investment can be attracted to Hawaii.

Aquaculture is a highly technical and capital-intensive industry. Entrepreneurs seeking to start an aquaculture business need access to land and water; capital to purchase tanks, pumps, feed, broodstock, and many other items; and often a period of research and development to refine the necessary technology. These requirements create an impediment to entry of individuals or companies that may have good ideas, but insufficient funding to develop their ideas independently. An incubator facility at NELHA could help mitigate this barrier to entry by providing space, water, and technical facilities to startup businesses at reasonable cost. NELHA is an exceptional facility which features an ideal climate, access to cold deep-ocean water and warm surface water, and the opportunity to interact with experts in aquaculture biology, engineering, and finance. Successful startups will help to grow Hawaii's aquaculture industry, bringing in investment, producing high-quality seafood, and increasing employment.

Hawaii has a long history of successful government investment to encourage aquaculture development, starting with the creation of the Aquaculture Development Program in the 1970's and continuing with the establishment of NELHA in the 1980's. These efforts have paid off in the form of an industry that generates more than \$75 million a year in wholesale value. We expect that an aquaculture incubator at NELHA will be another wise investment that will result in continued growth. We therefore respectfully urge you to support the appropriation proposed by HB 2041, HD1.

Thank you for this opportunity to provide our input on this measure.

**HB-2041-HD-1**

Submitted on: 2/26/2018 12:37:55 PM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ronald Weidenbach	Hawaii Aquaculture & Aquaponics Association	Support	No

Comments:

The HAAA supports the measure to establish an aquaculture incubator at NELHA where much of the current Hawaii aquaculture industry is located. NELHA has long provided laboratory space to support start-up R&D and the proposed incubator would be the next logical step to supporting innovative new aquaculture companies and their emerging technologies to help foster and grow this important food production sector.



Email: [communications@ulupono.com](mailto:communications@ulupono.com)

HOUSE COMMITTEE ON FINANCE  
Wednesday, February 28, 2018 — 11:00 a.m. — Room 308

### **Ulupono Initiative Strongly Supports HB 2041 HD 1, Relating to Aquaculture**

Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Kyle Datta and I am General Partner of Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better management of waste and fresh water. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

**Ulupono strongly supports HB 2041 HD 1**, which appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the Natural Energy Laboratory of Hawai'i Authority, because it aligns with our goal of creating more locally produced food.

No industry sector can prosper without technology innovation. Our commercial research shows that Hawai'i can be competitive in the area of aquaculture research, because of its physical advantages, particularly the pathogen free waters at NELHA. The global aquaculture industry is poised for the next phase of growth, and we have made investments in scaling up aquaculture in Hawai'i. Specifically, we have funded the expansion of the Blue Ocean Mariculture kamapachi farm, and have performed investment reviews of algae, abalone, and tilapia companies. Hawai'i's aquaculture industry has grown considerably over the last five years, and an incubator could help it double within the next 10 years.

If Hawai'i is to capitalize on the commercial opportunity in the global aquaculture industry it will have to undertake a concerted and collaborative effort to raise its global visibility in marine aquaculture. Public and private stakeholders in Hawai'i's aquaculture industry have agreed to support a development initiative to build scale in important industry inputs like feed sources and processing capacity and to clarify permitting issues. We have been honored to be part of the public-private partnership to build the Oceanic Institute Feed mill, currently under construction on Hawai'i Island.

*Investing in a Sustainable Hawai'i*



NELHA already has the office space and commercial expansion footprint to attract international entrepreneurs and venture capital to the site. The proposed aquaculture incubator at NELHA will address this need by establishing a facility that will leverage NELHA's world-class marine resources, with its strong base of global aquaculture companies, to attract entrepreneurs and investors to startup their companies here in Hawai'i.

With the Legislature's support for this initiative, NELHA will be able to have the aquaculture incubator staffed and operational by the time the global aquaculture conference, Aquaculture America 2020, is held in Hawai'i in February 2020. This will allow Hawai'i to demonstrate to the global aquaculture community that our state is committed to growing our local aquaculture industry. It will also position Hawai'i as a leader in providing innovative solutions to the global aquaculture industry.

As Hawai'i's local food issues become more complex and challenging, organizations need additional resources and support to address and overcome them. We appreciate this committee's efforts to look at policies that support local food production through supporting a high technology incubator for aquaculture.

We believe that by collaborating, we can help produce more local food and support an economically robust homegrown agriculture industry, which strengthens our community with fresh, healthy food. Thank you for this opportunity to testify.

Respectfully,

Kyle Datta  
General Partner



**PO Box 1095  
Kurtistown, Hawaii  
+1-808-938-2840  
jim.wyban@gmail.com**

---

February 24, 2018

House Committee  
Honolulu HI

**RE: House Bill HB2041**

Dear Committee,

I am writing in support of HB2041, which seeks to appropriate \$500,000 to DBEDT to establish an aquaculture incubator at NELHA to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

Aquaculture is the world's fastest growing food production platform. Hawaii has a long and colorful history in this industry and needs to continue investing to maintain its preeminent place. HOST Park in Kona is a world-class facility. Funding development of an aquaculture specific incubator at HOST Park would continue Hawaii's lead in this sector.

I wholeheartedly support this effort and ask that you approve this bill and support Hawaii's developing aquaculture industry.

Sincerely,

Jim

Jim Wyban PhD  
President  
Marine Genetics

**HB-2041-HD-1**

Submitted on: 2/27/2018 10:52:44 AM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melodie Aduja	OCC Legislative Priorities Committee, Democratic Party of Hawai'i	Support	No

Comments:

**PRESENTATION OF THE  
OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES**

**DEMOCRATIC PARTY OF HAWAII'**

TO THE COMMITTEE ON FINANCE

THE HOUSE OF REPRESENTATIVES

TWENTY-NINTH LEGISLATURE

REGULAR SESSION OF 2018

Wednesday, February 28, 2018

11:00 A.M.

Hawaii State Capitol, Conference Room 308

RE: Testimony in Support of HB 2041 HD1, RELATING TO AQUACULTURE

To the Honorable Sylvia Luke, Chair; the Honorable Ty J.K. Cullen, Vice-Chair, and Members of the Committee on Finance:

Good morning, my name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on House Bill No.2041 HD1, relating to Aquaculture Incubator; Department of Business, Economic Development, and Tourism; and an appropriation.

The OCC Legislative Priorities Committee is in favor of House Bill No. 2041 HD1 and support its passage.



House Bill No. 2041 HD1 is in alignment with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

Specifically, the DPH Platform states, "Agriculture in our state must be preserved and its future strengthened. Sufficient prime agricultural lands must be maintained for the health, economic well-being and sustenance of the people. We believe in an integrated approach to agricultural innovation and sustainability. We encourage the responsible development of ocean resources to achieve sustainability of our marine resources and ensure and improve the health of our reef and marine life.

This approach includes, but not limited to, the adoption of the native Hawaiian concept of ahupua'a, an integrated approach to land management. This could also include the development of economic, land and ocean use policies that foster sustainable corps both for local consumption and for export policies to foster agriculturerelated infrastructure at shipping points, and increased inspection to protect against invasive species and to encourage reduced holding times.

Recognizing the importance of the ocean as a life-sustaining resource, we must protect its ecological and alternative patterns of water treatment and consumption such as the use of recycled water for irrigation, water storage reservoirs, and the use of catchment systems by the public.

As an island state, securing affordable food for all is a priority. We support healthy, sustainable, and diversified local food production, and "Buy Local" strategies to assure greater food security and food safety. (Platform of the DPH, P. 2, Lines 76-86, 90-99 (2016)).

Given that House Bill No. 2041 HD1 appropriates funds for the Department of Business, Economic Development, and Tourism to establish an aquaculture incubator at the National Energy Laboratory of Hawaii Authority to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry, it is the position of the OCC Legislative Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Tel.: (808) 258-8889

29<sup>th</sup> Hawaii State Legislature  
415 South Beretania St.  
Honolulu, HI 96813

February 21, 2018

Dear Chairwoman Luke & House Finance Committee Members,

**RE: Support for HB1960 – Relating to Aquaculture & HB2041 – Relating to Aquaculture**

Cyanotech Corporation, based on the island of Hawaii, supports appropriations of \$300,000 from Hawaii's general revenue fund to support the planning and participation of the Aquaculture America 2020 Conference in Hawaii, as outlined in HB1960. We further support appropriations of \$500,000 from Hawaii's general revenue fund for the Department of Business, Economic Development, and Tourism (DBEDT) to establish an aquaculture incubator at the Natural Energy Laboratory of Hawaii Authority (NELHA), as outlined in HB2041. We believe that these incentives will help attract entrepreneurs and investors to develop Hawaii's aquaculture industry.

The Hawaii State Department of Agriculture's Aquaculture Development Program reported \$29.9M of aquaculture revenue in 2010, 93% of which was generated by businesses at NELHA. The aquaculture industry has boomed in recent years, increasing by 40% in one year from 2011 to 2012, with record high sales reported in 2014. This industry accounts for a peak number of 500 hired workers on payroll in 2016 and \$75.7M in sales. Aquaculture produces high quality value added commodities from Hawaii including nutritional supplements and foods.

In closing, we greatly appreciate your support of HB1960 and HB2041 which will help perpetuate new business, the growth of the aquaculture industry and the expansion of a diversified portfolio of high wage-earning jobs in Hawaii.

Sincerely,



Mawae Morton, CEO  
Cyanotech Corporation  
73-4460 Queen Kaahumanu Hwy, #102  
Kailua-Kona, HI 96740



# Hawaii Aquaculture Annual Release



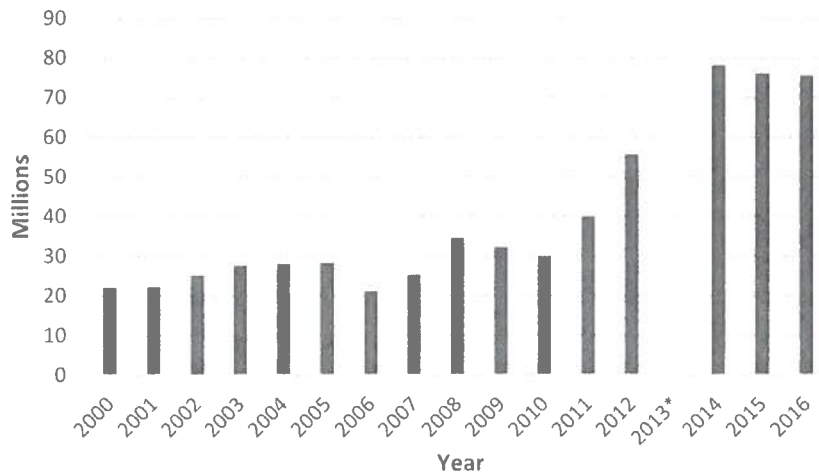
October 18, 2017

In Cooperation with the Hawaii Department of Agriculture  
Hawaii Field Office · 300 Ala Moana Blvd Suite 7-118 · Honolulu, HI 96850 · 1-(800)-804-9514 · [www.nass.usda.gov](http://www.nass.usda.gov)

## 2016 Aquaculture Sales in Hawaii Total \$75.7 Million

Hawaii aquaculture sales totaled \$75.7 million in 2016, slightly down from a year ago, according to USDA's National Agricultural Statistics Service. Algae sales were \$34.3 million and accounted for 45.4 percent of the total sales. The "Other" category includes the remaining value of sales, 54.6 percent of aquaculture sales. Aquaculture sales have been holding steady after a record high in 2014. The peak number of hired workers on the payroll was 500 for 2016, as reported by the producers.

**AQUACULTURE**  
Value of Sales, State of Hawaii, 2000-2016



\* 2013 value was collected by the Census of Aquaculture ([www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Aquaculture](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Aquaculture))

## Hawaii Aquaculture: Farms, Workers, and Value, 2012-2016

Crop year	Farms	Peak number of workers	Value					Total
			Shellfish	Finfish	Algae	Ornamental	Other	
---- number ----		-----1,000 dollars-----						
2012	70	NA	(D)	(D)	28,420	(D)	27,320	55,740
2013 <sup>1</sup>								
2014	NA	NA	(D)	(D)	33,086	(D)	45,155	78,241
2015	NA	406	(D)	(D)	33,808	(D)	42,426	76,234
2016	NA	500	(D)	(D)	34,349	(D)	41,361	75,710

(D) Withheld to avoid disclosing data and accounted for in "Other".  
<sup>1</sup> 2013 Census of Aquaculture numbers not comparable.

**HB-2041-HD-1**

Submitted on: 2/26/2018 6:53:27 PM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jinzeng Yang	CTAHR/Univeristy of Hawaii at Manoa	Support	Yes

Comments:

**Committee Chair and Members,**

**Thank you for this opportunity to provide my testimony. I strongly support HB2014.**

**Let me state from the onset of this testimony that, as a member of the faculty and interim Associate Dean for Research of CTAHR at the University of Hawaii at Manoa, it is important to note that aquaculture research and development is important for the seafood production and local food supplies. CTHAR has talented scientists and faculty members who are interested in working with local industry partners for aquaculture technology development. I would suggest the fund will not limited by location, but concentrated on the technoloyg and quality of the project such as innovative technology for marine species culture, breeding and genetics, and molecular biotechnology for effieicnt breeding.**

**Non Fiscal Measures:**

**My name is Jinzeng Yang . I am the Interim Associate Dean for Research at the College of Tropical Agriculture and Human Resources at UH Mānoa. However, today, I am providing personal testimony.**

**HB-2041-HD-1**

Submitted on: 2/23/2018 7:47:45 PM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Elizabeth Corbin	Individual	Support	No

Comments:

I strongly support this measure to establish an aquaculture incubator at The Natural Energy Laboratory of Hawaii (NELHA) and urge that adequate funding be appropriated. NELHA has a proven history as a location for the development of commercial aquaculture and is a natural location for an incubator to support further development of this industry. Aquaculture, with its long tradition in Hawaii, is an important component of diversified agriculture and has the potential to expand its contribution to the State's economic development and food security objectives.

House Committee on Finance  
Wednesday, February 28, 2018, 11:00 am, Room 308

Re: HB 2041, HD 1 Relating to Aquaculture

Chair Luke and Vice Chair Cullen, my name is John Corbin. I am submitting testimony strongly in support of HB 2041, HD 1 to establish an aquaculture incubator at the Natural Energy Laboratory of Hawaii Authority (NELHA).

While serving as Manager of the State Aquaculture Development Program, I was a member of the Board of Directors of NELHA (formerly the Natural Energy Laboratory of Hawaii) almost continuously from 1980 until 2006. During that time period NELHA, with Federal, State and private investments, became the preeminent state aquaculture site and known around the world as successful research and commercial park. NELHA's competitive advantages include: access to warm, surface and cold, deep ocean water; abundant sunshine; a highly controlled biosecurity regime; and comprehensive management of the site by the State. NELHA and its Hawaii Ocean Science and Technology Park (HOST Park) are unique, world class facilities focused on developing 21 st Century technologies to help feed and light the world.

I believe Hawaii can gain even greater economic and societal benefits from NELHA, if an aquaculture incubator, as described in the bill, were established there. The drivers in today's world for expanding the global aquaculture industry are well stated in the bill and statewide benefits for the Islands include: more locally grown, healthy seafood from sustainable technologies; reduction of seafood imports and greater state food self-sufficiency; attraction of investors and entrepreneurs that are passionate about commercial aquaculture development; and creation of good jobs in a long-term, growth industry. In addition, establishing this activity at NELHA could act as a catalyst for business development elsewhere.

Moreover, I believe the State, the University, and the Hawaii High Tech community have had a great deal of success in setting up and running incubator facilities for today's fast-moving, market-driven technologies. This extensive experience could translate readily to an incubator facility focused on advancement of aquaculture utilizing the resources at NELHA. Additional State investment at NELHA makes great sense given the existing State infrastructure investment, the facility's established track record and the projected rapid expansion of the global aquaculture industry.

Thank you for the opportunity to submit these comments.

John S. Corbin MS, CFP, AICP  
President  
Aquaculture Planning & Advocacy LLC  
Kaneohe, Hawaii  
Phone: 808 239-8316  
e-mail: jscorbin@aol.com



**Committee on Finance**

Rep. Sylvia Luke, Chair

Rep. Ty J.K. Cullen, Vice Chair

February 26, 2018

Support for H.B. 2041 Relating to Aquaculture

Blue Ocean Mariculture is the world's leading producer of cultivated Kahala (*Seriola rivoliana*). Our fish are served under the Hawaiian Kanpachi brand in sushi and fine dining restaurants in Hawaii and across the mainland United States. We employ 27 people full-time in the Kona area in our hatchery and offshore aquaculture operations. Blue Ocean's hatchery is located within the Natural Energy Laboratory of Hawaii Authority (NELHA).

We strongly support H.B. 2041 related to establishing an aquaculture incubator at NELHA to bring together entrepreneurs and investors to develop Hawaii's aquaculture industry.

An aquaculture incubator at NELHA will be a valuable resource in building a strong aquaculture industry locally and across the state. Aquaculture provides an opportunity to strengthen our state's economy by diversifying our economic base, reducing the amount of seafood imported to Hawaii, and creating high-wage job opportunities.

We also believe Hawaii can be a leader in the global aquaculture industry and provide leadership on environmentally responsible aquaculture practices. We believe the best way to pursue Hawaii's potential in aquaculture is through the type of program contemplated by H.B. 2041. Thank you for the opportunity to testify.

Blue Ocean Mariculture

**HB-2041-HD-1**

Submitted on: 2/26/2018 8:03:16 PM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Brian Carroll	Individual	Support	No

Comments:

Aloha,

The sustainability of the State of Hawai'i's increasing seafood consumption, including shrimp, freshwater prawns, tilapia, and other fresh and saltwater fish species directly depends on the continued investment by our state government into the development of this industry. A generation of local, recent college graduates such as myself are eager to meet the challenge of sustainable food production for our community by means of new jobs being created and the ability to participate in a broader sharing of knowledge than our state alone can provide. As representatives, please demonstrate your willingness to invest in the future of our communities by passing HB2041 and HB1960! These measures will undoubtedly lead to invaluable advancements in our local aquaculture industry.

Mahalo,

-Brian Carroll



**HB-2041-HD-1**

Submitted on: 2/26/2018 11:48:30 PM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Frederick M. Mencher	Individual	Support	No

Comments:

**LATE**

**HB-2041-HD-1**

Submitted on: 2/28/2018 10:35:52 AM

Testimony for FIN on 2/28/2018 11:00:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Brett Schenk	Individual	Support	No

Comments:

I am in strong support of HB2041. Aquaculture R & D utilizes the best features of Hawaii's resources and geographic location. Existing commercial applications from incubator facilities are a testimony to the value, both economic and self-sustaining benefits, to the State of Hawaii.

Thank you for your consideration of HB2041.