



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented to the
House Committee on Judiciary & Hawaiian Affairs
Friday, February 24, 2023 at 2:00 p.m.

by

Vassilis L. Syrmos
Vice President for Research and Innovation
University of Hawai'i System

HB 913 HD1 – RELATING TO THE NATURAL ENERGY LABORATORY OF HAWAII
AUTHORITY

Chair Tarnas, Vice Chair Takayama, and Members of the Committee:

The University of Hawai'i (UH) appreciates the Hawai'i State Legislature's intent to have its Animal Welfare Program provide institutional animal care and use committee (IACUC) review of research involving live animals conducted by private entities leasing space at the Natural Energy Laboratory of Hawai'i Authority (NELHA).

There is an existing fee structure for UH IACUC services provided and a system in place that can accept payment. These non-UH affiliated private entities would be responsible for all costs associated with the review.

Currently, a review of research with invertebrates is not required by federal regulations (only vertebrate research requires IACUC oversight). Any mandate put on work with invertebrates conducted by private entities at NELHA would be specific to the State of Hawai'i only.

Thank you for the opportunity to comment.



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 JUDICARY & HAWAIIAN AFFAIRS

Friday, February 24, 2023

2:00 pm

State Capitol, Conference Room 325 & Videoconference

in consideration of

HB 913 H.D.1 **RELATING TO THE NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY**

Chair Tarnas, Vice Chair Takayama, and the Members of the Committee:

The Natural Energy Laboratory of Hawaii Authority (NELHA) is pleased to comment on HB 913 H.D.1 which amends Chapter 227D, Hawaii Revised Statutes. This measure adds language to the NELHA enabling Legislation. We believe that over the past 45 years and to date, we have concrete actions and activities that successfully meet the objectives of the added language.

The measure adds the statement “environmentally responsible and culturally sensitive and appropriate” to NELHA’s purpose statement in 227-D2. Similar language is already included in our mission statement. Annual reports for over 30 years and as far back as 1992 state: “To develop and diversify the Hawaii economy by providing resources and facilities for

energy and ocean related research, education and commercial activities in an environmentally sound and culturally sensitive manner". We believe that we have been successful in following and adhering to our mission statement.

This measure adds language to NELHA's duties to include the statement that NELHA shall establish, manage, and operate facilities, in compliance with all county, state, and federal laws, rules, regulations, and licensing and permitting requirements. We faithfully follow all laws and regulations that pertain to our operations. NELHA's last audit uncovered no instances of violating laws, rules, and regulations. It is important to note that per Attorney General Opinion 86-3 state properties and public projects are immune from County zoning and planning laws.

This measure also adds language to NELHA's duties to include the statement that "all research proposals involving live animals shall be reviewed by the University of Hawaii institutional animal care and use committee prior to any lease approval". NELHA staff recognize the importance of being vigilant of animal welfare needs, however, as written, this requirement could be very costly at least, and likely very problematic to implement in many cases. As a premier site for research on tropical marine biology, NELHA hosts many teams from around the world that undertake research programs on a wide variety of organisms. Except for projects relating to aquaculture of fish and the Ke Kai Ola hospital for juvenile monk seals, all of those programs working with animals at NELHA focus on invertebrate species. This fact is highly relevant in context of the proposed legislation, as the 1966 Animal Welfare Act (AWA), U.S. Code, 7 U.S.C. Sections 2131 et seq., which sets general standards for humane care and treatment of animals has no provisions pertaining to invertebrates. The standards set in the AWA and related Federal Animal Welfare regulations are promulgated in a 200+ pages "Blue

Book” published by the Animal and Plant Health Inspection Service (APHIS) within the US Department of Agriculture – this source also does not provide guidance relating to the maintenance and handling of invertebrates. Neither does the National Institute for Health (NIH) which provides guidance for animal research protocols – and which, according to the University of Hawaii IACUC referenced in the proposed legislative provision, serves as the primary framework for the reviews and determinations of the IACUC. Absent such underpinning information, it is hard to see how the IACUC could carry out reviews required by the provision.

For those species where such an analysis might be supported by existing guidelines, namely fish, IACUC have indicated they charge \$2,700.00 per protocol for all non-UH work. Some research proposals could involve sets of numerous protocols, making this a financial barrier to R&D for finfish aquaculture – affecting initiatives such as loko i`a restoration, food security and climate-change resilience. We are not advocating that any R&D efforts at HOST Park should ignore animal welfare – quite the contrary: all projects for which new leases are issued by NELHA are vetted and reviewed by NELHA staff and projects longer than one year are also vetted and reviewed by NELHA’s Research Advisory Committee (RAC) as established statutorily via Chapter 227D. The RAC is an independent committee which currently has nine members, six of which have Doctorate degrees in various ocean related fields and has the purview to flag and question all methods and protocols proposed by an applicant. Given the evolving awareness and emphasis on animal welfare, we would be most open to adding a member from IACUC to our RAC to provide expert input on such issues. We have reached out to IACUC in this regard.

The measure adds language that NELHA shall “give back to the community by engaging and supporting community outreach and education as it relates to activities within the park to promote and cultivate a more diverse Hawaii-grown workforce in science, technology, engineering, and math industries through free programs for local educators, students, educational institutions within Hawaii, and state and county-sponsored community groups”. Place based training and internship programs are very important for NELHA to assist Hawaii in developing a workforce for the future especially in new sectors related to economic diversification and “green sustainable economy”. Some notable recent accomplishments include our internship program where over 50 interns have participated, organizing science fairs held in our Research Campus for the past 10 years, and outreach to local high schools. We have been working with the University of Hilo over the past year to develop a pathways program and as recently as several months ago organized a group of approximately 15 officials and professors to tour five businesses at NELHA to get a better understanding of the kinds of jobs and skills sets needed to better design courses for a new workforce. We plan to replicate these visits with participants from Palamanui Community College and high schools in West Hawaii over the coming months. NELHA has supported a charter school, for over 30 years by leasing property and providing sea water utilities at a subsidized rate of approximately 1/3 of our normal rates to businesses. Finally, for over 15 years and until recently, NELHA provided 5,000 sf and utilities at no charge, amounting to a “forgone” revenue to NELHA well in excess of \$1 million, to a non-profit “Friends of NELHA” that was focused on educating individuals and groups regarding the mission and businesses at HOST Park.

Thank you for the opportunity to offer these comments and we look forward to continuing our mission driving a sustainable green economy.



23 February 2023

Testimony before the
House Committee on Judiciary & Hawaiian Affairs

Friday, February 24, 2023

2:00 PM

State Capitol, Conference Room 325 & Videoconference

In consideration of

HB913

RELATING TO THE NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

Dear Chair Tarnas, Vice-Chair Takayama, and Members of the House Committee on Judiciary & Hawaiian Affairs,

I write in **strong opposition of HB913**, as it is currently worded. My opposition is solely based on one precarious provision in this bill, that opens up potential for unintended consequences. This provision arises from what appears to be good intentions aimed at protecting animal welfare.

The proposed change to NELHA's enabling legislation in section 1(a) of the bill stipulates "*all research proposals involving live animals shall be reviewed by the University of Hawaii institutional animal care and use committee prior to any lease approval*".

There are at least two problems that arise from this requirement that the bill's authors may be unaware of: it creates an unsolvable puzzle, and it adds a burden of cost and delay to any project and any ongoing research. Specifically:

- 1) The UH IACUC performs its reviews within the context of the 1966 Animal Welfare Act (AWA), U.S. Code, 7 U.S.C. Sections 2131 et seq., which sets general standards for humane care and treatment of animals, and in so doing relies on guidance developed by the National Institutes of Health, and potentially the US Department of Agriculture. However, in that legislation and resulting policy *there are no provisions pertaining to invertebrates*. With the exception of fish and monk seals, *all of the animals raised and maintained at NELHA are invertebrates* - shrimp, oysters, lobsters, abalone, clams,

copepods, rotifers, brine-shrimp (these last three being common pre-requisite feedstocks for raising fish). In the absence of established guidelines and standards relating to such species, it is hard to see how IACUC will be able to make informed reviews of most of the research proposals that would come before the committee. If this legislation were passed as written, this would create a paradoxical log-jam, and set up the likelihood of contested case disputes and legal wranglings, which would only delay and, in many cases, kill the R&D initiatives.

- 2) In the case of proposals relating to vertebrates – i.e. fish (assuming the issue of invertebrate feedstocks is resolved or ignored), the legislation sets up the likelihood of protracted and expensive reviews that have potential to stymie R&D efforts. IACUC charges non-university applicants for their opinions on a per-protocol basis. Any given finfish aquaculture process typically involves many distinct “protocols” – e.g. handling of larvae as distinct from juveniles and adults for example, and any separate experimental treatment, many of which are refined and evolve (i.e. change) over time. The costs could easily spiral out of reach for small businesses, and the timeline for IACUC’s process is undefined and quite likely detrimental to research and business progress.

Outside of the ongoing discussion on the welfare of captive octopus, which evidently prompted this legislative proposal, the requirement for institutional review would place an illogical and costly burden on businesses and create a legal quagmire for the State. I would ask that the requirement for IACUC review be deleted from this bill.

With that amendment, I would strongly support its passage.

Thank you for the opportunity to offer these comments, and for your ongoing support of innovative aquaculture in Hawai`i.

Mahalo, and aloha,



Neil Anthony Sims, M.Sc.
Founder, CEO, Ocean Era, Inc.

HB-913-HD-1

Submitted on: 2/22/2023 12:42:17 PM

Testimony for JHA on 2/24/2023 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Dana Keawe	Individual	Support	Written Testimony Only

Comments:

support