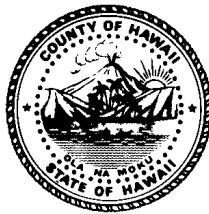


REBECCA VILLEGAS  
Council Member  
District 7, Central Kona



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## HAWAI'I COUNTY COUNCIL

*West Hawai'i Civic Center, Bldg. A  
74-5044 Ane Keohokalole Hwy.  
Kailua-Kona, Hawai'i 96740*

March 10, 2020

TESTIMONY OF REBECCA VILLEGAS  
COUNCIL MEMBER, HAWAI'I COUNTY COUNCIL  
ON HB 2439 HD 1, RELATING TO THE ENVIRONMENT  
Committee on Agriculture and Environment  
Committee on Higher Education  
Monday, March 16, 2020  
2:45 p.m.  
Conference Room 224


Aloha Chair Gabbard, Chair Kim, and Members of the Committees:

I thank you for the opportunity to testify in support of HB 2439 HD 1, relating to the environment. My testimony is submitted in my individual capacity as a member of the Hawai'i County Council and Chair of the Hawai'i County Council Public Safety Committee.

The purpose of this measure is to enhance Hawai'i's environment and protect its economy by making an appropriation to the UH Water Resources Research Center for the research and development of specialized equipment for removing plastic marine debris from shores and beaches. Plastic marine debris is fouling Hawai'i's beaches and ocean. Microplastic doesn't break down, and we are finding it in our fish, birds, whales, turtles, seals, and corals. It is estimated that by 2050, there will be more plastic than fish by weight in the world's ocean. It is important to remove plastic marine debris before it can break down into microplastic as this is a risk to not only our marine environment but to humans as well. Having specialized equipment to assist with removal of these plastics is needed to remove the debris effectively and efficiently from our beaches and shorelines.

For the reasons stated above I urge the Committee Agriculture and Environment, the Committee on Higher Education to support this measure as well. Should you have any questions, please feel free to contact me at (808) 323-4267.

Mahalo for your consideration.

  
Rebecca Villegas  
Council Member, Hawai'i County Council

*Hawai'i County is an Equal Opportunity Provider and Employer.*

**HB-2439-HD-1**

Submitted on: 3/12/2020 10:06:47 AM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lisa Bishop	Testifying for Friends of Hanauma Bay	Support	No

Comments:

Friends of Hanauma Bay strongly supports this bill. Mahalo for the opportunity to testify!

Lisa Bishop

President

**HB-2439-HD-1**

Submitted on: 3/15/2020 1:37:27 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
HIROC 2020	Testifying for Hawaii Reef and Ocean Coalition	Support	No

Comments:

**NOTICE OF HEARING**

DATE: Monday, March 16, 2020

TIME: 2:45 p.m.

PLACE: Conference Room 224

State Capitol

415 South Beretania Street

Aloha Senator Mike Gabbard, Chair,  
Senator Russell E. Ruderman, Vice Chair, and members of the Committee on Agriculture and Environment and

Senator Donna Mercado Kim, Chair  
Senator Michelle N. Kidani, Vice Chair, and members of the Committee on Higher Education

The Hawaii Reef and Ocean Coalition strongly supports this bill, and proposes amendments.

The Hawaii Reef and Ocean Coalition (HIROC) is a group of scientists, educators, environmentalists, and others. HIROC was formed in 2017 to address the crisis faced by the precious coral reefs that protect Hawai'i's shoreline, including beaches and homes. Coral reefs and other marine species are suffering from warmer and more acidic oceans, sewage and

polluted runoff, depleted fish stocks, chemical sunscreens, and marine debris, including plastics and the microplastics that result when plastics breakdown. Coral bleaching and death are widespread. This is a existential problem for our State because reefs are critical in protecting Hawai'i beaches and shorelines. Plankton, seabirds, turtles and many other marine species are also in crisis.

Plastic marine debris is fouling our beaches, harming our recreation and tourism and even endangering human health with persistent toxins, such as DDT and PCBs, that stick to the plastics and travel up the food chain and on to our seafood plates.

We need to eliminate petroleum-based plastics from our environment, along with other fossil fuel use that contributes to the climate crisis. One way Hawaii can help the reefs, oceans, beaches, shorelines and other marine life be cleaner and more healthy is to fund research and development of specialized equipment to remove plastic marine debris from beaches. This bill takes a step in that direction.

HIROC would favor an amendment to this bill to allow for not only research and development of specialized equipment, but also acquisition and testing of existing prototypes, and express authority for the UH Water Resources Research Center to contract with others (such as the Hawaii Pacific University Center for Marine Debris Research) as needed to achieve the goal of this legislation.

HIROC also favors funding for marine debris cleanup (including abandoned fishing gear) as proposed in SB 2548 SD2, which has crossed over and recently passed the House WLH and EEP Committees.

This bill, especially with the amendments described above, would thus be a critical step toward protecting the coral reefs that protect our beaches, shoreline and recreational economy. Please pass this bill with amendments. Mahalo!

**HB-2439-HD-1**

Submitted on: 3/9/2020 3:56:27 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Wendy Arbeit	Individual	Support	No

Comments:

What a good idea. This is actually a good use of our taxes. Please support it.

**HB-2439-HD-1**

Submitted on: 3/9/2020 6:32:27 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

I support HB2439 HD1. Microplastic doesn't break down, and we are finding it in our fish, birds, whales, turtles, seals, and corals. It is estimated that by 2050, there will be more plastic than fish by weight in the world's ocean. It is important to remove plastic marine debris before it can break down into microplastic as this is a risk to not only our marine environment but to humans as well. Having specialized equipment to assist with the removal of these plastics is needed to remove the debris effectively and efficiently from our beaches and shorelines.

Mahalo for the opportunity to comment.

Benton Kealii Pang, Ph.D.

**HB-2439-HD-1**

Submitted on: 3/14/2020 7:27:26 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
LIBRADO COBIAN	Individual	Oppose	Yes

Comments:

As a EPA accredited and State of Hawaii Licensed Environmental Professional contractor of 35 years I oppose HB 2439 .

A bill that provides research funding ( **not open to fair public solicitation**) to only one specific university to begin research on Plastic Marine Debris **from scratch**... when there is **already** a established Research Center at HPU with 10 years of globally recognized published research studies that exist in Hawaii and not supported or recognized by the Legislators Is not only unfair ...but is inefficient and a wasteful use of State Funds to effectively address the environmental ocean plastic debris crisis in Hawaii .

The **HPU Center for Marine Debris Research (CMDR)** has over 20 peer-reviewed scientific manuscripts published from the past 10 years of research work in Hawaii . The HPU Center for Marine Debris hosted the 2019 Hawaii Marine Debris Action Plan Research Workshop in which 60 scientists from across the state and internationally attended to share their research work.

<https://www.hpu.edu/cncs/cmdr/>

The HPU Center with their research staff and volunteers have also partnered with organizations to remove **6 tons** of ghost fishing nets from Kaneohe Bay's coral reefs in October 2019. **Yes 6 TONS .**

The removal techniques And tools for debris from beaches and reefs does not need further study, the technology exists and works. What is needed is funding to actually implement the removal and study the sources of the Debris . By learning the sources, we will have better chances at preventing the debris in the first place, rather than having to remove it after damage is done.

The funding From this Bill would be more efficiently used at an established research center with deep and broad connections to the Hawaii Marine Debris Action Plan community, such as HPU's CMDR.

The **co-director of CMDR, Dr. Jennifer Lynch**, (*a former Research Scientist of NIST:National Institute of Standards and Technology and NOAA:National Oceanic and Atmospheric Administration*) has presented the necessary scientific methods to detect and identify microplastics in the environment at the National Academy of Sciences in Jan 2020 and has the experience to select the best scientific equipment for this research field and the experience of using the instrumentation.

Research funding is needed in Hawaii and specifically at CMDR to secure the specialized equipment, that is currently sponsored on a temporary loan , required to detect and identify microplastics in Hawaii's marine environment.

I oppose HB2435 and request it to be amended to provide equal and fair funding support opportunity open to a existing qualified Marine Debris Research Center such as HPU's CMDR in Hawaii with over 10 years of internationally recognized research work.

Li Cobian Professional EPA Environmental Contractor



**HB-2439-HD-1**

Submitted on: 3/13/2020 7:26:13 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support HB2439. Most plastics are not biodegradable, they just break into smaller pieces reaching the lowest levels of the food web, including fish larvae. This also means humans will be the ultimate consumers.

Additionally, many plastics are made with petroleum, the manufacture of which is a great contributor to the heat-trapping gases responsible for the greenhouse effect we are now seeing.

Thank you for your time and the opportunity to present my testimony.

Sincerely,

Andrea Quinn

**HB-2439-HD-1**

Submitted on: 3/15/2020 1:36:09 PM

Testimony for AEN on 3/16/2020 2:45:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Kerriane O'Malley	Individual	Support	Yes

Comments:

Aloha Chair Gabbard, Chair Kim, members of the Agriculture and Environment and Higher Education committees, thank you for hearing HB 2439 HD1 Relating the Environment. I would like to offer comments and testify today in support of the bill intended to appropriate funds for the purpose of developing equipment to remove and research plastic from Hawaii's shorelines. I request the bill be amended to allocate the funds to a research center that already has the expertise, experience, and capacity to fulfill this. The University of Hawai'i water resources research center would be reinventing a wheel that Hawaii Pacific University's Center for Marine Debris Research (CMDR) has spent a decade working on. The funds would be more effectively and efficiently put to use at an established research center with deep and broad connections to the Hawaii Marine Debris Action Plan community, such as HPU's CMDR.

My name is Kerriane O'Malley, I am an undergraduate student at Hawaii Pacific University. In May I will graduate with a bachelor's degree in Marine Biology. I am passionate about the ocean and growing up in a landlocked state I was never aware of the huge threat that plastic pollution poses to our oceans. Over the past 4 years studying marine biology, I have been overwhelmed by the amount of plastic that is found floating on the surface of our ocean and washes up on the beaches across the islands, as well as the number of species of marine life that are impacted by plastic. From my time spent conducting and assisting research at the Center for Marine Debris Research, as well as observing and experiencing the direct impacts of microplastic fragments and large ghost nets on Oahu, I know that it is essential to mitigate this issue and I applaud the Legislature for its interest in removing and researching the plastic marine debris that is inundating Hawaii's beaches and shorelines.

I request HB2439 HD1 to be amended to provide funding to an already established research center that will actually meet the legislative intent explicitly stated in the bill. CMDR has been working diligently and consistently on this issue for over 10 years and their work is recognized internationally. The HPU Center, with their research staff and volunteers, has partnered with organizations such as the Ocean Voyage Institute to remove 6 tons of ghost fishing nets from Kaneohe Bay's coral reefs in October 2019. A student working with the center, Ray Aivazian III, has already created a device that removes microplastics from beach sand. His device can capture plastic smaller than a human hair! In CMDR's lab, instruments are used that can identify the chemical makeup of microplastic fragments collected in order to better trace their source, fate and impact.

CMDR also offers multiple research opportunities to both undergraduate and graduate students like me. The removal techniques and tools for researching debris from beaches and reefs does not need further study, the technology exists and works. What is needed is funding to continue and expand the research efforts regarding the removal, categorization, polymer identification, and ecotoxicological impacts of plastic marine debris. Mahalo for the chance to testify on this bill. Again, I support HB2439 HD1 and request it be amended to appropriate funds to HPU's Center for Marine Debris Research.