

DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the House Committee on
HIGHER EDUCATION**

**Tuesday, February 14, 2017
2:03 PM
State Capitol, Conference Room 309**

**In consideration of
HOUSE BILL 450
RELATING TO CORAL**

House Bill 450 proposes to appropriate funds to the University of Hawaii (UH) to conduct a study on the effects of sunscreen on Hawaii's coral reefs. **The Department of Land and Natural Resources (Department) supports this bill provided its passage does not replace or adversely impact priorities indicated in the Executive Budget request.**

The measure would provide an unspecified amount of funds to UH to study the effects of sunscreens on corals and the potential impacts of mitigation measures on persons who use sunscreens. The Department welcomes studies, including review of existing scientific literature as well as outreach studies, which would provide more information about and suggest strategies to mitigate the potential harmful effects of certain sunscreen compounds on coral health and reproduction. Clearly identifying these would help target any actions needed to protect our marine resources.

Thank you for the opportunity to comment on this measure.

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

February 13, 2017

TO: The Honorable Justin H. Woodson, Chair
House Committee on Higher Education

FROM: Robert Carroll
Council Member

DATE: February 8, 2017

SUBJECT: **TESTIMONY IN SUPPORT OF HB450, RELATING TO CORAL**

Thank you for the opportunity to testify as an individual in **support** of this important measure. The purpose of this measure requires University of Hawai'i (UH) to conduct a study on the effects of sunscreen on Hawaii's coral reefs. Appropriates funds.

I strongly **support** this measure for the following reasons:

1. While destructive fishing, pollution and development all pose threats to the coral reef, other studies have revealed that sunscreen is a serious danger to the health of coral. The ingredient, *oxybenzone* that is used in sunscreen leaches the coral of its nutrients. By using "reef friendly" sunscreen (those made with titanium oxide or zinc oxide, which are natural mineral ingredients) are a possible alternative.
2. Our own local economies here in Hawaii also depend on the tourism that coral reefs attract. We have seen the impact to our coral reefs here in Maui. From Olowalu through Lahaina where tourism is very concentrated our coral reefs are at risk.
3. This measure will allow the UH to conduct a study of the effects of sunscreen used by swimmers and ocean users on the reefs located in **Hawai'i waters**. The results will forego recommendations on how to mitigate the detrimental effects.
4. The sum appropriated shall be expended by the University of Hawai'i for the purpose of this act, including specific dates a preliminary report along with a final report shall be submitted. The report may include proposed legislation.

For the foregoing reasons, I strongly **support** this measure.

February 13, 2017
Page 2

Mahalo for allowing me this opportunity to testify,

Robert Carroll, Vice Chair
Maui County Council

RC:dna

From: mailinglist@capitol.hawaii.gov
Sent: Saturday, February 11, 2017 5:12 PM
To: HEDtestimony
Cc: Captcoon@gmail.com
Subject: Submitted testimony for HB450 on Feb 14, 2017 14:03PM

HB450

Submitted on: 2/11/2017

Testimony for HED on Feb 14, 2017 14:03PM in Conference Room 309

Submitted By	Organization	Testifier Position	Present at Hearing
James E. Coon	Ocean Tourism Coalition	Support	No

Comments: The OTC has led the State in stewardship of our near shore waters. A healthy and vibrant reef ecosystem is vital to not only all the residents of our State, but necessary for our eco-tourism businesses as well. We support HB 450 which would fund a study of this important issue by the UH. Please pass HB 450.

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Testimony of The Nature Conservancy of Hawai'i
Supporting H.B. 450 Relating to Coral
House Committee on Higher Education
Tuesday, February 14, 2017, 2:03PM, Room 309

The Nature Conservancy of Hawai'i is a private non-profit conservation organization dedicated to the preservation of the lands and waters upon which life depends. The Conservancy has helped to protect nearly 200,000 acres of natural lands in Hawai'i. We manage 40,000 acres in 14 preserves and work in 19 coastal communities to help protect the near-shore reefs and waters of the main Hawaiian Islands. We forge partnerships with government, private parties and communities to protect Hawai'i's important watershed forests and coral reefs.

The Nature Conservancy supports H.B. 450 directing the University of Hawai'i to study and report on the effects of sunscreens on Hawai'i's coral reefs. Preliminary research indicates that there may be a connection between sunscreen containing oxybenzone and degraded reef health. Further research and analysis is warranted, and the precautionary principle suggests that we do what we can to minimize this potential threat.

However, while removing oxybenzone from Hawai'i's beaches and nearshore areas may help our reefs, it is only a first step. Support for this measure should not stop us from doing the hard work that is needed to protect our coral reefs and nearshore fisheries from the clear and present danger of additional chemicals, nutrients and sediment entering our nearshore waters, invasive algae smothering our reefs, and unsustainable fishing practices depleting our local fisheries. With the added threats from global climate change predicted to increase over the next 50 years, the need to protect our reefs and other aquatic resources has never been more urgent.

Hawai'i's nearshore waters are home to more than 7,000 forms of marine life, a quarter of them found nowhere else on Earth. Our vast coral reefs and entire near shore ecosystem are valuable assets that contribute culturally and economically to Hawai'i's future. Coral reef ecosystems create habitat for many fish species with important subsistence, recreational and commercial value; support tourism and recreational industries; and shelter coastlines from natural disturbances. Our life and lifestyle in Hawai'i depends upon a healthy and thriving marine environment.

While we appreciate the many bills this session proposing to regulate or study oxybenzone, **we also urge the Legislature to continue supporting efforts to address the full range of threats to our reefs, fisheries and other marine resources. These actions include:**

- Sufficient funding and personnel for the Department of Land and Natural Resources to:
 - Implement existing and develop additional marine management rules to protect and restore our coastal fisheries;
 - Build compliance with and enforcement of existing marine management rules and laws;
 - Collaboratively develop a strategic plan to address coral bleaching and guide management decisions;
 - Obtain the information needed to continue adaptively managing coastal resources based on the best available science and traditional knowledge; and
 - Build on its on-the-ground and in-water management work with partners to care for coastal and marine resources.
- Supporting the efforts of coastal communities around the islands that are working to co-manage their resources in partnership with the DLNR.

Thank you for the opportunity to testify on this measure.

BOARD OF TRUSTEES

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From: mailinglist@capitol.hawaii.gov
Sent: Sunday, February 12, 2017 1:53 PM
To: HEDtestimony
Cc: mkhan@hawaiiantel.net
Subject: Submitted testimony for HB450 on Feb 14, 2017 14:03PM

HB450

Submitted on: 2/12/2017

Testimony for HED on Feb 14, 2017 14:03PM in Conference Room 309

Submitted By	Organization	Testifier Position	Present at Hearing
Leimomi Khan	Individual	Support	No

Comments: Aloha, I fully support this bill as an alternative to my disappointment that the legislature has not, so far, banned sunscreens containing oxybenzone. Researchers have found oxybenzone concentrations in some Hawaiian waters at more than thirty times the level considered safe for corals. Nature seems to be losing its battle against humans. The Hawaiian Kumulipo, a Hawaiian creation chant, tells us that the first organism born was the coral polyp that was the basic building block for life in the seas. It worries me about the deterioration of coral and its impact on our oceans.

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From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 9:37 PM
To: HEDtestimony
Cc: jshon1987@gmail.com
Subject: *Submitted testimony for HB450 on Feb 14, 2017 14:03PM*

HB450

Submitted on: 2/7/2017

Testimony for HED on Feb 14, 2017 14:03PM in Conference Room 309

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Shon	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Monday, February 6, 2017 6:26 PM
To: HEDtestimony
Cc: cchaudron08@gmail.com
Subject: Submitted testimony for HB450 on Feb 14, 2017 14:03PM

HB450

Submitted on: 2/6/2017

Testimony for HED on Feb 14, 2017 14:03PM in Conference Room 309

Submitted By	Organization	Testifier Position	Present at Hearing
Camila Chaudron	Individual	Support	No

Comments: Aloha, my name is Camila Chaudron, and I live in the Manoa/Makiki area. I support this measure to collect data on our oceans. The more we know, the more we can do to protect our environment against human destruction. For the health and future of our community, thank you for supporting this measure. Mahalo

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UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Higher Education
Tuesday, February 14, 2017 at 2:03 p.m.

By

Dr. Ruth D. Gates, Director
Hawai'i Institute of Marine Biology
School of Ocean and Earth Science and Technology
University of Hawai'i at Mānoa

LATE

HB 450 – RELATING TO CORAL

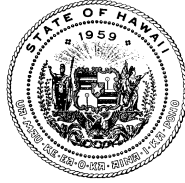
Chair Woodson, Vice Chair Hashem, and members of the committee:

In my role as Director of the Hawai'i Institute of Marine Biology, I am presenting testimony in strong support of HB 450 on behalf of the University of Hawai'i, provided that its passage does not replace or adversely impact priorities as indicated in our Board of Regents Approved Biennium Budget. This measure allocates resources for the University of Hawai'i to examine the impacts of sunscreen products on corals.

I am a marine scientist who has studied the health of coral reefs for the past 25 years and Hawaiian reefs for the past 13 year, and I am the current President of the International Society for Reef Studies. My graduate students, post-doctoral researchers and I have conducted numerous studies on the influence of water quality on coral health. There is no doubt that coral communities in Hawai'i have been and continue to be exposed to increasing impacts from human use and that in some places they are degrading as a result. Work from other parts of the world has highlighted the detrimental impact of chemicals in sunscreen products on coral health and reproduction. No studies to date have explored their impact on Hawaiian corals however some Hawaiian reefs see heavy tourist traffic (e.g. Hanauma Bay and Waikīkī), and measurable concentrations of sunscreen chemical, a scenario that creates context for a detailed examination of the impact of sunscreen chemicals on the health of Hawai'i corals.

The bill will allocate resources to the University of Hawai'i to conduct a study and report on the effects of sunscreen used by ocean users on the coral reefs located in Hawaii waters and, if any are found, make recommendations for mitigating these impacts. The University of Hawaii has experts who are appropriately trained in coral reef biology and analytical chemistry to conduct such a study. The compartmentalization of tourist traffic on Oahu makes the comparison of concentrations of sunscreen chemicals like oxybenzones in heavily trafficked versus rarely visited coral reef areas tractable and measurable. Facilities in the School of Earth, Ocean and Earth Science (SOEST), University of Hawai'i at Mānoa, possess world class capacity to expose corals to these measured concentrations of sunscreen chemicals in the laboratory and the experts to assess their impact on coral health, growth, reproductive output and on their offspring. The results from such studies will create information that can guide management actions to mitigate or minimize impacts of sunscreen products on corals and develop best practices for products and ocean use in Hawai'i waters.

Thank you for the opportunity to present testimony in support of the important HB450.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

LATE

Testimony in SUPPORT of H. B. 450

RELATING TO CORAL

REPRESENTATIVE JUSTIN H. WOODSON, CHAIR
COMMITTEE ON HIGHER EDUCATION

Hearing Date: February 14, 2017
Time: 2:03 p.m.

Room Number: 309

- 1 **Fiscal Implications:** Money shall be appropriated to the University of Hawaii
- 2 **Department Testimony:** H. B.450 asks the University of Hawaii to conduct a study of the
- 3 environmental effects of sunscreen use on the coral reefs. We support this initiative as long as it
- 4 does not replace priorities requested in the Executive Budget. We defer to the University of
- 5 Hawaii about conducting such a study.
- 6 Research by local and national coral experts has shown that levels of oxybenzone from
- 7 sunscreens in the marine environment are high enough to pose deleterious effects on coral.
- 8 Additionally, sunscreens containing zinc oxide and titanium dioxide nanoparticles wash off skin
- 9 into the aquatic environment with unknown effects to the tropical marine ecosystem.
- 10 We support local research on the impact of chemicals in sunscreen on the coral reefs.
- 11 Additionally, DOH supports development of effective public education and outreach efforts to
- 12 inform Hawaii beachgoers about steps that they can take to reduce the use of sunscreen
- 13 containing oxybenzone while enjoying our beaches in Hawaii.
- 14 Thank you for the opportunity to testify on this important measure.
- 15 **Offered Amendments:** None.



February 14, 2017

TIM VANDEVEER
Chair

MARGARET WILLE
SEAN SMITH
Legislation Committee Co-Chairs

Support for HB450 “Relating to Coral”

Committee on Judiciary

Rep. Justin Woodson, Chair

Rep. Mark Hashem, Vice Chair

February 14, 2017 2:03 p.m. State Capitol Conference Room 309

Submitted on Behalf of the Democratic Party of Hawai'i

The Democratic Party of Hawai'i supports HB450 “Relating to Coral ” which provide the authority and funds for the University of Hawaii to study the adverse impact certain sunscreens (as with those containing oxybenzone have on the coral reef. One of the Democratic Party of Hawai'i's priorities for the 2017 legislative session is to ban the sale of sunscreen and other personal care products containing oxybenzone. **To the extent this legislation is intended to supplement a ban of products containing oxybenzone, the Party therefore supports this legislation. If instead this Bill is a substitute for a ban, then the Party asks the Committee to instead support a full ban.** There is plenty of evidence of the harm to coral that is being caused by oxybenzone, already available.

Respectfully submitted,

/s/ Tim Vandever (tim@hawaiidemocrats.org)
Chair of the Democratic Party of Hawai'i

/s/ Margaret Wille (margaretwille@mac.com)
/s/ Sean Smith (simashang@yahoo.com)
Legislative Committee Co-Chairs



LATE TESTIMONY

February 9, 2017

To: House Committee on Higher Education
Representative Justin H. Woodson, Chair
Representative Mark J. Hashem, Vice Chair

Re: Support for HB 450

Thank you for the opportunity to provide testimony. The Graduate Student Organization at the University of Hawai‘i at Mānoa (GSO) stands in support of HB 450. The GSO represents approximately 4,700 graduate students at the University of Hawai‘i at Mānoa and commits itself to voicing the concerns of its constituents.

HB 450, if passed, would appropriate funds for a thorough study of oxybenzone’s detrimental effect on coral. Overall, it would be beneficial to the health and wellness of the coral reef ecosystem in Hawai‘i. Coral reefs are reliant on symbiotic algal organisms called zooxanthellae that provide the corals with nutrients. The algae also need the corals for protection because they also need to conduct photosynthesis amongst the protection of the coral.

While sunscreen is an essential part of recreational beach use in every human being, it is important to make sure to apply sunscreen that does not contain the chemical toxic to coral, oxybenzone. Oxybenzone harms the coral by clouding the hormone signals they produce and causes them to encapsulate themselves in calcium carbonate—suicide for corals. It also damages coral DNA, killing the zooxanthellae and bleaching the coral. Dedicated graduate research funds to support this evidence will hopefully lead to better protective measures of the coral reefs.

The merits of this bill would be to fund students to study sunscreen toxicity to coastal waters, and protect the coral reefs in Hawai‘i. Corals are so important because they prevent erosion of sand, and protect the island from the major storms we get each year. Corals, although submerged, play a vital and crucial role to protection our islands.

For these reasons, we urge you to pass HB 450, funding a comprehensive study of sunscreens containing oxybenzone on Hawai‘i’s coral.

Mahalo,

Genelle Watkins
Sustainability Chair, Graduate Student Organization