



STATE OF HAWAII
DEPARTMENT OF HEALTH
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LATE

WRITTEN TESTIMONY ONLY

Testimony COMMENTING on S.B. 1150, S.D.2, H.D.1

RELATING TO PRESERVING CORAL REEFS

REPRESENTATIVE KANIELA ING, CHAIR
REPRESENTATIVE CEDRIC ASUEGA GATES, VICE CHAIR
HOUSE COMMITTEE ON OCEAN, MARINE RESOURCES, & HAWAIIAN AFFAIRS

Hearing Date: March 21, 2017
Time: 10:00 a.m.

Room Number: 312

- 1 **Fiscal Implications:** No funding is provided to implement this measure.
- 2 **Department Testimony:** S.B. 1150, S.D. 2, H.D.1 seeks to prohibit the use and application of
- 3 products containing oxybenzone while on a beach. We defer to the Department of Land and
- 4 Natural Resources about the feasibility of implementing a prohibition on the use and application
- 5 of sunscreen containing oxybenzone by the general public on beaches in Hawaii.
- 6 The Department of Health is concerned about the release of chemicals, including oxybenzone,
- 7 from personal care products into the marine environment. Research by local and national coral
- 8 experts has shown that levels of oxybenzone in the marine environment may be high enough to
- 9 pose deleterious effects on coral, and may exacerbate coral bleaching. However, oxybenzone
- 10 plays an important role in reducing the risk of some forms of skin cancer, so balancing public
- 11 health protection is a very important consideration. DOH believes more evaluation of the health
- 12 and environmental impacts of restricting the use of oxybenzone is warranted. In addition, we are
- 13 not aware of any impending federal or state regulations to remove this chemical from sunscreens.
- 14 A key concern to be resolved is the availability of safe and effective alternatives, for example,
- 15 sunscreens containing titanium dioxide and zinc oxide nanoparticles are alternatives to
- 16 oxybenzone. However, titanium dioxide has been classified as a possible carcinogen when
- 17 inhaled in high doses. Additionally, when zinc oxide and titanium dioxide nanoparticles wash

1 off skin, they enter the aquatic environment, with unknown effects on our tropical marine
2 ecosystems.

3 We support development of effective public education and outreach efforts to inform Hawaii
4 beachgoers about steps that they can take to reduce the use of oxybenzone while enjoying our
5 beaches in Hawaii.

6 Thank you for the opportunity to testify on this important measure.

7 **Offered Amendments:** None.

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
OCEAN, MARINE RESOURCES, & HAWAIIAN AFFAIRS

Tuesday, March 21, 2017
10:00 AM
State Capitol, Conference Room 312

In consideration of
SENATE BILL 1150, SENATE DRAFT 2, HOUSE DRAFT 1
RELATING TO PRESERVING CORAL REEFS

Senate Bill 1150, Senate Draft 2, House Draft 1 proposes to (1) prohibit the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department of Land and Natural Resources (Department) within a marine life conservation district unless the sunscreen, sunblock, or cosmetic is a prescription drug; (2) require all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department is prohibited in marine life conservation districts; (3) require certain counties to prohibit the commercial sale of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department in concessions that serve nature preserves and marine life conservation districts; and (4) allow the Department to propose rules prohibiting the use of sunscreen, sunblock, or cosmetic containing oxybenzone in any area as needed. **The Department opposes this measure as drafted but appreciates the intent. As written, this measure is impossible to implement and is unenforceable.**

The Department recognizes that a legal ban on the use of oxybenzone would have a deterrent effect on people who are aware of the ban and are inclined to obey it. However, the ban would create public expectations for enforcement that would be unrealistic for the Department to be able to meet. Thus, the Department has serious concerns about how the measure would be implemented and enforced in a manner that would be meaningful or effective. An enforcement officer would have to observe a person on the beach or in a boat applying the product and then determine if the product contained oxybenzone or some other chemical that has been found to be harmful to corals. Even if use of these products were decriminalized by making their use a civil crime, it would still relegate the Department's Division of Conservation and Resources Enforcement officers who are enforcing the measure to being "sunscreen police." Imagine officers ticketing those on the beach or in a boat

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

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

for applying sunscreens—and how the courts would view crime! That would certainly detract from their other duties and responsibilities to enforce State laws related to natural resources damages.

While the Department supports the use of sunscreens and similar products for protection from the harmful effects of the sun, the public needs to be better informed so they can make better choices regarding sun protection and reef conservation. The Department strongly supports an informational approach as an alternative to a regulatory approach to help the public understand the issues and potential hazards to using products containing oxybenzone and other chemicals in sunscreens and the need for more public outreach.

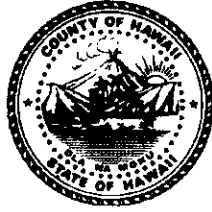
Many commercial tour operators already inform their customers that oxybenzone and other chemicals in sunscreens may be harmful to coral reefs and some even provide alternatives, which we strongly support. Although the State's Marine Life Conservation Districts (MLCDs) contain some of the most valuable aquatic resources in the State and perhaps deserve higher degrees of protection than other areas, the MLCDs include only a small fraction of our coral reefs – **only 11 MLCDs exist, on four islands, covering less than 1% of Hawai'i's reefs.** There is no reason why the Department should not urge commercial tour operators, charter boat captains, guides and others to inform their customers and clients of the potential harm caused by these chemicals to corals for all reefs in Hawai'i. This should be a statewide educational and outreach program.

To date, the Department's outreach efforts to provide public outreach have included organizing a session at the 2016 International Union for Conservation of Nature Conference on the effects and use of oxybenzone, focused one-on-one outreach at 'Āhihi-Kīna'u Natural Area Reserve (a very valuable and popular reef on Maui that is not an MLCD), news releases, and videos. Information on the hazards of oxybenzone is also on the Department's Division of Aquatic Resources (DAR) website. DAR also distributes oxybenzone-free sunscreen samples at public events, and urges partner organizations, dermatologists, boat tour operators, and vendors who sell sunscreen to spread the word. These efforts are just the beginning, and there is certainly more that can and should be done to inform ocean users.

The Department respectfully suggests that this measure be deferred and that the legislature support expanding efforts to inform the public on such matters.

Thank you for the opportunity to comment on this measure.

Harry Kim
Mayor



Wil Okabe
Managing Director

Barbara J. Kossow
Deputy Managing Director

County of Hawai'i
Office of the Mayor

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LATE

March 20, 2017

Representative Kaniela Ing, Chair
Committee on Ocean, Marine Resources,
& Hawaiian Affairs
Hawai'i State Capitol
Honolulu, HI 96813

Dear Chair Ing and Committee Members

**RE: SB 1150, SD 2, HD 1
Relating to Preserving Coral Reefs (Sunscreen)**

If there is a scientific consensus that sunscreen containing oxybenzone is harmful to the environment, and that it is worse than the alternative sunscreen products available, I would urge the Legislature to ban the sale of products containing oxybenzone in Hawaii. It would not eliminate the problem entirely (tourists might still bring product in) but I would think that the use of the chemical in Hawaii would be dramatically reduced, far more than an education program ever could accomplish.

However, your decision should be based on science, and the Department of Health's earlier testimony, on this bill and the House companion, suggests that science is not ready to make that call.

If the Committee believes there is enough evidence on which to act, I would urge the Legislature to use HB 450 as an appropriate vehicle to forcefully address the problem, as suggested above. If, on the other hand, you do not feel you have enough facts, then limiting the chemical's use as set forth in HD1, and providing for a study that could generate more information, is worthy of your approval.

Respectfully submitted,

Harry Kim
Mayor



**SB1150 SD2 HD1
RELATING TO PRESERVING CORAL REEFS**

House Committee on Ocean, Marine Resources, & Hawaiian Affairs

March 21, 2017

10:00 a.m.

Room 312

The Office of Hawaiian Affairs (OHA) **SUPPORTS** SB1150 SD2 HD1, which would mitigate the impacts of oxybenzone on our coral reefs.

Hawai‘i’s marine environment and nearshore resources serve as a cultural, socioeconomic, and scientific foundation for our islands. OHA notes that economic studies in 2002 and 2003 found an overall contribution of \$800 million in revenue generated from our coral reefs and coastal resources, with an added recreational, amenity, fishery, biodiversity and educational value of \$364 million per year. A more recent report released in 2011 utilizing “innovative economic survey techniques” found that across U.S. households, the economic value of protecting Hawai‘i’s nearshore environment could be estimated at \$34 billion a year. While our ocean waters clearly hold cultural, spiritual, and biological significance beyond any monetary value, these economic analyses clearly reflect the critical nature of our marine environment to our islands.¹

This measure represents a small step towards ensuring greater resilience in our coral reefs and nearshore waters. With the overarching threats of climate change and a growing population base, it is incumbent upon the state and its residents to ensure that our foundational nearshore resources are sufficiently resilient, to best withstand the inevitably increasing pressures that will be placed upon them. While oxybenzone is just one of many stressors on our coral reefs, reducing the prevalence of this known chemical threat is a small yet positive step towards ensuring such greater resilience. Notably, this measure may not only directly reduce the impacts of oxybenzone on our most popular nearshore areas, but its passage may also promote greater public awareness of the need to better protect the resources we so substantially rely upon.

Accordingly, OHA urges the Committee to **PASS** SB1150 SD2 HD1. Thank you for the opportunity to testify on this measure.

¹ See Carlie S. Weiner, Mark D. Needham, & Paul Wilkinson, Hawaii's real marine life park: interpretation and impacts of commercial marine tourism in the Hawaiian Islands, 12 CURRENT ISSUES IN TOURISM 489, 489-90 (2009) citing P.J. van Beukering & H.S. Cesar, Ecological economic modeling of coral reefs: Evaluating tourist overuse at Hanauma Bay and algae blooms at the Kihei Coast, Hawai‘i 58 PAC. SCIENCE 243 (2007); A.M. Friedlander et. al., The state of coral reef ecosystems of the main Hawaiian Islands in THE STATE OF CORAL REEF ECOSYSTEMS IN THE UNITED STATES AND PACIFIC FREELY ASSOCIATED STATES 222-269 (2005), K. DAVIDSON, M. HAMNET, & C. MINATO, ECONOMIC VALUE OF HAWAII'S NEARSHORE REEFS (2003), available at [http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20\(2009\).pdf](http://nature.forestry.oregonstate.edu/sites/default/files/2009-2%20CIT%20-%20Wiener%20Needham%20Wilkinson%20(2009).pdf); HERMAN CESAR ET. AL, ECONOMIC VALUATION OF THE CORAL REEFS OF HAWAII FINAL REPORT 74 (2002), available at http://www.coralreef.gov/meeting18/evhcric_samoa_2007.pdf; RICHARD C. BISHOP ET. AL., TOTAL ECONOMIC VALUE FOR PROTECTING AND RESTORING HAWAIIAN CORAL REEF ECOSYSTEMS: EXECUTIVE SUMMARY (2011), available at http://coralreef.noaa.gov/aboutcrp/news/featuredstories/oct11/hi_value/resources/protecting_restoring_hawaiian_cre.pdf.



**Testimony to the House Committee on Ocean, Marine Resources
& Hawaiian Affairs**

**Tuesday, March 21, 2017 at 10:00 A.M.
Conference Room 312, State Capitol**

RE: SENATE BILL 1150 SD1 HD1 RELATING TO PRESERVING CORAL REEFS

Chair Ing, Vice Chair Gates, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **opposes** SB 1150 SD1 HD1, which prohibits the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department of Land and Natural Resources (Department) within a marine life conservation district unless the sunscreen, sunblock, or cosmetic is a prescription drug; requires all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department is prohibited in marine life conservation districts; requires certain counties to prohibit the commercial sale of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department in concessions that serve nature preserves and marine life conservation districts; allowing the Department to propose rules prohibiting the use of sunscreen, sunblock, or cosmetic containing oxybenzone in any area as needed.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 1,600+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

We contend that more research needs to be done prior to passing a law banning the use of oxybenzone, a leading ingredient in sunscreen, which has been shown to protect against harmful UVA & UVB radiation. This FDA-approved and dermatologist-recommended ingredient has been used commercially since 1980 to protect against skin damage and skin cancers such as melanoma and squamous skin cell carcinoma.

Although some claim that zinc is better for coral reefs, no concrete evidence exists for this claim. We believe a prohibition on oxybenzone is extremely premature, given that scientists are still monitoring and assessing the effects of climate change on oceans and marine life and most evidence shows that global warming causes coral bleaching. Coral bleaching is occurring in areas with very little human interaction, thus very little sunscreen exposure. The body of evidence on coral bleaching does not support blaming coral bleaching on sunscreen.



Chamber of Commerce HAWAII

The Voice of Business

We oppose amending this bill to ban the sale of this cancer-preventing product. At a minimum, we should wait for the results of studies conducted in the open ocean before further action is taken. Hawaii is the only state in the U.S. to introduce legislation on oxybenzone. Once more research is conducted in the natural environment we will need more evidence to make an informed decision.

Sunscreen is the first line of defense for those seeking protection from the sun's cancer causing UV rays. Given that oxybenzone is found in an estimated 80 percent of sunscreens, banning its use in Hawaii will drastically reduce the selection of sunscreen products available to residents and visitors. The combination of reduced choice and less effective products could have the dangerous consequence of individuals using less protective sunscreens or worse, no longer using sunscreen, thereby causing more skin damage and potentially increasing skin cancer rates.

A higher level of evidence must be obtained before the legislature bans products that provide a convenient way for individuals to wear sunscreen every day to prevent skin cancer. Oxybenzone is an extremely effective ingredient that rubs in clear and is contained in over 80 percent of consumers' favorite choices of sunscreen.

Thank you for the opportunity to testify.



Conservation Council
for Hawai'i

Hawai'i's voice for wildlife

Kō Hawai'i leo no nā holoholona lōhiu



Testimony Submitted to the House Committee on Ocean, Marine Resources, and Hawaiian Affairs
By the Conservation Council for Hawai'i
Hearing: Tuesday, March 21, 2017 10 am
Room 312

Support for SB 1150 SD 2 HD 1 Relating to Preserving Coral Reefs

Chair Ing, Vice Chair Gates, and Members of the Committee,

Aloha. The Conservation Council for Hawai'i supports SB 1150 SD 2 HD 1, which prohibits the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department of Land and Natural Resources (Department) within a marine life conservation district unless the sunscreen, sunblock, or cosmetic is a prescription drug.; requires all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department is prohibited in marine life conservation districts; requires certain counties to prohibit the commercial sale of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department in concessions that serve nature preserves and marine life conservation districts; allows the Department to propose rules prohibiting the use of sunscreen, sunblock, or cosmetic containing oxybenzone in any area as needed.

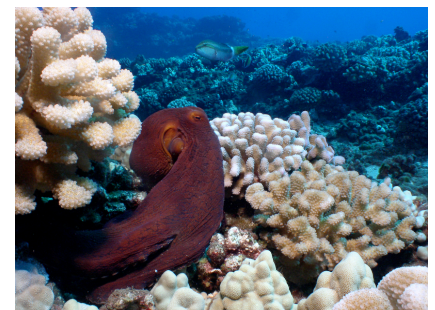
We recommend a statewide ban on the sale of such products in addition to the use of such products. This would be easier to convey to the public and easier to enforce.

Our reefs are already stressed. Additional coral bleaching by oxybenzone can be avoided. There are alternative products.

Please help save our coral reef ecosystems, and give our reefs a break. Please pass SB 1150 SD 2 HD 1. Mahalo nui loa for the opportunity to testify.

Marjorie Ziegler

Marjorie Ziegler



Telephone/Fax: 808.593.0255 | email: info@conservehi.org | web: www.conservehi.org
P.O. Box 2923 | Honolulu, HI 96802 | Office: 250 Ward Ave., Suite 215 | Honolulu, HI 96814
President: Wayne Tanaka | Vice President: Koalani Kaulukukui | Secretary: Rachel Sprague
Treasurer: Les Welsh | Director: Anne Walton
Executive Director: Marjorie Ziegler | Administrator: Jonnetta Peters

From: mailinglist@capitol.hawaii.gov
Sent: Saturday, March 18, 2017 9:00 AM
To: omhtestimony
Cc: mkhan@hawaiiantel.net
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/18/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Leimomi Khan	Democratic Party of Hawaii, Hawaiian Affairs Caucu	Support	No

Comments: Aloha, The Hawaiian Affairs Caucus, DPH, urges your support of SB1150 SD2 HD 1. Researchers have found oxybenzone concentrations in some Hawaiian waters at more than thirty times the level considered safe for coral. From a spiritual and Hawaiian cultural view, the Kumulipo, a Hawaiian Creation Chant, tells us that the first organism born was the coral polyp, a very small and simple organism that was the basic building block for life in the seas. Thus, we must protect the coral. As an island community, coral reefs help protect our coastlines from the damaging effects of wave action and tropical storms and provide habitats and shelter for many marine organisms. Healthy reefs contribute to our economy through tourism. Diving tours, fishing trips, hotels, restaurants, and other businesses based near reef systems provide jobs and contribute to the economy. Please adopt this measure.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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omhtestimony

From: Rene Umberger | For the Fishes <rene@forthefishes.org>
Sent: Monday, March 20, 2017 6:06 AM
To: omhtestimony
Subject: Support SB 1150 SD2, HD1

Aloha Chair Ing, Vice-chair Gates and Committee members,

For the Fishes is in strong support of SB 1150, HD1. Because most of Hawaii's reefs have been severely depleted of the beautiful (non *kau kau*) fish that people love to see in nature, both residents and visitors alike flock to where they can be enjoyed: Hawaii's marine life conservation districts. However, these areas represent less than 2% of Hawaii's coastlines, and while it is right to protect them first from the harmful effects of sunscreen pollution, we must not sacrifice the remaining 98% of our reefs.

We appreciate that this measure specifies HRS 190, the statutory authority whereby DLNR can take further action, however, DLNR rulemaking often takes years to complete. Climate change, possibly enhanced by local stressors, has already killed many of Hawaii's corals in recent years, and more bleaching events may be just around the corner.

When the legislature drafted and passed HRS 190 regarding rules adopted by DLNR, in recognition of the extreme importance and fragility of Hawaii's coral reefs, it set a very low bar for the prohibition of activities that *may* harm coral reef ecosystems. This included activities that may disturb, degrade, or alter the marine environment.

For a number of reasons, including lack of resources, DLNR has not been able to uphold its mission and duty to protect our natural resources for future generations, and there is no indication that it will be able to do so in the future. We must take action to reduce the stressors that are within our reach. We may not be able to slow global climate change, but we certainly can prevent chemical pollution and restore populations of important fish species, for example.

We, therefore, urge you to pass and strengthen this measure by expanding the areas of coverage beyond the 2% that are within MLCDs.

Thank you for the opportunity to submit testimony.

Rene Umberger
Executive Director
808.875.8759 cell: 808.283.7225

For the Fishes
PO Box 1894, Kihei, HI, 96753
FortheFishes.org and on [Facebook](#)





Imanaka Asato
A LIMITED LIABILITY LAW COMPANY

March 21, 2017

Representative Kaniela Ing, Chair
Representative Cedric Asuega Gates, Vice Chair
Members of the House Committee on Ocean, Marine
Resources, & Hawaiian Affairs
Twenty-Ninth Legislature
Regular Session of 2017

RE: SB 1150, SD2, HD1 Relating to Preserving Coral Reefs
Hearing date: March 21, 2017, 10:00 am

Aloha Chair, Vice-Chair and Members of the Committee,

Mahalo for the opportunity to submit testimony on behalf of Quest Global Management/Dolphin Quest. Dolphin Quest supports the proposed legislation to protect Hawai'i's coral reefs by prohibiting the use of sunscreens and cosmetics containing oxybenzone at beaches or in the ocean. This chemical has been found to harm coral reefs.

As noted on Hawai'i's Department of Land and Natural Resources website, "Recent studies have shown that oxybenzone (and octinoxate & homosalate) causes deformities in coral larvae (planulae), making them unable to swim, settle out, and form new coral colonies. It also increases the rate at which coral bleaching occurs. This puts coral reef health at risk, and reduces resiliency to climate change... Researchers have found oxybenzone concentrations in some Hawaiian waters at more than 30 times the level considered safe for corals."

Many other locations such as Mexico and the Caribbean have also joined in the effort to reduce damage to corals by prohibiting sunscreens containing oxybenzone and octinoxate & homosalate. We hope that Hawai'i will also follow in this forward-thinking direction to help preserve its coral reef health.

Dolphin Quest advocates for conservation and preservation efforts to protect the oceans and its many inhabitants, including corals. The negative impact of human activity can be reduced by this legislative measure and Dolphin Quest promotes its passage and other activities that educate humans about the oceans.

Mahalo for your consideration.

Sincerely,

IMANAKA ASATO ILLC

Michael L. Iosua

Testimony of The Nature Conservancy of Hawai'i
Supporting S.B. 1150 SD2 HD1 Relating to Preserving Coral Reefs
House Committee on Ocean, Marine Resources and Hawaiian Affairs
Tuesday, March 21, 2017, 10:00AM, Room 312

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 S.B. 1150 SD2. Preliminary research indicates that there may be a connection between oxybenzone and degraded reef health, 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 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 bills this session proposing to prohibit or regulate 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

Mark Agne Paul Alston Christopher Benjamin Dr. C. Tana Burkert Anne Carter Richard Cooke III Brian Doyle
Thomas Gottlieb James Haynes III Sean Hehir Eiichiro Kuwana Duncan MacNaughton Kathy Matsui
James Polk Jean Rolles Scott Rolles Crystal Rose Dustin Sellers Nathan Smith Peter Tomozawa

From: mailinglist@capitol.hawaii.gov
Sent: Friday, March 17, 2017 8:11 PM
To: omhtestimony
Cc: cathyg@animalrightshawaii.org
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/17/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Cathy Goeggel	Animal Rights Hawai'i	Support	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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The logo for the Environmental Caucus of the Democratic Party of Hawaii features a green background with a large, vibrant green leaf on the left side. The text "Environmental Caucus" is written in a bold, white, sans-serif font, and "of the Democratic Party of Hawai'i" is written in a smaller, white, sans-serif font below it.

Environmental Caucus of the Democratic Party of Hawai'i

March 19, 2017

The Honorable Kaniela Ing, Chair,
The Honorable Cedric Gates, Vice Chair, and Members
House Committee on the Ocean, Marine Resources, and Hawaiian Affairs

Re: SB 1150 SD2 HD1, re Preserving Coral Reefs
Hearing: Tuesday, March 21, 2017, 8:30 a.m., Conference Room 325
Position: Support with proposed amendments

This bill is the last surviving bill this session that attempts to limit the use of sunscreens containing the endocrine disruptor oxybenzone, which has toxic effects for the marine environment and possibly for the humans that use it.

And this bill is among the weakest that started out at the beginning of this session. Several bills would have outright banned the sale in Hawaii of all sunscreens that contain oxybenzone. That would not have been much of a problem, because cheap substitutes exist on the market. But the present bill is all that remains. And even this bill has been watered down – it will only apply in marine life conservation districts, unless it is amended.

As renowned marine biologists have testified before this Legislature, oxybenzone in the marine environment can have detrimental effects to all marine life, including changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity. It is known to impact sea urchin development, as well as reduce the viability of sea urchin sperm at concentration that are commonly found in high tourist areas in Hawaii. Furthermore, oxybenzone demonstrates its impacts in embryos and larvae of bivalves (mussels), shrimp, and even important reef algae. In plain English, oxybenzone kills the reefs.

Most importantly, oxybenzone may suppress restoration of coral reefs by preventing juvenile corals to recruit into an area that is polluted by oxybenzone. This is critical for Hawaii in the faces of disastrous effects of mass bleaching events of last year, and perhaps to continue into the summer of 2017. Oxybenzone can prevent a natural recovery.

For these critical reasons, the Environmental Caucus of the Democratic Party of Hawaii, along with the Democratic Party of Hawaii itself, urge this Committee to pass this bill with an amendment removing the restriction that prohibits use of sunscreens containing oxybenzone only in marine life conservation districts. The prohibition should apply everywhere.



Environmental Caucus
of the Democratic Party of Hawai'i

Thank you very much for considering our concerns about this very serious and present danger to our coral reefs.

Alan B. Burdick
Vice Chair, Environmental Caucus
Burdick808@gmail.com



Monday, March 20, 2017

Dear Esteemed Senators and Members of the House:

I am writing in support of Senate Bill 1150 SD2 / HD1 and all legislative action that will reduce the concentrations of oxybenzone in Hawaiian waters. I do, however, encourage you to consider a ban on the sale of oxybenzone containing products, rather than a ban on the beaches, which could be more difficult to enforce.

I am the founder and formulator of Stream2Sea, an environmentally friendly product line formulated without using oxybenzone or any other ingredients known or suspected to harm the coral reef environment. A cosmetic chemist with more than 20 years experience formulating natural products, and an avid scuba diver and instructor, I created Stream2Sea because I knew we could formulate effective, consumer friendly products to protect ourselves while not harming our precious underwater resources. We are a young company, but have been experiencing rapid growth, especially in Hawaii. Our products can be found at ecoconscious retailers throughout Hawaii including Down to Earth, Island Naturals, Pacific Whale Foundation, Big Island Divers, and Kona Honu Divers among others.

We use only non-nano titanium dioxide as our active ingredient in our sunscreens. Our formulas have been independently tested by FDA-validated labs to meet or exceed FDA standards for SPF, broad spectrum and water resistance claims. Our products are both effective and cost comparative with other performance-based sport sunscreens, without the potential negative environmental effects. Consumers are actively looking for eco-friendly and ocean safe non-nano mineral based sunscreens like those offered by Stream2Sea.

Before bringing Stream2Sea to the market, I contracted with Eckerd College to perform various toxicity trials from *C. Elegans* and fish to coral larvae (see attached). We have proven that all our formulas readily biodegrade in fresh water and saltwater, and are non-toxic to all species tested, including the coral *Porites astreoides*.

I applaud the Hawaiian legislature for bringing this issue to the table. There are many UV absorbers that can be effectively used to protect our skin, without the detrimental effects shown with oxybenzone. There are enough human and environmental studies showing oxybenzone is not safe for continued use. It is not prudent, however, to wait for the FDA to remove this ingredient from our approved listing. The European Union has banned more than 1,300 cosmetic ingredients over the last decade. The FDA has banned microbeads.



STREAM2SEA®
—EcoConscious • Biodegradable—

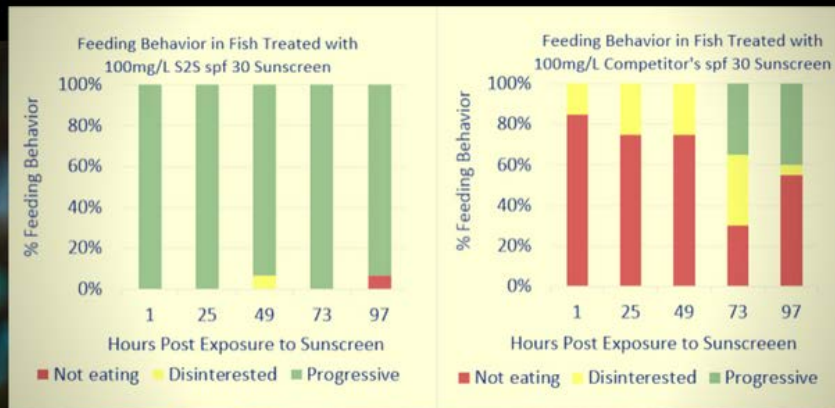
Again, I fully support your efforts. Coastal communities around the world are closely watching this legislation. I sincerely hope that you will support efforts to bring this issue to the table and through the legislature. If I can be of any assistance, please do not hesitate to contact me.

Consciously,

Autumn P Blum
Formulator & CEO
Stream2Sea, LLC
autumn@stream2sea.com

“Again, I want to thank you so much for the opportunity to engage our students in such an important set of experiments. I also want to commend you on producing a set of products that have stood up to rigorous testing and have proven to be truly ecoconscious.”

Denise Boyce Flaherty, Ph.D.
Assistant Professor of Biology, Eckerd College



We are committed to your health and the health of the planet. Our products are always conscientiously tested.



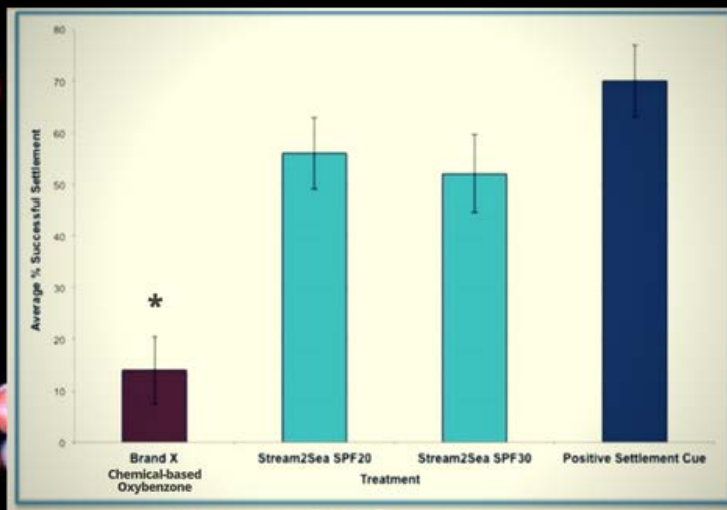
STREAM2SEA®
—EcoConscious • Biodegradable—



STREAM2SEA®
—EcoConscious • Biodegradable—

"We tested Stream2Sea against a chemical-based sunscreen on coral larvae. Stream2Sea had no significant negative effects on coral larval settlement."

Dr. Koty Sharp
Assistant Professor, Roger Williams University



We are committed to your health and the health of the planet. Our products are always conscientiously tested.



STREAM2SEA®
—EcoConscious • Biodegradable—

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, March 19, 2017 12:52 PM
To: omhtestimony
Cc: lisa.fohb@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Bishop	Friends of Hanauma Bay	Support	Yes

Comments: Aloha Chair Ing and other distinguished Committee members, The Friends of Hanauma Bay support SB1150 S2 H1. The marine environment surrounding our island State is critical to our survival. It is also a vital element of tourism, Hawaii's number one industry. All of our beaches and marine environments deserve to be protected from the willful introduction of these chemicals, but Marine Life Conservation Districts have been so designated because of their additional fragility. We can't do much to stop climate change, but we can have an immediate, measureable positive impact on all of our reefs by supporting this legislation. Thank you for the opportunity to testify, and mahalo for everything you do to protect and preserve Hanauma Bay, Hawaii's first Marine Life Conservation District!

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email webmaster@capitol.hawaii.gov



March 19, 2017

TIM VANDEVEER
Chair

MARGARET WILLE
SEAN SMITH
Legislative Affairs Committee Co-Chairs

**SUPPORT FOR SB1150 SD2HD1 WITH RECOMMENDED AMENDMENT
Relating to Preserving Coral Reefs**

Tuesday, March 21, 2017 8:30 am State Capitol, Conference Room 325

Representative Kaniela Ing, Chair
Representative Cedric Gates, Vice Chair
Committee on Ocean, Marine Resources, Hawaiian Affairs

Submitted on Behalf of the Democratic Party of Hawai'i

The Democratic Party of Hawai'i supports SB 1150 SD2 HD1 "Relating to Preserving Coral Reefs" which bans the use of sunscreen or personal care products containing oxybenzone while on a beach or in the ocean IN A MARINE LIFE CONSERVATION ZONE unless being used as a prescription drug. The DPH supports the above legislation based on our Platform and Resolutions and corresponding environmental wellbeing legislative priorities as voted on and passed by the DPH State Central Committee, in support of marine/ocean health.

HOWEVER, THE DPH IS VERY DISAPPOINTED that this Bill has been watered down such that its prohibition and restrictions are only to apply in marine life conservation zones. Please remove that "conservation zone" limitation and commit to meaningful marine life environmental legislation.

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



PERSONAL CARE
PRODUCTS COUNCIL

March 20, 2017

The Honorable Kaniela Ing
Chairman, Committee on Ocean, Marine Resources & Hawaiian Affairs
Hawaii State Capitol, Conference Room 312
415 South Beretania Street
Honolulu, HI 96813

RE: Opposition to SB 1150 SD2 HD 1

Chairman Ing:

On behalf of the Personal Care Products Council (the Council), I am writing to express opposition to Senate Bill 1150 as amended, which would prohibit the sale and use of sunscreens or cosmetics containing oxybenzone. SB 1150 is under consideration by the Committee on Ocean, Marine Resources & Hawaiian Affairs on March 21, 2017.

The Council is the leading national trade association representing the cosmetic and personal care products industry. The Council's approximately 600 member companies manufacture and distribute the vast majority of products marketed in the U.S. As the makers of a diverse range of products that consumers rely on daily, from sunscreen, shampoo, and toothpaste to antiperspirant, moisturizer and lipstick, personal care product companies are global leaders committed to safety, quality and innovation.

Senate Bill 1150 is not based on proven science, but rather is based on a single laboratory experiment that lacks sufficient scientific evidence connecting a sunscreen ingredient to coral bleaching. Regulations and legislation should be based on validated methods, reproducible studies, and conducted by more than one independent lab. The laboratory experiment was based on preliminary research conducted under exaggerated laboratory conditions, which do not accurately reflect the complexity of the natural marine environment. According to noted scientists, coral requires an elaborate ecosystem to survive. Transporting coral to an artificial setting alone, such as a laboratory, makes the coral less viable and likely to die in the face of any disturbance. In addition, the data presented by Downs *et al.* (2015) raise questions over the validity and reliability of the study's analytical and toxicological findings.

In a recent news article, Terry Hughes, Director of the Australian Research Council Centre of Excellence for Coral Reef Studies at James Cook University, suggests that extrapolations asserting sunscreen is damaging the world's coral "are a bit of a stretch." He continues, "the conclusion from the media is sunscreen is killing the world's coral, and that's laughable." Another study involving five weeks of chronic exposure to UV filters at concentrations above those reported in natural sea waters reported that sunscreens did not induce coral bleaching nor reduce the photosynthetic efficiency of the symbiotic micro-algae.

The threat to the world's coral reefs is a very serious concern. According to the U.S. National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program, coral reefs are impacted by an increasing array of hazards – primarily from global climate change, ocean acidification, and unsustainable fishing practices. Climate change and ocean warming are the most notable culprits for reef bleaching. According to NOAA, coral bleaching events have occurred as the world's oceans temperatures have increased to the warmest levels recorded since measuring began in the late 19th century.

Sunscreen products are vital to human health. A state-specific restriction on the use of this product would put the citizens of Hawaii and tourists visiting the state at great risk. The U.S. Food and Drug Administration (FDA), the Centers for Disease Control and Prevention (CDC), the U.S. Surgeon General, the American Academy of Dermatology (AAD), the Skin Cancer Foundation and health care professionals worldwide emphasize that using sunscreens is a critical part of a safe sun regimen. The dangers of sun exposure are clear and universally recognized by public health professionals and dermatologists. The National Institutes of Health Report on Carcinogens identifies solar UV radiation as a 'known human carcinogen.' A single bad burn in childhood greatly increases the risk of developing skin cancer later in life.

Oxybenzone is an FDA approved critical ingredient to the U.S. sunscreen market. It is a broad spectrum sunscreen, absorbing both UVA and UVB rays, that also photostabilizes other sunscreens to provide long lasting protection. The cost of oxybenzone containing sunscreens is substantially less than other alternative ingredients. Consumer costs for effective sunscreen products that have the same or similar high SPF levels will increase significantly with no measurable environmental impact.

SB 1150, although well intended, lacks the necessary scientific evidence to demonstrate that this sunscreen ingredient is in any way responsible for coral bleaching. Moreover, skin cancer is the most commonly diagnosed cancer in the United States. We fear this legislation will create confusion, put consumers' health at risk and potentially discourage the use of sunscreens – an important part of a safe sun regimen. Oxybenzone based sunscreens are affordable daily use products that have excellent skin cancer prevention properties that cannot be easily attained using alternative ingredients.

Since this legislation is based on one, selectively chosen, laboratory experiment, it would seem appropriate to support further research, and not rush to judgement.

Please oppose SB 1150.

Thank you for your consideration.

Sincerely,



Iain Davies, Ph.D.
Senior Environmental Scientist
Personal Care Products Council

Cc: Members, Committee on Ocean, Marine Resources & Hawaiian Affairs



March 20, 2017

To:

Chairman Rep. Chris Lee & Rep. Committee Members
Committee on Energy & Environmental Protection
State of Hawai'i House of Representatives, The Twenty-ninth Legislature

Dear Chairman Lee and the Committee Members,

My name is Caroline Duell, and I am the CEO of All Good, makers of organic body care products. We believe it is our responsibility to offer alternatives to harmful ingredients and we would like to urge OMH to pass HD1 restricting oxybenzone sunscreen use in Marine Life Protection areas and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. There are enough studies showing the negative impact sunscreens containing oxybenzone are having on our reefs; we need to protect them now, before it is too late. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk.

Preventing oxybenzone pollution of coral reefs is critical in protecting and bringing back Hawaii's already degrading coral reefs. We now know that oxybenzone impacts not just coral larvae and recruitment, it impacts other important species such as shrimp, fish, and sea urchins. Already, popular tourism areas that were beaming with life only 20 years ago are now an underwater-wasteland. We see oxybenzone contaminating the fish that we eat in Hawaiian waters. Preventing oxybenzone pollution is an important tool to helping bring back coral and marine life, to be valued not just by residents, but tourists and the businesses that depend on the underwater paradise of Hawai'i.

We strongly encourage this committee to amend the bill to **"PROHIBIT THE SALE"** of oxybenzone products, similar to the language found in SB260, allowing for a medical prescription to be used. We know that public health is important, and we don't see a trade-off in protecting both public health and wildlife. There are ample commercial sunscreen products that contain safer active ingredients other than oxybenzone, and these products are sold by the majority of the manufacturers that distribute their products in Hawaii (e.g., Avene, L'Oreal, Coppertone, Banana Boat, Neutrogena). These safer ingredients all comply with U.S. Food & Drug Administration's regulations on SPF values and UV protection and are cost-competitive to oxybenzone products.

Thank you for your vote for the oceans.

Ua Mau ke Ea o ka Aina i ka Pono

Mahalo,

Caroline Duell
CEO, All Good

NAPILI

Bay and Beach Foundation

*PO Box 10823
Lahaina, HI 96761*

March 20, 2017

Honorable Members of Hawaii State Legislature:

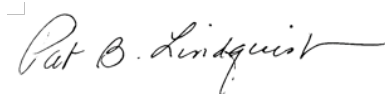
We have recently become aware of the growing body of scientific knowledge regarding deleterious effects of oxybenzone on a variety of reef life.

We are concerned about the continuing losses in coral reef coverage and resilience in face of global warming trends, and diminished reef building activity in the State of Hawaii. Oxybenzone's damage to marine life includes changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity, and loss of motility and viability in juvenile corals that are essential for building new reefs.

Passage of a ban on the sale of products containing oxybenzone (unless it is a medical prescription by a medically licensed physician) can be a very effective means of mitigating oxybenzone pollution in our coastal waters.

Napili Bay and Beach Foundation, Inc. and I support Senate Bill 1150 SD2 as a good first step to reduce oxybenzone pollution, but urge you to amend it to ban sales of these products altogether. This amended version would not require any increases to Hawaii State budget to cover costs of 'enforcing compliance' at the many beaches around the islands. Further, banning sales of these products in the State would encourage development and sales of safe and efficacious sunscreens by Hawaiian and other U.S. companies.

Respectfully submitted,



Pat B. Lindquist, President , Napili Bay and Beach Foundation

We are a non-profit organization formed to protect and improve the health of Napili beach and bay, tax ID # 20 5394259

Pat B. Lindquist, President
Scott Ullrich, Director

Gregg Nelson, Vice-President
Jamie Lung-Ka'eo, Director

Nane Aluli, Secretary
Dana Reed, Director



Executive Officers:

John Erickson, Young's Market Company –Chair
Beau Oshiro, C&S Wholesale – Vice Chair
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Stan Brown, Acosta – Advisor
Paul Kosasa, ABC Stores – Advisor
Barry Taniguchi, KTA Superstores – Advisor
Derek Kurisu, KTA Superstores – Immediate Past Chair
Lauren Zirbel, Executive Director

1050 Bishop St. PMB 235
Honolulu, HI 96813
Fax: 808-791-0702
Telephone: 808-533-1292

FROM: HAWAII FOOD INDUSTRY ASSOCIATION
Lauren Zirbel, Executive Director

TO:
COMMITTEE ON OCEAN, MARINE RESOURCES, & HAWAIIAN AFFAIRS
Rep. Kaniela Ing, Chair
Rep. Cedric Asuega Gates, Vice Chair

DATE: Tuesday, March 21, 2017
TIME: 10:00 am
PLACE: Conference Room 312

RE: SB1150, SD2, HD1

Position: Oppose

The Hawaii Food Industry Association is comprised of two hundred member companies representing retailers, suppliers, producers, and distributors of food and beverage related products in the State of Hawaii.

This measure requires that, “the department of land and natural resources to propose rules prohibiting the use of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the department in any area as needed to conserve state marine resources.” In other words, it allows DLNR to ban any ingredient without any process for how it is deemed “harmful”. This is extremely dangerous and over reaching. Banning any product or ingredient without a very thorough look at the impact of such a ban can have disastrous consequences.

HFIA believes more research needs to be done prior to passing a law banning the use of sunscreen.

We believe a prohibition on sunscreen is extremely premature, given that scientists are still monitoring and assessing the effects of climate change on oceans and marine life and overwhelming evidence shows that global warming causes coral bleaching. Coral bleaching is occurring in areas with very little human interaction, thus very little sunscreen exposure. The body of evidence on coral bleaching does not support blaming coral bleaching on sunscreen.

At a minimum we should wait for studies conducted in the open ocean to come back before further action is taken. There is a bill to study the effects of sunscreen moving this year. Hawaii is the only state in the USA to introduce legislation banning sunscreen. Once more research is conducted in the natural environment we will have more evidence to make an informed decision. Please don't rush into this extreme action without proper research. A higher bar must be met when dealing with cancer prevention.

Sunscreen is a first line of defense for those seeking protection from the sun's cancer causing UV rays. The combination of reduced choice and less effective products could have the dangerous consequence of individuals using less protective sunscreens or worse, no longer using sunscreen, thereby causing more skin damage and potentially increasing skin cancer rates.

The Impacts of Skin Cancer

Over 5 million cases of non-melanoma skin cancer are treated in more than 3 million Americans every year. Every year there are more cases of skin cancer than the combined incidents of breast cancer, prostate cancer, lung cancer, and colon cancer combined.

Over the last 30 years, more people have experienced skin cancer than all other cancers combined. One out of five Americans will develop skin cancer in their lifetime. One person dies of melanoma every hour. Melanoma, which is largely caused by sun exposure, accounts for less than 1 percent of skin cancer cases, but results in the vast majority of skin cancer deaths. A person's risk of melanoma doubles if he or she has had more than five sunburns.

Hawaii has about 200 new cases of melanoma a year, and about 20 people die from it annually. Hawaiian tourism is one of the state's largest industries, and these numbers do not include cases observed amongst those visitors.

Oxybenzone And The Environment

The exposure of the environment to cosmetic and personal care products is relatively low compared to contaminants from other industrial sectors. There is no scientific evidence that sunscreen ingredients, including oxybenzone, contribute to the decline of native coral reef colonies. **According to the U.S. National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program, coral reefs are threatened by an increasing array of impacts – primarily from global climate change, unsustainable fishing and other factors. Increasing ocean temperature and acidification, overfishing, coastal development and pollution are well known stressors on coral reefs.** They may induce coral bleaching, a process by which corals lose their symbiotic microalgae.

Ultimately, corals may die when these stressful environmental conditions last too long. Weakened corals, more susceptible to infectious diseases, show poor resilience from episodic bleaching events. Some studies have reported that certain UV filters contained in sunscreens lotions and washed off by swimmers, could contribute to coral bleaching. Studies have shown that five weeks of chronic exposure to these UV filters at concentrations above those reported in natural sea waters, did not induce coral bleaching nor reduce the photosynthetic efficiency of the symbiotic micro-algae.¹

¹ 26th Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), conducted at La Cité Nantes Congress Center in Nantes, France, from 22 - 26 May 2016

A higher standard of evidence must be met before the legislature bans products that provide a convenient way for individuals to wear sunscreen every day to prevent skin cancer. Oxybenzone is an extremely effective ingredient that rubs in clear and is contained in over 80 percent of consumers' favorite everyday choices for sunscreen.

Thank you for the opportunity to testify.

Predictive laboratory methodology to assess coral bleaching: application to UV filters

J. Fel, L'Oréal Research & Innovation, Aulnay-sous-Bois, France / Environmental Research; M. Leonard, L'Oréal SA

Increasing ocean temperature and acidification, overfishing, coastal development and pollution are well known stressors on coral reefs. They may induce coral bleaching, a process by which corals lose their symbiotic microalgae (zooxanthellae). Ultimately, corals may die when these stressful environmental conditions last too long. Weakened corals, more susceptible to infectious diseases, show poor resilience from episodic bleaching events. Some studies have reported that certain UV filters (mostly 4-methylbenzylidene-camphor, benzophenones and octylmethoxycinnamate) contained in sunscreens lotions and washed off by swimmers, could contribute to coral bleaching. Media took it for granted and suspicion has been extended to all organic UV filters present in sunscreens products. The present study was aimed at clarifying the potential effect that organic UV filters (such as Avobenzone, Octocrylene, Terephthalylidene-dicamphor sulfonic acid, Silatrizole, etc...) may have on different coral species. Two herbicides (Monuron and Diuron) were used as positive references. First a preliminary laboratory screening test was developed to assess potential adverse effect of short exposure (48h) to elevated concentrations (from 1 to 100 mg/L) of the compounds. As a sublethal endpoint predictive of coral bleaching, chlorophyll photosynthetic efficiency of the symbiotic micro-algae (zooxanthellae) was monitored with PAM (Pulse Amplitude Modulated) fluorimetry on nubbins of hard coral species *Seriatopora caliendrum* and *Stylophora pistillata*. In a second step, coral nubbins of *Stylophora pistillata* (hard coral) and *Turbinaria reniformis* (soft coral) were exposed for 5 weeks at lower concentrations in 15 liters aquariums, under semi static conditions with weekly solution renewal. **A specific analytical methodology was developed, combining automated solid phase extraction with UPLC-UV detection, to monitor the compounds concentrations in sea water and analyze large number of samples. 5 weeks of chronic exposure to these UV filters at concentrations above those reported in natural sea waters, did not induce coral bleaching nor reduce the photosynthetic efficiency of the symbiotic micro-algae.**

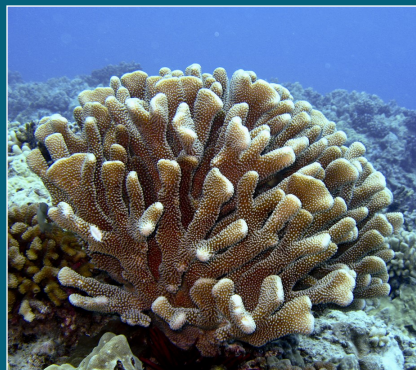
LATE



PLANNING TO GO INTO THE OCEAN...?
CHOOSE A CORAL-SAFE SUNSCREEN!

Certain sunscreen ingredients are TOXIC to corals:

- Up to **14,000 tons** of sunscreen washes off of ocean-goers and into coral reef environments each year.
- Oxybenzone in sunscreens can damage coral larvae and may worsen coral bleaching when water temperatures are elevated.
- DLNR is asking ocean-users to avoid sunscreens containing oxybenzone. State legislation is proposed to ban this chemical.
- Research continues on other sunscreen ingredients including: avobenzone, octisalate, octocrylene, homosalate, octinoxate, methoxycinnamate, camphors, parabens, and nanoparticle minerals, which may also harm corals.
- Physical barrier sunscreens (zinc-oxide or titanium-dioxide based) are the best option for protecting yourself AND minimizing impacts on coral reefs.



SUNSCREEN RECOMMENDATIONS:
(AVAILABLE AT LOCAL RETAILERS, AS OF OCT. 2016)

- Alba Botanica: Natural Mineral Protection Sunblock SPF 30 (*Island Naturals, KTA, Walmart*)
- All Good: Sport Sunscreen Lotion SPF 33 or Unscented Sunstick SPF 30 (*Island Naturals*)
- All Terrain: AquaSport/ Terrasport/ Kidsport Sunscreen Lotion, SPF 30 (*Island Naturals*)
- Aveeno: Active Naturals, Natural Protection Lotion, SPF 50 (*Walmart*)
- Aveeno: Active Naturals, Natural Protection Baby, Lotion or Stick, SPF 50 (*Walmart*)
- Banana Boat: Kids Sunscreen Lotion SPF 50 (*KTA, Sack N Save, Safeway, Target, Walmart*)
- Banana Boat: Baby Sunscreen Lotion SPF 50 (*KTA, Sack N Save, Walmart*)
- Bare Republic: Natural Mineral Sunscreen Sport/Kids Spray, SPF 30 (*Target*)
- Bare Republic: Natural Mineral Sunscreen Lotion, Sport, SPF 50 or Face, SPF 30 (*Target*)
- Coola Suncare: Mineral Sunscreen Unscented, Baby, SPF 50 (*Island Naturals*)
- Coola Suncare: Classic Sunscreen Unscented, Sport/Body/Face, SPF 30 (*Island Naturals*)
- CVS: Baby Pure & Gentle Sunstick Sunscreen, SPF 60 (*Long's Drugs*)
- Goddess Garden: Natural Sunscreen Lotion: Sport/ Kids/ Baby, SPF 30 (*Island Naturals*)
- Goddess Garden: Natural Sunscreen Continuous Spray: Sport/ Kids, SPF 30 (*Island Naturals*)
- The Honest Company: Mineral Sunscreen Lotion, SPF 50+ (*Costco, Target*)
- The Honest Company: Mineral Sunscreen Spray or Stick, SPF 30 (*Costco, Target*)
- MyChelle Dermaceuticals: Sun Shield Clear Stick, SPF 50 (*Island Naturals*)
- MyChelle Dermaceuticals: Replenishing Solar Defense, SPF 30, or Sun Shield, SPF 28 (*Island Naturals*)
- Neutrogena: Pure & Free Liquid Sunscreen, SPF 50+ (*Long's Drugs*)
- Neutrogena: Pure & Free Baby Faces Sunscreen Lotion, SPF 45+ or Stick, SPF 60+ (*Long's Drugs, Target, Walmart*)
- Promise Organic: Coconut Sunscreen Stick, SPF 30 (*Long's Drugs*)
- Stream2Sea: Mineral Sunscreen for Body/Sport/Face, SPF 30 (*Big Island Divers, Kona Honu Divers, Island Naturals*)

Recommendations provided by: West Hawai'i Fishery Council, Hawai'i Wildlife Fund, and the Hawai'i Island Eyes of the Reef Network





TO: Honorable Chair Ing, Vice-Chair Gates, and Ocean, Marine Resources, and Hawaiian Affairs Committee Members, 3-21-17, 10:00 a.m.

SUBMITTED BY: Keith Dane, Hawaii Policy Advisor, State Affairs, Humane Society of the United States, kdane@humanesociety.org, Tel: 301-312-1489; and Teresa M. Telecky, Ph.D., Director, Wildlife Department, Humane Society International, ttelecky@hsi.org, Tel: 301-258-1430

RE: SUPPORT for SB 1150 SD2, HD1 Relating to Preserving Coral Reefs

The Humane Society of the United States (HSUS) and Humane Society International (HSI), support SB 1150 SD2, HD1 which would, if enacted:

- Prohibit the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful by the Department of Land and Natural Resources (DLNR) within marine life conservation districts (MLCDs);
- Require all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by DLNR is prohibited in marine life conservation districts;
- Require counties that issue commercial scuba and snorkeling permits or control public access to nature preserves and marine life conservation districts used for scuba diving or snorkeling to prohibit the commercial sale of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by DLNR in concessions that serve nature preserves and marine life conservation districts; and
- Allow DLNR to propose rules that prohibit the use of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by DLNR in any area as needed to conserve state marine resources.

We thank the Committee for addressing this important matter that affects Hawaii's nearshore coral reefs.

Numerous studies have shown that oxybenzone in the marine environment can be harmful to coral reefs and marine life (Kim et al. 2014, Kim and Choi 2014, Tsui et al. 2014, Downs et al. 2015). These studies clearly indicate that oxybenzone poses a risk to fishes, through endocrine disruption and reproduction performance, for example, and to hard corals through bleaching. These threats are heightened in marine recreational areas frequented by beach

goers, swimmers, snorkelers and divers whose sunscreen washes off when they enter the water. Worldwide, it is estimated that 90% of snorkeling or diving tourists are concentrated on 10% of the reefs (U.S. National Park Service). Hawaii's MLCDs have an abundance of fishes compared to the majority of the state's reefs which are severely depleted. This abundance of wildlife is a major draw to tourists and Hawaii's most beautiful and popular reefs are likely exposed to the most sunscreen pollution.

It has been estimated that 4,000 – 14,000 tons of sunscreen enters coral reef areas around the world annually (U.S. National Park Service, Downs et al. 2015). Surveys around Hawaii's coral reefs found oxybenzone levels at concentrations 12 times higher than the level at which it impacts juvenile coral (Downs et al. 2015).

The unprecedented coral bleaching events of 2014 and 2015 had devastating effects on Hawaii's corals. A 2016 report by The Nature Conservancy found 32 – 90% of bleached coral colonies died in some West Hawaii areas. Though oxybenzone may be just one of many stressors impacting Hawaii's coral reefs, the inevitability of future ocean warming events and subsequent coral bleaching makes it imperative to reduce the stressors to corals and increase their potential to recover and survive.

HSUS and HSI sincerely thank the Committee for taking up this important matter. ***We urge the Committee to pass SB 1150 SD2, HD1*** which will help reduce oxybenzone pollution and harm to Hawaii's coral reefs and wildlife.

Thank you for this opportunity to provide testimony.

SB 1150 SD2 / HD1

Aloha Legislators,

In Hawaii, our environment IS our economy ~ Please ban toxic sunscreens!

I urge OMH to pass HD1 restrict oxybenzone sunscreen use in Marine Life Protection areas and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. There are enough studies showing the negative impact sunscreens containing oxybenzone are having on our reefs; we need to protect them now. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk, such as products that use zinc oxide instead.

Mahalo,

Sylvia Litchfield
Green Party of Maui County

sylvialitchfield@gmail.com

SB 1150 SD2 / HD1

Aloha Legislators,

In Hawaii, our environment IS our economy ~ Please ban toxic sunscreens!

I urge OMH to pass HD1 restrict oxybenzone sunscreen use in Marine Life Protection areas and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. There are enough studies showing the negative impact sunscreens containing oxybenzone are having on our reefs; we need to protect them now. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk, such as products that use zinc oxide instead.

Mahalo,

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Teri Heede	Kapolei	Hawaii	96707	United States
Nedi McKnight	Paauilo	Hawaii	96776	United States
Renee Miller	Makawao	Hawaii	96768	United States
Alice Axe	Toms River	New Jersey	8753	United States
Mary Overbay	Puunene	Hawaii	96784	United States
Pamela Waiolena	Waikoloa	Hawaii	96738	United States
Stephen Newman	Haleiwa	Hawaii	96712	United States
Omar Scott Antar	Moosup	Connecticut	6354	United States
robyn couturier	swansea	Massachuset	2777	United States
Patricia Nardone	Union	New Jersey	7083	United States
Chris Scholl	Neptune	New Jersey	7753	United States
kathy smith	Trumann	Arkansas	72472	United States
Asawari Ghude	Short hills	New Jersey	7078	United States
Guloim Zhapbarbergenova	Bloomfield Hills	Michigan	48302	United States
Ilean Brown	Elliot Lake		P5A 1S2	Canada
Teressa Tremaglio	Boynton Beach	Florida	33435	United States
steve phenicie	silvercliff	Wisconsin	54104	United States
Emanuel Falcone	Fort Myers	Florida	33908	United States
Maura Ivan	Hamilton		LOR1C0	Canada

Cathy Thomas	Richmond	Virginia	23225	United States
Mary Finelli	Silver Spring	Maryland	20904	United States
Caroline Struck	Osnabrück		49086	Germany
elizabeth rose	zanesville	Ohio	43701	United States
Julie Martin	Frederic	Wisconsin	54837-8918	United States
Kelleen Knight	Summerland	California	93067	United States
Eliette Bozzola	Muël		35290	France
sarah compratt	champaign	Illinois	61820	United States
Maryam Kamali	Belmont	California	94002	United States
Sophie Marcella	Victoria		V8V4L4	Canada
Mark Lazeration	Grand Island	New York	14072	United States
Louie Adams	London		N8 8hu	United Kingdom
HM vd Steen	Leiden		2312ZM	Netherlands
Kristina Sedic	Zagreb		10000	Croatia
Jeannine Kühn			50127	Germany
angela eyre	Manchester		M19 2QS	United Kingdom
Astrid McLean	Calgary		T3H 0A2	Canada
Daniela Oliveira	Quilmes-	Buenos Aires	1871	Argentina
Karen McCombs	Garner	North Carolir	27529	United States
CHARMAINE HAMANN	GAITHERSBURC	Maryland	20878	United States
Stephanie Tolla	san francisco	California	94109	United States
Suzanne Post	Franklin	North Carolir	28734	United States
Erica Kolhoff	Garrettsville	Ohio	44231	United States
RedElisa Mendoza	No. Miami	Florida	33161	United States
Jennifer Fogarty	Campbell Hall	New York	10916	United States
Lois Hamilton	Schertz	Texas	78154	United States
a j french	Corning	New York	14830	United States
Meira Geyser	Passaic	New Jersey	7055	United States
Amanda Fletcher	Kihei	Hawaii	96753	United States
Sarah Brandenstein	Makawao	Hawaii	96768	United States
Anne van de merghel	Fountain Valley	California	92708	United States
Bruce Jacobs	Makawao	Hawaii	96768	United States
Deek Martin	Haiku	Hawaii	96708	United States
erin lynch	Marlton	New Jersey	8053	United States
Scorr Widdifield	Pahoa	Hawaii	96778	United States
Kristen Harmon	Honolulu	Hawaii	96826	United States
Virginia Branco	Hilo	Hawaii	96720	United States
Keenan Cheney	Waianae	Hawaii	96792	United States
Amy Pennington	Hilo	Hawaii	96720	United States
Sarah Butler	Kalamazoo	Michigan	49008	United States
Larry Coltrane	Honolulu	Hawaii	96822	United States
Julie Lowery	Kihei	Hawaii	96753	United States

Kristin Palmeri	Pāhoa	Hawaii	96778 United States
Anthony LaBua-Keiser	Haiku	Hawaii	96708 United States
Randy Bartlett	Honolulu	Hawaii	96814-4714 United States
Alana Dandrea	Haiku	Hawaii	96708 United States
Patrick F	Wailuku	Hawaii	96793 United States
Rena Hindman	Mililani	Hawaii	96789 United States
Leslie VanBerg	Wahiawa	Hawaii	96786 United States
D T	APO	Armed Force	96338 United States
Donna Shafer	Moore	Oklahoma	73170-1475 United States

Signed On

1/24/17

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TESTIMONY IN SUPPORT OF SB1150
Submitted Monday, March 20, 2017

I urge OMH to pass HD1 restrict oxybenzone sunscreen use in Marine Life Protection areas and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. There are enough studies showing the negative impact sunscreens containing oxybenzone are having on our reefs; we need to protect them now. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk.

It is critical that we do all we can to protect our reef systems in the face of multiple threats.

Mahalo for your consideration,

Heraldo Farrington
PO Box 952
Volcano, HI 96785
heraldof@stanford.edu
808-756-6978

March 20, 2017

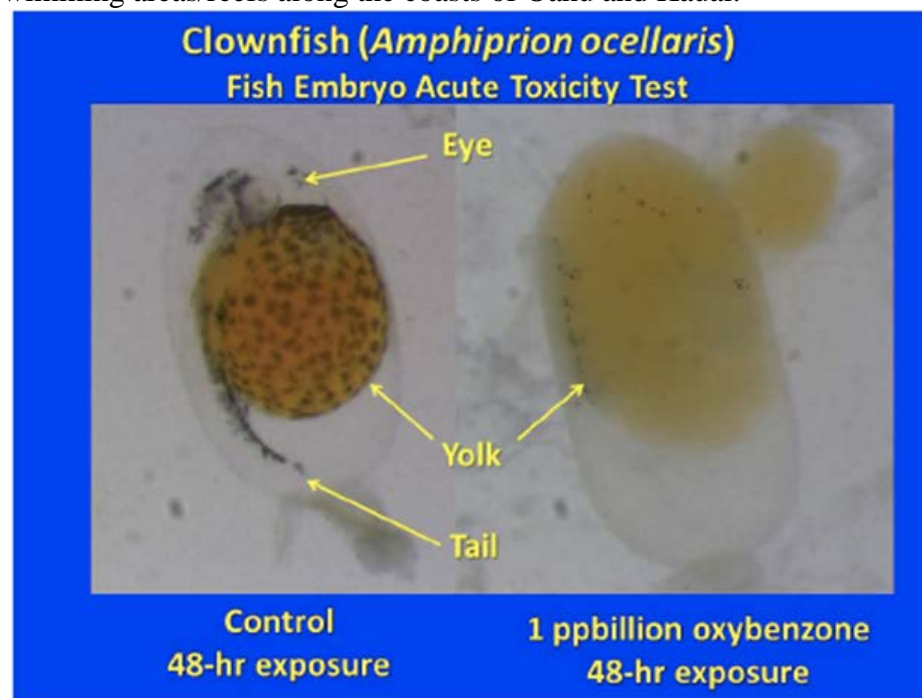
To:

Chairman Rep. Kaniela Ing & Rep. Committee Members
Committee on Ocean, Marine Resources, and Hawaiian Affairs
State of Hawai'i House of Representatives, The Twenty-ninth Legislature

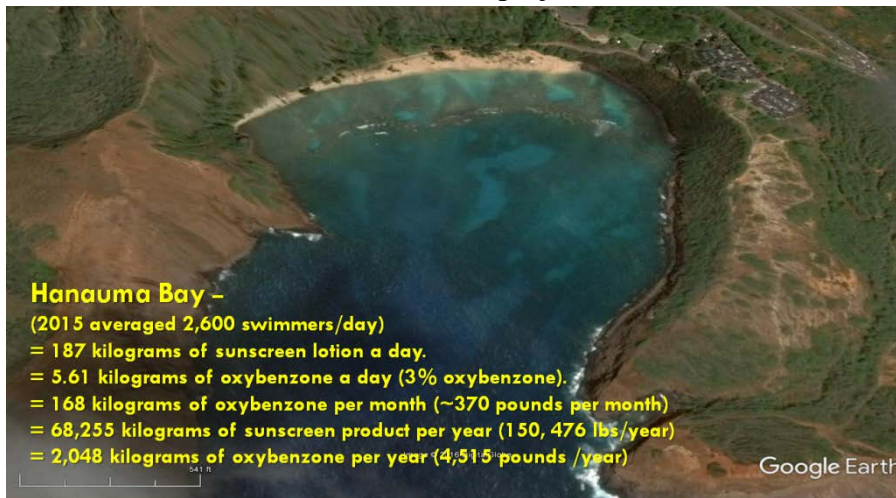
Dear Chairman Lee and the Committee Members,

I was the lead scientist who co-authored the scientific paper in Archives of Environmental Contamination and Toxicology regarding the impact of oxybenzone on coral planula and oxybenzone contamination along the coasts of Hawai'i and the U.S. Virgin Islands. I am also a graduate of the John A. Burns School of Medicine at the University of Hawai'i at Mānoa.

I am very excited that you will be hearing SB1150 SD2 in your committee. Preventing oxybenzone pollution of coral reefs is critical in protecting and bringing back Hawaii's already degrading coral reefs. We now know that oxybenzone impacts not only coral larvae and recruitment, it impacts other important species, such as shrimp, fish, and sea urchins. Already, popular tourism areas in Hawaii that were teeming with life only 20 years ago have become an underwater-wasteland. We see oxybenzone contaminating not just Hawaii's coastal waters, but the fish that we eat that are caught in Hawaiian waters. Preventing oxybenzone pollution is an important tool to help bring back coral and marine life. Coral reefs are valued not just by residents, but tourists and the businesses that depend on the underwater paradise of Hawai'i. The image below is what 1 part per billion OXYBENZONE can do to a fish embryo in 48 hours! This concentration can be seen soon after high tide in areas along Maui's West Coast and in many popular swimming areas/reefs along the coasts of Oahu and Kauai.



The amount of sunscreen that is going into Hawaiian waters is much more than most people would guess. Just an estimate on the number of visitors to a site, and what the American Dermatological Association recommends for the amount of sunscreen use per person for every two hours – the amounts estimated to pollute our waters are staggering, and are consistent with the amount we scientifically determined for Oahu, Maui, and Kauai! (see <http://www.hawaiiocanambassadors.com/events--projects>)



You will be receiving SB1150, SD2 and it currently states that it “prohibits the use or application of products containing oxybenzone while on a beach or in the ocean unless it is a prescription drug.” Though we support the SPIRIT of this legislative language, we cannot support its limited effects. This lack of effectiveness will remove the onus of responsibility from the cosmetic industry and its associated D.C. lobby groups, and places it directly onto locals, tourists and businesses that interact directly with tourism. **THIS IS WRONG.**

We strongly encourage this committee to amend the bill to “**PROHIBIT THE SALE**” of oxybenzone products, similar to the language found in SB260, allowing for a medical prescription to be used. We know that public health is important, and we don’t see a trade-off in protecting both public health and wildlife. There are ample commercial sunscreen products that contain safer active ingredients than oxybenzone, and that these products are sold by the supermajority of manufacturers that distribute their products in Hawaii (e.g., Avene, L’Oreal, Coppertone, Banana Boat, Neutrogena). These safer products all comply with U.S. Food & Drug Administration’s regulations on SPF values and UV protection and are cost-competitive to oxybenzone products.

We understand this issue is critical and that it has brought national and international attention to Hawaii. Just from looking at previous testimonies, the D.C. Lobby groups are using the same tactics and slogans used during the Tobacco Wars. We ask that you ignore the influence of D.C. lobby groups whose goal is to profit its members, and consider the health and well-being of Hawaiians and their highly valued and imperiled natural marine resources.

Ua Mau ke Ea o ka Aina i ka Pono

Craig A. Downs, Ph.D.
Executive Director



March 9, 2017

Dear Honorable Members of the Hawai'i Legislature:

I am a co-author of the scientific paper that demonstrated the damaging effects of oxybenzone on coralsⁱ and I urge you to ban the nonprescription sale and use of sunscreens and cosmetic products containing this ingredient.

Oxybenzone damages corals in five different ways. Oxybenzone causes

1. DNA damage
2. cell death
3. deformities in coral larvae
4. coral bleaching, which is a disease
5. increased susceptibility to viral infections.ⁱⁱ

Significant negative effects occur when corals are exposed to minute concentrations of oxybenzone (in the part per billion to part per trillion range), including concentrations lower than those observed on popular Hawaiian beaches. All published scientific evidence agrees: oxybenzone damages corals and other marine life. **I personally do not use sunscreens that contain oxybenzone and I urge my family, friends and colleagues not to use them, either.**

Fortunately, almost every major sunscreen manufacturer has a product that uses safe and effective ingredients such as zinc oxide and titanium dioxide instead of oxybenzone. Lightweight beach clothing such as hats, rash guards, fishing shirts and sundresses also provide protection against UV radiation. When Dr. Craig A. Downs and I did our initial field work in the US Virgin Islandsⁱⁱⁱ, to ensure we were clean, we showered with a harsh laboratory soap and were not allowed to use any personal care products: no sunscreen, no deodorant, no lotion – nothing.

We expected to endure a smelly and sunburned week lugging our SCUBA gear and scientific equipment all over St. John, but that did not happen. Instead, wearing hats and loose-fitting clothing while on land (and working in the shade whenever possible) and lightweight dive skins in the water was sufficient protection. This is an especially good combination for tourists from higher latitudes visiting the tropical shores of Hawai'i.

As a scientist who believes in solving problems, I urge you to ban both the sale and use of sunscreens, sun block and cosmetic products containing oxybenzone. All waters in Hawai'i eventually drain to the ocean, so even sunscreens applied and washed off at home eventually will reach the ocean. A sales ban will be more effective and easier to enforce, and **clever vendors actually could increase sunscreen, sun block and cosmetic sales by offering a discount to any customer who turns in a product containing oxybenzone.**

I spent my honeymoon on O'ahu and Kaua'i, and returned with warm memories of beautiful islands, vibrant marine life and welcoming people. Passing legislation to ban the nonprescription sale and use of sunscreens and other products containing oxybenzone will help ensure that future generations of honeymooners and tourists return with similar memories . . . and perhaps with a new bottle of sunscreen containing safer active ingredients! I urge you to amend SB 1150 to include both a ban on nonprescription sale and use of sunscreens, sun block and other cosmetics containing oxybenzone, and to pass this legislation that is so important for protecting Hawai'i's coral reefs.

Sincerely,

John E. Fauth

John E. Fauth, Ph.D.

Associate Professor of Biology

ⁱ Downs, C.A., E. Kramarsky-Winter, R. Segal, J. Fauth, S. Knutson, O. Bronstein, F. R. Ciner, R. Jeger, Y. Lichtenfeld, C.M. Woodley and P. Pennington. 2016. Toxicopathological effects of the sunscreen UV filter, Oxybenzone (Benzophenone-3), on coral planulae and cultured primary cells and its environmental contamination in Hawaii and the US Virgin Islands. Archives of Environmental Contamination and Toxicology 70(2):265-288.

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- ii Danovaro, R., L. Bongiorni, C. Corinaldesi, D. Giovannelli, E. Damiani, P. Astolfi, L. Greci, and A. Pusceddu. 2008. Sunscreens cause coral bleaching by promoting viral infections. *Environmental Health Perspectives* 116(4):441-447.
- iii Downs, C.A., C. M. Woodley, J. E. Fauth, S. Knutson, M.M. Burtcher, L.A. May, A.R. Avadanei, J.L. Higgins, and G.K. Ostrander. 2011. A survey of environmental pollutants and cellular-stress markers of *Porites astreoides* at six sites in St. John, US Virgin Islands. *Ecotoxicology* 20:1914-1931.



March 20, 2017

To Members of the entire State of Hawaii Legislature and the Honorable Governor David Ige,

I am one of the scientists who co-authored the scientific paper in Archives of Environmental Contamination and Toxicology regarding the impact of oxybenzone on coral planula and oxybenzone contamination along the coasts of Hawai'i and the U.S. Virgin Islands. I am a world-expert on coral reproduction and coral recruitment biology and physiology.

Oxybenzone in the marine environment can have detrimental effects to all marine life, including changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity. It is known to impact sea urchin development, as well as reduce the viability of sea urchin sperm at concentration that are commonly found in high tourist areas in Hawaii. Furthermore, oxybenzone in the study by Dr. Parades and co-workers demonstrate its impacts in embryos and larvae of bivalves (mussels), shrimp, and even important reef algae.

Most importantly, oxybenzone may suppress restoration of coral reefs by preventing juvenile corals to recruit into an area that is polluted by oxybenzone. This is critical for Hawaii in the faces of disastrous effects of mass bleaching events of last year, and perhaps to continue into the summer of 2017. My work has shown that coral reefs can survive and recover after a mass bleaching event if in an unpolluted environment (Stone et al. 1999. Ecology Letters 2:325-330). What is critical are the conditions that allow for a natural recovery. Oxybenzone is an agent that can prevent a natural recovery.

Passage of a ban on the sale of products containing oxybenzone (unless it is a medical prescription by a medically licensed physician) can be a VERY effective means in mitigating oxybenzone pollution in both coastal and inland waters.

I am supporting S1150, SD2/HD1 to restrict oxybenzone-product use in Marine Life Protection areas and to BAN the sales of oxybenzone products at concession stores serving Hanauma Bay and other Marine Protected areas. I also encourage the committee to consider banning the SALE of ALL OXYBENZONE products in the State of Hawaii without a medical prescription as being an effective means in reducing oxybenzone pollution. I strongly recommend that the bill be expanded.

Respectfully,

A handwritten signature in black ink, appearing to read 'Y. Loya'.

Yossi Loya, PhD
Member, Israeli Academy of Sciences
Professor (Emeritus) of Marine Ecology
School of Zoology, Tel Aviv University



School of Geography
and Earth Sciences

1280 Main Street West
Hamilton, Ontario, Canada
L8S 4K1

To:
Chairman Rep. Chris Lee and Committee Members
Committee on Energy and Environmental Protection
State of Hawaii

From:
Dr. Michael J Risk
Durham ON Canada

Date: Mar. 15, 2017

Re: Oxybenzone.

Dear Chairman Lee:

I am a coral reef ecologist, with many years of experience in the Pacific. To date, my work has been cited almost 8000 times in the scientific literature. I have been to Hawaii several times, as a guest of your federal government. I have been greatly impressed by the mind-boggling bounty of beauty in this state. It would seem to me to be sensible to preserve what you have.

I try to keep up with recent science, and to those of us who know the literature, it is absolutely no secret that oxybenzone is a coral killer. The damaging effect on coral larvae can be seen at unbelievably low concentrations. Not only that, oxybenzone is incorporated into the food chain so that it contaminates human food.

The use of this compound in sunscreen can no longer be defended. Many companies produce more reef-friendly products at competitive prices. The only reason to continue with this compound is: greed.

I understand you will be reviewing legislation called SB1150 SD2 in your committee. This would be a good start, but as worded, it prohibits the use of, rather than the sale of. With the scientific picture being so clear, it would make much more sense simply to ban the sale of any products containing oxybenzone in the state of Hawaii.

It is interesting that this struggle has reached around the world. Globally, coral reefs are in terrible shape, under threat from a host of sources. Removing this one threat would be easy to do, and would send a message. I hope you understand that I am not interfering here, I am commenting as a concerned scientist.

A handwritten signature in black ink, appearing to read "M. Risk".

MJRiskEnvironmental Ltd.
PO Box 1195, Durham ON
Canada



In The Name of God

Institute of Geophysics
University of Tehran

No.

Date.

March 19th, 2017

To Members of the entire State of Hawaii Legislature and the Honorable Governor David Ige,

I am an environmental scientist at the Institute of Geophysics - University of Tehran, Tehran, Iran. I have been studying the impact of human activities on the marine environment.

I want to express my support for the legislation to mitigate sunscreen pollution in Hawaii.

Oxybenzone in the marine environment can have detrimental effects to all marine life, DNA damage to marine organisms, it can act as an endocrine disruptor affecting larval development and reproductive success, and its pollution can suppress the natural restoration of coral reefs after a degradation event, such as a mass coral bleaching event.

Passage of a ban on the sale of products containing oxybenzone (unless it is a medical prescription by a medically licensed physician) can be a VERY effective means in mitigating oxybenzone pollution in both coastal and inland waters.

Your efforts in legislative conservation have been noted around the world, and we applaud your effort and leadership.

Respectfully submitted,

S. Abbas Haghshenas, PhD.
Assistant Professor in Physical Oceanography
Institute of Geophysics - University of Tehran
Tehran, Iran
Tel: +98 21 6111 8318
Email: sahaghshenas@ut.ac.ir



SPANISH MINISTRY
OF ECONOMY AND
COMPETITIVENESS



Institute of Environmental Assessment
and Water Research (IDAEA)
SPANISH NATIONAL RESEARCH COUNCIL (CSIC)

From:
Silvia Díaz-Cruz, Ph.D.
Spanish National Research Council (CSIC)
Institute of Environmental Assessment and Water Research (IDAEA)
Barcelona, Spain

Barcelona, 20th March 2017

TO WHOM IT MAY CONCERN

Hereby I, Dr. Silvia Diaz Cruz, from the Spanish National Research Council CSIC, (Spain) want to support the prohibition of the use or application of products containing Oxybenzone, also known as Benzophenone-3, 2-Hydroxy-4-methoxybenzophenone and (2-Hydroxy-4-methoxyphenyl)-phenylmethanone (IUPAC name), in areas close to marine ecosystems to help marine life preservation. So far there are many evidences supported by reliable scientific studies published in prestigious scientific journal, showing the risk this sunscreen agent pose for marine environments, and especially relevant for coral reefs.

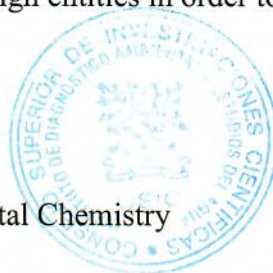
Based on my own scientific research experience of more than a decade studying the impact of UV filters and blockers in the environment, I support SB1150 SD2.

The CSI) is the largest public institution dedicated to research in Spain and the third largest in Europe. Belonging to the Spanish Ministry of Economy and Competitiveness through the Secretary of State for Research, Development and Innovation, its main objective is to develop and promote research that will help bring about scientific and technological progress, and it is prepared to collaborate with Spanish and foreign entities in order to achieve this aim.

Silvia Díaz-Cruz

Researcher at the Department of Environmental Chemistry
IDAEA-CSIC

E-mail address: sdcqam@cid.csic.es



id \ae a

C/ Jordi Girona, 18
08034 Barcelona. Spain
Tel. 93 400 61 00
Fax.: 93 204 59 04

Support SB1150 SD2

Amend to Ban the SALE of Oxybenzone

March 20, 2017

Dear Chairman Lee and the Committee Members,

I recently learned of your interest in the negative effects of sunscreens that contain Oxybenzone and other chemicals that have recently been shown to affect corals and especially their all-important larvae. I am a Florida native and have been studying coral reefs since the 1950s. I retired from the USGS in 2006 and am now affiliated with the University of South Florida College of Marine Science in St. Petersburg, Florida. I have published many peer-reviewed papers on the geology and growth rates of corals in the Florida Keys.

The studies by Dr. Craig Downs and others showing the toxicity of sunscreens to corals was a real eye-opener since I have been documenting the demise of coral reefs in the Florida Keys for more than 60 years. Initially I assumed the problems were caused by sewage, which is disposed of in septic tanks and shallow injection wells. My studies while with the USGS also demonstrated that sewage contaminated groundwater flows seaward in the Florida Keys and upwells offshore in the vicinity of our coral reefs. Unfortunately these reefs are now mostly dead but were alive and well when I began diving and researching these reefs in the 1950s. During that time I was not aware that Oxybenzone in addition to nutrients is also a component of Keys wastewater. The studies by Downs and his colleagues made me aware that in addition to sunscreen those toxic chemicals can be found in many cosmetic products that ultimately go down the drain when tourists and residents bathe. Those chemicals quickly become components of the wastewater that upwells offshore where they filter through our dying coral reefs. This path of delivery to the reefs has not been adequately considered before but is yet an additional way Oxybenzone reaches coral reef areas. And of course there are the tourists swimming on these reefs often producing an oily slick on the water surface.

Because of these observations I encourage you to ban the sale of Oxybenzone containing products if you wish your reefs to recover to their former health condition.

Sincerely,

Eugene A. Shinn PhD

March 2017


Letter of support for oxybenzone bans (Senate Bill 1150 SD2).

Our studies including others studies by scientists, showed that the chemical benzophenones / oxybenzone (e.g. benzophenone-2 and benzophenone-3) an active sunscreen ingredient found in common sunscreen products and cosmetics affects coral larvae viability and is toxic to coral cells *in vitro*. This work is part of a study carried out by our group to assess the effects of chemicals found in cosmetics on marine organisms particularly on coral reefs. We demonstrated that benzophenones, UV filtering chemicals found in commercial sunscreen can cause coral bleaching affect calcification and may even cause death of corals. The last study that published recently showed that Benzophenone-3 affects coral larvae preventing their development and ability to settle and metamorphose. These effects occur at concentrations that are very low, at parts per billion levels. It is important to note that such relative effective levels of this contaminant were actually found in water in Hawaiian beaches, in the Virgin Islands and the Red Sea. The information published in this paper was significant and may led to changes in legislation in Hawaii, The US Virgin Islands and also to motion for a European Parliament resolution on banning benzophenones / oxybenzone in cosmetics (B8-1243/2015).

To summaries, studies showed that the chemical benzophenones / oxybenzone is an endocrine disruptor that induces unnatural calcification of the coral larvae, encasing them in their own skeleton. The presence of oxybenzone in miniscule amounts has been found to have a deleterious impact on coral and other marine life. In light of the large number of swimmers along our shores where coral is found, preventing further harm to our marine life from this chemical is urgent and critical for our long-term economic, cultural, and environmental wellbeing.

Prof. Ariel Kushmaro,

Head of Environmental Biotechnology Lab, Department of Biotechnology Engineering, The Ilse Katz Center for Meso and Nanoscale Science and Technology and NIBN Ben-Gurion University, Beer Sheva, 84105, Israel.


Prof. Ariel Kushmaro
Head of Environmental Biotechnology Laboratory
The Department of Biotechnology Engineering
Ben-Gurion University of the Negev



March 20, 2017

Dear Chairs Chris Lee, Nicole Lowen, and
Members of the Committee on Energy and Environmental Protection,

As an aquarist and researcher at the National Aquarium, I was one of the co-authors the scientific paper in Archives of Environmental Contamination and Toxicology regarding the impact of oxybenzone on coral planula and oxybenzone contamination along the coasts of Hawai'i and the U.S. Virgin Islands. I now am working with SEA LIFE Aquariums and the SEA LIFE TRUST.

Research concludes that oxybenzone can have detrimental effects to all marine life, including changes in fish behavior, pathological changes to fish sexual identity, damage to genomic and DNA integrity, and may suppress restoration of coral reefs by preventing juvenile corals to recruit into an area that is polluted by oxybenzone.

There are many other ways to protect skin from the damage of the sun and passing a ban on the sale of products containing oxybenzone (unless it is a medical prescription by a medically licensed physician) can effectively reduce the oxybenzone entering the ecosystems.

The SEA LIFE TRUST and I support SB 1150, SD2 and it being amended to "Prohibit the Sale of Oxybenzone products unless a medical prescription", as being an effective means in reducing oxybenzone pollution.

Respectfully submitted,

Kelli Cadenas
Curator
SEA LIFE Michigan



EKW
RESEARCH
DEVELOPMENT

March 20, 2015

Letter of support for ban of oxybenzone products (Bill nos HB600 HD1; HB818HD2; SB1150 SD2 and HB450 HD1)

To the Hawaii State Legislature,

There is increasing scientific evidence that traces of oxybenzophenones originating from cosmetic sunscreens can be found in aquatic environments with high swimmer pressure. In these studies (including some by our multinational research group) various effects of benzophenones and their derivatives were reported to have deleterious affects on corals, sea urchins, algae, sea grass and additional organisms. Studies by our group further showed that the active ingredients found in these common sunscreens and cosmetics affect coral larval viability and is toxic to coral cells *in vitro*. We demonstrated that these benzophenones, can cause coral bleaching and affect calcification and may even cause death of young and adult corals.

Our most recent published study showed that Benzophenone-3 affects coral larvae preventing their development and ability to settle and metamorphose. These effects occur at concentrations as low, as parts per billion levels, levels that are found in the environment in waters in Hawaiian beaches, in the Virgin Islands and the Red Sea. The information published in this paper is significant hopefully will be taken into account by legislators in Hawaii, the US Virgin Islands. Recently it was also included in a motion for a European Parliament resolution on banning benzophenones / oxybenzone in cosmetics (B8-1243/2015).

A number of studies have shown that these chemicals are endocrine disruptors that induce unnatural calcification of the coral larvae, encasing them in their own skeleton. The presence of oxybenzone in even miniscule amounts in ambient water has been found to have a deleterious impact on marine life. In light of these deleterious effects and the large number of swimmers in areas where corals are found, we call for the prevention of further harm to our marine life from this chemical. We therefore call for a ban of this chemical and its derivatives in sunscreens used in Hawaii in order to maintain healthy reefs and marine environment in the wonderful Hawaiian Islands.

Sincerely

Esti Kramarsky-Winter, Ph.D.
Research Scientist



AMEND SB 1150, SD2

PRESERVING CORAL REEFS BY PROHIBITING THE SALE OF OXYBENZONE-CONTAINING PRODUCTS!

March 20, 2017

Aloha Chairs and Members of the Committee:

On behalf of the team here at Hawaii Mermaid Adventures operating in the beautiful waters of Maui, WE STRONGLY ASK that you amend Senate Bill 1150, SD2 to a ban on the sale of sunscreen and products that contain oxybenzone.

The growing numbers of visitors are having an impact on the reef systems. Every step we can make to improve the life of our single greatest visitor attraction and lifeblood of Hawaii we must take.

The coral reefs, and our businesses, do not have the luxury of time for half measures or political indecision. Our reefs are disappearing NOW, and we need to protect them so they can restore themselves.

Our team is committed to doing the right thing and we will strongly support everyone who understands the importance of saving our reefs from these and other harmful chemicals.

Mahalo,

Lila Jones
Head Instructor



Strongly Supporting Amendment to SB1150 Banning the SALE of Oxybenzone Products

March 20, 2017

Aloha Chairs and Members of the Committee:

On behalf of myself and the entire team at Hawaiian Paddle Sports we strongly support the amending SB1150, SD2 to **"PROHIBIT THE SALE"** of oxybenzone products, similar to the language found in SB260, allowing for a medical prescription to be used.. Oxybenzone products must be banned in Hawaii and across the US as they are harming our reef systems.

Only a complete ban on these types of sunscreens will be acceptable.

Our employees depend on the income derived from a healthy prosperous reef. Visitors come all the way to Hawaii to have a quality reef experience. We must continue to provide help, improve and protect that which we all hold so dear.

Please support and amend SB1150, SD2 as a "BAN on SALES" and make it known that Hawaii is at the forefront of eco-friendly and sustainable tourism efforts worldwide.

Mahalo,

Tim Lara
Owner



Strongly Supporting SB 1150 SD2, but to Amend as a Prohibition of Sale

March 20, 2017

Aloha Chairs and Members of the Committee:

On behalf of all our employees at Maui Kayak Adventures we strongly urge you to support the bill SB 1150SD2, but please amend this legislation so that it more closely resembles SB260 or HB818 v2, which is the **Prohibition of sale of oxybenzone products unless a medical prescription**. Ban oxybenzone sunscreen across Hawaii and give our reefs another chance to survive.

The reefs are under siege from a variety of human and natural events. This is one simple thing we can do to help it withstand the assaults. Our organization is taking proactive steps to teach guests about the harms they can do to our precious reefs. Reef Safe Sunscreen is part of that lesson.

None of the other bills goes far enough to really impact the health of our reefs. Support A Ban on Sales to make Hawaii a tourism leader. There are a large number of FDA-approved sunscreen products that can be used instead of oxybenzone-containing products. Banning oxybenzone products is NOT a compromise between people's health and well-being, and the conservation and restoration of Hawaii's precious coral reefs. Our coral reefs are disappearing, and we don't need half measures that are not effective in protecting our coral reefs!

Mahalo,

Kathi Sollars
Manager

Maui Kayak Adventures , 551 S Kihei Rd Kihei, HI 96753 United States (US)

<https://maui kayak adventures.com>



Amend SB 1150 SD2 to Prohibit the Sale of Oxybenzone Products!

March 20, 2017

Aloha Chairs and Members of the Committee:

We strongly support an amendment of SB1150 SD2 to “**PROHIBIT THE SALE of oxybenzone products**” for a number of reasons:

1. Banning oxybenzone which harms marine life and disrupts reef activity causing damage.
2. The success of SB1150, SD2 will bring to light on a national level the state of our environment and immediately put Hawaii in the forefront of tourism worldwide.
3. The educational opportunities from this ban will afford can also greatly improve other aspects of the tourism and go far to repair the relationship residents of the islands have with tourism.
4. It shows respect to the Hawaiian culture that cared for the reefs and managed them for hundreds of years.
5. It gives the residents of Hawaii confidence that their government is making the right decisions for the good of the reef. Now more than ever we need confidence in our lawmakers to stand up and do the right thing.
6. Our clients depend on beautiful reefs for paying tours. Increasing Average Daily Rates without adding more visitors are dependent on a healthy reef to show off. We need to make all investments in it we can.

Please give your full support to amending SB1150 as a BAN on the sale of oxybenzone products!

Mahalo,
Daniel Logtenberg
President



Do The Right Thing Support Sb 1150

March 20, 2017

Aloha Chairs and Members of the Committee:

We are writing to you today to encourage you to consider SB 1150, SD2 by amending the bill and change it from a “ban on the beach” to “**PROHIBIT THE SALE**” of oxybenzone products, similar to the language found in SB260, allowing for a medical prescription to be used.

Coral reefs are degrading all over coast of Hawaii. More importantly, the reefs that sustain tourism in Maui has been a precipitous decline in the past 15 years. We know there are many factors causing their decline, but a healthy system can bounce back quickly. Removing oxybenzone pollution from our coastal waters gives the reefs a chance to heal, and become a beautiful place for both locals and tourists. Tourism depends on having a beautiful reef and it's under attack from multiple angles. Sunscreen is one of them.

You only have to look under a big boat that drops people off at Turtle Town to see the clouds of non-reef-safe sunscreen drifting thru the water.

We are asking that you do the right thing for our environment and the marine life which so many visitors come to see.

Mahalo,

Laurie Pyle
Head Guide



Please Amend SB 1150 SD2 To Ban the SALE of Oxybenzone Products

March 20, 2017

Aloha Chairs and Members of the Committee:

On behalf of myself and the entire team at Maui Surf Lessons we strongly encourage and support amending of SB 1150, SD2 to BAN the SALE of Oxybenzone products, unless . Oxybenzone products must be banned in Hawaii and across the US as they are harming our reef systems.

Only a complete ban on these type of sunscreens will be acceptable. Labeling products as dangerous will not be effective!

Our employees depend on the income derived from a healthy prosperous reef. Visitors come all the way to Hawaii to have a quality reef experience. We must continue to provide help, improve and protect that which we all hold so dear.

Please amend SB 1150 and make it known that Hawaii is at the forefront of eco-friendly and sustainable tourism efforts worldwide.

Mahalo,

Tim Lara
Owner



We Strongly Support SB 1150

March 20, 2017

Aloha Chairs and Members of the Committee:

We strongly support any effort that improves the health of our reef systems. A healthy reef improves all water activities, provides for more fish and habitat for many endangered species. You must support a full ban on oxybenzone containing sunscreens and skincare products. The livelihood of thousands in the tourism industry are at stake and we trust that you will do the right thing and hear SB1150 SD2.

Though we support the SPIRIT of this legislative language, we cannot support its consequences. Such adverse consequences will remove the onus of responsibility from the cosmetic industry and its associated D.C. lobby groups, and places it directly onto locals, tourists and businesses that interact directly with tourism. **THIS IS WRONG.**

We strongly encourage this committee to amend the bill to "**PROHIBIT THE SALE**" of oxybenzone products, similar to the language found in SB260, allowing for a medical prescription to be used. We know that public health is important, and we don't see a trade-off in protecting both public health and wildlife.

No other bill out there does enough to protect our primary industry driver from sunscreen and skin care products that utilize harmful chemicals. Many of these products are not made in the islands and banning them will only encourage a larger local industry where the profits stay in Hawaii.

Make Hawaii known throughout the world as the top tourism destination in the world and the best place to live by amending SB1150 to "**PROHIBIT THE SALE**" of oxybenzone products.

Yours,

Ray Hutaff
Vice President

Committee on Ocean, Marine Resources, and Hawaiian Affairs
March 21, 2017 Hearing

Dear Rep. Ing and Members of the Committee for OMH,

Dear members of the legislature:

I am resident of Virginia but I travel to Hawaii as a tourist to enjoy the beautiful beaches in Coral. Snorkeling in Maui was a highlight of my last visit and I was sorry to know that the coral is being degraded, in part by oxybenzone. I am reluctant to go back to Hawaii just to watch the coral be destroyed.

Please work hard to protect your most precious natural resource for us to enjoy and for nature to use by banning oxybenzone based sunscreen. For too long the oceans and coral have been ignored by the general public and our representatives. It is time for you to take heroic action and do the right thing. Also remember that banning oxybenzone will in the long run save jobs and bring more tourist money to Hawaii.

Thank you

Stephen C Martin
589 Naked Creek Lane
Amherst, VA 24521

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, March 19, 2017 9:23 PM
To: omhtestimony
Cc: birdofparadise@hawaii.rr.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Nandoskar	Individual	Support	No

Comments: Aloha, I am a constituent living in Waikiki, a highly tourist populated area, and realize the urgency to pass legislation that protects our precious coral reefs from the deleterious effects of oxybenzone which several scientific studies have deemed toxic to corals even in small amounts and endocrine-disrupting in humans. Please follow the precautionary principle by supporting this bill and protecting both our precious natural resources for future generations as well as our current and future economy in Hawaii which relies heavily on tourism and the appreciation of our natural resources. Please pass SB1150 SD2 HD1, which takes reasonable initial steps by: 1) restricting use of sunscreens containing oxybenzone in nature preserves and Marine Life Conservation Districts and their sale at county concessions serving such areas; and 2) authorizing DLNR to propose rules wherever needed to protect other areas. Please also take next steps by drafting legislation for 2018 to create a public awareness campaign for tourists and locals describing the harm oxybenzone causes to the reefs, which products contain it and why we no longer allow these products in the Islands. Mahalo!

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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To: omhtestimony
Cc: tbohl8@yahoo.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Ted Bohlen	Individual	Support	No

Comments: Please protect precious coral reefs by restricting the sale and use of sunscreens containing oxybenzone. Several scientific studies indicate that even very small amounts of oxybenzone are toxic to corals and may harm human health by disrupting our hormones. Please follow the precautionary principle now by acting to protect public trust natural resources on which our economy and island survival depend. Please pass SB1150 SD2 HD1, which takes reasonable initial steps by: 1) restricting use of sunscreens containing oxybenzone in nature preserves and Marine Life Conservation Districts and their sale at county concessions serving such areas; and 2) authorizing DLNR to propose rules wherever needed to protect other areas. Mahalo!

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From: mailinglist@capitol.hawaii.gov
Sent: Sunday, March 19, 2017 6:08 PM
To: omhtestimony
Cc: lorraineparis@msn.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Lorraine Garnier	Individual	Support	No

Comments: Dear OMH Committee, I am in support of SB1150. Our reefs have suffered too long due to our lack of knowledge about how badly sunscreens with the wrong ingredients can affect our reefs and wild life there. Our Reefs are inundated with issues from warming oceans, acidification, over-fishing, aquarium collection lack of knowledge about how to swim over reefs. The last thing the reefs need is a coat of chemicals that linger and destroy the coral organism. Lets move forward Hawai'i and protect our reefs we all depend on them!!

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To: omhtestimony
Cc: hawaiifishingfanatic@gmail.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Don Aweau	Individual	Support	No

Comments:

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To: omhtestimony
Cc: launahele@yahoo.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Benton	Individual	Support	No

Comments:

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Sent: Sunday, March 19, 2017 12:33 PM
To: omhtestimony
Cc: mark.gordon333@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Mark Gordon	Individual	Support	No

Comments: Aloha Please SUPPORT SB1150. Oxybenzone has been found to be harmful and detrimental to not only coral, but other marine wildlife as well. I believe banning the use of sunscreen which contain oxybenzone on beaches is a good first step to a Statewide Ban. However, it is also my observation that enforcing this would be very difficult to do, especially with limited enforcement staff, as well as many residents and tourists not willing to comply with this Bill, especially since there does not appear to be any civil or monetary penalties for non-compliance. Prohibiting concessions, which provide services to ocean areas where there are coral reefs from selling oxybenzone sunscreen and reminding customers not to use such material is again a great Initial step to banning oxybenzone in sunscreens Statewide. Mahalo for allowing me to share my comments and observations. Mark Gordon Waikoloa HI

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The following information is being submitted with respect to supporting SB1150 SD2 HD1 Banning Oxybenzone Containing Products in Marine Life Protection Areas

Aloha, I respectfully urge OMH to pass SB1150 SD2 HD1 restricting Oxybenzone sunscreen use in Marine Life Protection areas and sales of Oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. There are enough studies showing the negative impact sunscreens containing Oxybenzone are having on our reefs; we need to protect them now. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk.

Additionally, the information provide below is based on the opposition concerns submitted for testimony during the EEP hearing of the bill:

A) Concern: Oxybenzone “This FDA-approved and dermatologist recommended ingredient has been used commercially since 1980 to protect against skin damage and skin cancers, such as melanoma and squamous skin cell carcinoma.” ... “More study is needed. As such, we would oppose amending this bill to ban the sale of this cancer-preventing product.” **AND** “When used as directed, sunscreens containing oxybenzone have proven to be very effective in protecting skin against the sun’s harmful rays.” **AND** “Sunscreen products are vital to human health. A state-specific restriction on the use of this product would put the citizens of Hawaii and tourists visiting the state at great risk.”

Data: The number of adults treated for skin cancers has increased from 3.4 million in 2002–2006 to 4.9 million in 2007–2011 (1). The American Contact Dermatitis Society sighted benzophenones as the “2014 Allergen of the Year” with Oxybenzone (Benzophenone-3) being the most frequent reactor (2). In a survey conducted by the National Cancer Institute, only 70.8% of adults practice some form of sun protective behavior with 33.7% choosing sunscreen use - yielding less than 24% of the population applying sunscreen products (3).

FYI: According to PC World, in 1980 the first 1 GB hard drive cost \$40,000 and weighed over 500 pounds. Today, you can buy a 32 GB thumb drive that weighs a few grams for \$8.99 ... a lot of things have changed since 1980!

B) Concern: “The Food and Drug Administration (FDA) has approved 16 sunscreens, of which only 2 provide effective UVA protection.”

Data: FDA approved actives that provide effective UVA protection based on their definition of critical wavelength - attenuation of 370 nm and above (4). Of the 6 actives approved, Oxybenzone would be tied for last place with Octocrylene.

FDA Monograph Sunscreen Ingredients Drug Label Name (INCI/Common Name)	Attenuation in NM	Peak Absorption
Octocrylene	290 - 370	305 - 325
Oxybenzone (Benzophenone-3)	290 - 370	290 - 300 & 325 - 340
Menthyl anthranilate	290 - 380	340 - 350
Avobenzon (Butyl Methoxydibenzoylmethane)	290 - 390	355 - 370
Titanium dioxide	290 - 400	290 - 320
Zinc oxide	290 - 400	290 - 385

C) Concern: “Senate Bill 1150 is not based on proven science, but rather is based on a single laboratory experiment that lacks sufficient scientific evidence connecting a sunscreen ingredient to coral bleaching”

Data: In 2008 Oxybenzone was first reported to produce coral toxicity (5). Further research in 2015 identified Oxybenzone as a phototoxicant, genotoxicant and a skeletal endocrine disruptor in coral. This article went on to calculate the Lethal Concentration 50 or LC50 (a well accepted and commonly used acute toxicity indicator dating

back to 1927) for coral larvae and several different species of coral (6). Additionally, Oxybenzone LC50s have been reported for other invertebrate and vertebrate species (7).

FYI: The only scientific information on Oxybenzone presented by those in opposition to the bill, was an abstract conducted by industry (L'Oreal) and was not based on proven science?

D) Concern: "In a recent news article, Terry Hughes, Director of the Australian Research Council Centre of Excellence for Coral Reef Studies at James Cook University, suggests that extrapolations asserting sunscreen is damaging the world's coral "are a bit of a stretch ... "the conclusion from the media is sunscreen is killing the world's coral, and that's laughable." **AND** "coral reefs are threatened by an increasing array of impacts – primarily from global climate change, unsustainable fishing and other factors. Increasing ocean temperature and acidification, overfishing, coastal development and pollution are well known stressors on coral reefs." **AND** "We believe the recent coral bleaching events are of great concern, and have noted that coral experts around the world are unanimous in the opinion that global climate change is the major factor affecting coral health.

Data: There is no doubt that coral death is produced by numerous factors; ranking them would appear to be somewhat inconsequential since regardless of what one dies from, one is still dead. Most would agree that global climate change is the main cause of coral bleaching, however, the existence of climate change itself is in question.

Oxybenzone, in addition to inhibiting coral reproduction and producing coral death, has also been demonstrated to be toxic to various other forms of aquatic life. The chemical has been found to accumulate in white fish, rainbow trout, barb, chub, perch and mussels (8), wastewater treatment plants and chlorinated pools (7, 9, 10, 11), it can be commonly found in the urine of women (gravid and non-gravid), men and children from studies conducted in the United States, Puerto Rico, Denmark and China (12, 13, 14, 15) and produces allergic (2, 16) photo-allergic (17) and urticaria (18) reactions in humans ... to think that global climate change could cause as many toxic reactions as Oxybenzone is laughable!

Please take into consideration the major groups that are in opposition to this bill represent 1,000+ companies that were projected to make \$9 billion in global sunscreen sales in 2016 and are projected to sell \$11 billion by 2020.

Mahalo,

Joe DiNardo

Joe DiNardo, Hawaiian Tourist
6920 Irish Creek Road
Vesuvius, Virginia 24483

1976 – 2013: CTFA/PCPC member working on various scientific committees/issues

1976 – 1993: Revlon-Almay, Inc.; Vice President of R&D and Corporate Vice President

1993 – 2013: Pharma Cosmetix Research, Executive Vice President and Chief Scientific Officer

2013 - Current: Scientist Emeritus

References:

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March 20, 2017

Committee on Ocean, Marine Resources, & Hawaii Affairs
Rep. Kaniela Ing. Chair

RE: SB 1150, SD2, HD1 Relating to Preserving Coral Reefs

Dear Chair Ing and Committee Members:

I wholeheartedly urge this Committee to pass SB1150 SD2, HD1 to restrict oxybenzone sunscreen use in Marine Life Protection areas and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLPAs. As you are aware, there have been many studies showing the negative impact sunscreens containing oxybenzone are having on our reefs. Our coral reefs are in serious decline as a result of many stressors including use of sunscreens containing oxybenzone. We need to protect our reefs now before it is too late. We should join the other forward thinking countries who already have put restrictions into place. Our reefs not only support life in Hawaii but add to the state's economy. There are alternative products that can be used for UV protection that will not have a devastating impact on our reefs and nearshore waters. In fact, we should have a total ban on the statewide sale of any products containing oxybenzone. Such a ban would not only reduce the use of such products but make enforcement much easier.

Mahalo.

Micki Stash
mickibob@hawaiiantel.net

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, March 19, 2017 8:35 AM
To: omhtestimony
Cc: kamij9@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
kami carter	Individual	Support	No

Comments: Our reefs need protection now, not later.

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Cc: gkvierra@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
George Vierra	Individual	Support	No

Comments: I am in strong support of banning oxybenzone products. Numerous scientific studies have shown this is a harmful substance to both people and corals. Here in Hawaii we rely on our ocean environment and our coral reefs are experiencing significant decline from a myriad of factors. Please do everything in your control to reduce the negative impacts our corals are suffering from. I use sunscreen that does not contain oxybenzone and I have experienced better sun protection. Please do the right thing. Do not be swayed by corporate interests out for their personal profit. George Vierra

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Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/19/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Tamara Paltin	Individual	Support	No

Comments: I strongly support the banning of sunscreens that contain oxybenzone and avobenzone in Hawaii. Our marine environment is a huge generator of income through the tourism industry and local fisheries and they are on the decline. It has been proven through scientific studies that oxybenzone is harmful not only to coral reefs (the foundation of healthy marine ecosystems) but also to humans that use these products. Please there are affordable alternatives to these products. Please act in the interests of the people and the environment and not just corporate lobbyists Tamara Paltin

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From: mailinglist@capitol.hawaii.gov
Sent: Saturday, March 18, 2017 9:52 PM
To: omhtestimony
Cc: bob-marion@hawaiiantel.net
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/18/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Marion McHenry	Individual	Support	No

Comments: I strongly support this bill. We need to protect our oceans and reefs for many reasons including the appeal to our tourist industry.

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From: mailinglist@capitol.hawaii.gov
Sent: Saturday, March 18, 2017 4:20 PM
To: omhtestimony
Cc: valerie@isomedia.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/18/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Valerie Barnes	Individual	Support	No

Comments: I am writing to strongly encourage you to pass this bill. Our coral reefs and the marine life that depends on them are already challenged by runoff, bleaching, acidification and other factors we can't easily control. We CAN control the chemicals people wear when entering the water. Our corals desperately need this small bit of help. And our tourism industry continues to need lives corals and fish to bring people here. Let's pass this bill and stop killing our corals.

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From: mailinglist@capitol.hawaii.gov
Sent: Saturday, March 18, 2017 3:05 PM
To: omhtestimony
Cc: mendezj@hawaii.edu
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/18/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Saturday, March 18, 2017 11:56 AM
To: omhtestimony
Cc: audgere@yaho.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/18/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Audrey Tamashiro-Kamii	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Friday, March 17, 2017 5:36 PM
To: omhtestimony
Cc: mamaupin@hotmail.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/17/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Margaret Maupin	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov
Sent: Friday, March 17, 2017 4:06 PM
To: omhtestimony
Cc: ndavlantes@aol.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*

SB1150

Submitted on: 3/17/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Davlantes	Individual	Support	No

Comments:

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omhtestimony

From: Bud Gillan <bud.gillan@gmail.com>
Sent: Monday, March 20, 2017 6:06 AM
To: omhtestimony
Subject: #SB1150 BAN OXYBENZONE, SAFE OUR REEFS

DEAR SENATE AND REPRESENTATIVES,

I AM A BIOLOGIST AND EDUCATOR. I HAVE BEEN RESEARCHING THE IMPACT OF OXYBENZONE AND BP3 ON CORAL REEF ECOSYSTEMS. EVEN IN VERY SMALL AMOUNTS, PPM, IT DOES DAMAGE TO AND KILLS CORAL ANIMALS. ALONG WITH THE OTHER CHALLENGES SENSITIVE REEF SYSTEMS HAVE LIKE WARMER WATER, HIGHER ACIDITY, MORE POLLUTION, ETC. ADDING TOXIC SUNSCREEN TO THE MIX IS JUST NOT NECESSARY.

BANNING OXYBENZONE AND USING MUCH SAFER SUNSCREENS WITHOUT THESE CHEMICALS IS AN EASY AND PRUDENT WAY TO REALLY HELP.

PLEASE VOTE FOR #sb1150.

BUD GILLAN

omhtestimony

From: Helene Lileikis <chuckhelene@icloud.com>
Sent: Sunday, March 19, 2017 8:00 PM
To: omhtestimony
Subject: SB1150 SD2/HD1 Oxybenzone

We need to restrict oxybenzone in sun screen products.
We need to protect our reefs!

Mahalo,
Chuck & Helene Lileikis
Hawaii Kai

omhtestimony

From: Samuel Wolff <sbwolff@hawaii.edu>
Sent: Sunday, March 19, 2017 11:58 PM
To: omhtestimony
Subject: Oxybenzone Ban Testimony- Preserve our reefs for future tourism revenue

I urge OMH to pass SB1150 SD2 / HD1 to restrict oxybenzone sunscreen use in Marine Life Conservation Districts and sales of oxybenzone sunscreens at concessions serving Hanauma Bay and other MLCDs. There are enough studies showing the negative impact these toxic chemical sunscreens containing hormone-disruptors like oxybenzone are having on our reefs; we need to protect them now. Our reefs not only support life in Hawaii but equate to \$360 million directly to the state's economy (even more indirectly). There are better ways to protect from UV rays without putting our reefs and health at risk.

Sent from my iPhone

From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 9:33 AM
To: omhtestimony
Cc: tovacallender@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/20/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Tova	Individual	Support	No

Comments: Dear Committee Members, I urge OMH to pass HD1 to restrict oxybenzone sunscreen use in Marine Life Protected areas and beyond. I work in support of an initiative aiming to reduce stressors to coral reefs in West Maui so am keenly aware of the death of 1000 cuts facing our coral reefs. Through this bill we have the ability to make a difference in reducing one chemical that is impacting the resilience of our reefs. It is the imperative of this generation to do everything we can to reduce the assault on our reefs so that they can continue to provide coastal protection, recreation value, habitat for fish etc. for the next generation. Thank you for your consideration.

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TESTIMONY IN FAVOR OF SB1150, SD2, HD1
RELATING TO THE PRESERVATION OF CORAL REEFS
MARCH 20, 2017

Aloha Chair Ing, Vice Chair Gates and Committee members.

My name is Bob Kern. As Vice President of the Friends of Hanauma Bay, my focus is on protection of Hawaii's 1st Marine Life Conservation District. Testimony has been submitted by the Friends of Hanauma Bay which, of course, I support.

I offer this testimony, however, as private a citizen who is concerned about all of our reefs. I am proud to say that I served as a representative from the recreational diving community on DLNR's task force that planned the Pupukea MLCD.

I appreciate this opportunity to testify as a recreational user of O'ahu's MLCD's and on behalf of all of Hawaii's MLCD's in support of SB1150, SD2, HD1. I am very happy that the legislature recognizes the unique qualities of Hawaii's MLCD's and nature preserves and has taken this step to provide our reefs a higher level of protection.

An added benefit of passing this bill may be to financially benefit commercial permittees who are often small companies or individuals. Because it requires them to inform their customers about the hazards of oxybenzone. In the process, commercial providers may benefit by offering their customers the opportunity to purchase reef safe sunscreen from them.

Passing this bill is an important step toward more fully protecting our corals from oxybenzone. I look forward to the day when the sale of sunscreen products containing the coral killing chemical oxybenzone is banned in Hawaii.

Respectfully Submitted,

Bob Kern
1615 Wilder Avenue, #601
Honolulu, Hawaii 96822
943 9241

LATE

From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 12:31 PM
To: omhstestimony
Cc: bob-marion@hawaiiintel.net
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/20/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Marion McHenry	Individual	Support	No

Comments: I strongly support this bill. We must proactive in protecting our coral reefs. This is important for those who care about the oceans as well as those working in the visitor industry as we must protect the beauty that brings visitors to our islands

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UNIVERSITY OF HAWAI'I AT MANOA

Kewalo Marine Laboratory
Pacific Biosciences Research Center
41 Ahui Street, Honolulu, HI 96813



March 20, 2017

Kaniela Ing, Chair
Committee on Ocean, Marine Resources, and Hawaiian Affairs
State of Hawai'i House of Representatives, The Twenty-ninth Legislature

Dear Chairman Ing and Committee Members,

I am writing in support of Bill SB1150 SD2, HD1: "Relating to Preserving Coral Reefs." I am a coral reef scientist employed at the University of Hawaii at Manoa, a past president of the International Society for Reef Studies and served at the convener for the 13th International Coral Reef Symposium (ICRS) that was held at the Hawaii Convention Center in June, 2016.


Coral reefs throughout the world, including in Hawaii, are in serious decline as a result of coastal pollution, overfishing and the impacts of global climate change. These spectacular ecosystems support over 500 million people world-wide through their economic, cultural and ecological values and services. Hawaii's reefs alone are valued at \$34 billion with an annual contribution to the State's economy of over \$360 million. It's very clear, that whatever we do that is good for corals is also good for people, here and around the world.

The key consensus from the over 2,500 participants attending the 13th ICRS was that coral reefs are severely threatened but not doomed. The future of coral reefs and those who depend on them is tied to the development and implementation of sound, scientifically-based policies and practices. Climate change, an overriding problem, will take time and international cooperation to address. In order to buy time, we must address local stressors now, including coastal water quality. Removing oxybenzone exposure to corals is a sound step forward here in Hawaii and other jurisdictions where it is a documented problem.

The research performed by Dr. Craig Downs and his colleagues has demonstrated the negative effects of oxybenzone on corals, their ability to successfully reproduce and for their larvae to settle and grow on our reefs. They have also provided data to show that levels of oxybenzone from sunscreens are at levels that are negatively affecting our reefs. Hence, legislation that removes this stressor is science-based and appropriate policy, and I strongly support the proposed ban on oxybenzone based sunscreens in Hawaii. I would also suggest the language that prohibits the sale of these products in Hawaii, as that is a more appropriate means for addressing the problem without putting local residents and tourists in jeopardy for not knowing the law and hence, purchasing the problematic products here.

Protection against uv exposure can be achieved in a variety of ways that are far better for our reefs (and people) such as the use of rash guards and other uv blocking water wear, and sunblocks with non-nanotized and coated zinc oxide and titanium dioxide that are widely available. I thank the members of the Hawaii Legislature for taking this wise approach to helping our reefs at a time when they need all of the help we can provide.

Respectfully,


Robert H. Richmond, Ph.D.
Research Professor and Director



3610 Waialae Ave
Honolulu, HI 96816
P: (808) 592-4200
E: tyamaki@rmhawaii.org

LATE

**TESTIMONY OF TINA YAMAKI
PRESIDENT
RETAIL MERCHANTS OF HAWAII
March 21, 2017**

Re: SB 1150 SD2 HD1 RELATING TO PRESERVING CORAL REEFS

Good morning Chairman Representative Ing and members of the House Committee on Ocean, Marine Resources & Hawaiian Affairs. I am Tina Yamaki, President of the Retail Merchants of Hawaii and I appreciate this opportunity to testify.

The Retail Merchants of Hawaii (RMH) is a statewide not-for-profit trade organization representing 200 members and over 2,000 storefronts, and is committed to support the retail industry and business in general in Hawaii. The retail industry is one of the largest employers in the state, employing 25% of the labor force.

The Retail Merchants of Hawaii strongly opposes SB 1150 SD2 HD1 Relating to Preserving Coral Reefs. Retailers continue to be concerned about our land and ocean, and have supported many initiatives that preserve and protect our environment. However, we need to maintain a fair balance regarding sunscreen, sunblock, cosmetics and other products.

More research needs to be done before we do a blanket ban on all oxybenzone-based products. These studies should be conducted NOT in a controlled lab, but out in the actual natural environment to take into consideration currents, coastal runoff, sewage, pollution, climate changes, overfishing, coral predators to name a few.

Banning the use and sale of sunscreen and other products is not the one-shot solution that will solve the issues surrounding the coral reefs. Consumers, both visitors and kama'aina will have very limited choices on sunscreen and products that are less effective and may cost more. We also run the risk of people no longer wearing sunscreen and thus increasing their chances of skin cancer. This ban would also penalize those who do not go to the beach but use sunscreen on a regular basis.

We wonder who and how this ban would be enforced. In January alone there were over 756,313 visitors to the state and 1.4 million residents not to mention the thousands of oxybenzone-based products sold in Hawaii, on the mainland and internationally. These products include but are not limited to sunblock, lip balm, lipsticks, moisturizing and anti-aging creams, and liquid make up to name a few.

Hawaii's retailers unquestionably support initiatives to preserve and protect our environment. However, the solution to the issue of oxybenzone type based products is not in a total ban, but in education, and studies of the coral reefs in their natural environment as well as the effectiveness of non- oxybenzone type based products.

Mahalo for this opportunity to testify.



founded 1881

March 20, 2017

The Honorable Kaniela Ing
Chair, Committee on Ocean, Marine Resources, & Hawaiian Affairs
Hawai'i House of Representatives
Hawai'i State Capitol, Room 427
Honolulu, HI 96813

RE: Opposition to S.B. 1150 SD2 – Prohibiting the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone while on a beach or in the ocean

Dear Chairman Ing,

I am writing on behalf of the Consumer Healthcare Products Association (CHPA) in opposition to S.B. 1150 SD2, which is scheduled to be heard by the House Committee on Ocean, Marine Resources, & Hawaiian Affairs on Tuesday, March 20. S.B. 1150 SD2 proposes to ban the use of sun protection products containing oxybenzone, an ingredient approved by the U.S. Food and Drug Administration (FDA). While our industry shares the legislature's concern with the health of coral reefs, there is absolutely no evidence that prohibiting the use of oxybenzone will improve the health of coral reefs. Moreover, such a prohibition will likely have adverse effects on the health of Hawaiian residents and visitors, who depend on products containing oxybenzone for affordable high sun protection factor (SPF) protection against damaging sun rays.

CHPA is the 135-year-old trade association representing the leading manufacturers and marketers of over-the-counter (OTC) medicines and dietary supplements – including the makers of valuable sunscreens relied upon by millions of consumers annually. Every dollar spent by consumers on OTC medicines saves the U.S. healthcare system \$6-\$7, contributing a total of \$102 billion in savings each year. CHPA is committed to empowering consumer self-care by preserving and expanding choice and availability of consumer healthcare products.

Oxybenzone is a safe, and effective ingredient approved by the FDA in 1978 and found in nearly 2,000 personal care products on the market today, including some of the most popular sunscreens, lip balms, and lotions designed to guard against sun damage. In fact, oxybenzone offers broad spectrum protection against both ultraviolet A (UVA) and ultraviolet B (UVB) rays that often contribute to skin cancer.

Importance of Protection Against Skin Cancer

Skin cancer is the most common form of cancer. Every year there are more cases of skin cancer in the United States than incidences of breast cancer, prostate cancer, lung cancer, and colon cancer combined. In fact, over the last 30 years, more people have experienced skin cancer than all other cancers combined. One out of five Americans will develop skin cancer in their lifetime, and one person

dies of melanoma (the deadliest form of skin cancer) every hour. The vast majority of melanomas are caused by the sun, and a person's risk of melanoma doubles if he or she has had more than five sunburns.

When used as directed, sunscreens containing oxybenzone have proven to be very effective in protecting skin against the sun's harmful rays. The FDA has acknowledged research that shows sunscreens aid in decreasing the risk of developing skin cancers and early skin aging. The FDA recommends use of a broad spectrum sunscreen with SPF values of 15 or higher regularly and as directed to protect against UVA and UVB sun rays as provided by oxybenzone sunscreen products. In addition, organizations including the American Cancer Society recommend the use of broad spectrum sunscreen products with at least SPF30. Broad-spectrum products with those SPF levels are necessary to appropriately protect a large portion of consumers spending time outdoors under conditions of moderate to high UV index, like when going to the beach. Oxybenzone is also a critical ingredient because it helps to stabilize other FDA-approved sun-filters when exposed to intense UV light. Without oxybenzone, adequate sun protection may not be achieved.

Oxybenzone and the Environment

We believe the recent coral bleaching events are of great concern, and have noted that coral experts around the world are unanimous in the opinion that global climate change is the major factor affecting coral health.¹ The most recent global coral bleaching event began in 2014, and is directly tied to the fact that the last three years have been the warmest years on record. Climate change is the main causal factor in high water temperatures, high UV exposure, and ocean acidification, all of which affects coral health and drives changes to local reef ecologies. The U.S. National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Conservation Program notes that in addition to global climate change, critical factors include unsustainable fishing practices, coastal development, agricultural run-off, nutrient enrichment, and pollution from industry and sewage.^{2,3} Craig Downs of the Haereticus Environmental Laboratory noted in an interview that "agriculture run-off and sewage are probably responsible for the historical collapse of coral reefs for the past 40 years."⁴

While many of the deleterious effects on coral reefs can be tied to human activity, there is no scientific evidence that under naturally-occurring environmental conditions, sunscreen ingredients are contributing to coral degradation. Terry Hughes, director of the Australian Research Council Centre of Excellence for Coral Reef Studies at James Cook University suggests that extrapolations asserting sunscreen is damaging the world's coral "are a bit of a stretch."⁵ He continues, "the conclusion from the media is sunscreen is killing the world's coral, and that's laughable."⁶ Coral bleaching events are happening all over the world, even in remote reefs with no local human interference.

¹ Mydlarz et. al., 2010; Aeby et al., 2016.

² Fabricius, 2005; Messina and Biggs, 2016.

³ <http://coralreef.noaa.gov/issues/welcome.html>

⁴ No, your sunscreen isn't killing the world's coral reefs. <http://mashable.com/2015/11/10/sunscreen-killing-coralreefs/>.

⁵ Ibid.

⁶ Ibid.

Opportunity Cost

Over-the-counter sunscreen containing oxybenzone are an affordable, accessible first line of defense for individuals seeking protection from the sun's cancer causing UV rays. Banning the use of oxybenzone, an important UV filter ingredient, will drastically reduce the selection of sunscreen products available to Hawai'i's residents and tourists. The combination of reduced choice and less effective products could have the dangerous consequence of individuals using less protective sunscreens or worse – not using sunscreen at all – thereby, causing more skin damage and potentially increasing skin cancer rates.

Conclusion

No state has taken the drastic action of banning the use of oxybenzone beyond what is already mandated by the FDA. Since there have been no studies published to date that scientifically prove any sunscreen active ingredient is a hazard to coral reefs, CHPA respectfully encourages the House Committee on Ocean, Marine Resources, & Hawaiian Affairs to oppose S.B. 1150 SD2. A greater standard of evidence must be considered before a product so valuable to people's health is prohibited.

CHPA sincerely appreciates your consideration of our position on this important issue. If you have any questions regarding our position, please contact me directly at your convenience.

Respectfully submitted,



Carlos I. Gutiérrez
Vice President, State and Local Government Affairs
Consumer Healthcare Products Association
202-429-3521 cgutierrez@chpa.org

cc: Members, House Committee on Ocean, Marine Resources, & Hawaiian Affairs

omhtestimony

From: Fran Fevrier <fevrierfran@gmail.com>
Sent: Monday, March 20, 2017 10:42 AM
To: omhtestimony
Subject: SB 1150

I am not from Hawaii, but from Key Largo Florida where our coral reefs are largely dead. Oxybenzone kills young coral, and it should be banned from sunscreens. Please vote yes for SB 1150.
Fran Fevrier

--

Fran Fevrier Photography
<http://fransimages.com>



COMMITTEE ON OCEAN, MARINE RESOURCES, & HAWAIIAN AFFAIRS

Rep. Kaniela Ing, Chair

Rep. Cedric Asuega Gates, Vice Chair

LATE

Rep. Richard P.
Creagan

Rep. Lynn DeCoite

Rep. Matthew S.
LoPresti

Rep. Gregg
Takayama

Rep. Cynthia
Thielen

NOTICE OF HEARING

DATE: Tuesday, March 21, 2017

TIME: 10:00 am

PLACE: Conference Room 312

TESTIMONY OF THE OCEAN TOURISM COALITION SPEAKING IN CONDITIONAL SUPPORT FOR SB 1150, SD2, HD1.

Aloha Chair Ing, Vice Chair Gates and members of the OMH Committee:

My name is James E. Coon, President of the Ocean Tourism Coalition (OTC) Hawaii's State-wide organization. We represent the 300 Small Commercial Passenger Vessels operating out of State Harbor facilities. We speak in **Conditional Support of SB 1150, SD2, HD1 with proposed amendments:**

We agree with the intent of this bill and protecting our coral reefs from possible damage due to oxybenzone pollution. Commercial operators are highly motivated to protect our reefs. We can inform our customers that they cannot use sunscreens that contain oxybenzone, but once customers have been notified of the prohibition, all liability for violations should rest solely with the customer.

Accordingly, we support the ban of harmful sunscreens, especially the sale of these products, but would be opposed to any regulation developed by DLNR/DOBOR that would require boat operators to act as enforcement agents (e.g. conducting bag checks) or be liable for violations after informing customers of the prohibition. We propose the following amendment:

“(3) Requiring all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of

sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department is prohibited in marine life conservation district. **Commercial use permittees will not be liable for customer violations after meeting this requirement.**"

Sincerely,

A handwritten signature in dark ink, appearing to read "James E. Coon". The signature is written in a cursive style with a large, sweeping initial "J".

James E. Coon, President

Ocean Tourism Coalition

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, March 21, 2017 5:08 AM
To: omhtestimony
Cc: zlaprade@aol.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM



SB1150

Submitted on: 3/21/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Zachary LaPrade	Quicksilver Charters	Comments Only	No

Comments: We agree with the intent of this bill and protecting our coral reefs from possible damage due to oxybenzone pollution. Commercial operators are highly motivated to protect our reefs. We can inform our customers that they cannot use sunscreens that contain oxybenzone, but once customers have been notified of the prohibition, all liability for violations should rest solely with the customer. Accordingly, we support the ban of harmful sunscreens, especially the sale of these products, but would be opposed to any regulation developed by DLNR/DOBOR that would require boat operators to act as enforcement agents (e.g. conducting bag checks) or be liable for violations after informing customers of the prohibition. We propose the following amendment: “(3) Requiring all commercial use permittees operating in marine life conservation districts to inform their customers that the use or application of sunscreen, sunblock, or cosmetic containing oxybenzone or other chemicals deemed harmful to coral reefs by the Department is prohibited in marine life conservation district. Commercial use permittees will not be liable for customer violations after meeting this requirement.”

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Sent: Monday, March 20, 2017 11:42 PM
To: omhtestimony
Cc: shakirables@gmail.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*



SB1150

Submitted on: 3/20/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Darbi Shakira Freeman	Individual	Support	No

Comments:

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LATE

From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 10:57 PM
To: omhtestimony
Cc: athurston@irmt.org
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/20/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Thurston	Individual	Support	No

Comments: This bill makes me feel very proud of our legislators! We need to protect our coral reefs, which are dying due to chemical poisons. Unless we protect them, they will not survive.

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LATE

From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 10:57 PM
To: omhtestimony
Cc: athurston@irmt.org
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM

SB1150

Submitted on: 3/20/2017
Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Thurston	Individual	Support	No

Comments: This bill makes me feel very proud of our legislators! We need to protect our coral reefs, which are dying due to chemical poisons. Unless we protect them, they will not survive.

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From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 9:48 PM
To: omhtestimony
Cc: drgamby@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM



SB1150

Submitted on: 3/20/2017

Testimony for OMH on Mar 21, 2017 10:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Tanya Gamby	Individual	Support	No

Comments: I strongly support SB1150. Our reefs are dying and they are a major part of a healthy ecosystem and our fight against climate change. And our reefs and ocean system are one of the major tourism draws for our state. This is a simple solution towards solving a complicated problem and I strongly support active action to save our reefs. Aloha, Tanya Gamby

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HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

LATE

Thursday, March 16, 2017 8:30 AM Room 325

In SUPPORT SB 1150 SD2 Relating to the Environment

Aloha Chairman Lee and members of the House Energy & Environmental Protection Committee,

On behalf of our 20,000 members and supporters the Sierra Club of Hawai'i strongly supports SB 1150 SD2, which seeks to ban the use of any sun protectant that contains oxybenzone on Hawai'i's beaches. Oxybenzone is a chemical UV filter that is added to nearly 70 percent of non-mineral sunscreens¹ and commonly washes into our oceans when applied at the beach, harming our coral reef ecosystems.

Oxybenzone damages coral DNA and inhibits its ability to reproduce, causes deformities on the coral, makes coral more susceptible to bleaching, and initiates endocrine disruption.² These pathologies can occur at concentrations as low as 62 parts per trillion, but some beaches in Hawai'i have oxybenzone levels higher than 700 parts per trillion³, a major concern when our reef system annually generates about \$800 million in gross revenues.⁴

Panels held at the International Union for the Conservation for Nature (IUCN) and International Coral Reef Symposium (ICRS) in Honolulu have both suggested that Oxybenzone is toxic to corals and urge that we stop using these products^{5,6}. The State's Department of Land and Natural Resources is also asking people who enter the ocean to avoid using sunscreens which contain oxybenzone.⁷

¹ <http://www.ewg.org/sunscreen/report/the-trouble-with-sunscreen-chemicals/>

² Downs CA, Kramarsky-Winter E, Segal R, et al. Toxicopathological Effects of the Sunscreen UV Filter, Oxybenzone (Benzophenone-3), on Coral Planulae and Cultured Primary Cells and Its Environmental Contamination in Hawaii and the U.S. Virgin Islands. *Arch Environ Contam Toxicol* 2015 Oct 20. doi: 10.1007/s00244-015-0227-7.

³ <http://www.marinesafe.org/blog/2016/05/12/how-sunscreen-is-putting-coral-reefs-at-risk/>

⁴ http://www.hawaii.edu/ssri/cron/files/econ_brochure.pdf

⁵ <http://www.civilbeat.org/2016/09/drop-the-oxybenzone-or-stop-swimming-in-hawaiian-waters/>

⁶

<http://www.honolulumagazine.com/Honolulu-Magazine/June-2016/Your-Sunscreen-Might-Be-Killing-Coral-Reefs-in-Hawaii/>

⁷

<http://governor.hawaii.gov/newsroom/latest-news/dlnr-news-release-ocean-users-urged-to-use-reef-safe-sun-screens/>

While these voluntary, educational efforts to curb the usage of these products are commendable, an effective way to prevent these chemicals from entering our waterways is to pass SB 1150 SD2 and ban the use of sun protectants containing oxybenzone on the beaches of Hawai'i.

Additionally, we suggest that further amendments be made that ban the sale, offer for sale, or distribution of these products. Many visitors purchase sunscreen once they arrive to the islands and this bill ensures that Oxybenzone and other reef harming chemicals will not be sold in the State. Therefore, the ban will encompass both the use of oxybenzone-containing sun protectants as well as their sale on the islands.

Although there are many causes of reef degradation, SB 1150 SD2 provides a sensible opportunity to help maintain the economic, ecological, cultural, and recreational value of Hawai'i's reef systems. No one likes to see a film of floating chemical-laden sunscreen on our beaches. Banning oxybenzone protects our vulnerable reef ecosystems from toxic products and promotes the usage of reef-safe sunscreens that are mineral, not chemical based.

Thank you very much for this opportunity to provide testimony on this important issue.

Mahalo,

Martha Townsend
Director

From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 9:17 PM
To: omhtestimony
Cc: Burdick808@gmail.com
Subject: Submitted testimony for SB1150 on Mar 21, 2017 10:00AM



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Submitted By	Organization	Testifier Position	Present at Hearing
Alan B Burdick	Progressive Democrats of Hawaii	Support	No

Comments: PROGRESSIVE DEMOCRATS OF HAWAII supports SB 1150, which is the only surviving bill this session that would impose any limits at all on the use of sunscreen creams that contain oxybenzone. Oxybenzone is a deadly endocrine disruptor that demonstrably interferes with the growth of corals and reef fish. What it does to the humans who choose to slather it on their bodies is not yet reported in the scientific literature, but there does not seem to be any good reason for people to use it, especially because cheap alternatives are readily available for protection against UV radiation. Unfortunately, this bill, as currently amended, applies ONLY in marine conservation zones. It should apply anywhere in Hawaii, and we respectfully request that the bill be amended to broaden its application. Hawaii's sea life needs protection against all threats. Unlike climate change, oxybenzone is a threat that is relatively amenable to control. Please take this action to protect our reefs. Thank you very much for this opportunity to testify. Alan B. Burdick Chair, Progressive Democrats of Hawaii

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From: mailinglist@capitol.hawaii.gov
Sent: Monday, March 20, 2017 7:57 PM
To: omhtestimony
Cc: kaily429@gmail.com
Subject: *Submitted testimony for SB1150 on Mar 21, 2017 10:00AM*



SB1150

Submitted on: 3/20/2017

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Submitted By	Organization	Testifier Position	Present at Hearing
Kaily Wakefield	Individual	Support	No

Comments:

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Purpose: Testimony in support of Measured titled: RELATING TO PRESERVING CORAL REEFS (SB1150)

Submitted by: Lindsey Kramer

Contact: PO Box 3112, Kailua Kona, HI 96745

KramerKL@Hawaii.edu



Date: March 20, 2017

Aloha State Representatives,

Thank you for the opportunity to testify in support of the proposed bills (SB1150 SD1: RELATING TO PRESERVING CORAL REEFS) which would minimize the use of oxybenzone-containing products prior to ocean activities. I am testifying on my own behalf, and have worked in the field of coral reef ecology for the past decade. I am currently the Hawai'i Island Coordinator for the Eyes of the Reef Network, an organization that offers free public trainings on coral reef health and ecology.

Due to the recently documented toxic effects of oxybenzone on larval corals, as well as the linkages to increased bleaching severity, I believe that this bill is a step in the right direction towards helping promote the recovery of our coral reefs, which recently suffered severe mortality on Hawai'i Island and other areas as a result of coral bleaching.

A few highlights from the recent research on oxybenzone:

- Oxybenzone (a.k.a. benzophenone-3), commonly used in many sunscreens, has been shown to cause deformities in coral larvae, making them unable to swim, settle, or form new colonies, and to increase the severity of coral bleaching.
- Sunscreen chemicals easily wash-off of users when they enter the ocean, particularly if sunscreen is applied just before getting in, and tend to collect in surface waters.
- Scientists and coral reef managers at the International Coral Reef Symposium (June 2016) and the IUCN World Conservation Congress (September 2016) agreed on the negative impacts of oxybenzone and other sunscreen chemicals on corals, and recommended an elimination of use in areas with coral reefs.
- The Hawai'i Department of Land & Natural Resources (DLNR) is asking all ocean-users to avoid sunscreens containing oxybenzone, as indicated by a press release on Sept. 2, 2016.

Coral reefs are a treasured part of our island community, and provide the foundation for our nearshore fisheries and tourism industry. In light of the devastating recent declines in coral cover, now more than ever, we need to commit to conservation efforts such as this one.

Thank you for your time.

-Lindsey Kramer



LATE

March 20, 2017

To: The Honorable Kaniela Ing, Chair
Members, House Committee on Ocean, Marine Resources, & Hawaiian Affairs

From: Tim Shestek
Senior Director, State Affairs

Re: SB 1150, SD2, HD1 – OPPOSE

On behalf of the member companies of the American Chemistry Council (ACC), I am writing to express concern with the current version of SB 1150, SD2, HD1, legislation that would restrict the sale – with certain exceptions - of sunscreen, sunblock, or cosmetic products containing “oxybenzone or other chemicals deemed harmful” by the Department of Land and Natural Resources (DLNR).

Safety is a top priority for our member companies and we believe that consumers deserve to have confidence that the products they buy are safe for their intended uses. ACC members invest significant resources in product and environmental stewardship and share a common commitment to advancing the safe and secure management of chemical products and processes.

Unfortunately, we are concerned with the current version of the bill that greatly expands the authority of DLNR to impose use restrictions on “other chemicals” that may be used in these types of products but provides no implementation direction, funding, or scientific criteria to guide the Department. Providing open-ended regulatory authority to the Department creates a challenging and uncertain environment for manufacturers and retailers.

In addition, the language in the bill may send a broad and unsubstantiated message to consumers that these products contain ingredients that could be detrimental to the environment, perhaps resulting in unintended health consequences. As has been noted in testimony provided by the Hawaii Food Industry Association and the Consumer Healthcare Products Association, skin cancer is the most common form of cancer and the Food and Drug Administration has acknowledged research that shows sunscreens aid in decreasing the risk of developing skin cancers and early skin aging. Caution should be taken to ensure consumers do not unnecessarily avoid products that can offer protection against both ultraviolet A (UVA) and ultraviolet B (UVB) rays that often contribute to skin cancer.

For these reasons, we urge you to oppose SB 1150, SD2, HD1. ACC appreciates the opportunity to share these comments. Should you have any questions, please feel free to contact me at 916-448-2581 or via email at tim_shestek@americanchemistry.com. You may also contact our Hawaii-based representatives Red Morris or Blake Oshiro at (808) 531-4551.

