

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
CULTURE, ARTS, & INTERNATIONAL AFFAIRS**

**Wednesday, April 7, 2021
10:00 AM**

State Capitol, Via Videoconference, Conference Room 329

**In consideration of
SENATE CONCURRENT RESOLUTION 135, SENATE DRAFT 1
REQUESTING THAT THE YEAR 2022 BE DESIGNATED AS THE
YEAR OF THE LIMU**

Senate Concurrent Resolution 135, Senate Draft 1 requests that the year 2022 be designated as the Year of the Limu. This resolution acknowledges and promotes the critical role that limu plays in our natural environment and in sustaining the people of Hawai'i. **The Department of Land and Natural Resources (Department) supports this measure.**

Traditionally, the word "limu" includes a broad range of organisms such as terrestrial moss and lichen, and even some marine zoanthids. However, for the purpose of this testimony limu refers to aquatic botanical species such as algae and seagrass.

The Department has realized the decline of desirable limu species throughout the state. Currently, the Department is supporting non-government organizations in the propagation of limu species for community driven restoration projects. The Department is currently working with these partners to augment these activities.

Additionally, the Department has documented the proliferation of non-native algae and its detrimental impact on native benthic species such as limu and coral. In response, a decade ago the Department established an urchin hatchery. Urchins produced by the hatchery are released in areas with high concentrations of non-native algae. These urchins then feed on the non-native algae, reducing their populations.

The Department recognizes that in Hawai'i's modern context there is an underappreciation of limu. This resolution is an excellent opportunity to increase awareness, understanding, and appreciation of limu in Hawai'i.

Thank you for the opportunity to comment on this measure.

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
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

SCR-135-SD-1

Submitted on: 4/3/2021 7:35:36 PM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Azuma Chrupalyk	Aloha ?Aina Party	Support	No

Comments:

On behalf of the Aloha 'Ä€ina Party, its organization and membership, we hereby support the designation of 2022 as the Year of Limu, without reservation.

SCR-135-SD-1

Submitted on: 4/4/2021 9:21:43 PM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jenny Yagodich	Malama Pupukea-Waimea	Support	No

Comments:

Aloha,

We STRONGLY SUPPORT SCR135 SD1 requesting that 2022 be designated as Year of The Limu. Limu plays a critical part in the health of our nearshore reef ecosystems and is a valuable part of a resilient ahupua'a. Due to a decline in limu abundance and a lack of general limu knowledge and awareness, designating 2022 as Year of The Limu will provide opportunities to increase overall knowledge, will result in more awareness, and will benefit Hawai'i's nearshore fisheries and all the people of Hawai'i for generations to come.

Mahalo nui!



Testimony Before The
Senate Committee on Agriculture and Environment
IN SUPPORT OF SCR 135 SD1
Hearing date: April 7, 2021, 10:00AM

Aloha Committee Members:

My name is Kevin Chang and I am the Executive Director of Kua'āina Ulu 'Auamo (or KUA).

KUA testifies in strong support of SCR 135 SD1. Please also find attached hereto supportive testimony from a number of Native Hawaiian community serving organizations.

KUA works to empower communities to improve their quality of life through caring for their environmental heritage together to better Hawai'i and achieve 'āina momona— an abundant, productive ecological system that supports community well-being.

KUA employs a community-driven approach that currently supports three statewide networks: more than 36 mālama 'āina community groups collectively referred to as E Alu Pū (moving forward together), 38 fishpond projects and practitioners called the Hui Mālama Loko I'a and a 60+ growing group of limu practitioners and kupuna called the Limu Hui. All of the networks, communities, and individuals we work with recognize the importance of limu as the foundation of the nearshore marine environment's food chain and that the decrease in our shoreline fish stocks are directly related to the decline of limu. A first step in addressing an issue and/or renewing its significance is in recognizing it as this resolution does.

One of the founding kupuna of our first network E Alu Pū, Uncle Henry Chang Wo Jr., a recognized loea limu (limu expert) grew up in Ewa Beach and personally witnessed the decline of limu there. He worked to create a Limu Management Area (LMA) in Ewa, a place legally designated for traditional limu gathering. Uncle Henry taught us that one of the main causes of the loss of limu is the loss of groundwater that once flowed abundantly along the shoreline. As the flow of groundwater decreased, limu abundance decreased. One of Uncle Henry's famous sayings was "No limu, no fish". Unfortunately, Uncle Henry passed away in 2015. He left a legacy which includes the Limu Hui, the Ewa LMA and the struggle to bring limu back to Ewa the way it once was. KUA works to perpetuate his legacy. This resolution is part of that legacy we wish he were here to testify on and help continue.

KUA supports SCR 135 SD1 because having a "Year of the Limu" recognizes limu's significance to all of Hawai'i. It also uplifts the work and passion of generation of kupuna like Uncle Henry to perpetuate the deeper socio-cultural ties that bind us to these islands. We also feel this recognition will provide many opportunities to increase awareness and to educate Hawai'i's residents of the environmental and Hawaiian cultural significance of limu.

Mahalo for this opportunity to testify.

Testimony Before The
Senate Committee on Culture Arts and International Affairs
IN SUPPORT OF SCR 135 SD1
Hearing date: April 7, 2021, 10:00AM

Aloha Chair Gates, Vice Chair LoPresti and members of the House Committee on Culture, Arts and International Affairs:

On behalf of the undersigned Native Hawaiian serving organizations, we submit this testimony in strong support for SCR 135 SD1. This resolution would declare 2022 as the Year of the Limu.

The Native Hawaiian community has long recognized the importance of limu as a biocultural resource – as food, as medicine, as a tool for peacemaking and religious tradition - and as a foundational life form in the nearshore marine environmental ecosystem and food chain.

Designating a Year of the Limu provides an opportunity for education and collective reflection on the importance of this often-overlooked plant life in our lives, streams, our shorelines, and reefs. This relationship to the things that make up ‘āina – the land, the ocean, that which feeds- are fundamental to our community identity, environment, and survival. Indeed, it is widely recognized that as we lose our native limu we will continue to see a decrease in our shoreline’s ability to feed us.

As our community’s relationship to resources like limu declines -like we have allowed many relationships to biocultural resources to decline- we begin to accept an environment where the traditional knowledge, cultural practices and values that uplift and depend on them decline also. These native and locally situated insights are essential to the survival and identity of the Native Hawaiian community and all our citizens. They are also significant for a world in which our connections to each other are frayed and will become increasingly tested as our climate and weather patterns change.

A first step in addressing an issue and/or renewing its significance is in recognizing it as this resolution does. Limu seems inherently harmless and for some easy to forget, and yet it is also recognizable to many. It has the potential to spark the imagination and love of our community for that which feeds us all.

We ask that you please pass SCR 135 SD1.

Mahalo for this opportunity to testify.

Aloha ‘Āina Momona.



Papa Ola Lōkahi



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FOUNDATION



BISHOP MUSEUM




OFFICE OF HAWAIIAN AFFAIRS
‘Ōlelo Hō‘ike ‘Aha Kau Kānāwai
Legislative Testimony

SCR135 SD1

REQUESTING THAT THE YEAR 2022 BE DESIGNATED AS THE YEAR OF THE LIMU
Ke Kōmike Hale o ka Mo‘omeheu, nā Hana No‘eau, a me ke Kuleana o Nā ‘Āina ‘ē
House Committee on Culture, Arts, & International Affairs

‘Apelila 7, 2021

10:00 a.m.

Lumi 329

The Office of Hawaiian Affairs (OHA) offers testimony in **SUPPORT** of SCR135 SD1, which would declare 2022 as the Year of the Limu. **This measure will facilitate a greater appreciation for limu and will also reinforce existing efforts to transmit limu knowledge and practices to future generations.**

Limu is both a Native Hawaiian cultural heritage and also an integral part of a healthy, well-functioning ecosystem. Limu constitutes an important component of the traditional Native Hawaiian diet, along with fish and poi, and has also been used as medicine and for religious and cultural purposes such as in the conflict resolution process of ho‘oponopono. Limu also helps to filter runoff from the land, and provides necessary food and protection for juvenile fish.

Although this precious biocultural resource was once healthy and abundant, the native limu population has suffered greatly due to urban development, land use practices, improper harvesting, climate change, and other pressures. At the same time, changes to the Hawaiian lifestyle and diet, along with other socioeconomic factors, have contributed to the loss of traditional practices and ancestral knowledge, including the cultural connection to limu and the limu practices.

Despite the historic trauma caused by the loss of land, culture, and identity, Native Hawaiians remain resilient and are determined to transmit to future generations the knowledge and practices handed down by nā kūpuna. Grassroots organizations such as Kua‘āina Ulu ‘Auamo help to empower and create capacity among limu practitioners while others like the Waimānalo Limu Hui work tirelessly to regrow limu and thereby reclaim cultural spaces. This measure will help to bring awareness to the cultural and ecological importance of limu, and will honor and reinforce the work of those such as Uncle Wally Ito and others who carry the torch of wisdom and ancestral knowledge handed down to us by kūpuna such as Uncle Henry Chang Wo Jr., Dr. Isabella Aiona Abbott, and countless more.

Therefore, OHA respectfully urges the Committee to **PASS** SCR135 SD1. Mahalo piha for the opportunity to testify on this measure.

Testimony in Favor of SCR 135 SD 1
Declare 2022 as the Year of the Limu
April 5, 2021

Aloha Chair Gabbard, Vice Chair Nishihara, and Committee Members,

My name is Wally Ito. I coordinate the Limu Hui, a statewide network of loea limu (limu experts) and people dedicated to learning about and sharing limu knowledge. I am also Project Manager for Ewa Limu Project. Both organizations are dedicated to limu education, limu awareness, and limu restoration efforts.

Limu is a key component of the nearshore marine ecosystem but this concept is not realized by many within our State. Loea limu have intimate knowledge of the many uses of limu. Not only for food but also for medicine and its use in many cultural and religious ceremonies. A healthy limu population is a key factor to a healthy reef ecosystem.

Uncle Henry Chang Wo Jr. was one of the founding members of the Limu Hui and Ewa Limu project. He held much of the traditional limu 'ike which he freely shared with all. Uncle Henry grew up in Ewa Beach where he learned about the many uses of limu from his grandmother, mother, and aunt. As they grew older, he realized that he needed to share their knowledge with others otherwise all of their limu 'ike will be lost forever. Unfortunately, Uncle passed away almost six years ago but our Limu Hui continues Uncle Henry's legacy of limu education, limu awareness, and limu restoration.

Passing SCR 135 SD 1 will send a message that our State recognizes limu's importance and will trigger many limu related projects and activities which will benefit the people of our State for generations to come.

One of my favorite Uncle Henry quotes is "No Limu, No Fish".


Special mahalo to Senator Fevella for introducing this Resolution. He represents a place that was once known as "The House of Limu" so he understands much of what I have articulated above. This is the time to get others to understand also.

Please feel free to email me any questions or concerns.

Mahalo,

Wally Ito

Limu Hui Coordinator, Kua'aina Ulu 'Auamo
Project Manager, Ewa Limu Project
wally@kuahawaii.org



April 5, 2021


Testimony Supporting SCR 135 (Requesting that 2022 be designated as Year of the Limu)

Aloha Chair Gates and Committee Members,

I am testifying in strong SUPPORT of SCR 135 “Requesting that 2022 be designated as Year of the limu”. I currently have the great privilege of being the Board President of Ke Kula Nui O Waimanalo, a grassroots non-profit based in Waimanalo striving to support a self-sustaining community and Hawaii. One of our programs that we operate is the “Waimanalo Limu Hui”, this program’s focus is “Restore Limu, Restore Pahonu, Restore Community”. The Waimanalo Limu Hui formed in 2017, from numerous kupuna of Waimanalo and their desire to have the native limu abundant for us today and for 300 generations into the future. Aunty Luana Albinio, a Waimanalo Limu Hui founder and limu advisor, is a life-long resident of Waimanalo that grew up going to the beach to harvest limu for her kupuna to use to cook with, eat with, make medicine and many other uses on a weekly, sometimes even daily basis. All these skills she learned from her kupuna she passes on to her mo‘opuna and many other residents of Waimanalo. Aunty Luana’s desire to have limu sparked a movement in our organization and community to learn about limu, the nearshore ecosystem and what it was going to take to restore the abundance Aunty Luana remembers growing.

Waimanalo has a deep connection to limu that spans generations. Moololelo from many kupuna and documentation both oral and written mentions the abundance of limu in Waimanalo Bay. A prominent wind of Waimanalo is Limu Lipuupuu. It is said that this wind would carry the smell of the limu from the ocean all the way across the plains and valley to the base of the Koolau mountains. In the spring of 2020 an influx of limu lipoa washed upon our shorelines and we were blessed with the Limu Lipuupuu wind again. Many kupuna of our community also still malama limu grounds year around to harvest limu when they need and want.

Since November 2017, the Waimanalo Limu Hui has been hosting monthly community planting events (pre-covid restrictions) in Waimanalo Bay at Kaiona Beach Park on the east side of Oahu. The events regularly attract 75+ community members who come out to spend the day working and enjoying the beach with their families. Planting limu is a somewhat of labor-intensive task. The volunteers start by making leis, with sprigs of spore and nutrient rich limu braided using natural fibers from native plants such as ule hala and hau. Then, the volunteers tie the leis to rocks that range in size from a softball to a basketball. The hui uses a raft constructed from a large inner tube and a piece of plywood to float the rock-anchored limu leis out into the bay for placement in strategic spots. The hui and community have noticed positive affects from the limu outplantings. We definitely see a lot more fish because as soon as the limu is planted, the fish come and eat them, which is great because just like the birds spread plant seeds on land,



the fish spread the limu spores. In the end the hui hopes the fish spread the spores throughout the bay and maybe over into the next town's bay. Our hui recognizes that replanting is important, but the replanting events are also an opportunity to create awareness and understanding in the community that in order to bring back the limu, we have to restore the water—we have to recharge the aquifer and the whole ecosystem mauka to makai. All of these affect the over all effort of restoring limu.

The work that the Waimanalo Limu Hui partakes in wouldnt be possible if it werent for the many kupuna limu practitioners from across the state supporting the efforts and sharing their limu knowledge. We have to especially appreciate the trailblazer in the world of limu Dr Isabella Abbott, she is the pioneer of studying limu and sharing that knowledge through the many books and publications that she wrote over her career and lifetime. Next, Uncle Henry Chang-Wo and Uncle Walter Kamana who led the limu efforts of Oneula Beach Park, which led to the first designated Limu Management Area in the state. Waimanalo mirrors the work that Uncle Henry and Uncle Walter did for many years in the Ewa Beach (“House of the Limu”) community. Uncle Wally Ito of KUA, is a resource of our efforts and we rely on him for all of his limu knowledge he has learned over the years. Uncle always reminds us that “if no more limu, no more fish”, and we Hawaiians and people of Hawaii rely on the ocean and fish to sustain us. The many limu practioners across the state such as; Koolau Limu Restoration Project, Lanai Limu Restoration Project, Ewa Limu Projects and the many other limu people doing the the importnat work. Lastly, our Kupuna limu experts of Waimanalo and across the state, that have that ‘ono for limu and want to perpetuate limu life for many many generations.

In conjunction of this resolution, we hope with this recognition we might build on actions toward restoration, education and economy that perpetuate its significance to our community like the prior HB 2020 from the 2016 legislative session. The Waimanalo Limu Hui wants to see this bill brought back to life in 2022, and are ready to explore opportunities in Limu efforts expanding; in the Year designated for LIMU, 2022!

In conclusion, on behalf of the Waimanalo Limu Hui, Ke Kula Nui o Waimanalo, and our kupuna and limu practioners of Waimanalo we are in strong **STRONG** support of SCR 135 and urge you to support this resolution and initiative. We thank you for hearing this important resolution and designation, and are very excited for all things LIMU in the year 2022.

Mahalo nunui loa,



Kirk Deitschman
Ke Kula Nui O Waimanalo and Waimanalo Limu Hui
www.kekulanuiowaimanalo.org

SCR-135-SD-1

Submitted on: 4/5/2021 5:45:51 AM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Robin Kaye	Individual	Support	No

Comments:

Limu has been very important to the community of Lana'i. For an isolated island such as ours, fishing has been an invaluable lifeline — especially during a pandemic, and as we all know now, fish thrive where limu thrives. The Lana'i Limu Restoration Project, began over ten years ago by kupuna Allen Kaiakomalie, worked diligently to reintroduce limu to our reef. Long-time Lana'i residents recall the abundance of limu along this shoreline, only to see it essentially disappear. Uncle Allen's devotion to bringing limu back to our shores united the young and old, Native Hawaiian and non-Hawaiians, school children and visitors alike. Work days saw hundreds of Lanaians cleaning the shore, re-planting limu, experimenting with a variety of methodologies for limu planting and many, many educational days with Uncle and outside experts. Declaring 2022 the Year of Limu would honor his work.

SCR-135-SD-1

Submitted on: 4/5/2021 10:00:32 PM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kimeona Kane	Individual	Support	No

Comments:

Aloha,

I support this request to make 2022 the year of LIMU. E Ola I Ka Limu.

Mahalo,

Kimeona Kane 808 398 8989

April 5, 2021

Aloha Chair Gabbard, Vice Chair Nishihara and Committee Members:

I am writing to support **SR60** requesting that 2022 be designated as Year of The Limu. I currently serve as a Professor of Aquaculture at the Pacific Aquaculture and Coastal Resources Center (PACRC) at the University of Hawaii Hilo. However, I am submitting this testimony in my capacity as a private citizen who has a strong interest in preserving Hawai'i's cultural and natural resources legacy.

I have worked with seaweed culture in Hawai'i and in places as diverse as Tanzania and the Marshall Islands for over twenty-three years. UH has several other active limu researchers and educators. I would like to point out that aside from the very important cultural and biological aspects of Hawai'i's relationship with limu, seaweed also offers opportunities for economic development and food security. Unfortunately, these opportunities are being missed as our limu resources are disappearing. We also need explicit recognition of the importance and promise of researching and developing limu resources. The example of limu kohu (*Asparagopsis taxiformis*) being tested as a way to reduce methane production in livestock is only one such case, yet even with this well-known example, Hawai'i is "missing the boat" as research groups outside of Hawai'i are winning the limu "space race", so to speak. If researchers have to struggle to find the different sources of limu to even start experiments, we will not make progress.

Declaring 2022 as the Year of the Limu is a fundamental step in highlighting the need to protect and sustainably utilize limu species and their habitats. I urge you to approve this bill.

Thank you,

Maria Haws, Ph.D.

SCR-135-SD-1

Submitted on: 4/6/2021 10:14:05 AM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kimberly Moa	Individual	Support	No

Comments:

Aloha,

Our ohana strongly supports SCR135 SD1. Having 2022 designated as The Year of the Limu will create opportunities to invaluable opportunities to provide education and create awareness about the ecological and cultural importance of limu and to recognize the achievements and ike of kupuna, like Uncle Henry Chang Wo Jr, whose work to revitalize the practice and restore native limu is a legacy we can look to in creating a more abundant future for our keiki. So much of this precious resource and the ike kupuna surrounding it has already been lost. I am only 40 and the abundance of limu i have only heard about in my community of Ewa is already a story of the past. I missed out on the opportunity to grow up with that ono and hope my own children will have a firmer pathway forward.

Mahalo nui,

Kim Moa and Ohana Moa-Vargas

SCR-135-SD-1

Submitted on: 4/6/2021 10:36:26 AM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mahina Poepoe	Individual	Support	No

Comments:

Aloha!

I am so happy to write in support of designating 2022 as Year of The Limu!
mahalo, Mahina poepoe

molokai resident

SCR-135-SD-1

Submitted on: 4/6/2021 6:53:57 PM

Testimony for CAI on 4/7/2021 10:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Solomon P. Kaho'ohalahala	Individual	Support	No

Comments:

Aloha kākou,

My name is Solomon P. Kaho'ohalahala from the island of Lāna'i and I am in full support of SCR135 SD1. This resolution seeks to support, acknowledge, educate and recognize the importance of limu in Hawai'i and for the native Hawaiian cultural uses and for the general public. Designating 2022 as the Year of the Limu will bring broad understanding and appreciation for a foundational resource that has helped to support our island marine ecosystems and to sustain the generations of people inhabiting the Hawaiian Archipelago. Mahalo for your consideration and unanimous support of SCR135 SD1.

E ho'omau.