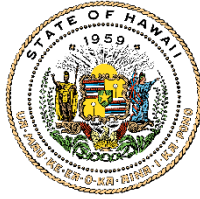


JOSH GREEN, M.D.  
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
KA 'OIHANA KUMUWAIWAI 'ĀINA

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CONSERVATION AND COASTAL LANDS  
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FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

Testimony of  
DAWN N. S. CHANG  
Chairperson

Before the Senate Committees on  
TRANSPORTATION AND CULTURE AND THE ARTS  
and  
AGRICULTURE AND ENVIRONMENT

Monday, March 31 2025  
1:01 P.M.

State Capitol, Conference Room 224 & Videoconference

In consideration of  
HOUSE BILL 345, HOUSE DRAFT 2  
RELATING TO THE STATE SHRIMP

House Bill 345, House Draft 2 proposes to establish the 'ōpae 'ula (*Halocaridina rubra*) as the state shrimp to promote the protection of anchialine pool ecosystems throughout Hawai'i. **The Department of Land and Natural Resources ("Department") supports this measure.**

Anchialine pool ecosystems, also known as wai 'ōpae, are land-locked coastal bodies of water that are connected underground to both marine and freshwater sources through porous basalt lava rock and limestone. While anchialine ecosystems exist elsewhere around the world, Hawai'i is home to approximately 700 of these habitats, and arguably has the highest concentration of anchialine pools in the world.

Anchialine ecosystems provide habitat for numerous native species, including at least eight anchialine shrimp species (3 endemic, 5 indigenous) and a rare species of anchialine crab only known to occur at a single site on Maui. Anchialine pools were a vital source of water and provided sustenance to Native Hawaiians. These pools are also frequently mentioned in mo'olelo (stories) and are important to the revival of traditional practices, such as the harvest of 'ōpae 'ula for use in 'ōpelu fishing in parts of West Hawai'i.

'Ōpae 'ula is the signature species of Hawaiian anchialine pools. While being culturally significant, it also plays a critical role in maintaining a healthy anchialine pool ecosystem by its

intensive grazing of algae. ‘Ōpae ‘ula are endemic to Hawai‘i and are known to have genetically distinct populations across the islands and across moku (island districts). Although only growing to roughly half an inch in size, these tiny shrimps have surprisingly long life-spans of over 20 years. Further, ‘ōpae ‘ula display amazing resilience to natural events such as recent lava flows and can thrive in these dynamic conditions. A pool that is red with ‘ōpae ‘ula is indicative of a healthy and flourishing anchialine ecosystem. Unfortunately, these ecosystems are highly threatened by the spread of invasive plants, fishes and invertebrates, coastal development, human-sourced pollution, sea level rise, and changes to upland sections in the watershed.

Establishing ‘ōpae ‘ula as the Hawai‘i state shrimp is an important step in recognizing these habitats as particularly valuable, and identifying natural and cultural resources within anchialine pools that warrant conservation attention.

Mahalo for the opportunity to provide testimony in support of this measure.



Testimony Before The  
Senate Committee on Transportation and Culture and the Arts (TCA)  
Senate Committee on Agriculture and Environment (AEN)

**IN SUPPORT OF HB345 HD2**

March 31, 2025, 1:01 p.m., Room 224 & Via Videoconference

We are Olan Leimomi Fisher and Kevin Chang, Kua'āina Advocate and Executive Director, respectively, testifying on behalf of [Kua'āina Ulu 'Auamo \(or KUA\)](#). "Kua'āina Ulu 'Auamo" stands for "grassroots growing through shared responsibility," and our acronym "KUA" means "backbone." **Our mission is to connect and empower communities to improve their quality of life through the collective care for their biocultural (natural and cultural) heritage, serving as a "backbone organization" that supports creative, community-driven solutions to problems stemming from environmental degradation.** Hawai'i's biocultural resources continue to be negatively impacted by political, economic, and social changes, and the increasing dangers of climate change make fostering and empowering resilient communities acutely critical.

Currently KUA supports three major networks of: (1) over 40 mālama 'āina (caring for our 'āina or "that which feeds") community groups collectively referred to as E Alu Pū (moving forward together); (2) over 60 loko i'a (fishpond aquaculture systems unique to Hawai'i) and wai 'ōpae (anchialine pool systems) sites in varying stages of restoration and development, with numerous caretakers, stakeholders, and volunteers known as the Hui Mālama Loko I'a ("caretakers of fishponds"); and (3) the Limu Hui made up of over 50 loea (traditional experts) and practitioners in all things "limu" or locally-grown "seaweed." **Our shared vision is to once again experience what our kūpuna (ancestors) referred to as 'ĀINA MOMONA – abundant and healthy ecological systems that sustain our community resilience and well-being.**

**KUA strongly supports HB345 HD2 as an incremental step towards 'āina momona.**

**This bill would establish the 'ōpae'ula as the state shrimp to make way for more awareness, education, protections, and resources for not only the 'ōpae'ula themselves, but also their main habitat in wai kai or wai 'ōpae (anchialine pools).** Wai 'ōpae are wahi pana, sacred places, and there are over 600 recorded pools across Hawai'i. Several of our KUA community members help to protect these special places and the 'ōpae'ula that they house. The 'ōpae'ula is endemic to Hawai'i and hold several important uses including for 'ōpelu fishing and as food for loko i'a. They are also important grazers keeping bacteria and algae in balance with the overall ecosystem. Habitat loss through pollution and coastal development, as well as invasions of invasive species, continue to threaten the 'ōpae'ula and their wai 'ōpae.

We know that the state Department of Land and Natural Resources, Division of Aquatic Resources (DAR) has been working on a Protection and Restoration Strategy for wetland ecosystems as a part of the Hawai'i Wetland Program Plan. One of the wetland types covered under this strategy is anchialine pools. With this plan nearing completion and implementation,

we find that HB345 HD1 comes at an ideal time to also increase the necessary hand-in-hand community awareness and education for wai ‘ōpae and ‘ōpae‘ula in Hawai‘i.

A primary function of KUA includes support for the development of an ‘auwai, or a system of resources, tools, bridges, relationships, and networks that cultivate and elevate our communities’ efforts to greater levels of collective impact in the care of our biocultural resources. In 2023, KUA was so grateful that your legislature designated Limu Kala as the state’s limu through passage of [Act 230](#) (HB819 HD2 SD1). Act 230 has since paved the way for more education and awareness of limu kala and other Native Hawaiian limu, and more communities are expressing interest in learning about and advocating for limu. We hope to do the same here with formal designation of ‘ōpae‘ula as our state shrimp and we would really appreciate your Committee’s support of this effort.

The communities we work with are committed to ensuring the long-term health of our biocultural resources that they have cared for and depended on for generations since time immemorial. **We believe our environment, the foundation of our very existence and “that which feeds” us all, requires long-term investment through a shared vision of achieving ‘āina momona (abundance) once again.** To get there requires dedicating more resources for mālama ‘āina (caring for our environment), including through this bill to gain more awareness and pave the way for more protections for ‘ōpae‘ula and their habitats. Our decisions today will continue to shape the future that our keiki’s keiki’s keiki will one day inherit – we hope for a future of shared and harmonious abundance, and hope you do, too.

Mahalo nui loa for considering our testimony. Please **PASS** HB345 HD2.

**Aloha ‘Āina Momona no nā kau ā kau.**

**HB-345-HD-2**

Submitted on: 3/30/2025 2:42:59 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Testifying for Hawai'i Reef and Ocean Coalition	Support	Written Testimony Only

Comments:

Hawai'i Reef and Ocean Coalition **SUPPORTS** protection of Achialine pools, Which are critical for protecting reefs and oceans.

**HB-345-HD-2**

Submitted on: 3/29/2025 3:12:31 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Pi'i La'eha	Testifying for Keepers of Kalahuipua'a (Mauna Lani Loko I'a)	Support	Written Testimony Only

Comments:

E welina,

We the Keepers, Kia'i Loko of Kalāhuipua‘a (Mauna Lani), **strongly support** HB345 HD2 to designate the ‘ōpae‘ula as our state shrimp!

These endemic animals are important in Native Hawaiian culture and traditions. They were part of a unique, sustainable fishing technique of old. ‘Ōpae‘ula were held in high regard for their red color, a color of authority with power to make laws. Only the ali‘i wore this color of respect and honor.

‘Ōpae‘ula is a great representative of our extraordinary wai ‘ōpae ecosystem. Very few places in the world boast of these anchialine ponds as Hawai‘i Island alone claims 80% of them which are nestled along their coastlines. The title of State Shrimp will bring awareness to these tiny red shrimp and enhance efforts of recognition, education and protections for these special shrimp and their fragile anchialine pool habitats.

**‘Ula ka loko kaheka i ka ‘ula o loko**

*Sacred is the red pond where the red shrimp dwell within*

Mahalo for your support!

Me ke aloha,

Keepers of Kalāhuipua‘a (Mauna Lani Loko I‘a)

Danny Akaka Jr.,

Kāhōkū Hurley,

Ethan Souza,

Pi'i La'eha



## Hawai'i Wildlife Fund

*Post Office Box 1801, Kealahou, Hawaii, HI 96750 &  
Post Office Box 790637, Paia, Maui, HI 96779*

*Celebrating 28+ years of protecting Hawaii's native wildlife through  
research, education and conservation.*

**LATE**

31 March 2025

**Re: Strong Support for House Bill 345 HD2 for AEN / TCA Hearing (3/31/25 @ 1:01 PM)**

Aloha Senator Gabbard (Chair of Senate Committee on Agriculture & the Environment) and Senator Lee (Chair of Senate Committee on Transportation, Culture & the Arts) and other Senators on these committees,

Apologies for the late testimony but this is IMPORTANT and worth sending belatedly. Hawai'i Wildlife Fund (HWF) is pleased to provide **strong support for the proposed state shrimp bill (HB345)**, which officially designates our endemic ōpae'ula (or "red shrimp", *Halocardina rubra*) as Hawaii's state shrimp 🍤! This important bill will provide more opportunities for awareness, education, protection, and resources for Hawaii's wai'ōpae and ōpae'ula.

With others from the Hui Loko network (a collective of fishpond and anchialine pool researchers, caretakers, and managers on Hawai'i Island), HWF worked with Rep. Lowen in 2019 to first introduce this measure that was never issued a hearing. We hope that this legislative session the measure will be passed with strong support across the chambers. We are still strong proponents of this effort and have been working to restore anchialine ecosystems across Hawai'i for nearly two decades. We feel that this effort, alongside the ongoing state DLNR efforts to better protect, restore, and manage anchialine ecosystems, will bring the right kind of attention and awareness to this "charismatic minifauna" and the fragile native habitat they reside in.



Anchialine pools are rare worldwide, but common in Hawai'i, especially across Moku o Keawe. Please help us protect these unique environments and VOTE 'Ae for the 'ŌPAE ULA bill.



Founded in 1996, Hawai'i Wildlife Fund is a nonprofit organization with a mission to conserve Hawai'i's native wildlife through research and education. We engage and inspire communities through outreach, education, conservation and habitat restoration activities, conducting environmental research, supporting community-driven management efforts, and initiating advocacy campaigns. We have been working to protect native wildlife and restore coastal / nearshore ecosystems across the Hawaiian Archipelago for the past 28 years with community and partner support.

In conclusion, **HWF strongly supports the 'ōpae'ula and asks for your vote.** Thank you for considering this testimony. Should you have any questions, please contact me at [megan@wildhawaii.org](mailto:megan@wildhawaii.org). Including some 'ōpae'ula and anchialine pool (and restoration) photos for your viewing pleasure.

Sincerely,



*Megan Lamson Leatherman, M. Sc.*

Hawai'i Wildlife Fund, President and Hawai'i Program Director

[megan@wildhawaii.org](mailto:megan@wildhawaii.org) | (c) 808-217-5777 | (w) 808-769-7629 (HWF Marine Debris Hotline)

***K Lindsey Kramer, M. Sc.***

Hawai'i Wildlife Fund, Coral Reef & Resources Specialist

[Lindsey@wildhawaii.org](mailto:Lindsey@wildhawaii.org)



Above 'ōpae photos by L. Kramer / HWF. Below anchialine pool landscape photos by miscellaneous HWF staff / volunteers.



**HB-345-HD-2**

Submitted on: 3/28/2025 11:13:36 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Brian H Shimabukuro	Individual	Support	Written Testimony Only

Comments:

Aloha,

I would like to support the measure proposing the acceptance of the Opae `Ula Brianas the official State Shrimp. It has been an impoatant organism that has contributed to the health of our Hawaiian ecosytems. Recognition as well as protection of these important organisms is an important part of how we Malama the `Aina. We need to take care of our home and this is one step toward that.

Mahalo,  
Shimabukuro

Brian

**HB-345-HD-2**

Submitted on: 3/29/2025 3:52:10 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Denise Boisvert	Individual	Support	Written Testimony Only

Comments:

**What an excellent idea it is to designate this very special shrimp to be the state shrimp!**

**Please pass this bill that will not only honor this unique and endemic shrimp, but will also help to protect its future.**

**HB-345-HD-2**

Submitted on: 3/28/2025 12:49:54 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

Recognizing 'opae 'ula as the state shrimp should help bring needed awareness to this endemic and endangered species. I support HB345

**HB-345-HD-2**

Submitted on: 3/29/2025 3:52:45 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Jeannine Johnson	Individual	Support	Written Testimony Only

Comments:

I strongly support establishing the `opae `ula as the official shrimp of the State of Hawai'i and ask for your strong support too. Mahalo!

**HB-345-HD-2**

Submitted on: 3/29/2025 4:08:46 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Kim Jorgensen	Individual	Support	Written Testimony Only

Comments:

Please accept my FULL SUPPORT for this bill that would name Hawaii's beloved shrimp to be its state shrimp.

Alabama has given the honor to its brown shrimp; Utah, its brine shrimp; Texas, its Texas Gulf shrimp; and Georgia, its white shrimp.

It is time for Hawaii's 'opae 'ula, the red shrimp, to be so recognized, and ultimately safeguarded.

**HB-345-HD-2**

Submitted on: 3/30/2025 5:43:13 PM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Dena Sedar	Individual	Support	Written Testimony Only

Comments:

*Aloha honorable Chairs, Vice Chairs, and Committee Members,*

I am writing in support of naming the **‘ŌPAE‘ULA** as the state shrimp of Hawaii. When I worked at Hawaii State Parks, I had the honor of working to restore the native habitat of this adorable shrimp and it made me want to do everything I could to help people recognize how incredible this tiny little animal is. By naming **‘ŌPAE‘ULA** as the state shrimp, you can help spread awareness of this species, which could help in the protection of the shrimp that call Hawaiian anchialine pools home.

Please support HB345.

Thank you,

Dena Sedar



**LATE**

**HB-345-HD-2**

Submitted on: 3/31/2025 11:34:06 AM

Testimony for TCA on 3/31/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Amber Datta	Individual	Support	Written Testimony Only

Comments:

I support HB345 to designate 'Ōpae'ula as the State Shrimp.