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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committee on
WATER AND LAND**

**Wednesday, April 26, 2017
2:45 p.m.
State Capitol, Conference Room 224**

**In consideration of
GOVERNOR'S MESSAGE 717
SUBMITTING FOR CONSIDERATION AND CONFIRMATION TO THE NATURAL
AREA RESERVES SYSTEM COMMISSION, GUBERNATORIAL NOMINEE, NORINE
HAYES, FOR A TERM TO EXPIRE 06-30-2021**

The Department of Land and Natural Resources strongly supports Governor's Message 717, nominating Dr. Norine Hayes to the Natural Area Reserves System Commission (Commission) for a four-year term to expire June 30, 2021.

Dr. Hayes is being nominated to serve on the Commission pursuant to Section 195-6, Hawaii Revised Statutes, as a person possessing scientific qualifications as evidenced by an academic degree in wildlife or marine biology, botany, forestry, ecology, resource management, biogeography, zoology or geology.

A 2003 graduate from the University of Hawaii with a Bachelor of Science in Zoology, Dr. Hayes received a Master of Science from the University of Hawaii in Zoology with a specialization in Ecology, Evolution, and Conservation Biology Specialization, and a PhD in 2010 under the same specialty.

Dr. Hayes has focused her professional life on the systematics of Hawaiian land snails and has a broad range of publications on a number of subjects. She is also engaged in the integration of science, policy and management with developing educational curricula that bridge the gap between science and public outreach to support stronger focus by both the public and management agencies on present day conservation issues.

The Department urges this Committee's favorable consideration on the nomination of Dr. Norine Hayes to serve on the Natural Area Reserves System Commission.

From: mailinglist@capitol.hawaii.gov
Sent: Friday, April 21, 2017 5:24 PM
To: WTL Testimony
Cc: amy.marvin@bishopmuseum.org
Subject: Submitted testimony for GM717 on Apr 26, 2017 14:45PM

GM717

Submitted on: 4/21/2017

Testimony for WTL on Apr 26, 2017 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Marvin	Bishop Museum	Support	No

Comments: Aloha, My name is Amy Marvin and I am the COO of the Bernice Pauahi Bishop Museum. I am writing today in strong support of Dr. Norine Hayes as a nominee to the Natural Area Reserves System Commission. Dr. Hayes is a tremendously talented evolutionary biologist and educator. She is dedicated to understanding and preserving biodiversity in Hawaii, and in educating the next generation in the importance of this work. She has been with the Bishop Museum as a Malacology Researcher for the past two years, and in that time has revitalized the entire Malacology Department with her passion, drive, and new research efforts. She would be a true asset to the Commission, and I urge you to favorably support her nomination.

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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April 24, 2017

The Honorable Ronald Kouchi, President,

And Members of the Senate

Twenty-Ninth State Legislature

Hawai'i State Capitol, Room 409

Honolulu, Hawai'i 96813

Dear Senate President Kouchi and Members of the Senate:

As the Conservation Manager for Pu'u Kukui Watershed Preserve on Mauna Kahālāwai (West Maui Mountains) one of the largest privately owned nature preserves in Hawai'i, I have had the pleasure to work with Norine Hayes for many years at the Preserve during her time at the University of Hawai'i and the Bishop Museum as a malacologist. Her expertise and efforts has assisted us to better steward various habitat and individual species in the West Maui NARS and other NARS in Maui Nui. Therefore, I strongly recommend Norine Hayes for your consideration and confirmation for the following nomination:

Norine Hayes

Natural Area Reserves System Commission

Expiration Date: June 30, 2021

Me ke aloha,



Pōmaika'i Kaniaupio-Crozier

Conservation Manager – Maui Land & Pineapple Co., Inc.

Pu'u Kukui Watershed Preserve & Ma kai Conservation Areas

Dr. Fern P Duvall II
211 Ulana Street
Makawao, HI 96768
Email: fduvall02@gmail.com
(808) 264-0922

April 24, 2017

RE: Letter of recommendation for Norine Hayes (a.k.a. Norine Yeung), seeking a seat on the Natural Area Reserves Commission

I highly recommend Norine Hayes be seated as Commissioner on the Natural Area Reserves Commission.

I have been a government biologist 1984-2015 for Maui Nui and am now a program manager with the Department of Land and Natural Resources Division of Forestry and Wildlife Native Ecosystems Protection and Management program (NEPM -Maui Nui).

I have known Ms. Norine Hayes since the start her doctoral studies under Dr. Sheila Conant at UH Manoa. She has successfully completed her Ph.D. and moved onto genetics and taxonomy of Hawaii's native snails – rediscovering species, and finding new species to science. I was involved with permits issued to her for some of her past and recent snail work in Natural Area Reserves on Maui and Molokai. Norine has also incorporated, directed, and trained many new and different people into accomplishing her recent studies of our remaining native Hawaiian snail fauna. Currently, she is collaborating with Department of Health and others on the needed work for understanding and tackling the newly horrid ratlungworm situation on Maui. In my experience the scientist and scholar Ms. Norine Hayes is fully capable of what she proposes. I am tremendously pleased with Ms. Hayes' consistent overall personal character, work ethic and output, her absolutely outstanding scientific intellect, and her insight, initiative, and inspiring professionalism in all she does. She is absolutely deserving of your selection as NARS Commissioner.

Feel free to contact me if you wish at 808-264-0922 or email: fduvall02@gmail.com
Sincerely,



Dr. Fern P. Duvall II



Smithsonian
National Museum of Natural History

23 April 2017

The Honorable Ronald Kouchi, President,
And Members of the Senate
Twenty-Ninth State Legislature
Hawai'i State Capitol, Room 409
Honolulu, Hawai'i 96813

Dear Senate President Kouchi and Members of the Senate,

I have the honor of writing in strong support for the nomination of Dr. Norine Hayes to the Natural Area Reserves System Commission. I have known Dr. Hayes for almost nine years during which time she has matured from a recent PhD graduate to a valuable young colleague and fellow curator of mollusks. Through her efforts in the areas of research, education, outreach and grantsmanship, she has reinvigorated malacology at the Bernice Pauahi Bishop Museum. Her expertise in the systematics and evolution of Pacific Island terrestrial snails is bringing much needed modern techniques to the study of Hawaii's highly imperiled land snail fauna. I have no doubt she will be a valuable addition to the NARS Commission and I support her nomination without reservation.

Respectfully submitted,

Dr. Ellen E. Strong
Curator of Mollusks
Smithsonian Institution, National Museum of Natural History
P.O. Box 37012, MRC 163
Washington, D.C. 20013-7012 U.S.A.

Email: StrongE@si.edu
Phone: (202) 633-1742
Fax: (202) 357-2343

4/24/17 6:53 PM

Kathleen Chock
5693 Haleola Street
Honolulu, Hawaii 96821
April 24, 2017

Subject: Testimony on Behalf of Dr. Norine Yeung,
Natural Area Reserves System Commission, Nominee

I have known Dr. Hayes for over 30 years. She was in my grades 4-6 gifted/talented class at Lunalilo Elementary School. We studied the Hawaiian ecosystem, took field trips and used the inquiry method for research projects. We connected once again in 2009 at the Bishop Museum where she was conducting research and I was gathering resources/information on Hawaiian snails for Kamehameha Elementary School's curriculum development.

Dr. Hayes subsequently became involved in our school's professional development program. She voluntarily led our school staff on hikes to native forests, shared current research, arranged teacher visitations to university laboratories, and developed teaching materials for use in the classrooms.

Words to describe her interactions with others in our educational community: Altruistic, caring, dedicated, generous, humble, patient, hard-working, committed, intelligent, scientifically grounded. She is *pono*, and lives the Hawaiian values of kuleana, ha'aha'a, 'imi na'auao, and aloha.

Dr. Hayes is dedicated and committed to environmental education for Hawaii. As an excellent teacher, scientist, and researcher, she well knows the challenges faced in conserving Hawaii's endemic species. She is committed to excellence and strives to do her best.

Please feel free to contact me for further information or to answer any questions.

Sincerely,

Kathy Chock

Kamehameha School Art Teacher

Nani Ke Ao Nei Curriculum Facilitator

1992 National Milken Educator

1989-1991, State Finalist Presidential Awardee for Excellence in Science Teaching

1997-2002 NASA Educator

2017 Hawaii Art Teacher of the Year

e-mail: kachock@ksbe.edu



UNIVERSITY of HAWAI'I AT MĀNOA®

BIOLOGY

23 April 2017

Memo to: Committee on Water and Land
Hawaii State Senate

Sheila Conant

From: Sheila Conant, Ph.D., Professor Emerita
conant@hawaii.edu 808-291-0857

Subject: Support for Dr. Norine Hayes' Nomination to serve on the
Natural Area Reserves System Commission

I fully support Dr. Norine Hayes' nomination to serve on the Natural Area Reserves System Commission. I have known Dr. Hayes since she took my Wildlife and Plant Conservation course a over 13 years ago as an undergraduate student at UH Manoa. I was her undergraduate advisor as well as her Ph.D. advisor. During nearly four decades of advising graduate students and serving on graduate committees, I have never known another student to progress so rapidly in her highly successful academic career. "Energetic" doesn't begin to describe her work ethic.

Since she graduated Dr. Hayes has worked as a Malacological (snails, etc.) Reserarcher at the Bishop Museum, and before that as a postdoctoral fellow in the Center for Conservation Research and Training. She has been very productive in a number of ways. Her CV will show research publications and other activities in detail. Although she is a successful and well-published scientist, she is absolutely terrific at community outreach. She can talk to all ages of people about all sorts of scientific and natural resource management topics in ways they can understand. She can make snails and slugs fun if anyone can!

Since finishing her Ph.D., Dr. Hayes has become an expert on Hawaii's native terrestrial snails—the little guys we don't often hear about. Dr. Hayes collaborates with scientists at the National Museum of Natural History, and has traveled to Europe to work with mollusc collections in several museums. During the last several years, she has regularly worked at Bishop Museum studying extisting collections as well as contributing specimens from the work in which she is currently involved. She and her colleagues have discovered a number of new, some cryptic, species of terrestrial molluscs in Hawaii and have "rediscovered" a number of species thought to be extinct. Very exciting work!

As a graduate student Dr. Hayes was awarded an NSF Graduate Teaching Fellowship. For two years she worked with elementary school teachers and students, as well as educational programs at the University's Lyon Arboretum. Teachers had high praise for her curriculum development skills as well as her ability to interact and reach elementary school children, including special education students. Dr. Hayes has also organized a number of community outreach workshops focusing on terrestrial mollusc identification and ecology for scientists as well as the general public. She is passionate about native mollusc conservation and has devoted a portion of her research time to helping with better management of these species and their habitats.

In sum, Dr. Norine Hayes is ideally qualified to serve on the Natural Areas Commission. Her excellent rapport with the public, her scientific work and her dedication to conservation and management are outstanding. She is one of the hardest working people I know.

In the 1970s I served a four-year term on this Commission and I have represented the University of Hawaii on the Commission since 2002, so I have a lot of experience and a solid appreciation for the Natural Area Reserves System, its importance to the people of Hawaii, its accomplishments, its staff, its challenges. I am confident that Dr. Hayes will be an excellent and energetic member of the Commission. I recommend without reserve that you confirm her nomination.

Thank you for the opportunity to present this testimony

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, April 25, 2017 1:54 PM
To: WTL Testimony
Cc: AvenueTsukayama@gmail.com
Subject: Submitted testimony for GM717 on Apr 26, 2017 14:45PM

GM717

Submitted on: 4/25/2017

Testimony for WTL on Apr 26, 2017 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
Avenue Tsukayama	Individual	Support	Yes

Comments: Senator Kharl Rhoads Vice Senator Mike Gabboards Water and Land Committee Citizen, Avenue Tsukayama Tuesday, April 25th, 2017 Support for GM 717 related to the confirmation of nominee Norine Hayes to the Natural Area Reserves System Commission I am testifying in support of Norine Hayes for the nomination to the Natural Area Reserves System Commission. Thank you for your time and consideration.

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: Senator Karl Rhoads, Chair, Vice Chair Mike Gabbard
and members of the Senate Water and Land Committee.
From: Patrick Conant
Subject: Testimony on behalf of Norine Hayes for appointment to the NARS Commission

I am happy to recommend Ms. Norine Hayes to represent Malacological (snails and slugs) interests on the NARS Commission. I have known Nori and her family since about 2004 when she was a graduate student in Zoology at UH Manoa, the same Department I was an undergraduate and graduate student in. Like me, as a student, she was unsure of what direction she would go in with her degrees. I switched to Entomology in Tropical Agriculture and she gravitated from Ornithology to Malacology.

Once she became interested in terrestrial molluscs, her career was charted, she has not looked back, and Hawaii has been the rewarded benefactor. Work by her and others has immensely expanded our knowledge of the taxonomy and biology of both native and alien terrestrial molluscs in this State. Thanks to people like her, Rob Cowie and Ken Hayes, Malacology in Hawaii has really had new life breathed into it. A kind of renaissance of snails and slugs, if you will. As in the current taxonomy of many Families of plants and animals, DNA work by these researchers has revealed many cryptic species, revised phylogenetic relationships within native and alien mollusc taxa, and errors in previous misidentifications.

Besides her pioneering taxonomy work, she has paid her dues in the field, collecting snails and slugs (or tissue thereof) in both native habitats as well as plant nurseries. She received funds from USDA-APHIS to inventory molluscs in nurseries Statewide, where molluscs are significant pests as well as biosecurity threats from newly imported plants, and are also threats to other States that receive plants from Hawaii. If we send nursery plants to California with snails or slugs they don't want, they can reject an entire shipping container. It is very much an economic issue.

She has even been involved in field work on slugs as hosts of rat lung worm (*Angiostrongylus cantonensis*) The serious human health threat that worm causes Statewide and particularly here in Puna, has just been in the news (again) this past week. She assisted with snail identification, and did the first "screening" of those for rat lung worm.

In native habitats, she has gained permits from both DOFAW and NARSC to research native land snails and sample their DNA in both Forest Reserves and NARS so is familiar with those processes. Of all the threatened and endangered fauna in this State, snails, (like native birds) have lost most of their biodiversity and so need all the help they can get. Nori is one of those very few qualified to help. She has worked closely with NARS staff and understands how the NARS System works and what its needs are. I was a NARS Commissioner myself before I retired.

In closing, I ask your committee to approve the appointment of Ms. Hayes to the Natural Area Reserve Commission. I feel strongly that she and her expertise will be a major asset to NARS and its mission.

Carl C. Christensen, Ph.D.
1612 Kamole Street
Honolulu, Hawaii 96821
808-373-3457

April 23, 2017

The Honorable Karl Rhoads
Senate Committee on Water and Land
State Capitol Room 204
Honolulu, Hawaii 96813

Re: GM 717: Submitting for consideration and confirmation to the Natural Area Reserves System Commission, Gubernatorial Nominee NORINE HAYES for a term to expire 06-30-2021

Hearing: Wednesday, April 26, 2017

Dear Senator Rhoads:

I am writing to express my strong support for the nomination of Dr. Norine W. Yeung Hayes for membership on the Natural Area Reserves System Commission. I am a Research Associate in natural sciences at Bishop Museum and am a current member of the NARS Commission; my term expires June 30 of this year, and it is my seat on the Commission that Dr. Hayes will occupy in the event she is confirmed. I have known Dr. Hayes for five years and have had the pleasure of working with her at Bishop Museum on studies of Hawaii's unique fauna of native land mollusks. She is highly knowledgeable about Hawaii and its native biota and will be an outstanding member of the Commission as it advises the Board of Land and Natural Resources on the management of the important public lands under the Commission's jurisdiction. I ask for your favorable consideration and approval of Dr. Hayes' nomination.

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, April 23, 2017 7:35 PM
To: WTL Testimony
Cc: theatacamakid@gmail.com
Subject: Submitted testimony for GM717 on Apr 26, 2017 14:45PM

GM717

Submitted on: 4/23/2017

Testimony for WTL on Apr 26, 2017 14:45PM in Conference Room 224

Submitted By	Organization	Testifier Position	Present at Hearing
David Duffy	Individual	Support	No

Comments: Dear Members of the committee, I would like to support the nomination of Dr. Hayes for the NARS Commission. I have known Dr. Hayes since her time as a student at UH Manoa. She is extraordinarily hard working, smart, inquisitive and personable. She has a broad range of interests and knowledge. She is the authority on Hawaii's slugs and invasive and extinct snails. She also has considerable experience on the ground in the aina. She will bring this knowledge to the NARS Commission and I believe she will be a constructive, engaged and collegial member of the committee. I hope you will vote to seat her. Many thanks for considering this testimony. Sincerely, David Cameron Duffy Ph.D.

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SENATE COMMITTEE ON WATER AND LAND

Kenekoa/Senator Karl Rhoads, Luna Ho‘omalu/Chair
Kenekoa/Senator Mike Gabbard, Hope Luna Ho‘omalu/Vice Chair

Testimony submitted by Allen Allison

Wednesday 26 April 2017 2:45 PM

Regarding GM 717

CONSIDERATION AND CONFIRMATION TO THE NATURAL AREA RESERVES
SYSTEM COMMISSION, GUBERNATORIAL NOMINEE, NORINE HAYES, FOR A TERM
TO EXPIRE 06-30-2021

Senator Karl Rhoads, Senator Mike Gabbard, and distinguished members of the Hawai‘i Senate Committee on Water and Land, my name is Allen Allison. I am a senior scientist at the Bishop Museum and a member of the University of Hawai‘i Graduate Faculty, but I am providing this testimony as a private individual in favor of Dr. Norine Hayes’ appointment to the Natural Area Reserves System (NARS) Commission for a term to expire on 30 June 2021.

Dr. Hayes is an extremely bright and energetic scientist who is strongly committed to the protection of Hawaii’s precious natural resources. She did her PhD research on sea birds and has since focused on land snails. She therefore has a broad range of expertise and understanding of the biological diversity of Hawaii.

I believe that the NARS Commission functions best when it has a diverse range of scientific expertise. With her broad training and expertise, I believe that Dr. Hayes will be an outstanding member of the Commission. She is a quick study, as well as a fair and open-minded individual who is comprehensive and thorough in her approach to all issues. She works well with a broad range of stakeholders and is an impressive mentor to students at both the high school and university level. She is always well prepared, is a good and careful listener, and is very respectful of others.

I strongly recommend that you give favorable consideration to confirming Dr. Norine Hayes appointment to the NARS Commission. She would bring an impressive combination of scientific credentials and strong conservation interest to this important position.

Thank you for the opportunity to present this testimony.

With best regards, I am,

Cordially yours,



Allen Allison PhD