

DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
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TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

APRIL 9, 2021
1:00 PM
VIA VIDEOCONFERENCE

HOUSE CONCURRENT RESOLUTION NO. 119, HOUSE DRAFT 1
URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH,
DEPARTMENT OF LAND AND NATURAL RESOURCES, AND UNIVERSITY OF
HAWAII TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM THAT
USES *WOLBACHIA* BACTERIA TO REDUCE MOSQUITO POPULATION LEVELS
THROUGHOUT THE STATE.

Chairperson Gabbard and Members of the Committee:

Thank you for the opportunity to testify on House Concurrent Resolution 119, HD 1, urging the Department of Agriculture, Department of Health (“DOH”), Department of Land and Natural Resources (“DLNR”) and University of Hawaii (“UH”) to develop and implement a mosquito control program that uses *Wolbachia* bacteria to reduce mosquito population levels throughout the state. The Hawaii Department of Agriculture (“Department”) agrees with the intent of the measure and offers comments.

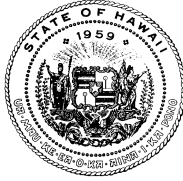
The Department is aware of the myriad of problems that mosquitos, and the associated diseases that they vector, pose to native species and the general public. The Department is already working with DOH, DLNR, and UH to go through the regulatory review process to import and conduct research using the southern house mosquito, *Culex quinquefasciatus*, with *Wolbachia* bacteria.



Additionally, the Hawaii Revised Statutes (“HRS”) Chapter 150A-6.2 contains a provision that allows certain entities, such as UH, to potentially import an unlisted organism, such as *C. quinquefasciatus*, on a case-by-case basis for the purpose of conducting scientific research in a manner that *C. quinquefasciatus* will not be detrimental to agriculture, the environment, or humans, provided the importer can meet permit requirements as determined by the Board of Agriculture. This section of the HRS already allows the Department to meet its mission and comply with the intent of this measure. Should other mosquito control projects be conducted in the future, this same provision could be applied to other mosquito species with *Wolbachia* bacteria.

Provided DOH, DLNR, or the UH has the resources and capability to manage the risks for introduction of mosquito species with *Wolbachia* bacteria, the Department will continue to collaborate and work with said agencies to implement the purpose of this measure.

Thank you for the opportunity to testify.



STATE OF HAWAII
DEPARTMENT OF HEALTH
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WRITTEN
TESTIMONY ONLY

**Testimony in SUPPORT of HCR 119,HD1/HR 95,HD1
URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH,
DEPARTMENT OF LAND AND NATURAL RESOURCES, AND UNIVERSITY OF
HAWAII TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM
THAT USES WOLBACHIA BACTERIA TO REDUCE MOSQUITO POPULATION
LEVELS THROUGHOUT THE STATE**

SENATOR MIKE GABBARD, CHAIR
COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Hearing Date: 4/9/2021

Room Number: Videoconference

- 1 **Fiscal Implications:** No budget implications at this time.
- 2 **Department Testimony:** The Department of Health (DOH) supports House Concurrent
- 3 Resolution 119 HD1/House Resolution 95 HD1 and appreciates the amendments made to the
- 4 resolution. DOH has been working closely with Department of Land and Natural Resources
- 5 (DLNR) and Department of Agriculture (DOA) to further the research and application of
- 6 *Wolbachia* to suppress mosquito population in Hawaii. Funding for a *Wolbachia* project was
- 7 provided to DOH through a Hawaii Invasive Species Council (HISC) grant awarded in August
- 8 2019. Due to COVID, work on the project was delayed until recently when we were able to
- 9 collect *Aedes albopictus* eggs and sent them to the MosquitoMate Lab on the Mainland for
- 10 rearing of Hawaiian lineage mosquitoes with the *Wolbachia* bacteria.
- 11 We look forward to working with our partners to obtain the necessary permits to import the
- 12 mosquitoes back to Hawaii and to have available storage capacity to house Hawaiian mosquitoes
- 13 with the *Wolbachia* bacteria.
- 14
- 15 Thank you for the opportunity to testify on this measure.

DAVID Y. IGE
GOVERNOR OF HAWAII



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

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**Testimony of
SUZANNE D. CASE
Chairperson**

**Before the Senate Committee on
AGRICULTURE AND ENVIRONMENT**

**Friday, April 9, 2021
1:00 PM
State Capitol, Via Videoconference**

**In consideration of
HOUSE CONCURRENT RESOLUTION 119, HOUSE DRAFT 1
URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH,
DEPARTMENT OF LAND AND NATURAL RESOURCES, AND UNIVERSITY OF
HAWAII TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM
THAT USES WOLBACHIA BACTERIA TO REDUCE MOSQUITO POPULATION
LEVELS THROUGHOUT THE STATE.**

House Concurrent Resolution 119, House Draft 1, relates to the development of a mosquito control program in Hawaii to address mosquito-borne diseases in humans and animals. **The Department of Land and Natural Resources (Department) supports this concurrent resolution.**

Mosquitoes are not native to Hawaii and spread diseases which threaten public health and native wildlife. Several species of Hawaiian forest birds are in imminent danger of extinction if the mosquito threat is not addressed. The Department supports using mosquitoes with *Wolbachia* bacteria for landscape-scale mosquito control in Hawaii. Such technology is already being applied elsewhere in the United States and internationally to suppress populations of mosquitoes of public health concern. The Department is working with the Hawaii Department of Agriculture and Hawaii Department of Health on planning, research, and development regarding the potential to utilize *Wolbachia* as a tool for landscape-scale control for mosquitoes that carry avian diseases (particularly *Culex quinquefasciatus*).

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
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS



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April 9, 2021

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

TESTIMONY ON HCR 119, HD1

URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH, DEPARTMENT OF LAND AND NATURAL RESOURCES, AND UNIVERSITY OF HAWAII TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM THAT USES WOLBACHIA BACTERIA TO REDUCE MOSQUITO POPULATION LEVELS THROUGHOUT THE STATE.

Via Videoconference
1:00 PM

Aloha Chair Gabbard, Vice Chair Nishihara, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports HCR 119, HD1.

We support this resolution for these major reasons:

- Mosquitoes can carry horrifying diseases, including the Zika virus, West Nile virus, Chikungunya virus, and dengue fever that can kill or destroy human lives. Farmers and ranchers typically spend much of their time working outdoors and are susceptible to insect bites, especially from mosquitoes.
- Animals are also vulnerable to bites from mosquitoes and the diseases they carry. Many farmers and ranchers rely on animals for their livelihoods.
- Hawai'i's remaining native birds are at extreme risk of extinction, in part due to avian malaria that is spread through the bite of an infected mosquito.

Control of mosquito populations in Hawai'i using a naturally occurring bacteria already present in most insects in the State can help to protect the health and well-being of the State's residents and animals.

Thank you for your efforts to protect and support Hawaii's farmers and ranchers.

**Testimony of The Nature Conservancy
In Support of HCR 119 HD 1, URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT
OF HEALTH, DEPARTMENT OF LAND AND NATURAL RESOURCES, AND UNIVERSITY OF
HAWAII TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM THAT USES
WOLBACHIA BACTERIA TO REDUCE MOSQUITO POPULATION LEVELS THROUGHOUT
THE STATE.**

**Committee on Agriculture and Environment
Friday, April 9, 2021, 1:00 PM
Via Videoconference**

Aloha Chair Gabbard, Vice Chair Nishihara, and Members of the Committee:

The Nature Conservancy (TNC) supports HCR 119 HD 1, urging the Department of Agriculture, Department of Health, Department of Land and Natural Resources, and University of Hawai'i to develop and implement a mosquito control program that uses *Wolbachia* bacteria to reduce mosquito populations throughout the state.

Hawai'i's native forest birds highlight the extraordinary biodiversity of our islands. However, these species are facing extreme threats from avian pox and avian malaria being transmitted by introduced mosquitoes. Due to the increased temperatures as a result of climate change, mosquitoes are now expanding into higher elevations where the birds had previously been safe from disease transmission. The expansion of mosquitoes is causing rapid declines in native forest bird populations.

TNC manages forest preserves throughout the state, many of which provide habitat for native forest birds. In order to ensure these endangered species will survive, bold science-based actions must be taken. Evidence has shown that mosquito control utilizing *Wolbachia* bacteria can be very effective and safe for humans, and there is growing consensus that it is the most promising approach for saving Hawai'i's native birds. Now is the time for the state and its partners to take serious action before we lose any more of our precious native birds.

Mahalo for the opportunity to support HCR 119 HD 1.

The Nature Conservancy of Hawai'i is a non-profit organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 nature preserves and work in over 50 coastal communities to help protect and restore the nearshore reefs and fisheries of the main Hawaiian Islands. We forge partnerships with government, private parties, and communities to protect forests and coral reefs for their ecological values and for the many benefits they provide to people.

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HCR-119-HD-1

Submitted on: 4/8/2021 1:03:33 PM

Testimony for AEN on 4/9/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Teya Penniman	Testifying for American Bird Conservancy	Support	No

Comments:

Aloha,

Please consider this testimony in support of HCR 119 from the American Bird Conservancy.

Mahalo,

Teya M. Penniman

HCR-119-HD-1

Submitted on: 4/7/2021 8:49:21 AM

Testimony for AEN on 4/9/2021 1:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dana Keawe	Individual	Oppose	No

Comments:

hcr119 hd1