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GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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Testimony of  
SUZANNE D. CASE  
Chairperson

Before the House Committee on  
WATER AND LAND

Tuesday, March 23, 2021  
8:30 AM

State Capitol, Via Videoconference, Conference Room 430

In consideration of  
**HOUSE CONCURRENT RESOLUTION 119 / HOUSE RESOLUTION 95  
URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH,  
AND DEPARTMENT OF LAND AND NATURAL RESOURCES TO DEVELOP AND  
IMPLEMENT A MOSQUITO CONTROL PROGRAM THAT USES WOLBACHIA  
BACTERIA TO REDUCE BOTH THE RATE OF TRANSMISSION OF MOSQUITO-  
BORNE DISEASES AND MOSQUITO POPULATION LEVELS THROUGHOUT THE  
STATE.**

House Concurrent Resolution 119 / House Resolution 95 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 Resolution and offers the following comments.**

The Resolution urges for the implementation of a mosquito control program using *Wolbachia* bacteria that 1) reduces the rate of transmission of mosquito-borne diseases, and 2) reduces the population levels of mosquitoes in Hawaii. While *Wolbachia* bacteria has successfully been used around the world including the mainland US to suppress populations of pest mosquitoes, it has not yet been used to reduce the rate of transmission of mosquito-borne diseases in the US. We therefore recommend the title and content of the Resolution be modified to focus on mosquito population suppression and remove references to reducing the rate of transmission of mosquito-borne diseases.

The Department wishes to highlight that mosquitoes are not native to the Hawaiian Islands, and that *Wolbachia* is a naturally occurring bacteria present in 15-70% of all insects and is already present in insect species statewide.

SUZANNE D. CASE  
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KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

We further recommend that the Resolution include the University of Hawaii as it has also made significant efforts in research toward suppressing mosquito populations.

The Department therefore recommends the following amendments to the Resolution title:

HOUSE CONCURRENT RESOLUTION 119 / HOUSE RESOLUTION 95  
URGING THE DEPARTMENT OF AGRICULTURE, DEPARTMENT OF HEALTH,  
UNIVERSITY OF HAWAII AND DEPARTMENT OF LAND AND NATURAL  
RESOURCES TO DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM  
THAT USES WOLBACHIA BACTERIA TO REDUCE ~~BOTH THE RATE OF~~  
~~TRANSMISSION OF MOSQUITO BORNE DISEASES AND~~ MOSQUITO POPULATION  
LEVELS THROUGHOUT THE STATE

The Department recommends amending page 1, lines 1-2 as follows:

WHEREAS, the control of non-native mosquito populations throughout the State is urgently necessary to protect the health and well-being of the State's residents and animals; and

The Department recommends amending page 2, lines 10-14 as follows:

WHEREAS, various federal and state agencies, including the United States Fish and Wildlife Service, National Parks Service, Department of Agriculture, University of Hawaii, Department of Land and Natural Resources, and Department of Health, have made significant efforts to suppress mosquito populations; and

The Department recommends amending page 2, lines 22-23 as follows:

WHEREAS, *Wolbachia* is a naturally occurring bacteria that is present in ~~approximately fifty~~ 15-70 percent of all insects and is already present in insect species statewide; and

We also recommend that the paragraph on page 2, lines 30-35 referring to the World Mosquito Project be removed. The use of *Wolbachia* strains to suppress breeding in wild mosquito populations only employs the release of male mosquitoes, which do not bite, therefore, this technique would not have any impact on the rate of disease transmission to humans or animals. While *Wolbachia* can also be used to alter how effectively mosquitoes transmit specific diseases, that methodology does not reduce mosquito abundance on the landscape.

Thank you for the opportunity to comment on this measure.



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**Testimony of The Nature Conservancy  
In Support of HCR 119 and HR 95, URGING THE DEPARTMENT OF AGRICULTURE,  
DEPARTMENT OF HEALTH, AND DEPARTMENT OF LAND AND NATURAL RESOURCES TO  
DEVELOP AND IMPLEMENT A MOSQUITO CONTROL PROGRAM THAT USES  
WOLBACHIA BACTERIA TO REDUCE BOTH THE RATE OF TRANSMISSION OF  
MOSQUITO-BORNE DISEASES AND MOSQUITO POPULATION LEVELS THROUGHOUT  
THE STATE.**

**Committee on Water and Land  
Tuesday, March 23, 2021, 8:30 AM  
Conference Room 430 Via Teleconference**

Aloha Chair Tarnas, Vice Chair Branco, and Members of the Committee:

**The Nature Conservancy (TNC) supports HCR 119 and HR 95**, urging the Department of Agriculture, Department of Health, and Department of Land and Natural Resources to develop and implement a mosquito control program that uses *Wolbachia* bacteria to reduce both the rate of transmission of mosquito-borne diseases and 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 and HR 95.

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*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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