


**From:** Tina Lia [tinalia@live.com](mailto:tinalia@live.com)   
**Subject:** Comment: Wolbachia-based Suppression of Mosquitoes on Kaua'i - Draft EA (AFNSI)  
**Date:** July 24, 2023 at 12:54 AM  
**To:** [mosquitocontrol@hawaii.gov](mailto:mosquitocontrol@hawaii.gov)



July 24, 2023

Attn: Mosquito Control Project  
Department of Land and Natural Resources  
Division of Forestry and Wildlife  
1151 Punchbowl Street, Room 325  
Honolulu, HI 96813

RE: Comment in Opposition to *Wolbachia*-based Suppression of Mosquitoes on Kaua'i - Draft EA (AFNSI)

Hawaii Unites is a nonprofit organization dedicated to the conservation and protection of our environment and natural resources. We are opposed to "*Wolbachia*-based Suppression of Mosquitoes on Kaua'i - Draft EA (AFNSI)." We demand that the State of Hawaii and its multi-agency partnership *Birds, Not Mosquitoes* complete a detailed, full scope Environmental Impact Statement (EIS) documenting the impacts to our native birds, environment, and public health.

This planned project is a dangerous experiment on the land, birds, wildlife, and people of these islands. The lab-infected biopesticide mosquitoes come with many risks, including horizontal transmission of the introduced bacteria strain, increased pathogen infection in mosquitoes, irreversible evolutionary events, population replacement, accidental release of lab-reared females, creation of lab-strain females in the wild, horizontal gene transfer, biopesticide wind drift, and mosquitoes becoming more capable of transmitting avian malaria and West Nile virus (human and bird). Scientific studies document these concerns.

Per the U.S. Department of the Interior Strategy, "*Wolbachia* IIT is a novel tool for conservation purposes and its degree of efficacy in remote forest landscapes is unknown." This project is an experiment on Hawaii's people, wildlife, and 'āina. The outcome is admittedly unknown. Human disease vectors are involved, and the informed consent of the public is required.

Southern house mosquitoes have never been used for *Wolbachia* stand-alone field release. The 59,204-acre Kaua'i project area and the 64,666-acre East Maui project area would be the largest *Wolbachia* mosquito releases of any kind globally to date. Female mosquitoes that bite, breed, and spread disease will be released. EPA guidelines allow for one female to be accidentally released with every 250,000 males.

Southern house mosquitoes transmit diseases to humans, birds, and other animals, including avian malaria, avian pox, heartworm, elephantiasis, West Nile virus, Western equine encephalitis, and St. Louis encephalitis; and they're a potential vector of Zika virus. *Wolbachia* is a complicated and potentially dangerous bacteria. Strains of *Wolbachia* in parasitic worms play a role in elephantiasis, heartworm, and river blindness. Assertions of no human health risks are based on unsound science discredited by the EPA.

There are no documented biosecurity protocols for these mosquitoes, and pathogen screenings are unknown. Our organization filed a FOIA request with the EPA for the Data Evaluation Record (DER) for these biopesticide mosquitoes, including a confidential attachment. That DER document containing a full review of the manufacturing process, including testing for relevant pathogens, has been withheld from the public and was not included in the FOIA document received from the EPA. This is unacceptable. There should be complete transparency with the details of this bacteria-infected disease vector product that is planned for mass release on our island home.

Who will take responsibility if something goes wrong – the federal government, the State of Hawaii, agency partners, private landowners? The scope, risks, and experimental nature of this plan require a detailed EIS. Safer alternatives haven't been considered. Conflicts of interest haven't been addressed. The University of Hawaii and USGS disclosed in their April, 2022 Technical Report HCSU-103 that the Department of Land and Natural Resources (DLNR) has been funded to build out an insectary where they intend to mass produce lab-altered mosquitoes for release on the islands. This mosquito production at the DLNR insectary is planned to continue "into perpetuity" (forever). The draft environmental assessment proposing agency's own board has final approval on a project that benefits the proposing agency:

"The state has been funded to develop a small-scale insectary that will be equipped with a containment biobubble to maintain tool efficacy and meet both federal and state permitting requirements regarding an Arthropod Safety Level 2 (ASL-2) facility."

We have an active case in environmental court seeking a ruling to require an EIS for these mosquito releases on Maui. We are in the process of a hearing for a Temporary Restraining Order and Preliminary Injunction to stop the release of bacteria-infected mosquitoes on East Maui. This Kaua'i project cannot be allowed to move forward while the need for further study of the serious risks of these mosquitoes is still being litigated in court.

We do not accept the Anticipated Finding of No Significant Impact (AFNSI) for the "*Wolbachia*-based Suppression of Mosquitoes on Kaua'i - Draft EA (AFNSI)." We demand an Environmental Impact Statement.

Details about the risks of these lab-infected mosquitoes are documented in our case in environmental court filed May 8, 2023 (attached): Hawaii Unites and Tina Lia v. Board of Land and Natural Resources, State of Hawai'i, and Department of Land and Natural Resources, State of Hawai'i.

Aloha,  
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REFERENCES:

U.S. Department of the Interior Strategy for Preventing the Extinction of Hawaiian Forest Birds (12/15/22)  
<https://www.fws.gov/sites/default/files/documents/DOI%20Strategy%20for%20Preventing%20the%20Extinction%20of%20Hawaiian%20Forest%20Birds%20%28508%29.pdf>

“Hawaiian Forest Bird Conservation Strategies for Minimizing the Risk of Extinction: Biological and Biocultural Considerations” – Eben H. Paxton, Megan Laut, Stanton Enomoto, Michelle Bogardus (USGS, UH Hilo, April 2022) (Appendix VI. Wolbachia IIT Implementation Outline, pages 80-85)  
<https://dspace.lib.hawaii.edu/server/api/core/bitstreams/8b60e14e-0935-4b61-8339-4107fce3ce91/content>

Hawaii Unites and Tina Lia v. Board of Land and Natural Resources, State of Hawai‘i, and Department of Land and Natural Resources, State of Hawai‘i (5/8/23)  
[https://hawaiiunites.org/wp-content/uploads/2023/05/2023\\_0508\\_Hawaii\\_Unites\\_and\\_Lia\\_v\\_BLNR\\_and\\_DLNR.pdf](https://hawaiiunites.org/wp-content/uploads/2023/05/2023_0508_Hawaii_Unites_and_Lia_v_BLNR_and_DLNR.pdf)



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