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# HOUSE RESOLUTION

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.

1 WHEREAS, the control of non-native mosquito populations  
2 throughout the State is urgently necessary to protect the health  
3 and well-being of the State's residents and wildlife; and  
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5 WHEREAS, mosquito-borne diseases, including the Zika virus,  
6 West Nile virus, Chikungunya virus, dengue, and avian malaria,  
7 are spread through the bite of an infected mosquito; and  
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9 WHEREAS, more species of native birds have gone extinct in  
10 Hawaii than anywhere else in the world, with nine unique bird  
11 species disappearing from Hawaii since the 1980s; and  
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13 WHEREAS, virtually every individual native forest bird or  
14 passerine living below 4,000 feet, or 1,200 meters, in elevation  
15 has been eliminated by avian malaria; and  
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17 WHEREAS, between 2013 and November 2, 2020, the Department  
18 of Health confirmed twenty-six cases of the Zika virus, thirty-  
19 six cases of the Chikungunya virus, and three hundred sixty  
20 cases of dengue in the State; and  
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22 WHEREAS, according to a Department of Agriculture report  
23 submitted to the Legislature on December 26, 2019, as required  
24 by Act 106, Session Laws of Hawaii 2019, mosquitoes in Hawaii  
25 also pose a significant threat to Hawaii's native wildlife,  
26 especially native birds; and  
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28 WHEREAS, Hawaii's mountaintop forests serve as a refuge for  
29 native birds escaping from mosquitoes that carry avian malaria;  
30 and



1           WHEREAS, however, climate change has raised temperatures in  
2 Hawaii's mountaintop forests, resulting in mosquitoes moving  
3 toward the mountains' respective summits and threatening the  
4 only disease-free refuge for native birds; and  
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6           WHEREAS, the birds of the Hawaiian Islands are a unique  
7 biological resource and a critical component of Hawaiian  
8 culture, warranting conservation and protection; and  
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10          WHEREAS, various federal and state agencies, including the  
11 United States Fish and Wildlife Service, National Parks Service,  
12 Department of Agriculture, Department of Land and Natural  
13 Resources, Department of Health, and University of Hawaii have  
14 made significant efforts to suppress mosquito populations; and  
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16          WHEREAS, these efforts include the development of  
17 *Wolbachia*-infected mosquito lineages, application of chemical  
18 adulticides and larvicides, reduction of mosquito habitats, and  
19 distribution of materials to educate the public about mosquito  
20 control and bite prevention; and  
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22          WHEREAS, *Wolbachia* is a naturally occurring bacteria that  
23 is present in fifteen to seventy percent of all insects and is  
24 already present in insect species statewide; and  
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26          WHEREAS, introducing the *Wolbachia* bacteria, which is safe  
27 to humans and the environment, into mosquito populations  
28 throughout the State would help to reduce mosquito populations,  
29 thereby lowering the rate of mosquito-borne diseases in humans  
30 and wildlife; and  
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32          WHEREAS, because male mosquitoes infected with certain  
33 *Wolbachia* bacteria are unable to produce offspring with wild  
34 female mosquitoes that are either not infected with any  
35 *Wolbachia* bacteria or are infected with a different *Wolbachia*  
36 bacteria than the male mosquito, *Wolbachia* bacteria may also be  
37 used to suppress mosquito populations; now, therefore,  
38

39          BE IT RESOLVED by the House of Representatives of the  
40 Thirty-first Legislature of the State of Hawaii, Regular Session  
41 of 2021, that the Department of Agriculture, Department of  
42 Health, Department of Land and Natural Resources, and University



1 of Hawaii are urged to develop and implement a mosquito control  
2 program that uses *Wolbachia* bacteria to reduce mosquito  
3 population levels throughout the State; and  
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5 BE IT FURTHER RESOLVED that certified copies of this  
6 Resolution be transmitted to the Chairperson of the Board of  
7 Agriculture, Director of Health, Chairperson of the Board of  
8 Land and Natural Resources, and President of the University of  
9 Hawaii System.

