

Minutes of the Advisory Committee on Plants and Animals
June 9, 2022, Meeting
Hawaii Department of Agriculture (HDOA)

I. CALL TO ORDER

Advisory Committee on Plants and Animals (Committee) Chairperson Mr. Darcy Oishi called the meeting to order on June 9, 2022, at 1:36 PM via Zoom meeting.

Members Virtually Present:

Darcy Oishi, Committee Chairperson, Hawaii Department of Agriculture (HDOA)
Dr. Maria Haws, Professor of Aquaculture, Pacific Aquaculture & Coastal Research Center, University of Hawaii at Hilo
Cynthia King, Entomologist, Division of Forestry & Wildlife, Department of Land & Natural Resources (DLNR), Ex Officio Member Designated Representative
Gracelda Simmons, Environmental Management Program Manager, Hawaii Department of Health, Ex Officio Member Designated Representative
Thomas Eisen, Planner, Environmental Review Program, Department of Business, Economic Development and Tourism, Ex Officio Member Designated Representative
Joshua Fisher, Wildlife Biologist, U. S. Fish and Wildlife Service (USFWS)
Dr. Samuel Ohu Gon III, Senior Scientist and Cultural Advisor, The Nature Conservancy – Hawaii (TNC)

Others Virtually Present:¹

Phyllis Shimabukuro-Geiser, Chairperson, Board of Agriculture (Board)
Morris Atta, HDOA Deputy to the Chairperson
Jennifer Waihee-Polk, Deputy Attorney General (DAG)
Jonathan Ho, Inspection & Compliance Chief, PQB, HDOA
Chris Kishimoto, Entomologist, PQB, HDOA
Stephen Dalton, IT Specialist, HDOA
Kevin Salvador, IT Specialist, HDOA
Jason Azus-Richardson, IT Specialist, HDOA
Becky Azama, Acting Manager, PQB HDOA
Kailee Lefebvre, Coordinating Group on Alien Pest Species (CGAPS)
Stephanie Easley, CGAPS Legal Fellow
Janis Matsunaga, Entomologist, Plant Pest Control Branch (PPC), HDOA

Others Virtually Present (cont'd):

Wilfred Leon Guerrero, Microorganism Specialist, PQB, HDOA

¹ The identification of the public members is based on their sign-in name but are not verified.

Christy Martin, CGAPS
Christopher Jacobsen
Ulalia Woodside, TNC
Christopher Farmer
Adam Vorsino, USFWS
Lei Nakamoto, PPC Secretary
Tara Yamashita, Acting PQB Secretary
Sherylyne Namahoe, Plant Industry Division Secretary
Steven Juliano
Evan Miyaki
Jonathan Likeke Scheu
Luka Zavas
David Smith
C Cabrera
Sara
Alison Cohan
Theresa Cabrera Mena

Attended – In-person access via Hale Waiolama Board Room, 1428 South King Street

Chelsea Arnott, Hawaii Invasive Species Council (HISC)
Krista Rados, Hawaii News Now

II. INTRODUCTION AND COMMENTS

Chairperson Oishi introduced himself and disclosed that Stephanie Easley, CGAPS Legal Fellow was in the room with him.

Chairperson Oishi noted there were a few new members on the Committee and started with Dr. Samuel Ohu Gon III of The Nature Conservancy. He said he had a copy of the memo from HDOA Chairperson Shimabukuro-Geiser appointing Dr. Gon to the Committee and asked Dr. Gon to introduce himself.

Chairperson Oishi said new ex-officio designee for Chairperson Case of DLNR was Cynthia King. He said he had a copy of the memo from Chairperson Case designating Ms. King and asked her to introduce herself.

Chairperson Oishi said the USFWS has appointed Mr. Joshua Fisher as an alternate for Mr. Ryan Pe'a. He said he had a copy of the memo from HDOA Chairperson Shimabukuro-Geiser approving Mr. Fisher and asked him to introduce himself.

Chairperson Oishi asked Committee members to briefly introduce themselves, stating their name, title, and the agency. Ms. Gracelda Simmons, Mr. Thomas Eisen and Dr. Maria Haws introduced themselves.

III. COMMENTS FROM GENERAL PUBLIC ON AGENDA ITEMS (ORAL OR WRITTEN)

Chairperson Oishi said the two submittals for today have elicited significant amounts of testimony and will limit oral testimony to two minutes to ensure everyone will have the ability to provide feedback while still allowing sufficient time for the Committee to discuss and make recommendations to the Board. Because there were both in-person participants and virtual participants, he said he would be alternating between virtual testifiers and in-person testifiers.

Chairperson Oishi said we have received written testimony for both mosquito proposals being reviewed by the Committee. He said it is difficult to separate the two based upon how the written testimony collected so they will be considered together. He said there were 95 in support - Primarily for bird protection or prevention of the extinction of native bird populations through disease spread mitigation, some noting support due to vectoring of diseases impacting public health, and a few testimonies due to the cultural significance of birds. He noted the Committee received two letters of support from legislators: Senator Inouye and Representative Hashem. He said there were 103 testimonies in opposition, 94 primarily for the mosquitos being genetically modified organisms (GMO) and 9 generally against the proposals. He noted a few pieces of testimony stated all introductions into the state are bad with some using examples like the mongoose, a few stating there are no diseases of concern and others indicating that cats be eradicated instead or a lack of long-term studies. He said the Committee also received late testimonies with 7 in support and 4 in opposition. He then began taking public testimony for agenda item IV - 1.

Mr. Chris Farmer, the Hawaii Program Director for the American Bird Conservancy (ABC) said he was in strong support for the recommendation to list these species. He said Hawaii is experiencing a conservation crisis and the *Wolbachia* method that DLNR and DOH have proposed is the best, safest solution to save these birds. He said all three of these mosquitoes are found throughout the State and the bacteria is here and is widespread as well. He was really concerned about the Genetically Modified (GM) opposition because this is not a GM technique and there is no GM modification and no manipulation of any of the genome. He said this is reversable so there is the ability to go very safely and slowly if needed. He also said it was widely and safely used for human health around the globe and on the U.S. Mainland. He said they were a part of a Hawaiian Group that is building on research, deployment, implementation, and intensive monitoring. He said this is the best option to save the Hawaiian honey creepers and our native birds and they were declining. He noted there will be additional regulatory requirements and oversight, and urged approval of the DOH and DLNR requests.

Ms. Christy Martin, CGAPS, said she strongly supports both proposals. She reiterated Mr. Farmer's comments noting native birds are running out of time and this is the only available technique to try to save some of these birds. She said the non-native zebra dove are the ones really infected with avian malaria and avian pox, and when the

mosquitoes go and bite them, they can then transfer the diseases to the native birds. She said the birds are declining and urged the Committee to recommend that these submittals be approved.

Ms. Chelsea Arnott, HISC, said the HISC submitted written testimony in support of both submissions Agenda item 1 and Agenda item 2 on the importance of having these large-scale tools developed and deployed to help prevent the spread of these invasive species. She said the impact to birds is going to be exacerbated by climate change, leading to the extinction of native forest birds. She referenced Mr. Farmer's testimony saying this is a tool and technique that is being deployed internationally and nationally to control and reduce large population of mosquitoes, not only for human health but for natural resources. She said this is really our best and safest tool for reducing mosquitoes, saving forest bird from extinction, protecting human health, and really appreciated the opportunity to testify on these two submissions.

Ms. Ulalia Woodside, Executive Director, TNC, said TNC strongly supports the DLNR and DOH requests regarding the mosquito species that were mentioned. She said this will allow Hawaii to take steps towards developing and implementing a mosquito control program that uses *Wolbachia* bacteria to reduce mosquitos' populations throughout the state, which would have positive impact on human health and the precarious state of our native forest birds. She said the work with *Wolbachia* is not with genetically modified organisms or any type of genetically engineered technique. She said expansion of mosquitos is causing rapid decline in native forest bird populations and if action is not taken many more extinctions will occur and it may already be too late for some species. She said this is the way we will be able to save Hawaii native forest birds and thanked the Committee for the opportunity to support this vital effort to protect our native birds.

Chairperson Darcy Oishi, any other virtual testimony? Okay, this is the last call for any testimony for Agenda item 4.1.

Chairperson Oishi asked for additional testimony for Agenda item IV -1, and if there was none, would transition to testimony for Agenda item IV - 2. There was not additional testimony for item IV – 1.

Chairperson Oishi noted that Ms Arnott's testimony was for both proposals. Ms. Martin noted that the CGAPS testimony also covered both Agenda items. Ms. Woodside also said the TNC testimony is in support of this request as well. Mr. Farmer clarified that ABC is also are supporting both Agenda items. There was no other testimony.

IV. REQUESTS TO BE REVIEWED BY THE ADVISORY COMMITTEE

Entomology:

Request to: (1) Preliminarily Review the Currently Unlisted Southern House

Mosquito, *Culex quinquefasciatus* (Diptera: Culicidae), for Future Placement on the List of Restricted Animals (Part A) by Board Order, For Immediate Field Release to Suppress Wild Populations of *Culex quinquefasciatus*, by the State of Hawaii Department of Land and Natural Resources (DLNR);

(2) Provided the Southern House Mosquito, *Culex quinquefasciatus*, is Placed on the List of Restricted Animals (Part A), Allow the Importation of Lab-Reared Strains of the Mosquito, *Culex quinquefasciatus* (Diptera: Culicidae), inoculated with Strains of *Wolbachia* Bacteria, by Permit, For Immediate Field Release to Suppress Wild Populations of *Culex quinquefasciatus*, by the DLNR; and

(3) Provided the Southern House Mosquito, *Culex quinquefasciatus*, is Placed on the List of Restricted Animals (Part A), Establish Permit Conditions for the Importation and Immediate Field Release of Lab-Reared Strains of the Mosquito, *Culex quinquefasciatus* (Diptera: Culicidae), inoculated with Strains of *Wolbachia* Bacteria to Suppress Wild Populations of *Culex quinquefasciatus* by the DLNR.

PQB Entomologist Christopher Kishimoto provided a synopsis of the request. He went over Entomology Subcommittee member Janis Matsunaga's questions and DLNR's responses.

Chairperson Oishi asked the Committee members if there were any questions for either PQB or the applicant.

Committee member Dr. Samuel Gon noted a comment earlier in the testimony mentioning this was the tool used for control of mosquitos in various locations internationally as well as in the United States. He then said he'd like to make the distinction that the DLNR proposal may be the first proposal to use *Wolbachia* for the purpose of conserving natural resources rather than a human health purpose. He said it would be an exciting precedence for the use of this tool as a natural resource management tool.

Chairperson Oishi, said he had comments about transportation issues, noting permit condition 11 limits the importation through the port of Honolulu, and wondered if DLNR had any comments on what kind of issues that they anticipate. He anticipated transportation of these insects from production sites on the US mainland are going to be longer if everything has to go through the port of Honolulu and the intended release areas are on Maui. He asked how this would impact the efficacy of the program and if this has been examined.

Mr. Kishimoto said most imports of live animals already go through Honolulu as the first port of entry and it is where PQB has the most control over imports. He said Maui and Kauai are not considered full ports of entry which means that they can't receive things like this for inspection, should they be the first port of entry. Chairperson

Oishi noted that a Board order could change that. Mr. Kishimoto wasn't sure if a Board order could change that, but it is definitely a decision to be made by the Board.

Chairperson Oishi asked how these insects will be moved, assuming it would be through air freight. However, he was curious if it was going to be a parcel carrier like FedEx or UPS, or will it be through a conventional air cargo shipment. Mr. Kishimoto said that Ms. King would be better able to answer that.

Committee member Cynthia King said she actual can't answer the question about the actual carriers as it is not something that has been discussed. She said Josh Fisher might have an answer.

Ms. King then answered Chair Oishi's prior question. She said DLNR understood the additional time where mosquitos have to transit through the port of Honolulu and undergo inspection then move on to the neighbor islands for potential or actual deployment. She said it does increase that time they are in less-ideal conditions, and it puts them at a greater risk of higher mortality, and lower survivorship or effectiveness in the field. She said it is something that could be dealt with but if there was a means by which it could be altered, DLNR would certainly be supportive of that.

Chairperson Oishi asked what's the farthest distance Verily or MosquitoMate have moved mosquitos by air for releases? He asked for not just distance, but also the time from collection from a rearing facility to release into the field. Ms. King said she believed the longest distance is from California to Puerto Rico and the total time that the mosquitos can be in transit is about 24 hours give or take. She noted the less time in tiny, chilled containers is typically better.

Chairperson Oishi asked if adding on a movement from Honolulu to any other island would potentially push beyond the 24-hour period. Committee member Joshua Fisher said that remains to be determined. He said for the Puerto Rico applications, FedEx was used and that worked. He said Ms. King alluded to the time constraint and you want to do shipments within 24 hours. He said various delivery services will have to be looked at to best minimize the travel distance. He said mosquitos coming from California will not be as long versus shipments coming from the east coast, but that would need to be determined and all the options are on the table.

Mr. Jonathan Ho, PQB Inspection and Compliance Section Chief, said the Board could determine another port of entry but that creates a logistical problem with regards to inspection, particularly due to the fact that we don't have a lot of staff on the neighbor islands. He said the specific mode of entry also plays a role, as an example FedEx only comes through the port of Honolulu and here is no direct flight to an outer island. He said the individual carriers are going to vary and air cargo would be something different. He said PQB routinely deals with live animal shipments. He said they are all required to come through Honolulu, and they are all done in 24 hours, particularly, now that COVID restrictions are over. As an example, he said a shipment through Hawaiian Cargo for Kauai, would be inspected on Oahu and as soon as inspection is completed, they can be on another plane going to that island. The time between connecting flights would

vary but would be within 24 hours provided that there is not some unforeseen issue. He noted the port of entry issue is somewhat complicated.

Committee member Dr. Maria Haws noted there are two miss-spellings in the first two clauses related to the subject request. She brought it up in case anybody wants to refer to that language when they make a motion.

Committee member King wanted to note the 24-hour time period isn't limited to getting a parcel physically to the neighbor island but also needs to include getting them out into the field and then deployed, which could include hiking out on foot or helicopter or other aerials deployment. She said there is potentially quite a bit additional transit time to get the mosquitos to remote area where the remaining forest birds take refuge.

Chairperson Oishi said a few permit conditions may contain some potential conflicts. Because the intent is to make sure only males are imported, the references to "progeny" from permit conditions 8 and 16 should be removed. Mr. Kishimoto confirmed it could be done.

Chairperson Oishi said permit condition 6 states maintenance by "trained or certified personnel designated by the permittee." Is the intent of Plant Quarantine Branch to know who is certified and trained and should permit condition language be modified or expanding to reflect reporting or is the intent to be capture within the biosecurity plan requirement. Mr. Kishimoto said it would be nice to know who the trained staff is, and they can supply us with a list. He said it doesn't have to specifically be a list and can be inside their reports as well. Chairperson Oishi said it would be cleaner if the permit condition language was modified so the applicant knows the expectation. Chair Oishi asked if that would be a problem with the applicant? He acknowledged that he saw Ms. King saw her shake her head indicating "no".

Chairperson Oishi said the submittal indicates DLNR will be doing an Environmental Assessment (EA) at a future date and heard Mr. Kishimoto state a partial EA was done for Maui. He asked what was the timeline for completion of the EA?

Ms. King said the timeline for the draft EA to be released to the public is in September of this year for the East Maui area. She said there is a parallel process going on for the proposed project area on Hawaii Island and then there will be a third EA to cover statewide. She said there will be a total of three EA's completed for this. Chairperson Oishi said some testifiers have noted, and the abundance of written testimony against this proposal are tied to concerns over GMO or GE. He hoped the EA will help address some of those concerns. Ms. King said the goal to put it through the EA process and make it publicly available so individuals have the opportunity to learn about the project and express any concerns that they might have. She noted that according to her notes, the draft EA actually is supposed to be published in August not September.

Chairperson Oishi asked if there will be other outreach or educational opportunities to get the word out that this is not a GMO and is there a plan on the part of

DLNR to educate the general public about what this really is? Ms. King said DLNR doesn't specifically have outreach staff directed to this project at this time but is part of a multi-agency partnership called Birds not Mosquitos, which has emphasized a great deal of outreach and education to the public, legislators, and community members and it has been an emphasis for a long time. Based on the testimony from concerned members of the public, she said there is still a lot of work to do, it is a good reminder that it is important task, and it would definitely be pursued. She said there was recent additional funding allocated toward implementing incompatible insect techniques in Hawaii and a portion of those funds will certainly be going to continuing outreach.

Dr. Gon, said he had a comment with regarding DLNR and its public outreach. He noted that in the last couple of days, Dan Dennison released a news release indicating that there were no GMOs or GEs involved in this particular proposal and felt it is part of the ongoing multi-pronged outreach and public awareness efforts that going on in the Bird Not Mosquitos group. Ms. King thanked Dr. Gon for the correction noting DLNR has issued other press releases at different stages as the interest in *Wolbachia* for forestry conservation has evolved.

Mr. Fisher said while reading throughout all these testimonies that were received, one of the recommendations that I'm going to bring back to the communication group working on outreach need to broaden to different audiences because it appeared to him there was a very large farming contingent/community that had submitted testimony. He felt that outreach could be extended to those audiences and will be his recommendation to the outreach group. Dr. Gon, said it was really interesting that the rise of anti-GMO sentiment in Hawaii was largely out of the farming community regarding pesticides.

Chairperson Oishi asked for additional discussion. Hearing none, he called for a motion. Dr. Gon made a motion that the Board approve this request with the corrections and modifications that Chair Oishi, and Dr. Haws mentioned previously. Chairperson Oishi asked it that would include the modifications to permit conditions. Dr. Gon agreed and noted the correction of spelling. Chairperson Oishi said changes to permit conditions 8 and 16 to eliminate the word progeny and permit condition 6 to specify the applicant is to provide a list of individuals that have received training and the typographic errors in the title. Dr. Gon agreed.

Chairperson Darcy Oishi asked for a second. Dr. Maria Haws seconded. Chairperson Oishi asked for any further discussion.

Committee member King said she was scrolling through the submittal and asked if there was a reference to quality control upon arrival at University of Hawaii. She said she didn't have concerns about it, but it was not included, she would like it corrected. Mr. Kishimoto recalled it was in the submittal. Ms. King said she didn't see it. Chair Oishi also confirmed it. Ms. King was concerned that the University would be surprised that they were obligated to that and request the condition be omitted. I think they might be surprised to hear that we obligated them to that. Mr. Kishimoto noted the removal.

Chairperson Oishi asked for further discussion. Hearing none, called for the vote.

Vote: Approved 7/0. (Oishi, Eisen, King, Fisher, Haws, Gon, Simmons)

Motion carries.

Chairperson Oishi said the Committee will take a 5-minute break. The time is 2:40 P.M. Chairperson Oishi reconvened the Committee meeting at 2:51 P.M.

Request to: (1) Preliminarily Review the Currently Unlisted Yellow Fever Mosquito, *Aedes aegypti*, Asian Tiger Mosquito, *Aedes albopictus*, and Southern House Mosquito, *Culex quinquefasciatus* (Diptera: Culicidae), for Future Placement on the List of Restricted Animals (Part A) by Board Order, For Immediate Field Release to Suppress Wild Populations of *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus*, by the State of Hawaii Department of Health (DOH);

(2) Provided the Yellow Fever Mosquito, *Aedes aegypti*, Asian Tiger Mosquito, *Aedes albopictus*, and Southern House Mosquito, *Culex quinquefasciatus*, are Placed on the List of Restricted Animals (Part A), Allow the Importation of Lab-Reared Strains of the Mosquitos, *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus* (Diptera: Culicidae), Inoculated with Strains of *Wolbachia* Bacteria, by Permit, For Immediate Field Release to Suppress Wild Populations of *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus*, by the DOH; and

(3) Provided the Yellow Fever Mosquito, *Aedes aegypti*, Asian Tiger Mosquito, *Aedes albopictus*, and Southern House Mosquito, *Culex quinquefasciatus*, are Placed on the List of Restricted Animals (Part A), Establish Permit Conditions for the Importation and Immediate Field Release of Lab-Reared Strains of the Mosquitos, *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus* (Diptera: Culicidae), Inoculated with Strains of *Wolbachia* Bacteria, by Permit, For Immediate Field Release to Suppress Wild Populations of *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus*, by the DOH.

PQB Entomologist Christopher Kishimoto provided a synopsis of the request. He went over Entomology Subcommittee member Janis Matsunaga's question.

Chairperson Oishi asked if there were questions for PQB or the applicant. Do we have any questions for PQ and or the applicant?

Committee member Thomas Eisen, asked about the EA for this proposal and is there going to be multiples such as with the previous proposal. Committee member Grace Simmons said DOH is in the process of writing out a request for proposal to have someone conduct an Environmental Assessment. She was unsure of exact timing but

estimated sometime early next year and it would encompass the entire state, not just Oahu or a specific island. Mr. Eisen suggested relying on the EA that DLNR is proposing, with the idea that DOH would presumably be dealing with the same issues.

Ms. Simmons said DOH modeled their request for proposal based on what's already been released by DLNR and are learning a lot from their process, noting they have been working very closely with them on how to fashion the proposal.

Chairperson Oishi said he had the same concerns over permit conditions for the prior proposal. He posed a scenario relating to permit condition 1, relating releasing only on islands with established populations of the mosquitos. He asked in the event that the releases are successful and there comes a point where monitoring programs cannot detect mosquitos, is DOH going to be prevented from releasing, which would then impact the long-term success of the project. He asked how eradication would be declared, which would, as he understood the permit condition correctly, prevent further releases. He noted that he did not ask this for the DLNR submittal because they are only focusing on natural areas and there will always be a reservoir in surrounding areas preventing this situation from occurring.

Chairperson Oishi provided the hypothetical situation where flooding millions of mosquitos on to say a small island, like Lanai, has been going on for 10 years. Surveys aren't showing overt signs of mosquitos. Is the DOH going then be prevented from releasing these *Wolbachia* incompatible mosquitos which might then mess up the eradication efforts, allowing the mosquitos to come back. Mr. Kishimoto said this condition is similar in the DLNR and DOH conditions he would need to discuss with both DLNR and DOH if that is something they thought about and have considered. He said due to the fact that only sterile males will be released, the risk is low even if there are undetectable levels and until eradication is declared, it would be okay to continue to release on those islands.

Mr. Ho said the condition states "population" and not necessarily establishment. He said the intent of this condition is for suppression and eradication and while there may be a sub-detectable level, the agency will make the call to continue releases, knowing that they probably are not going to be releasing mosquitos when there is nothing to control. He said if a detection is made, surveying will likely occur, and the findings will allow the agency to make the determination of whether release is going to be needed or not. He said that he felt the condition was not restrictive from the standpoint of their ability to release because if the mosquitos are eradicated there absolutely no mosquitos. He said it is the hope that it could occur, but should there be another detection, he felt these conditions would be appropriate because you find another population and then you release mosquitos to suppress it.

Ms. King said that the DOH had included the statement that she added into the chat, "Only islands with establishment or incipient wild mosquito populations, as determined by the HDOH Vector Control Branch, are allowed to import these mosquitoes," which identifies if there are known establishments or incipient wild mosquito populations. She clarified the difference in Hawaii where *Aedes aegypti* is

only found on the Big Island and *Culex quinquefasciatus* and *Aedes albopitus* are really widespread and basically have no hope of eradication. She said *Aedes aegypti* presents a target that could potentially be eradicated using the incompatible insect technique. She said eradication could be of great value considering this mosquito transmits dengue fever and it can really proliferate when the disease is introduced to the Big Island population. She said it was important to make a distinction and not get rid of any criteria that prevents importation of these mosquitos to islands unless there has been an established population. She asked if limiting or putting some sort of time frame tied to the control efforts noting it's important to have zero detection for sometimes several years before claiming eradication. She asked if PQB would like to add defensible language should members of the public try to prevent additional releases because they didn't find any last month. Mr. Kishimoto said until eradication is declared I would think that it would be allowable and okay to keep releasing sterile males.

Mr. Fisher said this tool is used for suppression of mosquito populations and isn't intended for eradication. He noted it could be done if the populations are small and finite. He said this tool could be good for more port biosecurity. He said if *Aedes aegypti* was detected around Kahului airport, with nearby wetlands and other wildlife, your options of doing a rapid response to address the incipient population are limited. Having a tool like this, that doesn't have any non-target issues, would be ideal for such a scenario. He felt the verbiage of the incipient population is good, especially when you have those very small occurrences of mosquitos, noting it is very hard to detect, trap and monitor them in the very beginning. He felt having some flexibility relating to incipient populations before eradication is declared is appropriate.

Chairperson Oishi was Christopher Jacobsen of DOH with his hand raised. Mr. Jacobsen, DOH Entomologist, introduced himself and noted Ms. King and Mr. Fisher addressed a lot of the rationale that the DOH has around incipient populations, specifically *Aedes aegypti*. He said there have been detections on Maui and Oahu and a tool like this could potentially be used in those kinds of situations. He said DOH is not currently planning to eradicate existing populations, but it would be a tool used mainly for increasing public health strategies and measures in response to disease being transmitted on island. He said the area affected would likely be very low and be discontinued when public health threats are diminished.

Chairperson Oishi asked Mr. Jacobsen, in theoretical terms, how long would there be a need for to release introduced *Aedes aegypti* carrying incompatible *Wolbachia* to suppress a *Aedes aegypti* detection that may have happened on Oahu or Maui in the past. Would that have been weeks, or months or years? Mr. Jacobsen estimated it would be months, because when you are trying to eradicate, you want to have a degree of certainty and understanding in the fact that detection are very low populations is really challenging for mosquitos. He said enhanced surveillance and different kinds of abatement measures several months after a detection would be likely.

Chairperson Oishi asked PQB if there is a need to make modifications to permit condition #1 based on the discussion.

Mr. Kishimoto said he felt that there is no need to amend the permit condition but if the Committee think it's a good idea, it can be done. He noted a population doesn't have to be established over the whole island and could just very well mean an incipient population, or possibly a detection. Chairperson Oishi said a detection doesn't necessarily mean it is an incipient population. Mr. Kishimoto said it's up to the Committee and can make changes if that is what the Committee wants. Chairperson Oishi asked DOH if they want to see any revisions.

Ms. Simmons asked what the lifespan of this permit is. Mr. Kishimoto said generally for a year. A single use permit is one shipment, or you can get a multiple use permit. The multiple use permit costs more but if you are going to make 5 or more shipments it's more time and cost effective. Ms. Simmons said greater flexibility would be requested, noting Mr. Jacobsen mentioning responses could take months.

Chairperson Oishi presented a hypothetical trapping situation to illustrate the possible need for flexibility. He said he was doing so to try and prevent the need to re-do the review and come back to the Board to modify permit conditions to reflect a need that may not have been accounted for, especially since this proposal would entail only releasing male mosquitos. Ms. Simmons agreed.

Ms. Jennifer Waihee-Polk, DAG, asked Chair Oishi if the Committee was talking about the transport to or release on any island that does not have a population of the respective species is prohibited. Chairperson Oishi said yes. Ms. Waihee-Polk said it looks like a very general statement without any parameters on how the discretion is going to be to make the determination. She said it should be a concern if the Board is going to make set parameters to remove the discretion. She said currently, there is discretion for both the Board and DOH to work it out. She said it appears that DOH does not want to release these species when there is no population because they don't want to introduce it to a place where it's not. So, it doesn't say how its established so right now there's discretion. She noted the Committee can make recommendations to have it be set a certain way. Chairperson Oishi said he was comfortable leaving the language as is.

Chairperson Oishi asked if there was additional discussion. Ms. Simmons asked if the Committee is making the similar changes regarding progeny in the conditions, as was done with the prior request. Chairperson Oishi said yes.

Chairperson Oishi made a motion to recommend approval of the request to preliminarily review the three mosquitos by the DOH with changes to the misspellings in the title, permit conditions 7, 8 and 16 removing progeny, changes to permit condition 6 clarifying the trained and certified personnel, and that there would be report of the individuals that are trained and certified be approved.

Chairperson Oishi asked for a second. Ms. King seconded the motion. Chairperson Oishi asked for any further discussion. Hearing none, he called for a vote.

Vote: Approved 7/0 (Oishi, Eisen, King, Fisher, Haws, Gon, Simmons)

Motion carries.

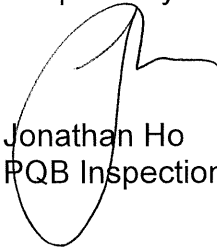
V. ADJOURNMENT

Having no further business, Chairperson Darcy Oishi called for a motion to adjourn. Committee member Gon made a motion to adjourn. Committee member King seconded the motion. Chairperson Oishi called for a vote.

Vote: Approved 7/0 (Oishi, Eisen, King, Fisher, Haws, Gon, Simmons)

Motion carries. Meeting was adjourned at 3:24 P.M.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jonathan Ho', written over a large, light-colored oval shape.

Jonathan Ho
PQB Inspection and Compliance Section Chief