



PACMOSSI PRESENTATION

PACIFIC ISLANDS VECTOR MANAGEMENT COUNCIL (PIVMC)

GUAM DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES

DIVISION OF ENVIRONMENTAL HEALTH

MOSQUITO SURVEILLANCE AND CONTROL PROGRAM

JEROME GARCIA, EPHO III





PACIFIC ISLAND VECTOR MANAGEMENT COUNCIL (PIVMC)



PIVMC

- Established as one of the key strategies in the Pacific Island Health Officers Association's (PIHOA) *Pacific Island Vector Management Improvement: A Strategy and Its Implementation* planning document
- *Dr. Grayson Brown, former PIHOA Regional Entomologist (August 2018)*

GOVERNING DOCUMENT

PIHOA'S PACIFIC ISLAND VECTOR MANAGEMENT IMPROVEMENT: A STRATEGY AND ITS IMPLEMENTATION (AUG. 2018)

- Three Tiered training program – new staff, intermediate/advanced, managers
- Standard surveillance and control kits
- *Vector Management Technical Manual*
 - Aileen Benavente (CNMI)
 - Technical Advisors:
 - Dr. Limb Hapairai (PIHOA Regional Entomologist)
 - David Pecor (WRBU)
 - Dr. Anthony Cornell & Katherine Brisco (UCDavis, Dept. of Entomology and Nematology, Mosquito Control Research Laboratory)
 - Dr. Christopher Barker (PacVec CoE)



Pacific Island Vector Management Improvement: A strategy and its implementation

A strategic concept and implementation plan for improving the management of arthropod vectors of human disease in the US Affiliated Pacific Islands over the period 2018 – 2020.

Dr. Grayson C. Brown
PIHOA Regional Entomologist

Dated: August 15, 2018

PACIFIC ISLAND VECTOR MANAGEMENT COUNCIL (PIVMC)



MEMBERS

- Guam
- Commonwealth of the Northern Mariana Islands
- Federated States of Micronesia (Pohnpei, Kosrae, Yap, and Chuuk)
- Republic of Palau
- Republic of Marshall Islands
- American Samoa

PARTNERS

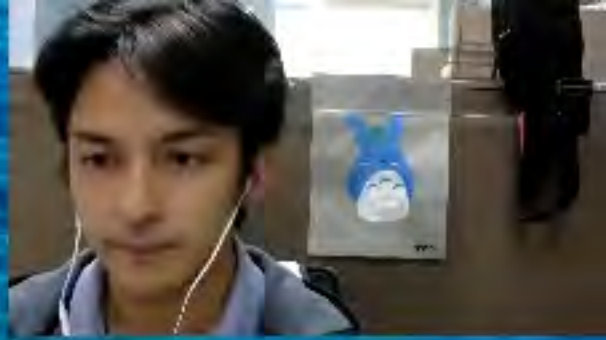
- Centers for Disease Control and Prevention (CDC)
- Association of State and Territorial Health Officials (ASTHO)
- Walter Reed Biosystematics Unit (WRBU)
- Pacific Southwest Center of Excellence in Vector-Borne Diseases (PacVec CoE/UCDavis)
- World Health Organization (WHO)



PURPOSE OF THE PIVMC

TO SERVE AS AN ADVISORY BOARD TO THE U.S. AFFILIATED PACIFIC ISLANDS

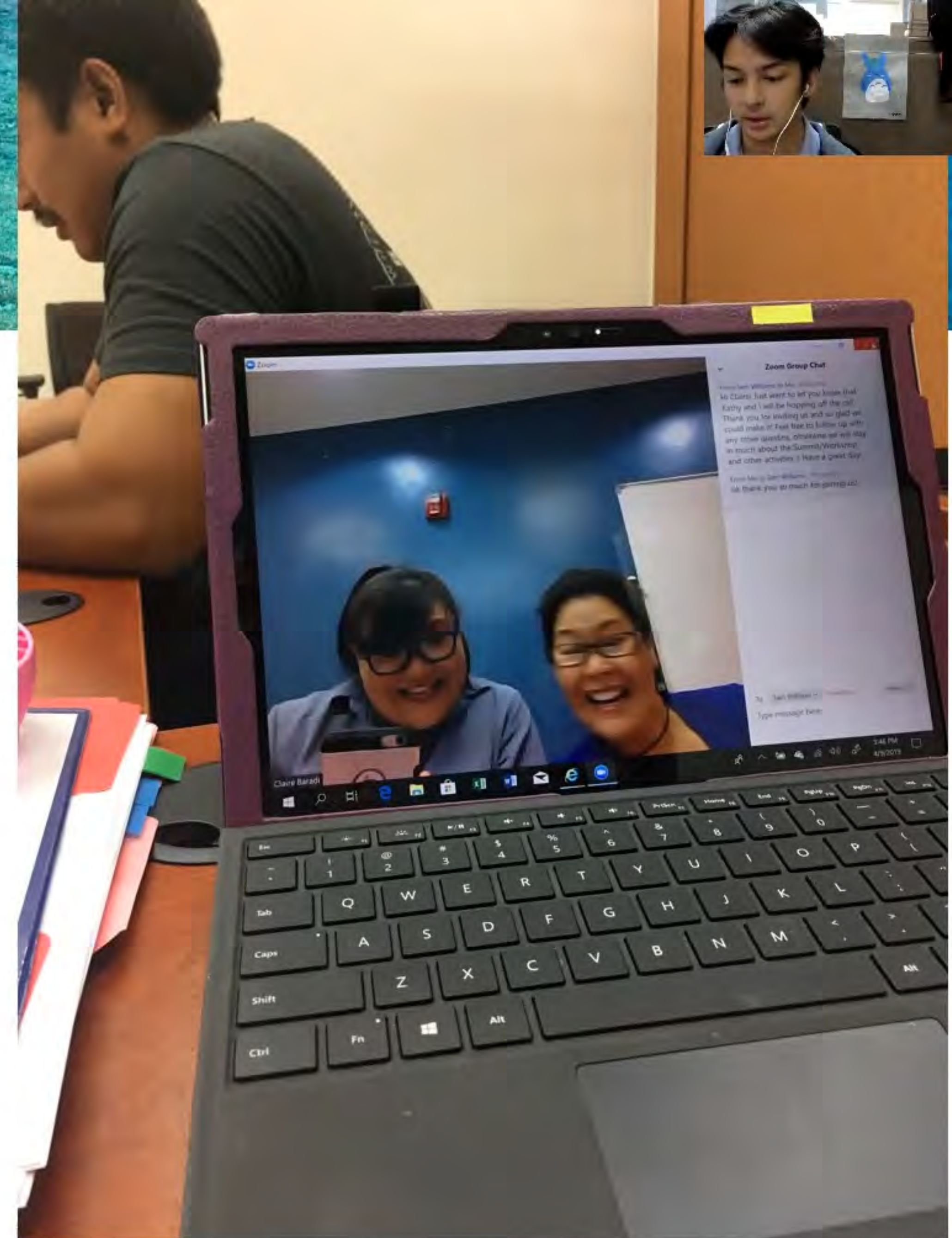
- Guide vector management in the region
- Decide on technical details, such as surveillance and control standards and protocols
- Monitor the progress of vector management programs
- Communicate with each other on vector surveillance and control concerns and issues within the islands



CURRENT ACTIVITIES

ISLAND REPORTS

- COVID-19 response
- Dengue outbreak/local transmission
- Training opportunities and collaborations
- Vector Management Technical Manual



DEH Staff attending the monthly PIVMC Zoom meeting.

CURRENT ACTIVITIES



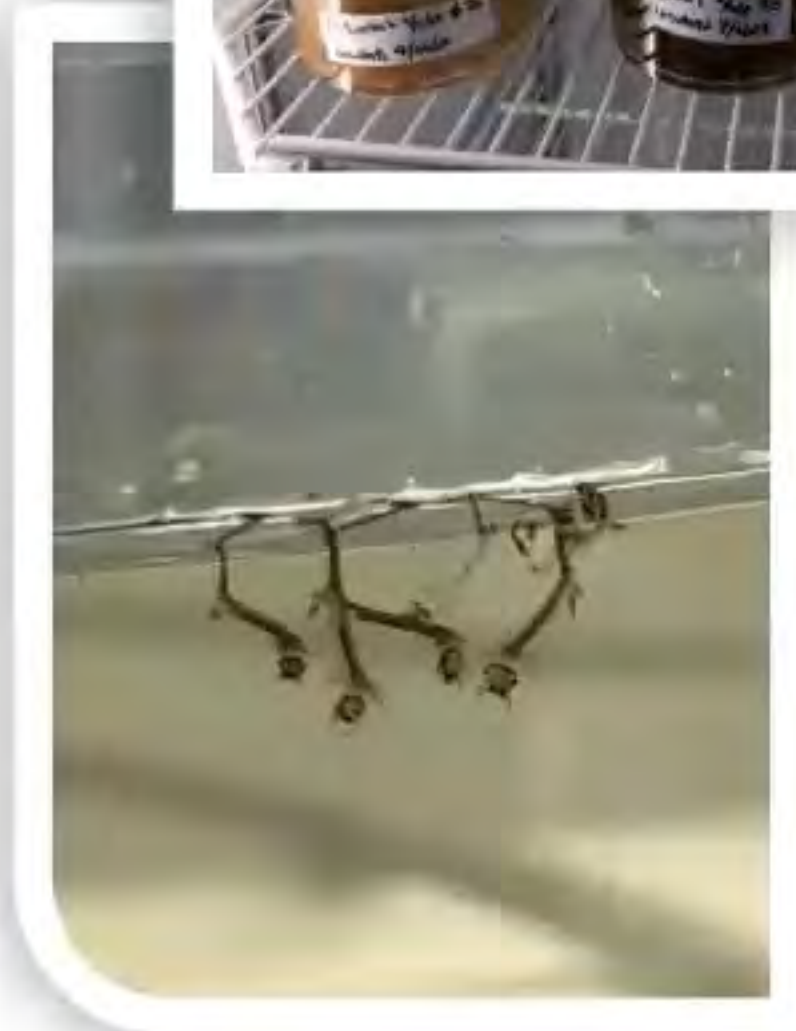
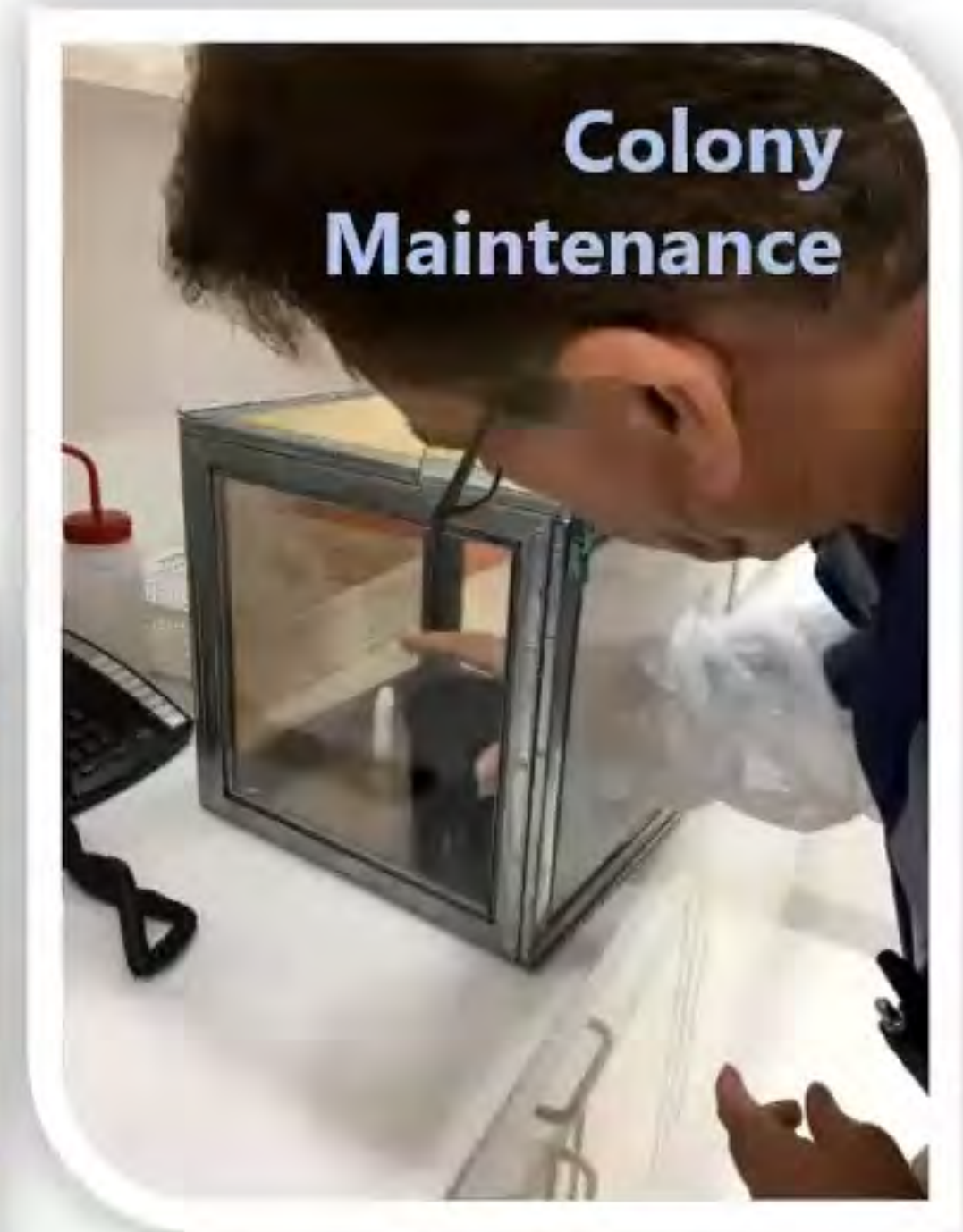
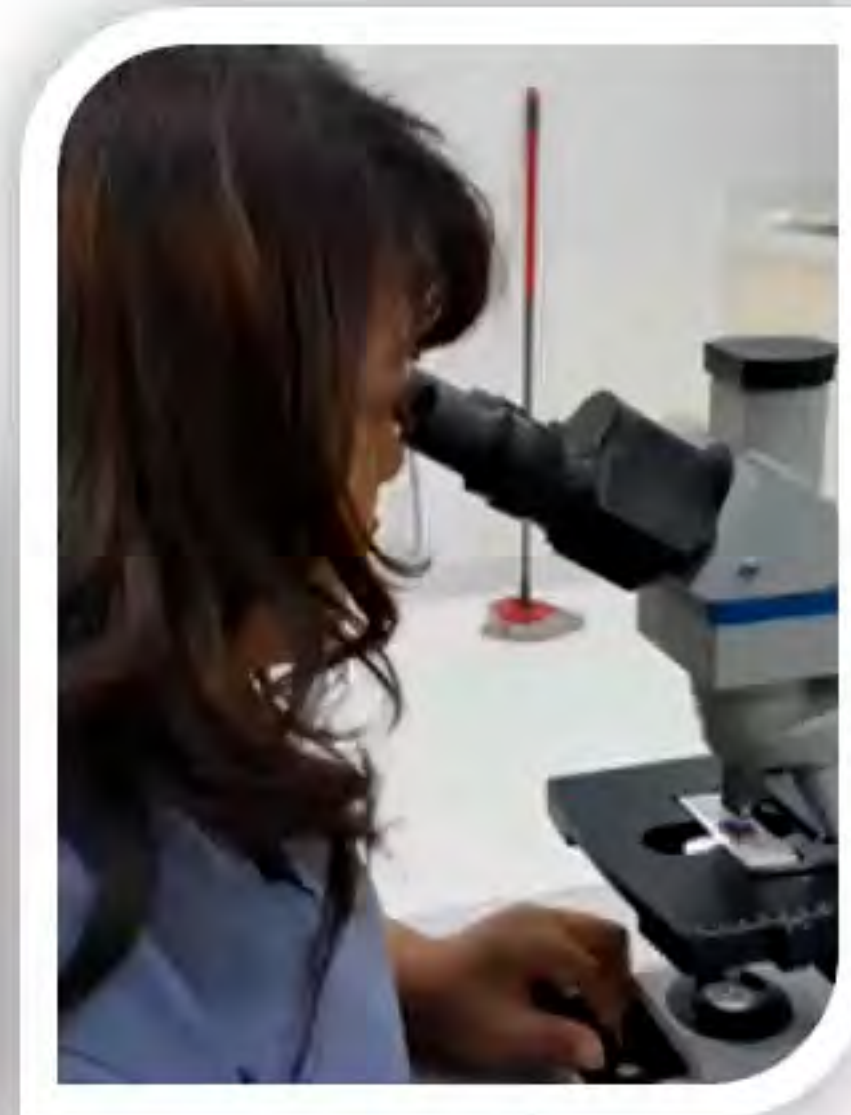
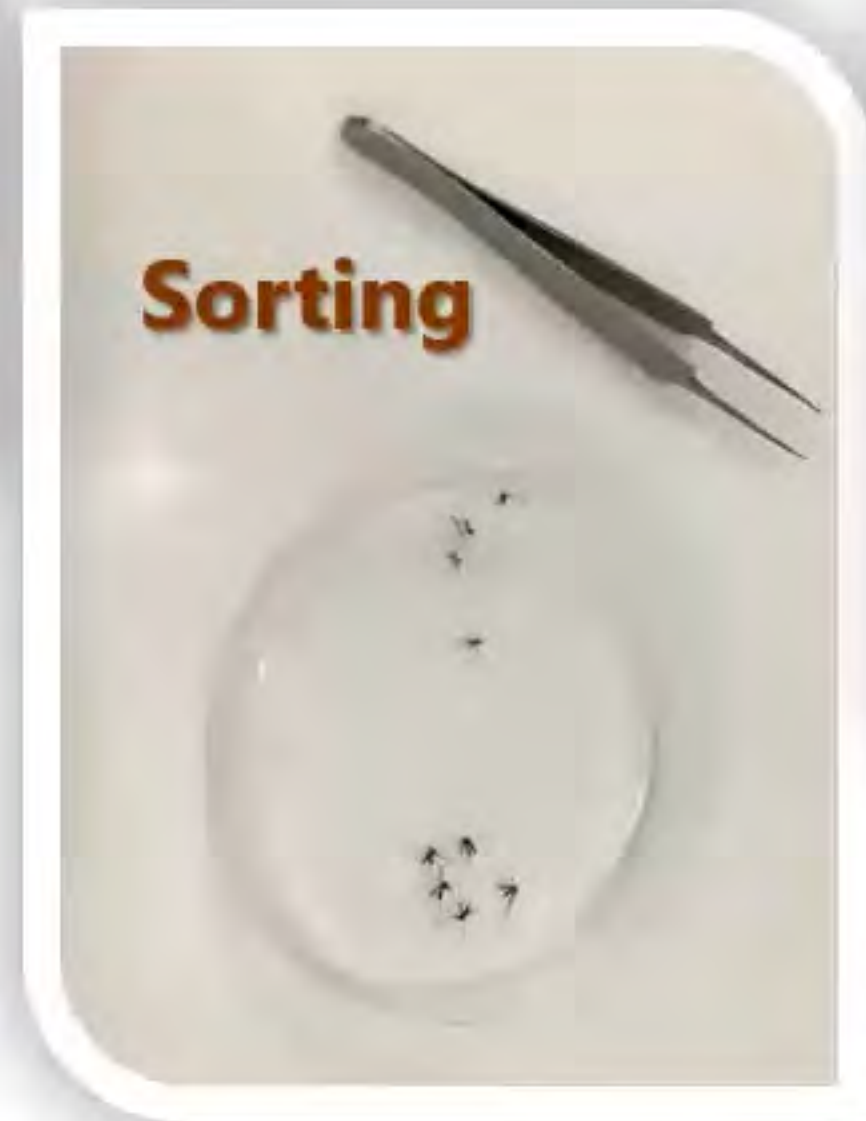
PACIFIC ISLAND REGIONAL VECTOR LABORATORY (GUAM)

- Identification of mosquitoes – sent taxonomic keys to members
- Protocol for shipping mosquitoes for identification
- Pathogen testing (RAMP 200, PCR)
- Insecticide resistance testing
- Regional training
- USAPI Mosquito Surveillance and Control Kits
- PIHOA Regional Entomologist



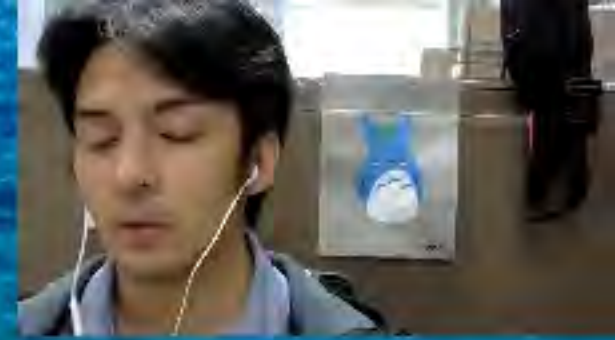
Guam Environmental Public Health Laboratory

VECTOR-BORNE DISEASE LABORATORY





TRAINING OPPORTUNITIES



WRBU ONLINE MOSQUITO IDENTIFICATION WORKSHOP

- Project to provide Guam with modern and highly flexible, scalable, and expansive morphological and molecular tools that will facilitate biosurveillance. This would allow for:
 - Determination of key taxa on Guam – Literature searches; maps of current species distribution
 - Creation of robust mosquito identification tools – Build a data matrix of morphological characteristics for each species
 - Morpho-ID tool – Uses LUCID key building software to compute the species character matrix
 - Molecular ID tool – DNA barcoding reference library will be created for all known mosquito taxa in Guam for the first time
- Products and information will be made available to DoD partners and PIHOA
- WRBU also included other Pacific islands as part of the project

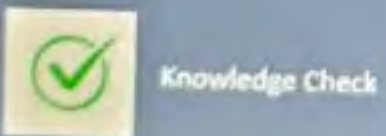
TRAINING OPPORTUNITIES



WRBU ONLINE MOSQUITO IDENTIFICATION WORKSHOP

Overview

- Introduction to WRBU
- Mosquito Biology
- Specimen Handling/ Sorting
- Identification to Genus
- Identification to Species



Aedes albopictus (Skuse, 1895)



Bionomics: Larval Habitat

- Species specific, highly variable





TRAINING OPPORTUNITIES

PACVEC USAPI VECTOR TRAINING

- Collaborative week-long project with PIHOA, PacVec, University of California – Davis, and WRBU
- 100% grant funded through a 2020 PacVec Training Grant Program by the U.S. CDC and UC Davis, School of Veterinary Medicine
- Gain knowledge in public health entomology
- Learn various strategies for mosquito sampling;
- Learn to identify and sort mosquitoes;
- Learn techniques for mosquito rearing and containment;
- Learn and apply techniques for CDC Bottle Bioassay for insecticide resistance;
- Gain knowledge in the safe application of pesticides;
- Learn how to manage operations between surveillance and outbreak response;
- Learn how to enter data using PacSurv; and
- Learn the principles of data analysis and how it drives decision-making for appropriate action and response.

FUTURE PLANS OF THE PIVMC

- Revisit PIHOA Strategic Plan to ensure that our objectives are aligned; amend if necessary
- Increase participation in monthly calls
- Finalize Vector Management Technical Manual



THANKS!



Socials

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