

Guam training workshop on identification and surveillance of vector mosquitoes, 26-28 July 2005

The presence of mosquitoes on the island of Guam has a peculiar history, for both geographical and historical reasons. Only around 10 species were reported there 100 years ago, and no major disease vectors were present. In the course of the 20th century, this number increased four-fold after the introduction — or suspected introduction — of exotic species, among which were *Aedes aegypti* and *Ae. albopictus*, which are vectors of dengue fever, and several *Anopheles* species likely to transmit malaria.

Several mosquito control campaigns carried out between the end of WW II and the 1980s were effective enough to avoid any large outbreaks of mosquito-borne diseases, and even to eradicate some of the newly introduced species. However, those that remain are capable of transmitting malaria, lymphatic filariasis, dengue fever and other arboviral diseases such as Japanese encephalitis or epidemic polyarthritis due to Ross River virus.

Vector control capacities in Guam have not been updated in recent years, despite vector-borne diseases posing an increasing threat to the region. For example, dengue fever outbreaks are becoming more and more frequent in the Pacific, and Japanese encephalitis seems to be extending its range in all directions.

To remedy this situation, a training workshop on identification and surveillance of vector mosquitoes was held from 26 to 28 July 2005 at the University of Guam's College of Agriculture and Life Sciences.

There were 14 participants at the workshop, including representatives from the Government of Guam, the Department of Public Health and Social Services, the University of Guam and the US Air Force (Andersen Air Force Base).

The workshop was organised by Mr Tom Nadeau, head of the Division of Environmental Health, along with Mr Ronald Carandang and Mr Chet Holloway from the same division. Dr Aubrey Moore facilitated the use of a classroom and laboratory at the University of Guam.

The instructors were Dr Narendra Singh, communicable disease surveillance specialist at SPC, and Mr Laurent Guillaumot, entomologist at the Pasteur Institute of New Caledonia.

Workshop activities included:

- classroom lectures on:
 - mosquito classification, biology and ecology
 - vector surveillance and control: principles and methods
 - vector-borne diseases likely to occur in the Pacific Islands: epidemiology, etiology, vectors and mode of transmission
- field work:
 - collection of immature mosquitoes
 - collection of adult mosquitoes using CO₂ baited traps
 - use of ovitraps
- laboratory work:
 - larval mosquito identification
 - adult mosquito identification
 - mosquito rearing and handling

The three days were a bit short to cover such a wide range of topics, but training material was supplied to the participants. In addition, collaboration will continue between the Government of Guam, SPC and the Pasteur Institute of New Caledonia, and vector surveillance activities in Guam are likely to be reactivated in the near future.

Laurent Guillaumot

Unité d'Entomologie

Institut Pasteur de Nouvelle-Calédonie

Email: lguillaumot@pasteur.nc