

Mederang Takeo

Mentors: Christopher Kitalong PhD, Palau Community College, Pacific Academic Institute for Research, Jesse Ramarui, Pacific Academic Institute for Research
Institutions: University of Hawai'i at Manoa

Control of Fruit Fly Population in Palau

Fruit flies have caused major damage in fruit trees across the Pacific and in Palau. They have caused 90% of fruit loss on the island. There are four known species of fruit flies; mango fruit fly (*Bactrocera frauenfeldi*), oriental fruit flies (*Bactrocera dorsalis*), breadfruit flies (*Bactrocera umbrosa*), and *Bactrocera calophylli*. The female flies damage non-ripened fruits by injecting their larvae into the fruits by their stinger. As the larvae grow they devour the fruit from the inside out. The fruit fly species has affected more than 75% of fruits in Palau and has decimated economic markets. There has been very little success with past eradication methods in Palau that have only trapped the male fruit fly. A new cost-effective method is being tested in this experiment that has produced promising results; the capture of female fruit fly for the first time. Implementation of traps made of yeast waste, papaya extract and organic solvents have been carried out in small bottles hung on trees have proved effective in trapping 40 female *B. dorsalis*, 12 *D. melanogaster*, as well as 3 unidentified female flies. Future plans in expanding the methods and traps used are under way to trap and control fruit flies on a larger scale.

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