

EVIDENCE SUMMARY

Sampling methods for adult *Aedes* vectors in the Pacific



Key points

- A 2025 study compared 3 adult *Aedes* sampling methods in 6 countries
- BG-Sentinel II traps performed best in most situations, but this varied by country and mosquito species
- Vector staff should select the method that performed best in their country or a similar setting, which in most cases would be the BG-Sentinel II trap
- Operational feasibility is a key consideration

Background

Arboviral diseases transmitted by *Aedes* mosquitoes (dengue, chikungunya, Zika) threaten Pacific health security. With no vaccines or treatments for many arboviruses, effective mosquito control guided by accurate mosquito sampling is vital. Yet the best methods for *Aedes* mosquitoes in the Pacific remain unclear.

Methods

A recent study by [Craig et al. 2025](#) employed a Latin square design rotating 3 collection methods (BG-Sentinel II traps, Gravid *Aedes* Traps, and sweep netting) across 54 sites in 18 locations in 6 countries (Cook Islands, Fiji,

Kiribati, Samoa, Solomon Islands, Tonga). Sampling occurred outdoors near dwellings at dawn and dusk, with mosquito identification done in laboratories. Qualitative interviews of field staff captured implementation challenges.

Findings

BGS traps significantly outperformed GAT traps and sweep netting in mosquito yield overall but results varied between countries and GAT and SWN were sometimes better for particular species (e.g., *Ae. albopictus* in Fiji, Solomon Islands, Tonga). Local challenges highlighted the need for simple, durable tools suitable for Pacific settings.

Implications

Countries included in the study should select the method that performed the best for the target species. Other countries of the Pacific should select the method that performed best in a similar setting. In most cases, this would be the BG Sentinel II trap although operational feasibility must be considered.

Further information

This summary was produced by the [PacMOSSI](#) consortium. The authors of the original research and the scientific report or publication can be referred to for more detail.