

Williams C.R.<sup>1</sup>, Long S.A.<sup>2</sup>, Russel R.C.<sup>3</sup> & Ritchie S.A.<sup>1,2</sup> (2006) Field efficacy of the BG-Sentinel compared with the CDC Backpack Aspirator and CO<sub>2</sub>-baited EVS trap for collectiob of adult *Aedes aegypti* in Cairns, Queensland, Australia. *Journal of the American Mosquito Control Association* **22**: 296- 300.

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Abstract: In this study we compared the efficacy of a newly available trap, the BG-Sentinel, with an established 'gold standard', the CDC Backpack Aspirator, and a CO<sub>2</sub>-baited EVS trap for the collection of *Aedes aegypti* (L.) in Cairns, Australia. BG-Sentinels collected significantly more ( $P = 0.017$ ) female *Ae. aegypti* (mean per collection  $1.92 \pm 0.39$ ) than both CDC Backpack Aspirators ( $1.00 \pm 0.35$ ) and EVS traps ( $0.71 \pm 0.27$ ). Male-only and combined male-female *Ae. aegypti* collections for the BG-Sentinel and CDC Backpack Aspirator were also greater than EVS trap collections. The CDC Backpack Aspirator and BG-Sentinel captured proportionally fewer females compared with EVS traps. The BG-Sentinel was the most *Ae. aegypti*-specific collection method. The CDC Backpack Aspirator collected proportionally more blood-fed *Ae. aegypti* than the other methods, which collected a greater proportion of nullipars. The data presented here will aid researchers in deciding what *Ae. aegypti* sampling device best suits their needs. BG-Sentinels and CDC Backpack Aspirators should be considered as alternatives to human-bait collections for *Ae. aegypti* sampling.

Key words: *Aedes aegypti*, BG-Sentinel, CDC Backpack Aspirator, EVS traps, Australia