light trap collections are made. These surveys are the basis of the malaria vector and pest mosquito control programs managed by the military. During these collections, artificial containers that could be suitable habitats for *Ae. aegypti* are located, positive containers sampled and either emptied or treated with insecticide. These collections have yielded no *Ae. aegypti.* This is managed as a separate program, therefore, data from these collections are not included in this report.

It is very apparent in countries such as Panama having successful *Ae. aegypti* eradication programs that continual surveillance is necessary to insure reinfestations do not occur. Epidemics of dengue in Puerto Rico and other Caribbean countries have emphasized the necessity to intensify control of *Ae. aegypti* in all Western Hemisphere countries where it occurs. Unless all nations involved are willing to accept their responsibility in the international community, *Ae. aegypti* will continue to be reintroduced into areas now considered free of this species.

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ANOPHELES BARBIROSTRIS— CONFIRMATION OF INTRODUCTION ON ISLAND OF GUAM

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Three years ago, the presence of a member of the *Anopheles barbirostris* species group on Guam was reported on the basis of 3 female specimens collected in light traps from May to October 1975 (Ward et al. 1975). At that time, a search of aquatic habitats for immature stages of this species was unsuccessful. Without associated larval and/or pupal stages, specific identification of the species was not possible.

During 1976, while assigned to the Environmental Health Service, U. S. Naval Regional Medical Center, Guam, B. Jordan made a number of larval collections on Guam to obtain further specimens of this anopheline for taxonomic studies. From 15–16 March, several collections were made at the margins of a small, temporary stream behind the Rojas Sports Arena on the Naval Station in slow-moving water with an abundance of green algae. Collection number 58 from this site produced a number of larvae, 2 of which were reared to the adult stage. The adults (058-01, −02) were tentatively identified as *An. (Ano.) barbirostris* Van der Wulp by B. Jordan and W. A. Brown, and the adults with accompanying skins were sent to R. A. Ward for further study.

Pupae are one of the most diagnostic stages of species of the *barbirostris* group (Harrison and Scanlon 1975, Reid et al. 1979), and an analysis of pupal skins indicate that this material is definitely *barbirostris.* The pupa of *barbirostris* is characterized by: 1) trumpet angusticorn, with secondary cleft, 2) abdominal seta 9 light brown, 4.0-6.0 as long as wide, 3) sum of branches of both setae 2-VI 6-18, 4) sum of branches on both setae 2-III 11-19. Our 2 Guam pupae have the trumpets and seta 9 as above, the sum of branches of setae 2-VI is 13 for both pupae and that sum for 2-III is 22 for specimen 58-01 and 19 for 58-02.

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Reid et al. (1979) postulated that probable vector or non-vector strains (in respect to malaria and filariasis) can be identified by the branching of pupal seta 1-VII. They believe that populations of *barbirostris* with more than 20% of specimens with less than 20 branches on pupal seta 1-VII might be regarded as a possible vector population. The branching of seta 1-VII of the Guam pupae is: specimen 058-01, 35-24 and 058-02, 31-33. Only a single pupal skin of *barbirostris* from Vietnam was found in the National Museum of Natural History (USNM) collection. This specimen (GV 95, Gò Vâp—Gia Dinh) had branching of 28 and 30 on seta 1-VII. Although these samples are small, the range of branching of seta 1-VII falls within the area of probable non-vector strains as hypothesized by Reid et al. (1979).

As *An. barbirostris* (*sensu strictu*) does not occur in the Philippines (the closest related species are *franciscoi* Reid and *manalangi* Mendoza), it appears extremely likely that this species was introduced to Guam from Vietnam sometime prior to 1976, probably by aircraft.

The above specimens have been deposited in the USNM.

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AN APPARATUS FOR THE USE OF CO_2 GAS WITH A CDC LIGHT TRAP

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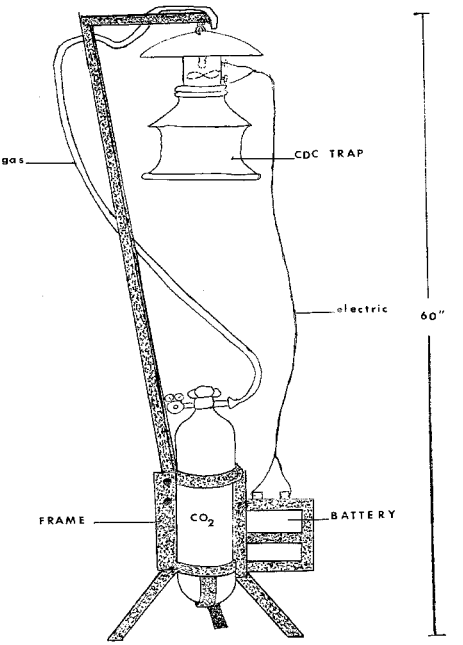
In an effort to set up routine surveillance and control of *Culex nigripalpus* populations in mosquito control districts in connection with the Florida Statewide Encephalitis Program, the Department of Health and Rehabilitative Services recommended the use of CDC mosquito light traps with the added attractant of frozen CO_2 (dry ice). However, in the event there was poor access to dry ice, they suggested the use of the traps alone.

In Collier County, obtaining dry ice proved to be difficult, time-consuming and very expensive, which led to the use of CO_2 gas as a substitute. The gas, in 7 pound cylinders, passed through plastic tubing and through inexpensive Sherwood-Type M gauges, and then was calibrated for each trap by trickling it through a measured volume of water (25 bubbles per minute).

A detachable, 5-foot, metal stand was devised to hold the CDC trap, 6-volt battery and CO_2 cylinder, (figure 1). This apparatus proved to be compact, easily set up and moved, making it an efficient tool for field work.



CDC—CO_2 STAND