

as attractants. The results showed that the CDC trap without any attractant consistently caught the least number of mosquitoes, and the CO₂ and lard-can traps caught fewer than the CDC traps with attractants. A collection ratio based on the CDC trap without attractants (Table 1) showed that the superiority of CDC traps with attractants over CO₂ and lard-can traps remained approximately 2:1 from October to May, but suddenly became 6:1 in June. However, due to uncertainty in the operation of CDC light traps, lard-can traps with attractants such as CO₂ and host (chick) are usually preferred for collecting blood-seeking females (Nayar et al. 1980).

Therefore, depending on the aim of the study, there are several traps that may be used to collect *Cx. nigripalpus* in Florida.

Table 1. Ratio of *Culex nigripalpus* collections to CDC trap with no attractant, i.e. with fan only. A₁ = lard-can trap with one CO₂ block, A₂ = same with two CO₂ blocks, B = CDC trap without attractant, C = CDC trap with light, D = CDC trap with light and one CO₂ block.

Moon Cycle	Dates (1975-1976)	A ₁	A ₂	B	C	D
8	10/05-11/02	3.77	6.21	1.00	5.97	10.60
9	11/03-12/02	2.97	3.38	1.00	4.72	5.50
11	01/01-01/30	4.29	4.14	1.00	5.71	7.00
12	01/31-02/29	9.33	9.67	1.00	12.33	12.67
1	03/01-03/29	2.80	3.70	1.00	5.20	10.10
2	03/30-04/28	3.05	3.10	1.00	6.20	8.25
3	04/29-05/28	2.40	2.87	1.00	5.48	4.91
4	05/29-06/26	1.03	.99	1.00	6.07	5.09
9 (winter)		3.79	4.13	1.00	6.15	8.18
8 and 3 (fall and spring)		2.81	3.77	1.00	5.65	6.44
4 (summer)		1.03	.99	1.00	6.03	5.09
Total - 4		3.52	4.01	1.00	5.90	7.20

EXPERIMENTS

In the laboratory, all experiments were conducted under standard conditions, which are defined in the text along with each experiment. However, in the field, a major study was conducted from 1975 to 1979, reported herein, in the Tiger Hammock study area to establish the time and sequence of different physiological and ecological parameters. Details of the study area and experimental design have been published elsewhere (Nayar et al. 1980). Some of the published and most of the unpublished data are reported in this report, and will be referred to as 1976 or 1978 release of marked *Cx. nigripalpus* in the Tiger Hammock study area.