

pattern extending 5 km from the point of release. A total of 0.13% of the released radioactive females were recaptured within a 1.6 km radius. A few individuals were collected up to 5 km from the release point.

*Cx. nigripalpus* is not thought of as a migratory species, but increased flight activity 2 or 3 days after emergence is observed when larvae are reared under temporarily crowded conditions (Nayar & Sauerman 1973b). This could result in extensive dispersal of the population. The tethered flight performance of *Cx. nigripalpus* on a flight mill also indicates that they possess a good potential for dispersal (Nayar & Sauerman 1973a).

In another dispersal study at Tiger Hammock during 1976, <sup>32</sup>P-marked *Cx. nigripalpus* were collected from the oak hammocks with dry-ice chick-baited lard-can traps and portable power aspirators (Nayar et al. 1980). An average of 1.87% (0.81% to 3.01% in four experiments) of the released adults were recaptured within a radius of 1.2 km and of the total adults recaptured, 82.4% were collected within 0.4 km radius, with only 17.6% collected from the surrounding area within 0.4 to 1.2 km radius (Nayar et al. 1980).

## FEEDING AND METABOLISM

Adult mosquitoes feed primarily on carbohydrates usually from plant nectars. However, most female mosquitoes also require protein sources such as vertebrate blood (Clements 1963). Carbohydrates serve as the adult's main source of nutrition and energy, whereas proteins are utilized by the female for the development of eggs.

### Nectar- and Sugar-Feeding (Carbohydrate-Feeding)

In the field, Haeger (1955) observed the males and the females of *Cx. nigripalpus* feeding on the honey dew of green aphids covering the leaves of *Bidens* sp. Later he observed *Cx. nigripalpus* feeding on the nectar sources (extra-floral) as well as floral nectar of *Cassia brachiata* (Partridge pea), *Crotalaria mucronata* (crotalaria), *Serena repens* (Saw palmetto), *Urena lobata* (Caesar weed), *Ilex cassine* (Ilex), *Lantana camera* (Lantana), *Citrus sinensis* (Orange), and the honey dew from *Coccus viridis* on *Baccharis halimifolia* (Groundsel bush) (Haeger, unpublished).

Bidlingmayer and Hem (1973) examined field-caught *Cx. nigripalpus* females collected by suction trap and portable power aspirators for the presence of fructose by the cold anthrone method. More of the specimens collected near a salt marsh had fed on nectar than those collected within a maple swamp area. Nectar feeding was then monitored for a year in the area adjacent to the salt marsh, and was found to vary seasonally, being greatest from April through October (12% to 24%).

In 1976, marked *Cx. nigripalpus* were released at Tiger Hammock and both resting adults and blood-seeking females were collected for a period of 11 days and tested for the presence of fructose and glucose using a paper chromatographic technique (Nayar 1978). Overall they contained more glucose (67% to 77% for males and 57.8% to 100% for females) than fructose (15.6% to 40.3%