

## LARVA AND PUPA

### FOCAL DISTRIBUTION

*Cx. nigripalpus* larvae and pupae are found in ditches, grassy pools, catch basins, tubs, crabholes near the bases of trees, permanent pools in swamps, holes in the coral along the coastal littoral, pond ground pools, and beached boats (Belkin et al. 1970, Horsfall 1955, Carpenter & LaCasse 1955, Provost 1969). Although not considered common in artificial containers, usually frequented by *Aedes aegypti*, a 1963 container survey in Dade County found the larvae of *Cx. nigripalpus* in 37 different classifications of containers, the most common being buckets, tires, fish ponds, containers with cuttings, and pools (Heidt 1964). In spite of the fact that *Cx. nigripalpus* larvae and pupae have been found in highly polluted water in Puerto Rico (Root 1922); they generally are uncommon in such habitats primarily favored by *Cx. quinquefasciatus* (Provost 1969). In addition to the habitats already stated, in Florida, *Cx. nigripalpus* larvae also occur in waste waters dispersed by spray irrigation, from sewage or citrus-processing plants, grove swales during periods of irrigation or rainfall, and most recently are recorded from the phosphate pits in the Polk County area among the matted plants, in fresh water saw-grass marshes and in bay-head forests (Haeger 1979).

### SEASONAL OCCURRENCE

Larvae and pupae of *Cx. nigripalpus* are found throughout the year in the extreme southern United States (Carpenter & LaCasse 1955). From June to November 1978 in and around the Tiger Hammock area, a biweekly survey of 16 sites (e.g., irrigation ditches, citrus grove swales, reservoir ponds, roadside ditches, and pasture ditches) revealed the presence of larvae and pupae in 188 of the total 738 collections. Very few larvae of any instar were present in the June collection, but as the rainy season began and the citrus groves were irrigated, the number of larvae increased, with a maximum of 47.01% collected in July 1978 (Table 4). The main breeding season in the Vero Beach area is from July to November (Table 4), but larvae and pupae are also collected in smaller numbers throughout the rest of the year. Table 5 shows that a maximum of 95.06 larvae and pupae per dip were collected in July 1978 and a minimum of 2.3 larvae and pupae per dip were collected in June 1978.

### ASSOCIATED SPECIES

In the 1963 container survey in Dade County, the larvae and pupae of *Cx. nigripalpus* were found breeding along with the larvae of *Ae. aegypti*, *Cx. quinquefasciatus*, *Culex* (Mel.) *pilosus* and *Anopheles crucians* (Heidt 1964).