Larval development was also affected by the salinity of the rearing medium and the larval density, when combined with variations in the available food. At a lower salinity, the amount of food and larval density did not affect the onset of pupal ecdysis (101 to 103 hours) but had a marked effect on its duration (47 hours on high food and 90 hours on low food and 75 larvae per pan compared to 75 hours on high food and 113 hours on low food and 200 larvae per pan, Table 7). A higher salinity of the rearing medium, with a basic ration, delayed the onset of pupal ecdysis by 24 hours, but shortened its duration. The addition of more food prevented such a delay in onset when the larval density was low but had no effect at higher densities (Table 7).

The length of the pupal stage was only affected by temperature with a duration of 57.0 hours at 22°C, and 24.5 hours at 27°C, and 27.5 hours and 32°C, and a Q_{10} value of 2.1 for the 10°C range from 22°C to 32°C (Nayar 1968a).

The emergence rhythm was dependent on the pupation rhythm and the interval separating them was affected by the temperature but not the light regimes (Nayar 1968a). Deviations from the larval LD 12:12 light cycles, imposed during the pupal stage shifted both the onset and the mean time of the emergence peak 1 to 3 hours (Nayar et al. 1978). This slight shift was not due to entrainment, but was a result of the light cycle affecting the duration of pupal development, and hence, the timing of the emergence peaks.

Unlike *Ae. taeniorhynchus* (Nayar 1967, Provost 1960), the male to female ratio was invariably 50:50 during each peak, showing that the onset of both pupal ecdysis and adult emergence was similar for both sexes (Nayar 1968a).

Since *Cx. nigripalpus* larvae pupated from early morning to late in the evening, depending on the temperature, and accounting for differences in the length of the pupal stage at various temperatures, adult emergence generally occurred during the second or third night after pupation (Fig. 2).

Table 7. Onset of pupation, duration of pupal ecdysis in *Culex nigripalpus* as affected by varying quantities of food, density of larvae, and salinity of medium at 27°C under LD 12:12.

Rearing Conditions (Quantity of food, salinity, & density of larvae/pan)*	Onset of Pupation (hours after hatch)	Duration of Pupal Ecdysis**
BR, 5% SW, 75	102	90
BR, 5% SW, 200	102	113
BR, 20% SW, 75	124	70
2 BR, 5% SW, 75	101	47
2 BR, 20% SW, 75	102	28
2 BR, 5% SW, 200	102	75
BR, 20%, 200	124	75
2 BR, 20%, 200	123	70

SOURCE: Nayar, 1968a (modified).

* BR-low diet and 2BR-high diet, SW-sea water.

** The duration of the first 5% of pupal ecdysis.