

little concave and smooth; anterolateral corners angular; lateral and posterior margins bare and a little convex; median carina of thoracic notal shield indistinct. Legs: color, shape, and structure as in first instar. Abdomen: opaque; abdominal tergal segments 1 and 2 partially fused; posterolateral corners of segments 6-9 more developed and sharply pointed than those of first instar nymphs; segment 9 elongated and cylindrical. Caudal filaments: color and number of segments as in first instar nymphs; median filament subequal to cerci.

Ecdysis of the second instar occurred after 3-5 days.

Third Instar Nymphs (Fig. 10 C); Body length 0.90-1.30 mm; width of head 0.23-0.29 mm; thoracic notal shield: length 0.30-0.48 mm, width 0.60-0.80 mm; caudal filaments 0.30-0.39 mm. Head: pale white; anterior margin of frontal process a little curved near base of antennae. Compound eyes: inner margin angular, facets clearly defined. Ocelli more distinct, prominent, larger than those of the second instar nymphs. Antennae: grayish-white. Thorax: posterior margin of thoracic notal shield truncate, extending to near posterior margin of abdominal segment 5, median carina distinct and more prominent than in second instar nymphs, devoid of elevations. Legs: whitish; shape and structure as in second instar nymphs. Abdomen: whitish; tergal segments 1 and 2 fused; gills 1 and 2 present; pyramidal structure on tergum 6 weakly developed; posterior margin of tergum prominently excavated to receive the small rounded anterior margin of tergum 10; small dorsal tubercles at mid-posterior margin of terga 7-9 and appear as simple elevations; posterolateral spines present on segments 6-9. Caudal filaments: color and structure of filaments as in second instar nymphs.

Duration of the third instar is unknown as all nymphs died in the laboratory.

Fourth Instar Nymphs (Fig. 10 D): Body length 1.40-1.80 mm; width of head 0.30-0.50 mm; thoracic notal shield: length 0.55-0.70 mm, width 0.80-1.20 mm; caudal filaments 0.30-0.40 mm. Head: pale white; genae well developed; frontal process extends anteriorly and almost overlaps the anterior margin of head. Compound eyes: inner margin sharply angulated. Ocelli larger than those of third instar, black. Antennae: pale white; 5-segmented. Thorax: thoracic notal shield pale white, uniformly washed with light brown along median line; median carina more distinct than that of third instar nymphs, devoid of elevations as in third instar nymphs; a small black macula on submedian surface; anterolateral corners with a distinct notch; lateral spines present and appear as simple lateral projections; posterior margin with long hair, a little truncate near the median carina and elevated into a roof-like structure. Sternum of thorax washed uniformly with brown. Legs: pale yellow; small spines present inner margins of tibiae and tarsi; outer margins covered with long hairs; tarsal claws more curved than those in third instar. Abdomen: abdominal gills 1-4 present; abdominal terga 1-6 whitish; pyramidal structure of abdominal segment 6 excavated along its median surface and lies in the excavation of the posterior margin of the thoracic notal shield; abdominal terga 7-10 pale yellow; small, weakly developed, dorsal median projections on terga 7-9; posterolateral spines on segments 6-9, spines on segment 9 curved inwardly embracing tergum 10. Sterna 1-6 washed uniformly with brown, sterna 7-10 pale yellow; subanal plate triangular apically. Caudal filaments: pale yellowish; apical 2/3 thickly fringed with hairs.

The duration of the fourth instar is unknown. All nymphs in this stage were collected in the study areas, and molted after 2-5 days in the laboratory.

Fifth Instar Nymphs (Fig. 11 A): Body length 1.80-2.30 mm; width of head 0.50-0.70 mm; thoracic notal shield: length 0.80-1.20 mm, width 1.30-1.90 mm; caudal filaments 0.50-0.80 mm. Head: light brown, with uniform, minute black stipplings; a prominent black spot below base of compound eyes near lateral margins of head; a small frontal prominence present below frontal projection of the head; genae greatly extended anterolaterally. Compound eyes: triangular with inner and outer posterolateral corners angular. Ocelli smaller in relation to size of compound eyes than those in the fourth instar nymphs. Antennae: color and number of segments as in the fourth instar nymphs. Thorax: thoracic notal shield yellowish-brown,