

Grasshopper Nymph Key

Clearwing (*Camnula pellucida*)

- (1) Head with lateral foveolae triangular (Fig. 1, left). Usually a dark bar crosses transversely across front of head under antennal sockets, across lower part of compound eyes, and onto sides of head.
- (2) Pronotum with median carina low but uniformly elevated; median carina entire (without notch) in early instars, notched once in front of middle in the older instars (Fig. 1, left). Pronotum with lateral carinae clearly defined (Fig. 1, left).
- (3) Hind tibia fuscous in first to third instar, fuscous or tan in fourth and fifth instars (Fig. 1, mid/right).

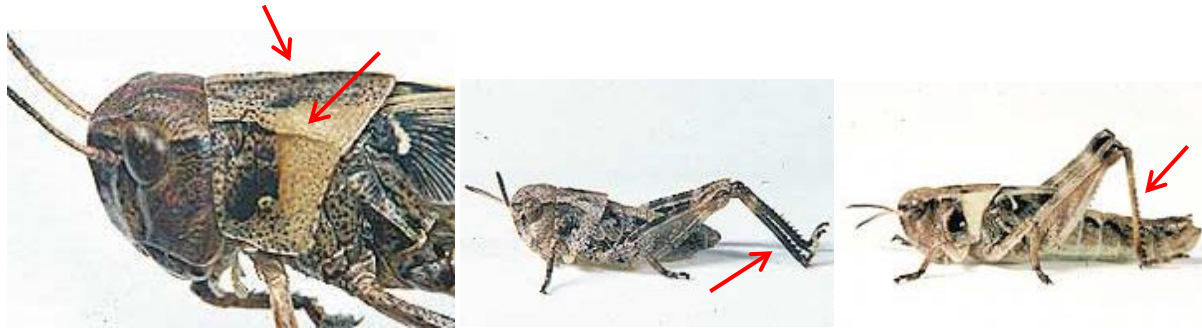


Figure 1 Clearwing Nymph. 3rd instar 7.3-8.9 mm body length (mid), 5th instar 14-20 mm body length (right).

Migratory (*Melanoplus sanguinipes*)

- (1) Compound eye with many light spots, narrow brown bar across middle.
- (2) Narrow pale yellow crescent on gena below eye and continuing on pronotal lobe to principal sulcus (Fig.2, both).
- (3) Hind femur with dorsal black stripe cut in middle by light bar; a light bar on each end (Fig.2, right).
- (4) Hind tibia of first instar fuscous with pale basal ring (Fig.2, left); hind tibia of other instars pale blue green or reddish without pale ring.
- (5) General color of body tan or gray, few light green.

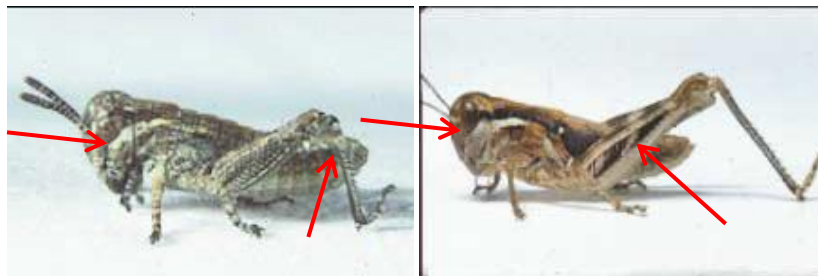


Figure 2 Migratory nymphs; 1st instar 4-6 mm body length (left), 5th 16-23mm body length (right).

Two-striped (*Melanoplus bivittatus*)

- (1) Compound eye brown with many light tan spots and no dark bands. Front of head tan or green with dark spots; line of dark spots on carinae (ridges) of frontal costa. Gena colored tan or green and spotted, without light crescent below compound eye (Fig.3).
- (2) Pronotum with light, horizontal stripe at top of lateral lobe; above the stripe a fuscous or brown band at the edge of pronotal disk (Fig. 3).
- (3) Hind femur with black stripe entire, not interrupted by pale band. Stripe fills upper medial area of hind femur except at proximal end and encroaches slightly on the lower medial area (Fig.3). Hind tibia green or buff with spines or tips of spines black. Front (anterior edge) of tibia fuscous.
- (4) General color green or tan (Fig. 3 left vs right).

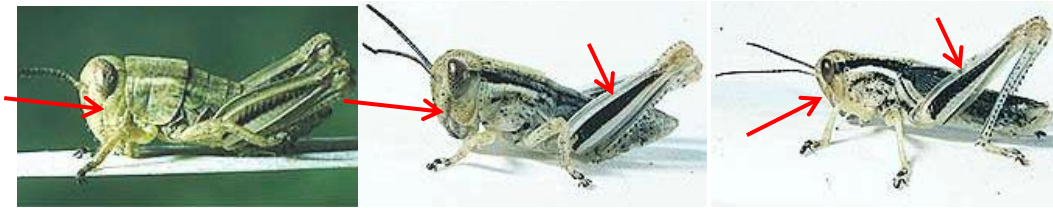


Figure 3: Two-striped nymphs. 2nd instar green form 7.4-10.4 mm body length (left), 3rd instar tan form 9-14 mm body length (mid), 5th instar tan form 20-27 mm body length (right).

Redlegged (*Melanoplus femurrubrum*)

- (1) Compound eye brown to burgundy with light yellow or tan spots, more spots on dorsal half than ventral; lacking transverse dark band.
- (2) Front of head with dark vertical band in center; light yellow band on each side of the center band; the two yellow bands come together below on the clypeus. Gena with broad pale yellow crescent continuing on pronotal lobe to first abdominal segment and fading along the rest of abdomen.
- (3) Dorsum of head to end of abdomen with median pale yellow stripe. Broad black stripe on either side of the median pale yellow stripe. Pronotal lobe with black band or markings below the yellow crescent.
- (4) Hind femur with black stripe entire, not interrupted by pale band. Stripe fills upper medial area of hind femur except at proximal end. Stripe encroaches a third or more on the lower medial area. Hind tibia mainly pale yellow or pale gray, front black; tips of spines black.
- (5) General color striking, contrasting yellow and black.

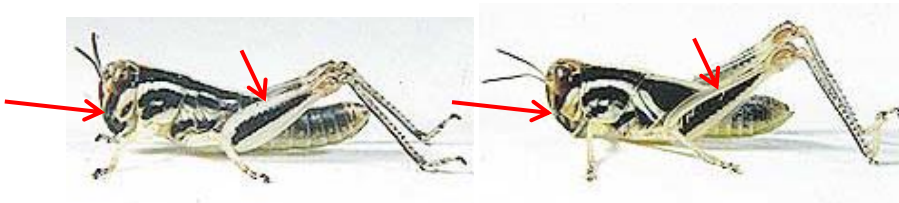


Figure 4: Redlegged nymphs. 3rd instar 7.4-9.7 mm body length (left), 5th instar 16.5-22.5 mm body length (right).

Definition of Terms

Basal: At the base of.

Carina (pl. carinae): Any raised portion of the integument- like a keel or ridge.

Clypeus: The sclerite above the “upper lip”, below the frons and between the mandibles.

Femur: The first large leg segment from the body (hind femur enlarged in grasshoppers)

Foveola (pl. foveolae): Small pits or depressions in the integument.

Fuscous: Dusky brown/grey colour.

Gena: The “cheek”; the sclerites just behind/below the eyes.

Integument: The insect exoskeleton.

Medial/Median: Middle

Pronotum: The anterior, dorsal part of the thorax. In grasshoppers looks like a sheath above wingbuds/wings.

Proximal: Closest(er) to the body (your knee is on the proximal side of your shin).

Sclerite: A hardened plate; any defined plate of the exoskeleton.

Sulcus: A line formed by an indentation of the integument

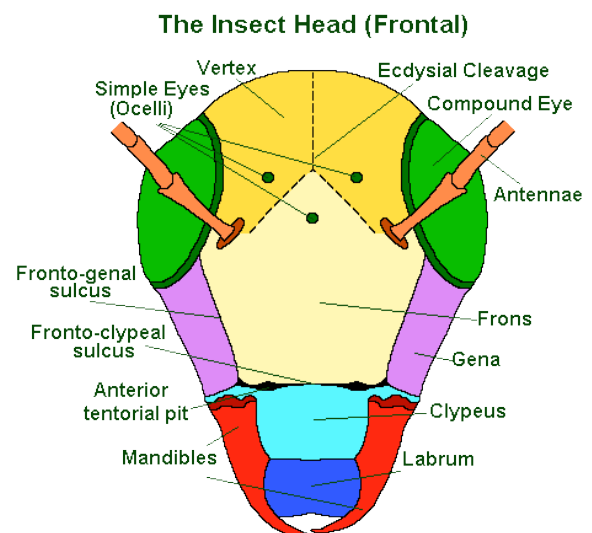
Transverse: Across, crossing.

Full info on biology, ecology and identification available at this link:

http://www.sidney.ars.usda.gov/grasshopper/ID_Tools/F_Sheets/index.htm

Questions?

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Information consolidated from: http://www.sidney.ars.usda.gov/grasshopper/ID_Tools/F_Sheets/