

# Differences between *Aedes albopictus* vs. *Aedes aegypti*

## I. Basic anatomy of an adult mosquito:

Morphological features used in the identification keys

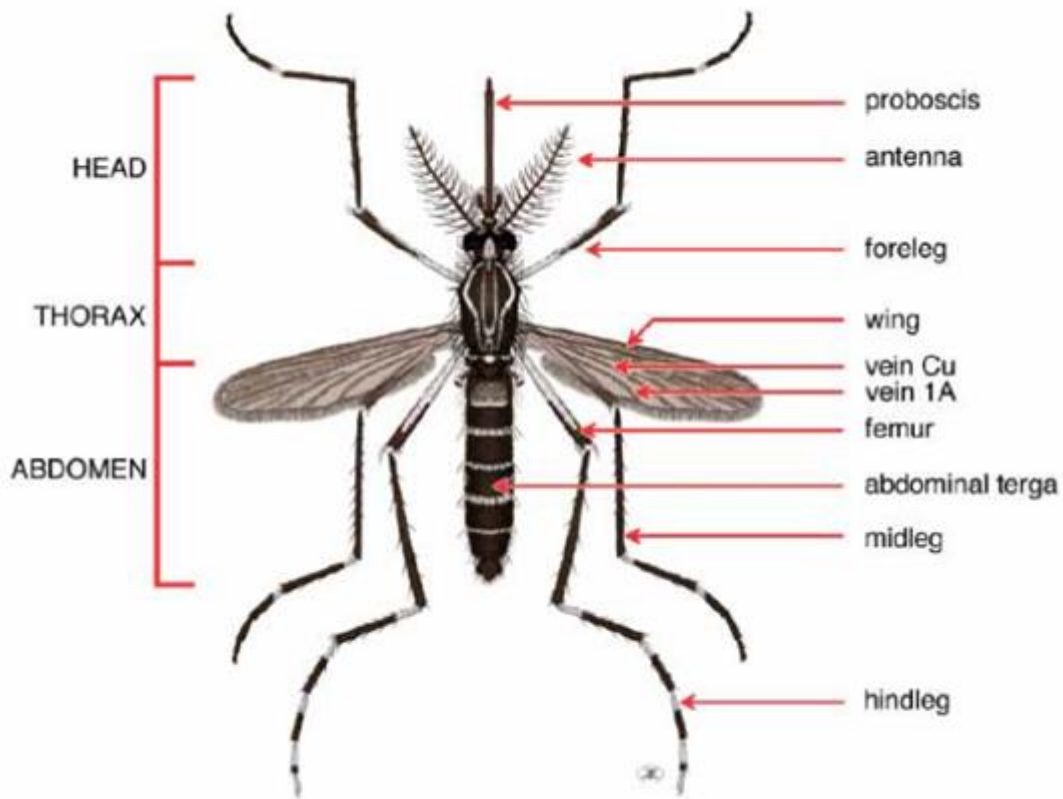


Figure 1. Dorsal view of an adult female, *Aedes aegypti* (Figure taken from Rueda, 2004).

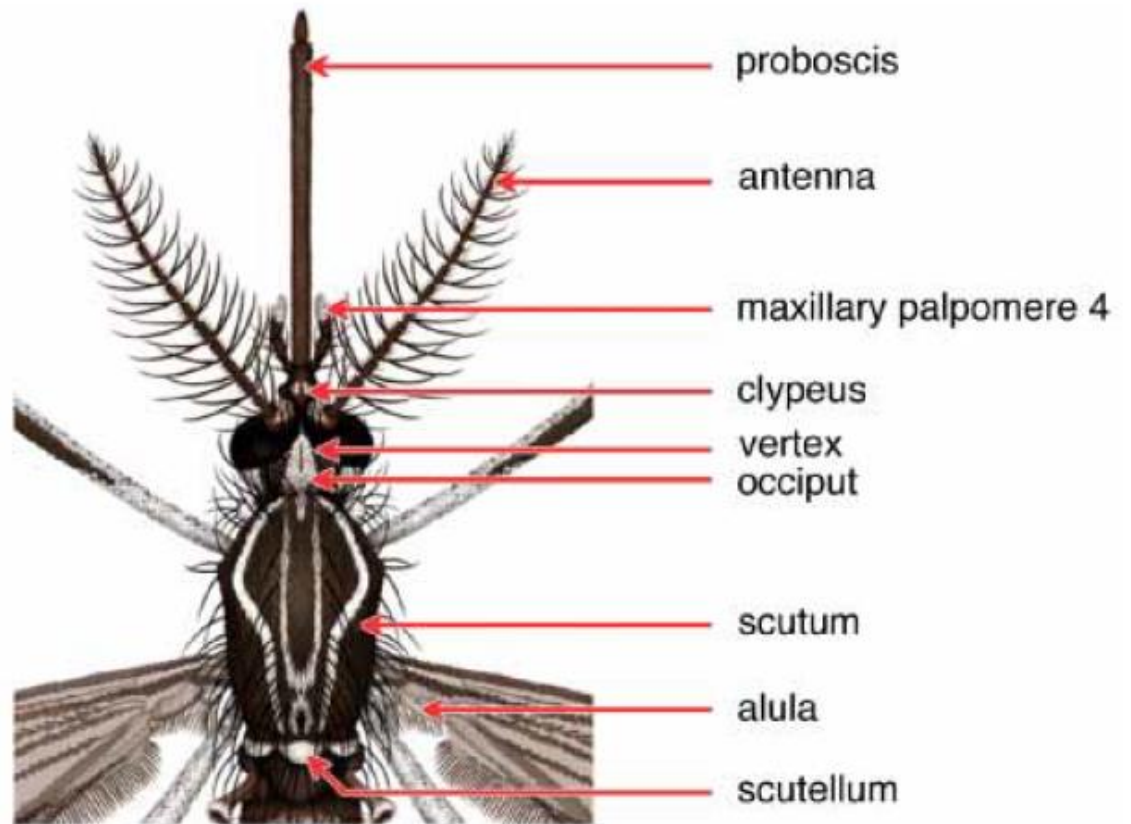


Figure 2. Dorsal view of head and thorax, *Aedes aegypti* (Figure taken from Rueda, 2004).

*Aedes albopictus*

**Key characteristics – Female:**

1. White scales on thorax forming a median longitudinal line
2. Clypeus lacking white scales



Figure 3. Female individual, *Aedes albopictus*.

*Aedes aegypti*

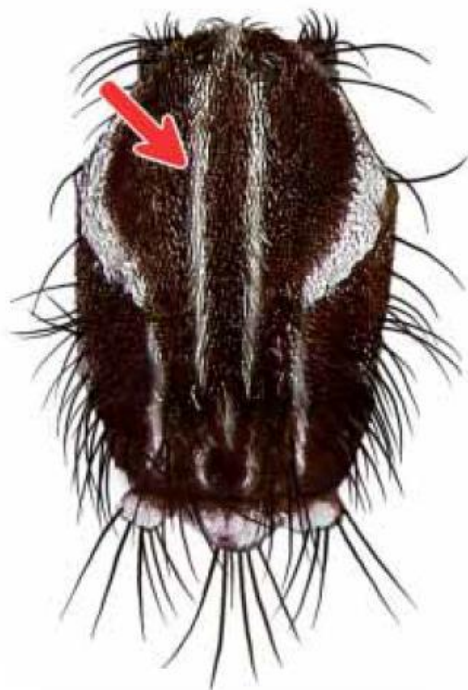
**Key characteristics -Female:**

1. Thorax with a pair of longitudinal white stripes, and a white lyre-shaped marking
2. Clypeus with white scale patches

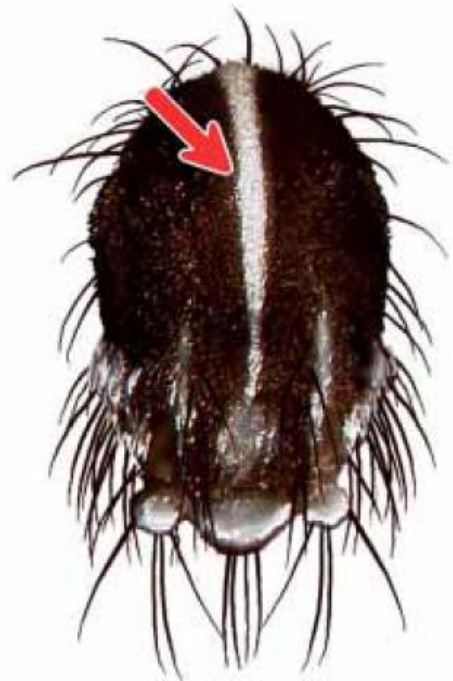


Figure 4. Female individual, *Aedes aegypti*





*Aedes aegypti*.



*Aedes albopictus*.

Figure 5. Summary of key characteristics: Presence/Absence of white-scale lyre on thorax or a median longitudinal line.

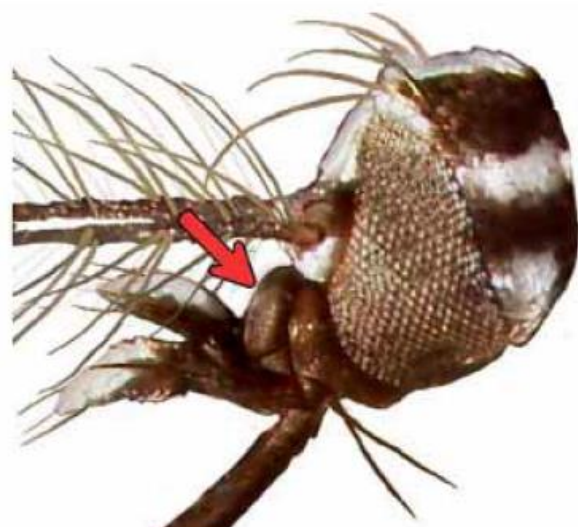


Figure 6. Summary of key characteristics: Presence/Absence of white scales on clypeus (Taken from Rueda, 2004).

II. Basic anatomy of a mosquito larvae:

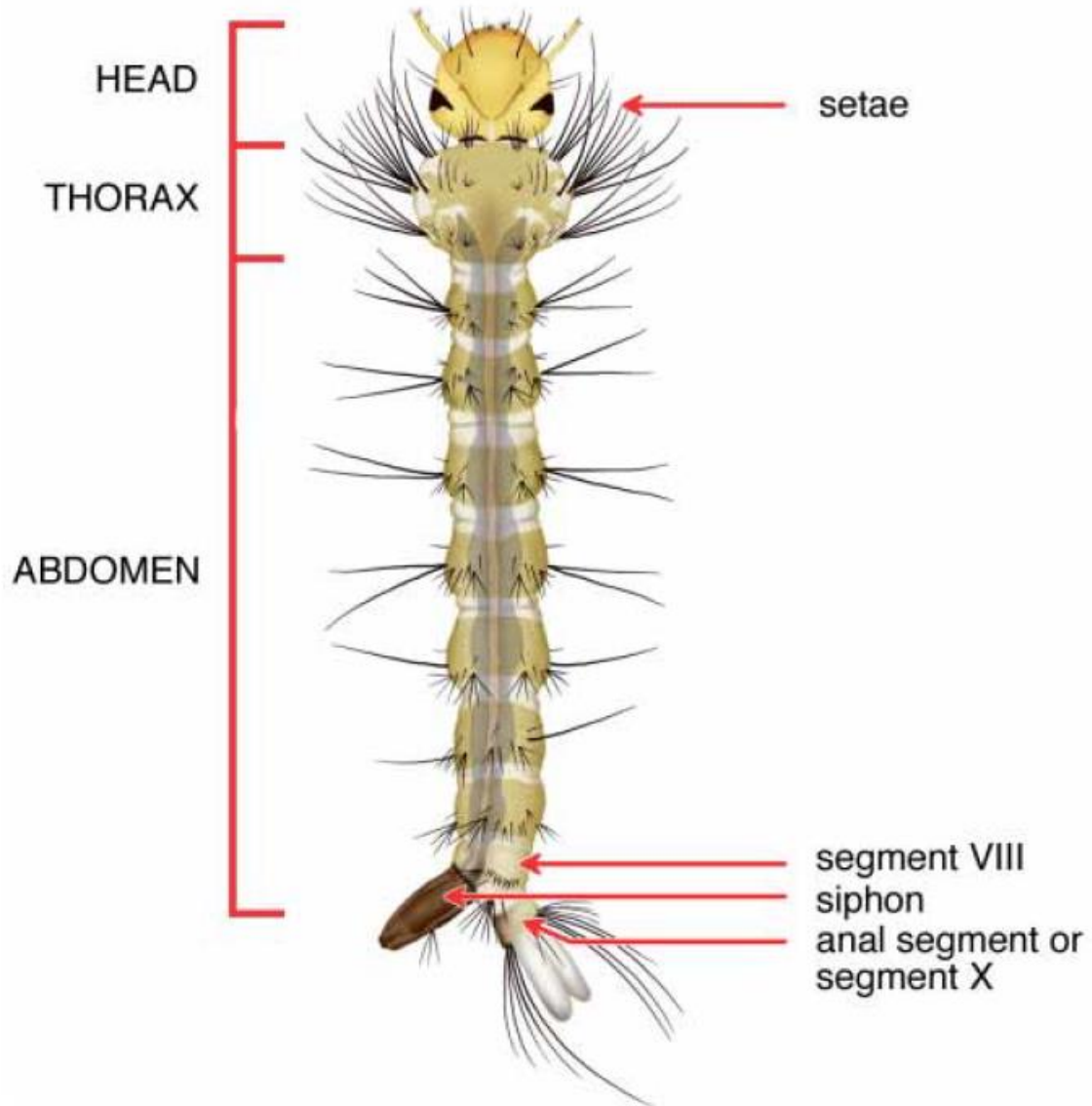


Figure 7. Dorsal view of a mosquito larvae (Rueda, 2004).

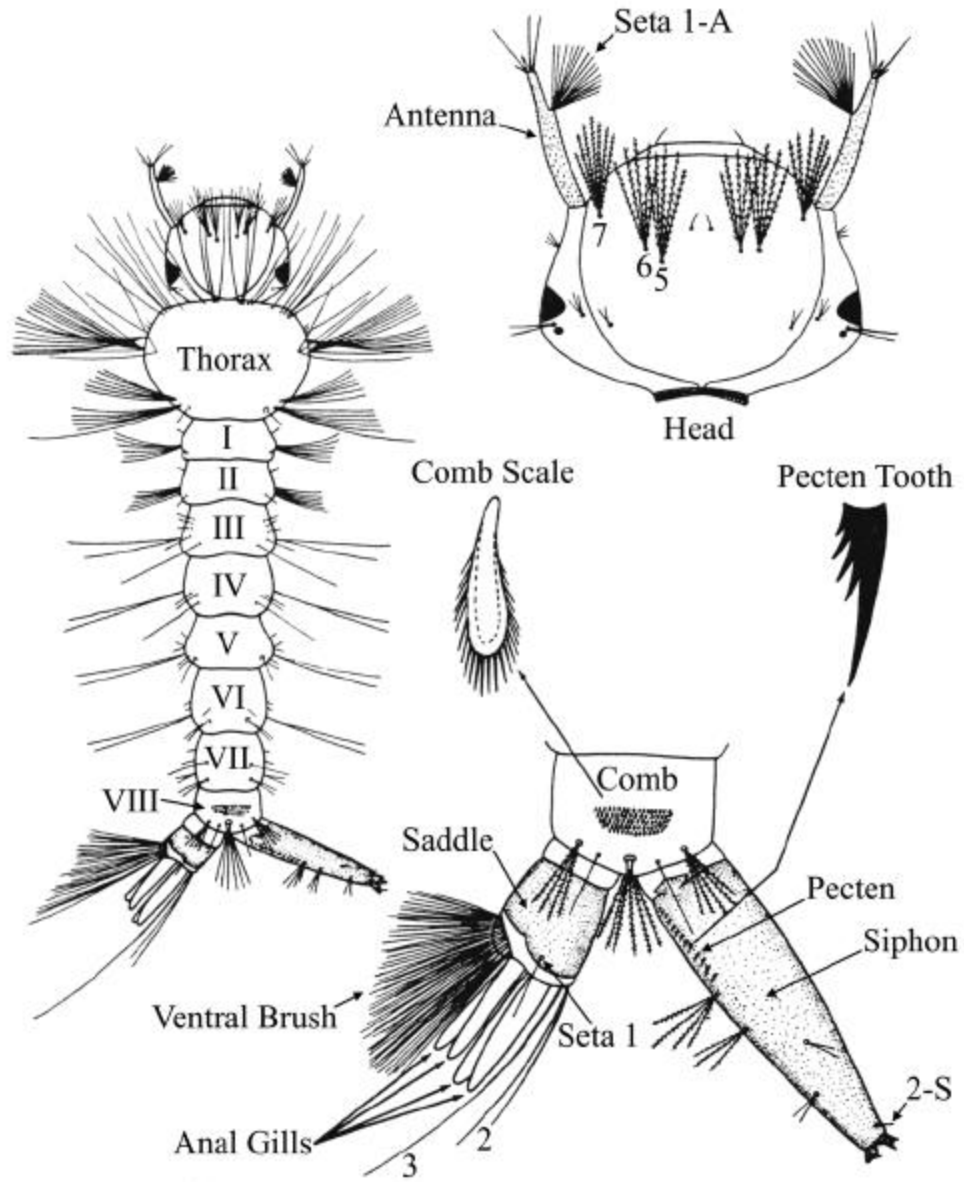
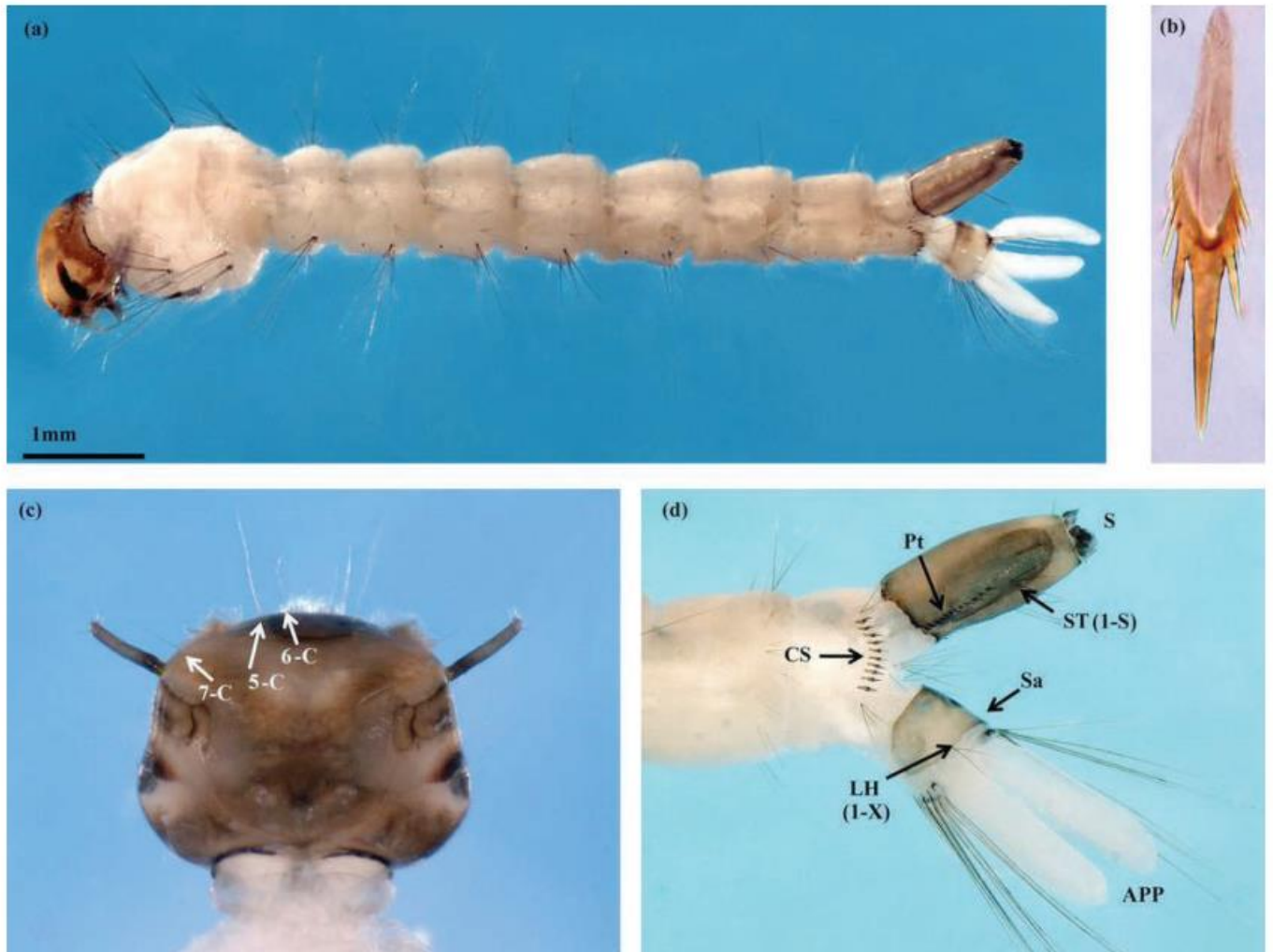


Figure 8. Fourth instar Culicinae larvae with overview of general anatomy (Image from Andreadis et al. 2005).

*Aedes aegypti*

**Key characteristics – Fourth instar larvae:**

1. Larvae with strong hooks on sides of thorax, siphon short.
2. Pitchfork-shaped comb scales in a row on VIII abdominal segment of larvae



*Aedes aegypti*. (a) Dorsal view of entire 4th instar. (b) Close-up of representative comb scale. (c) Dorsal view of head. (d) Lateral view of terminal segment. APP, anal papilla; CS, comb scale; LH, lateral hair (seta 1-X); Pt, pecten teeth; S, siphon; Sa, saddle; ST, siphonal tuft (seta 1-S); 5-C, upper head hair; 6-C, lower head hair; 7-C, preantennal head hair.

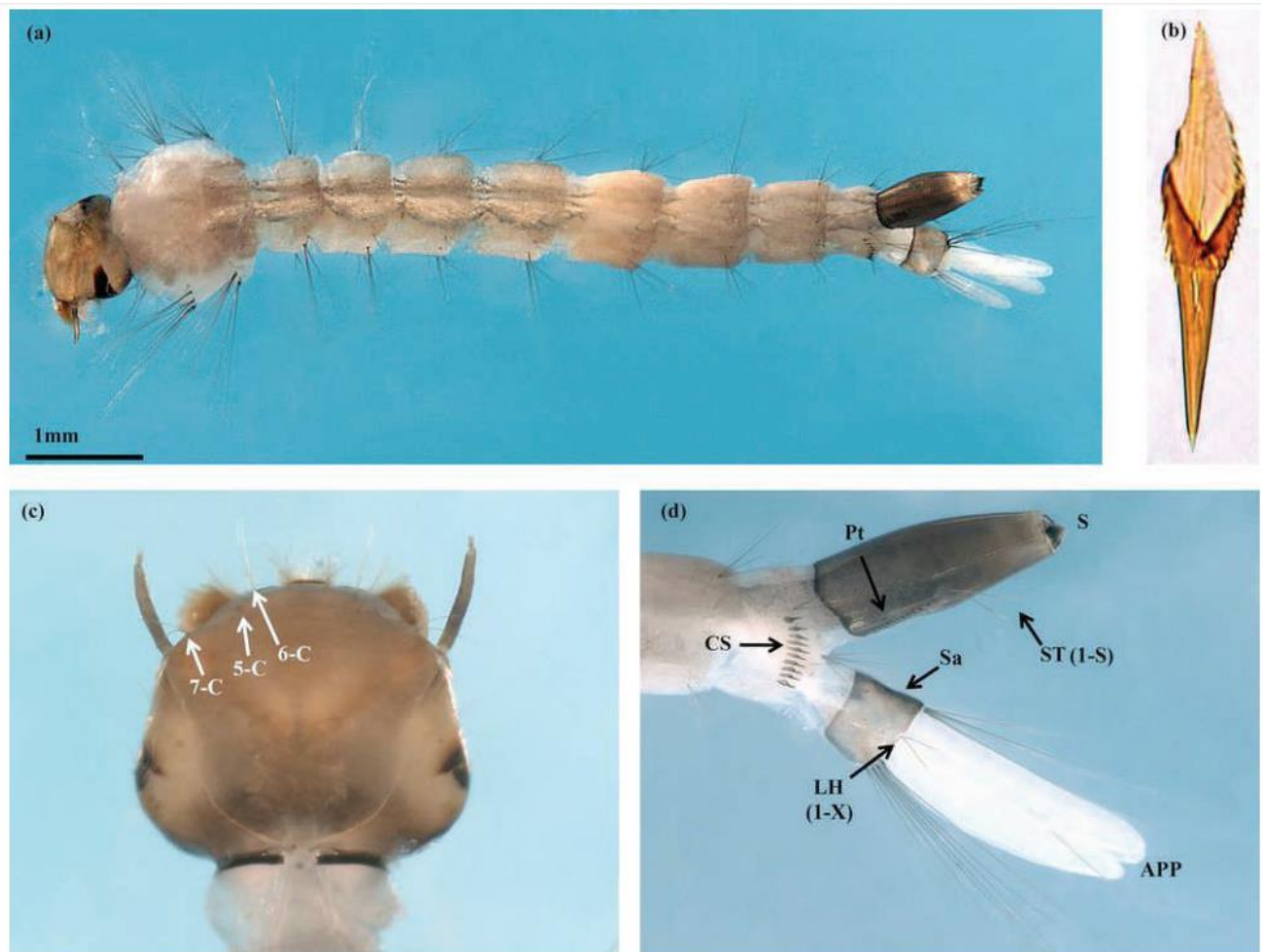
Figure 9. Key taxonomical characteristics of *Aedes aegypti* larvae (Farajollahi and Price, 2013)..



*Aedes albopictus*

**Key characteristics – Fourth instar larvae:**

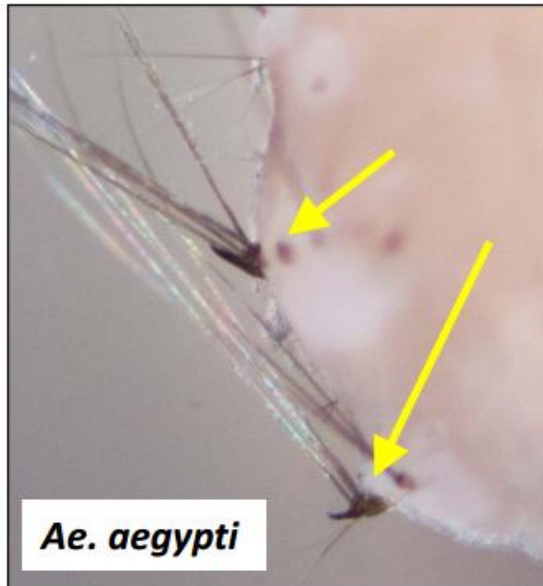
1. Larvae with small, inconspicuous hooks on sides of thorax, siphon short.
2. Straight, thorn-like comb scales in a row on VIII abdominal segment of larvae



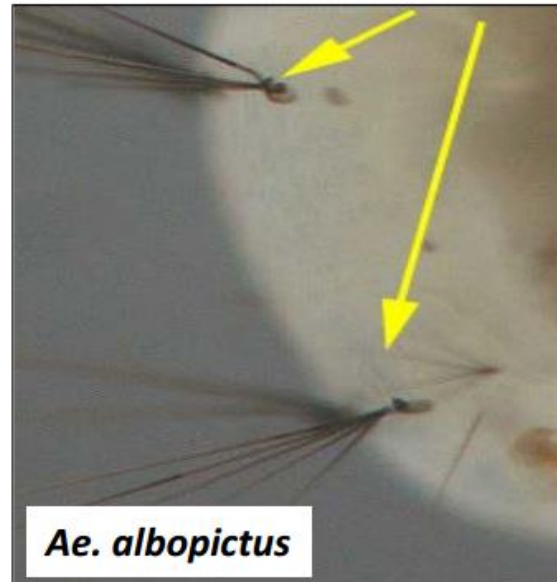
*Aedes albopictus*. (a) Dorsal view of entire 4th instar. (b) Close-up of representative comb scale. (c) Dorsal view of head. (d) Lateral view of terminal segment. APP, anal papilla; CS, comb scale; LH, lateral hair (seta 1-X); Pt, pecten teeth; S, siphon; Sa, saddle; ST, siphonal tuft (seta 1-S); 5-C, upper head hair; 6-C, lower head hair; 7-C, preantennal head hair.

Fig. 10. Key taxonomical characteristics of *Aedes albopictus* larvae (Farajollahi and Price, 2013).

## Thorax hooks – strong or weak



Strong black hooks on  
side of thorax



Small or no hooks on  
side of thorax

Figure 11. Presence of strong/small hooks on sides of thorax. Source image:  
<http://tiggernut.com/BackyardMosquitoes/Larva.html>

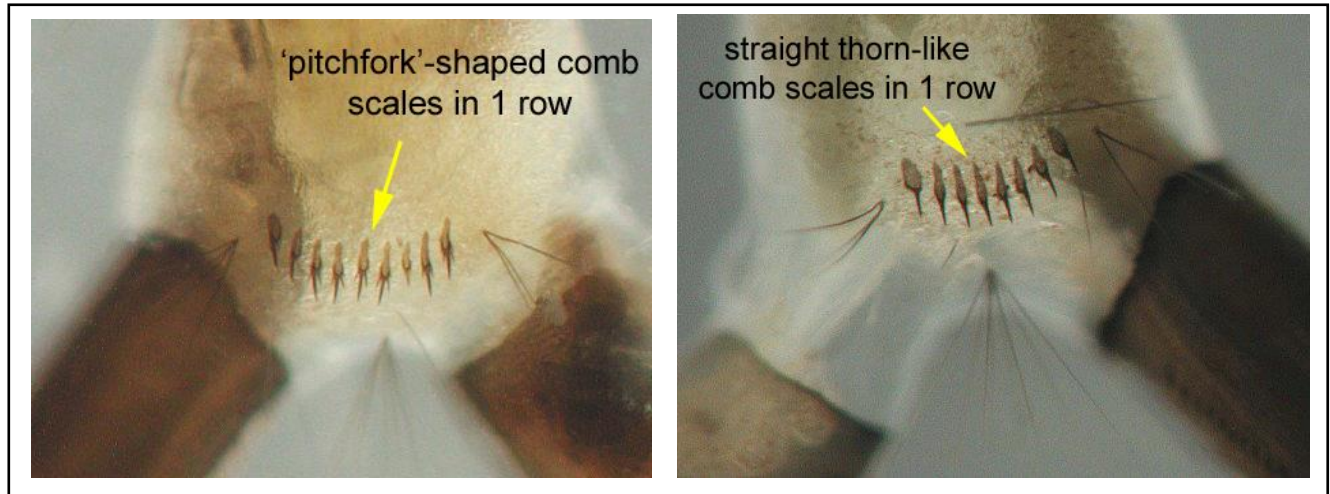


Figure 12. Comparison of VIII-segment comb scales on both species. *Aedes aegypti* has pitchfork scales; *Aedes albopictus* has thorn-like scales. Image sources: Florida Medical Entomology Laboratory.

#### Literature cited

1. Rueda, L. 2004. Pictorial keys for the identification of mosquitoes (Diptera: Culicidae) associated with dengue virus transmission. *Zootaxa* 589: 1-60.
2. Farajollahi, A. and Price, D.C. 2013. A rapid identification guide for larvae of the most common North American container-inhabiting *Aedes* species of medical importance. *Journal of American Mosquito Control Association*, 29 (3):203-221.
3. Andreadis, T. G., Thomas, M. C. and Shepard, J.J. 2005. Identification guide to the mosquitoes of Connecticut. The Connecticut Agricultural Experiment Station. Bulletin No. 966. 173 pp.