

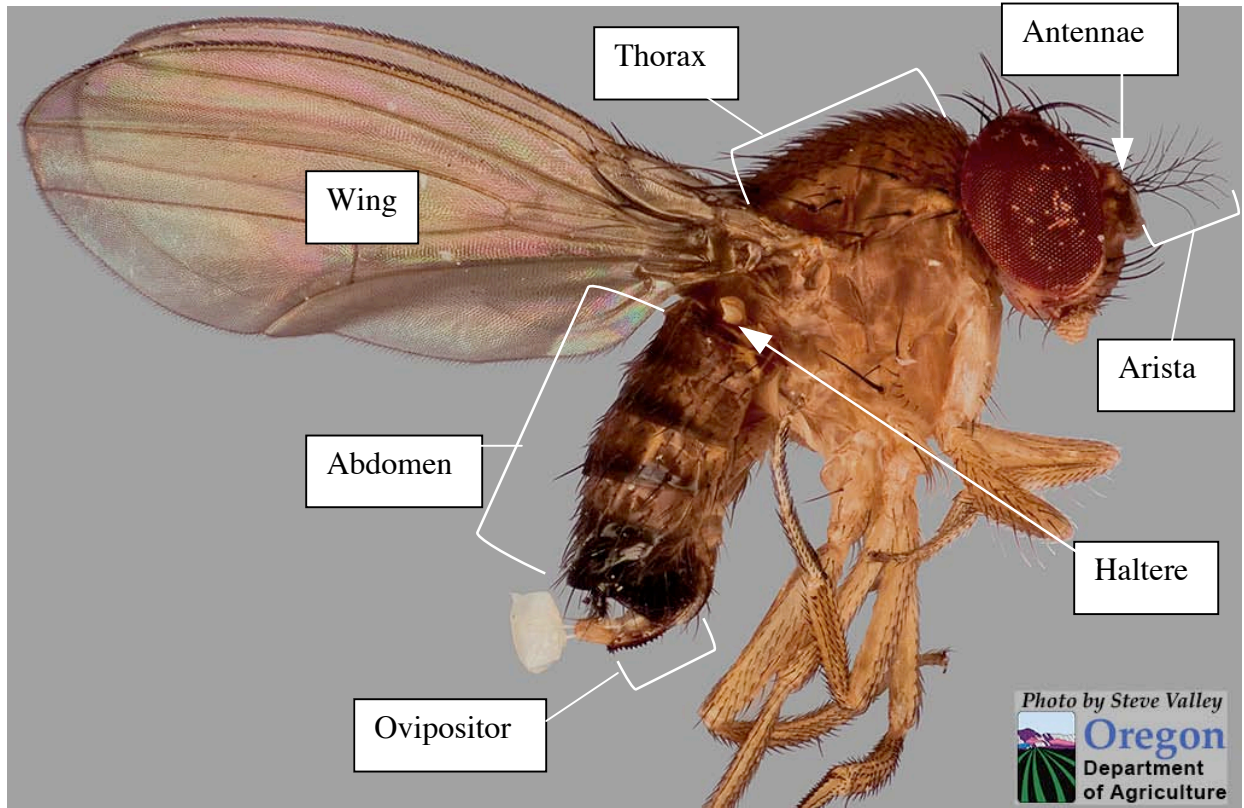
## Identifying *Drosophila suzukii*

Version from June 2, 2010

Oregon Department of Agriculture

Josh Vlach

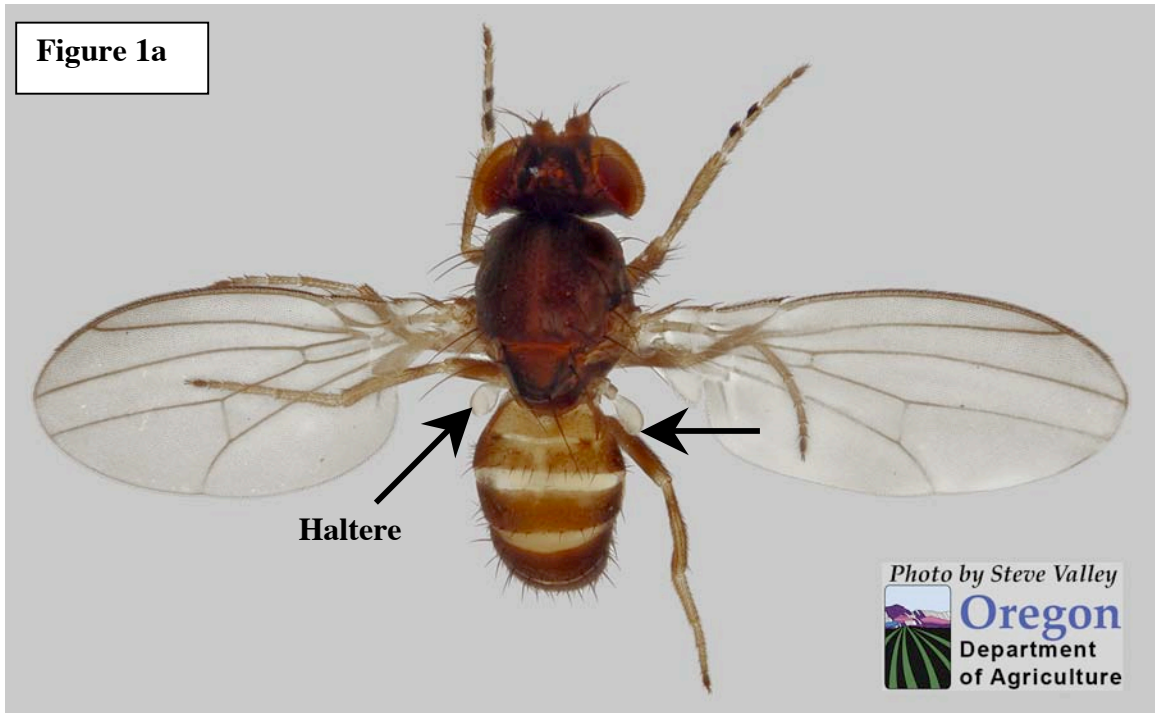
jvlach@oda.state.or.us



*Drosophila suzukii* female

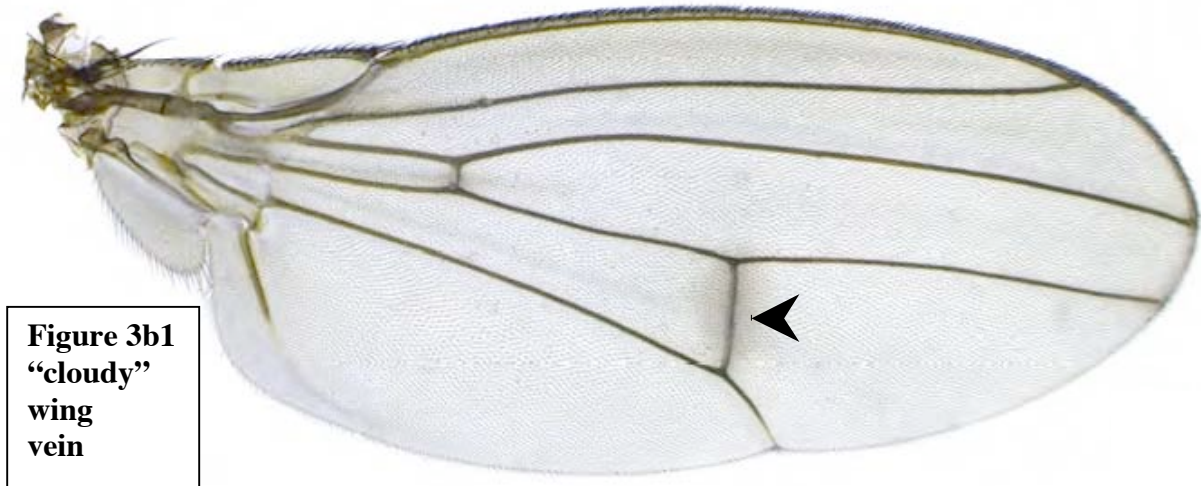
**IMPORTANT:** This is a dichotomous key. Dichotomous keys only work properly when specimens are worked through the key step by step. Characters cannot be taken from the key and used independently. Doing so will result in misidentifications.

1. a. Two wings and two halteres (Figure 1a)..... 2
- b. Either four OR no wings. No halteres.....Not a fly

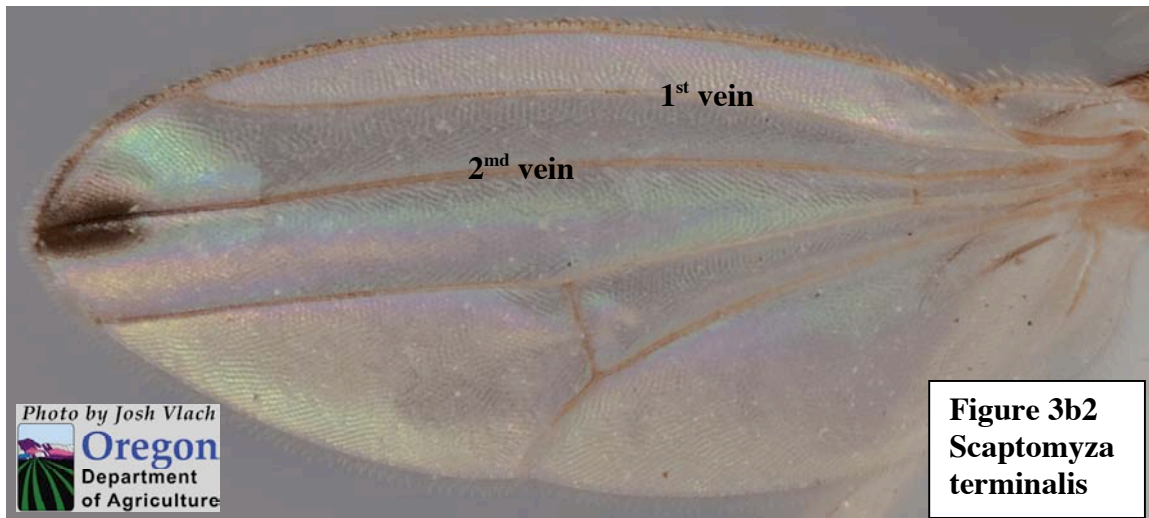
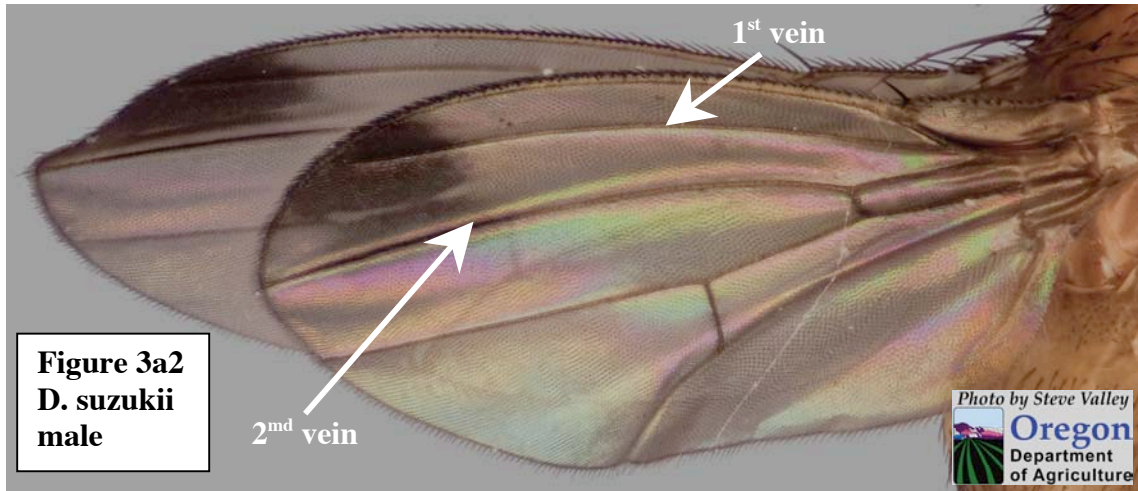


2. a. Red eyes.....3
- b. Eyes other than red.....not *D. suzukii*

3. a. Wings clear (Figure 3a1) or with a dark spot near the end of the leading edge of the wing on first vein (Figure 3a2).....4
- b. Wings with bands, multiple spots, with a crossvein with a darkened “cloudy” area around it (Figure 3b1), or a spot at the tip of the wing on second vein (Figure 3b2).....not *D. suzukii*





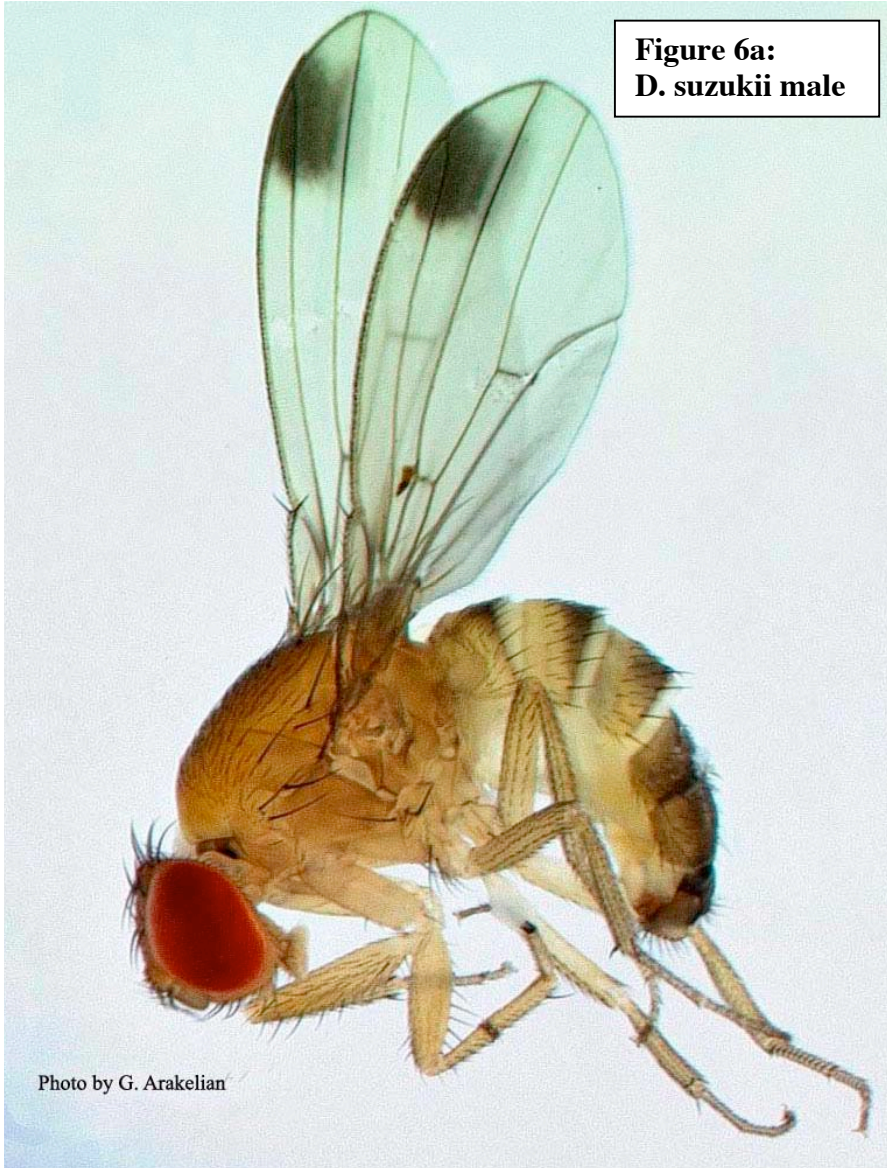


4. a. Short, stubby antennae with branched arista (Figures 4a) ..... 5  
 b. Long antennae or short stubby antennae with an unbranched arista (Figure 4b) .....not *D. suzukii*



5. a. Length under 4mm (~1/8").....6  
 b. Length over 4mm .....not *D. suzukii*

6. a. With single dark spot near wing tip.....  
 .....*D. suzukii* male (Figure 6a)  
 b. Without spot near wing tip.....7



***Drosophila suzukii* male character summary:**

1. Light yellow or brown fly with red eyes.
2. Dark spot on the leading edge of the wing near the tip, centered on the first major wing vein
3. Markings consist of bands at the ends of abdominal segments. These bands are unbroken.
4. Front feet with two combs each. Combs with 3 to six teeth. Teeth of combs parallel to the length of the foot.



7. a. Without combs on feet (Figure 7a) ..... 8 (females)

b. With one (Figure 7b1) or more (Figure 7b2) combs on front feet or with male genitalia (Figure 7b3).....10 (males)

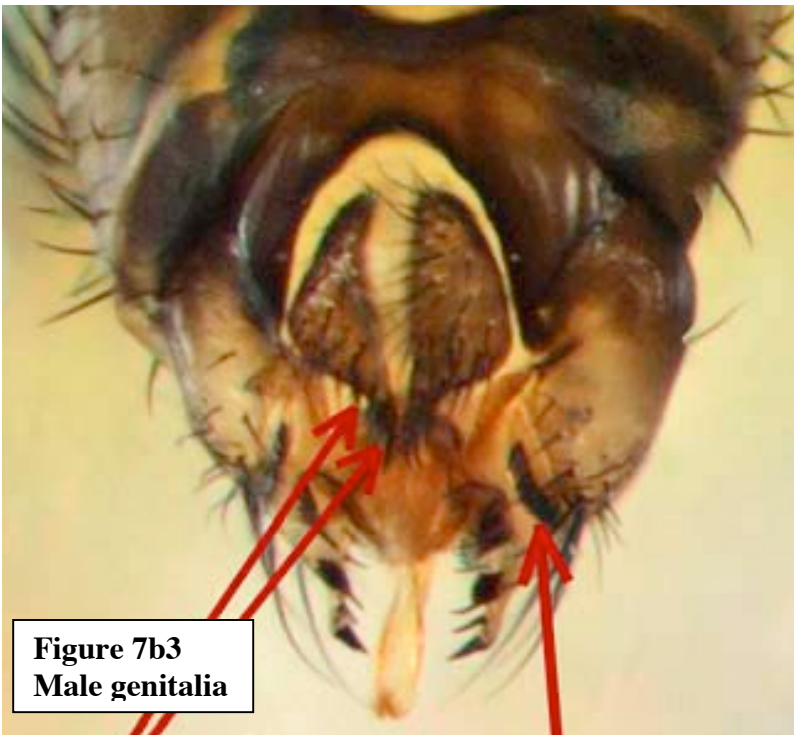
**Figure 7a**



**Figure 7b1**



**Figure 7b2**



**Figure 7b3**  
**Male genitalia**

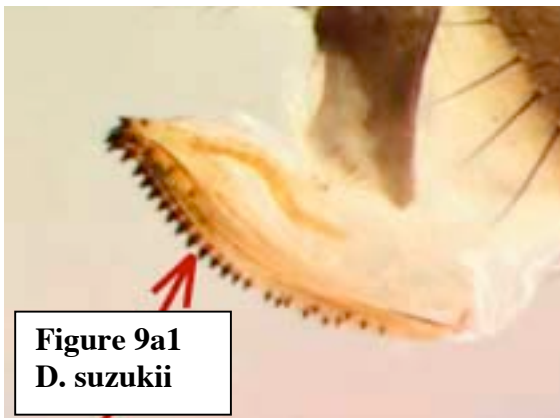
- 8. a. Large sclerotized (hard, shiny and dark), ovipositor with strong serrations or teeth (saw-like edge when fully exposed) (Figure 8a).....9
- b. Small soft ovipositor sometimes with weak serrations or teeth (Figure 8b). .....NOPE





9. a. Teeth on ovipositor much darker than the rest of ovipositor (Figure 9a1, 9a2).  
 The body is free of stripes, spots, or patterns except for complete dark bands (no breaks) at the end of abdominal segments (Figures 9a3, 9a4). The last segment is sometimes all dark brown.....  
 .....*D. suzukii* female (Figure 9a5)

b. Teeth on ovipositor the same color as the rest of the ovipositor (at most slightly darker) (Figure 9b1, 9b2)  
OR body with stripes, spots, or patterns other than above (Figure 9b3) including a break in the center of the abdominal bands (Figure 9b4)...  
 .....NOPE

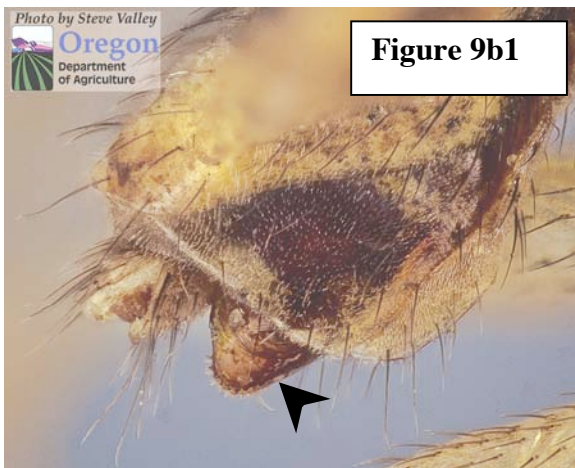


**Figure 9a1**  
**D. suzukii**



**Figure 9a2**  
**D. suzukii**

Photo by Steve Valley  
**Oregon**  
 Department of Agriculture



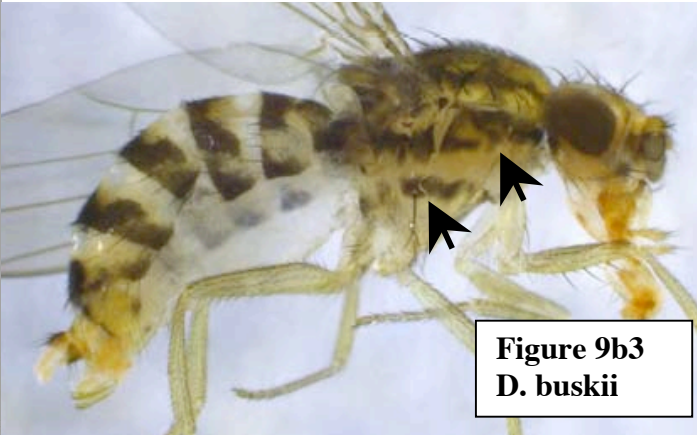
**Figure 9b1**



**Figure 9b2**

**Note: the female ovipositor consists of two halves, visible here**

**Figure 9a3, *D. suzukii***



**Figure 9b3  
*D. buskii***



**Figure 9a4:  
*D. suzukii* female**



**Figure 9b4**

**Figure 9a5:  
D. suzukii female**



***Drosophila suzukii* female character summary:**

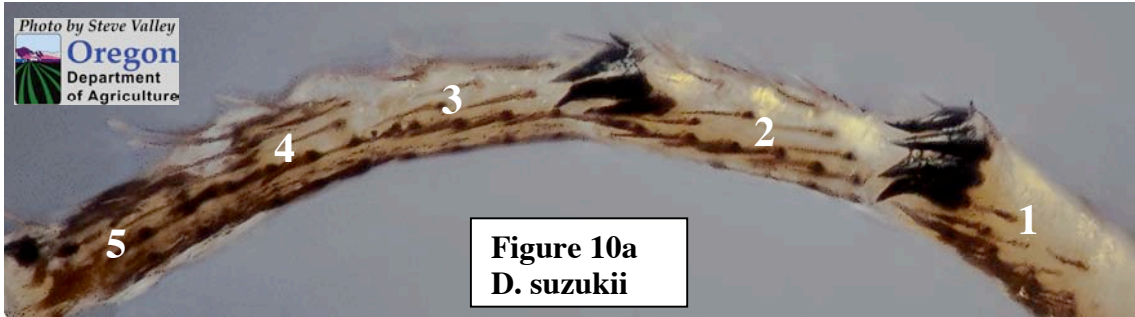
1. Light yellow or brown fly with red eyes.
2. Large, hardened, saw-like ovipositor with dark teeth.
3. Markings consist of bands at the ends of abdominal segments.  
    These bands are unbroken.
4. No dark areas around wing veins.
5. No combs on front feet.
6. Smaller than 1/8" or 4mm.



10. Males.

a. Front feet with a comb on first and second segments (Figure 10a)..  
.....11

b. Front feet with 1 (Figure 10b), three, or more combs on front feet  
.....not *D. suzukii*



11. a. Front feet with teeth of combs on first and second segments parallel to the length of the foot and combs with 3 to 6 “teeth” (Figure 11a1),  
End of abdominal bands with a continuous dark band and last segment often dark brown, otherwise the body and legs do not have notable markings.....***D. suzukii* male** (Figure 11a2)  
(These are rarely observed. Specimens keying here should be verified by an Entomologist).

b. Front feet with teeth of combs on front feet perpendicular to the length of the feet or with more than 6 “teeth” (Figure 11b)  
OR body with patterns other than above (bands on body, split bands on abdomen, etc.).....not *D. suzukii*

Figure 11a1. Teeth parallel to foot, *D. suzukii* male

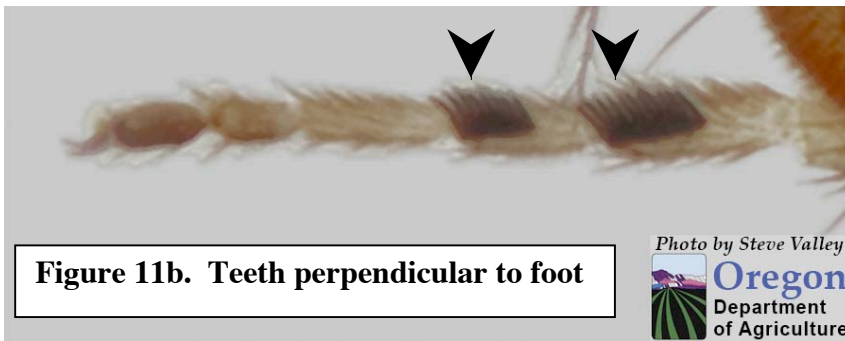
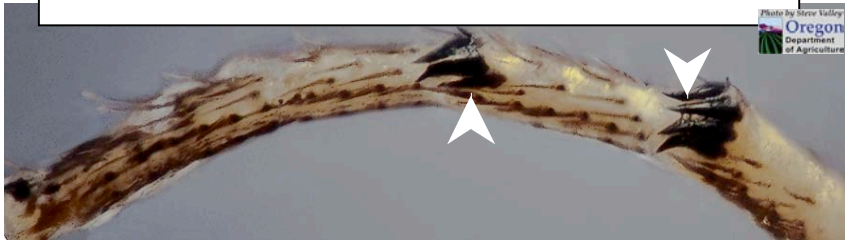
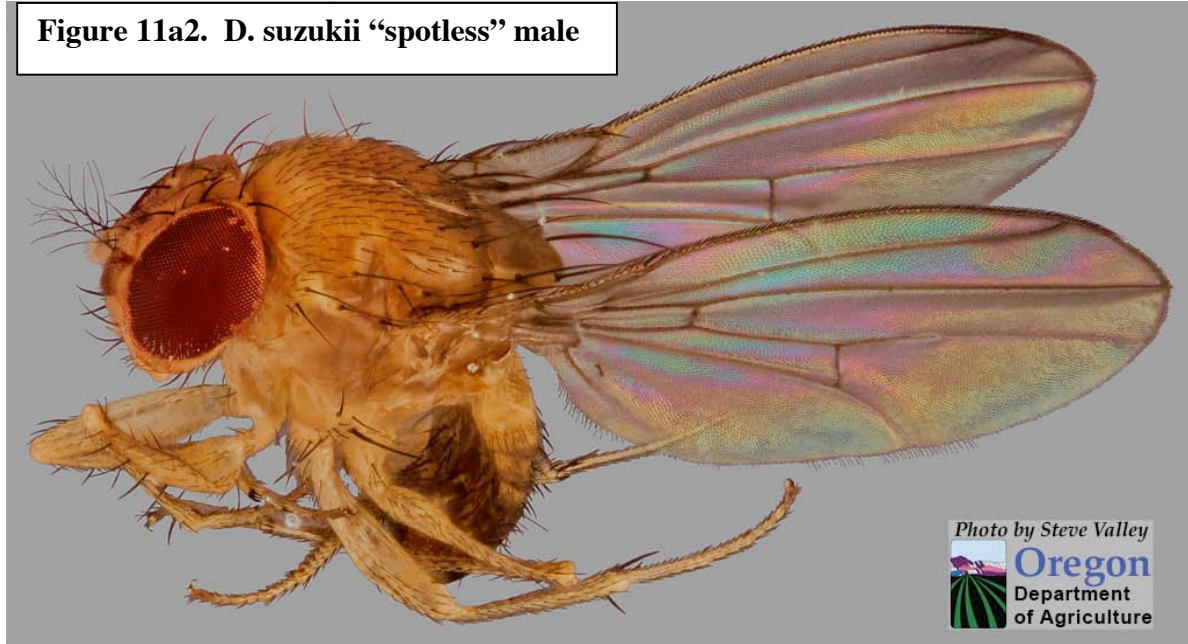


Figure 11b. Teeth perpendicular to foot

Photo by Steve Valley  
Oregon  
Department  
of Agriculture

**Figure 11a2. *D. suzukii* “spotless” male**



***Drosophila suzukii* “spotless” male character summary:**

1. Light yellow or brown fly with red eyes.
2. Front feet with two combs each. Combs with 3 to six teeth.  
Teeth parallel to the length of the foot.
3. Markings consist of bands at the ends of abdominal segments.  
These bands are unbroken.
4. No dark areas around wing veins.
5. Smaller than 1/8” or 4mm.

*NOTE: All images have been taken from materials produced by Martin Hauser of CDFR unless otherwise noted.*