

Spotted Wing Drosophila Identification Guide

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With practice, identifying spotted wing drosophila (*Drosophila suzukii*) is possible using a hand lens in the field. For the novice, this will take some practice but it is achievable after seeing a few traps with spotted wing drosophila (SWD) captures. One of the biggest challenges is identifying SWD from among the many other small flies, including other species of drosophila captured in traps. This guide has been prepared based on experiences in Michigan, to help the user identify SWD.

Identifying spotted wing drosophila. Adult SWD are 2-3 mm long, have rounded abdomens, and may be seen on the outside of fruit or in traps. Flies are light yellow or brown with red eyes. Dark unbroken bands are seen across the abdominal segments. One major distinguishing characteristic is that the adult male SWD has one distinctive dot on each of its wings along the 1st vein (Figure 1). Male SWD also have two dark bands on each of the forelegs. These bands are known as combs and contain three to six teeth (Figure 2). Female SWD are harder to identify, as they do not have these wing spots. Female SWD have serrated ovipositors with two rows of serration that are longer than other vinegar fly species (Figure 3).

Figure 1.

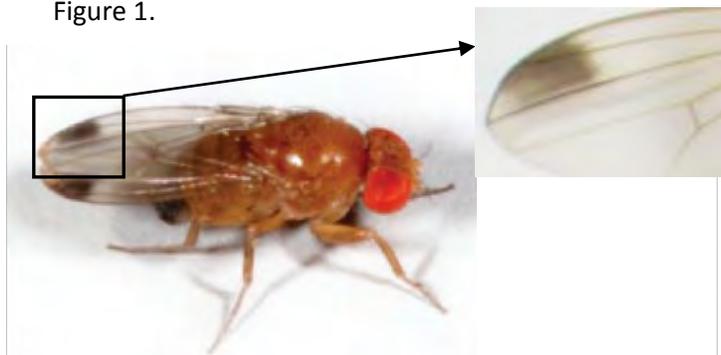


Figure 2.

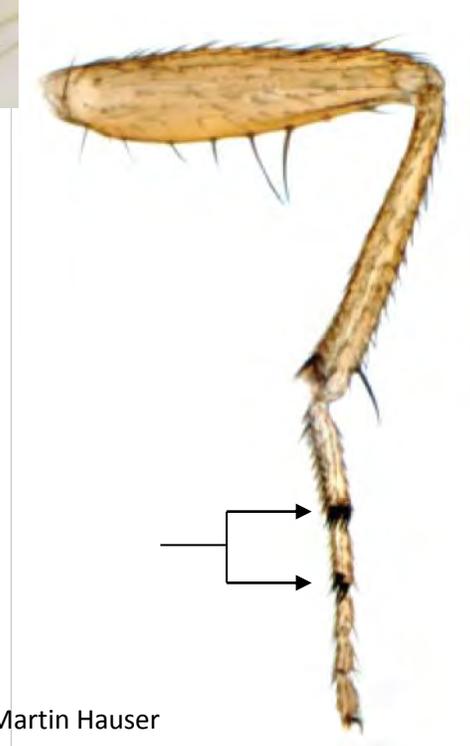
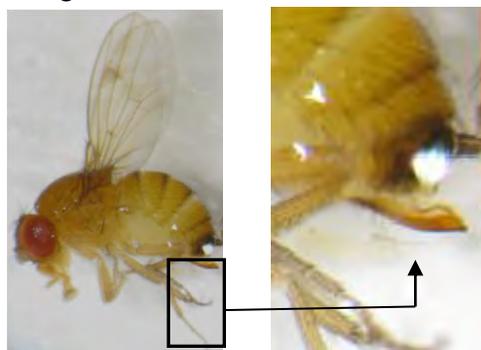


Figure 3.



Photos by Martin Hauser

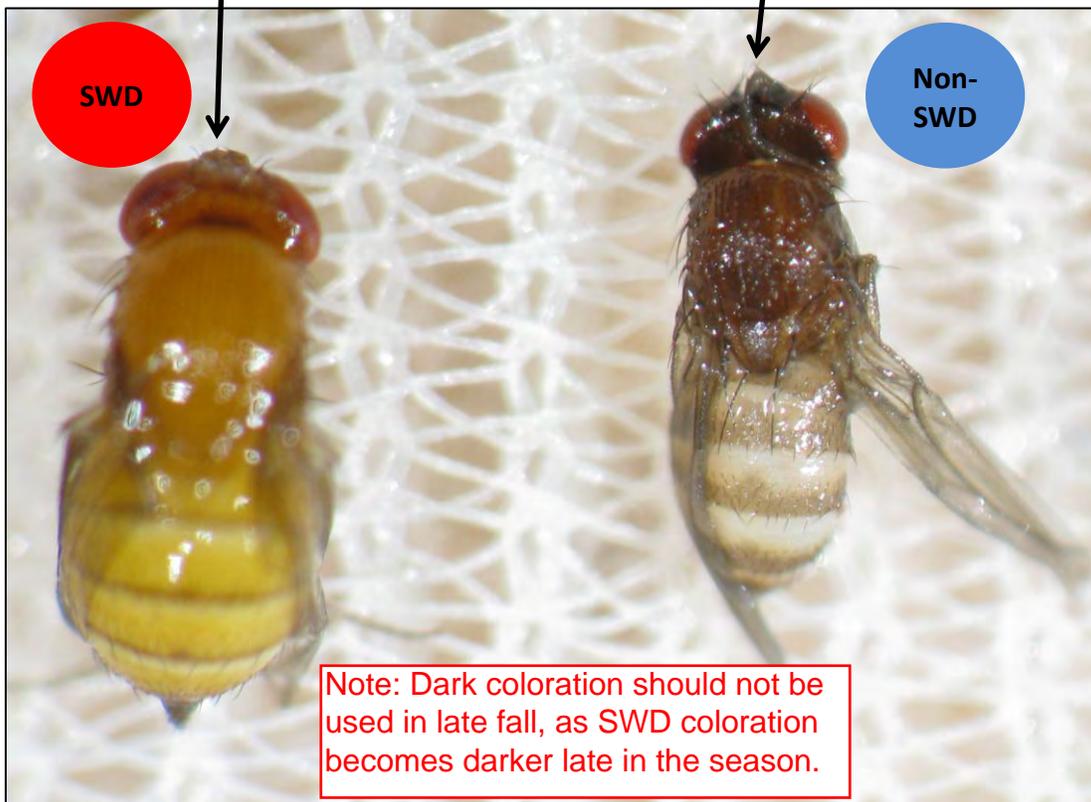
Comparison of SWD Imitator Flies in Michigan

Note: this guide is NOT designed for the positive identification of SWD, only to tell which flies are not SWD.

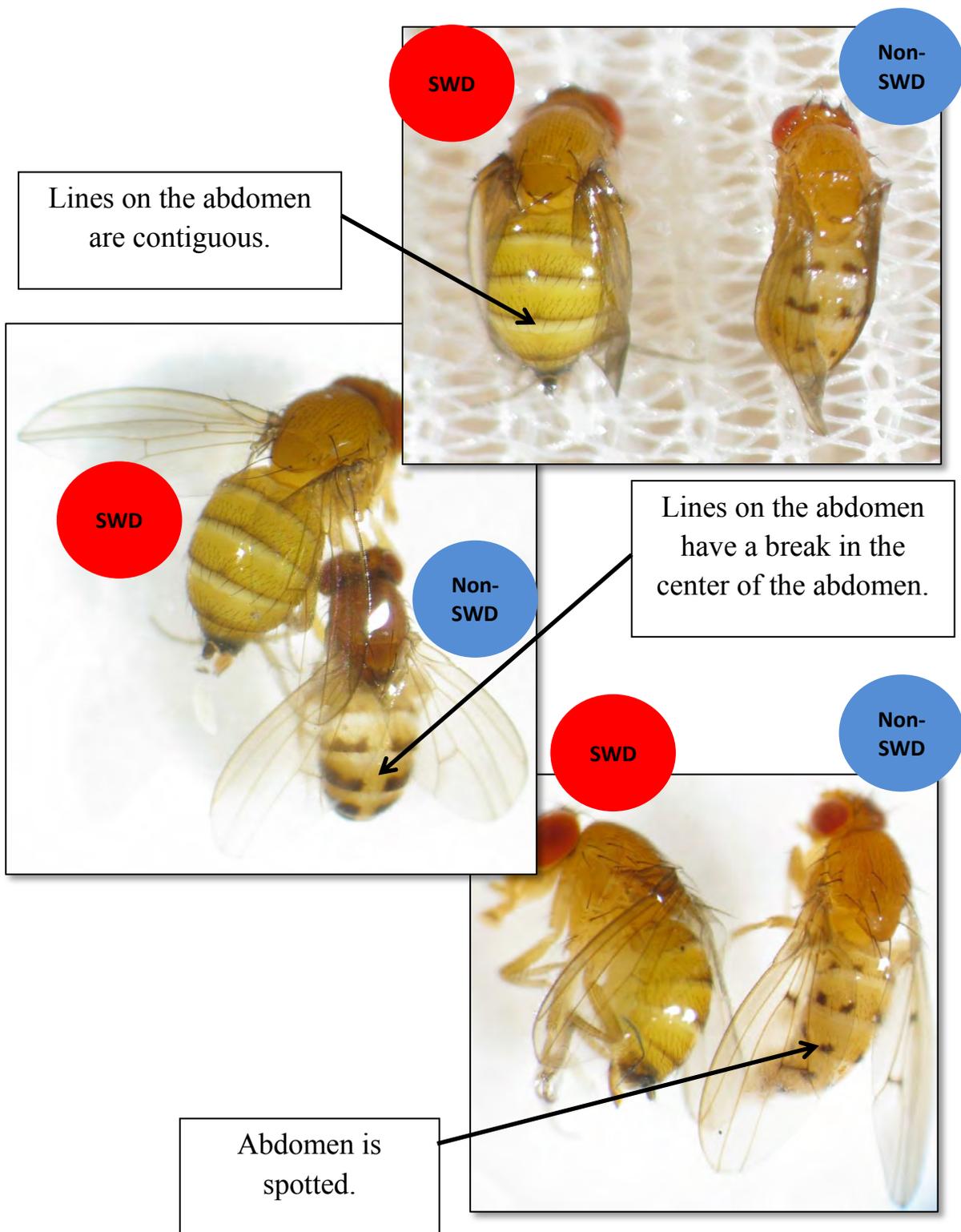
1. Body and head color

Head and body are a golden brown color.

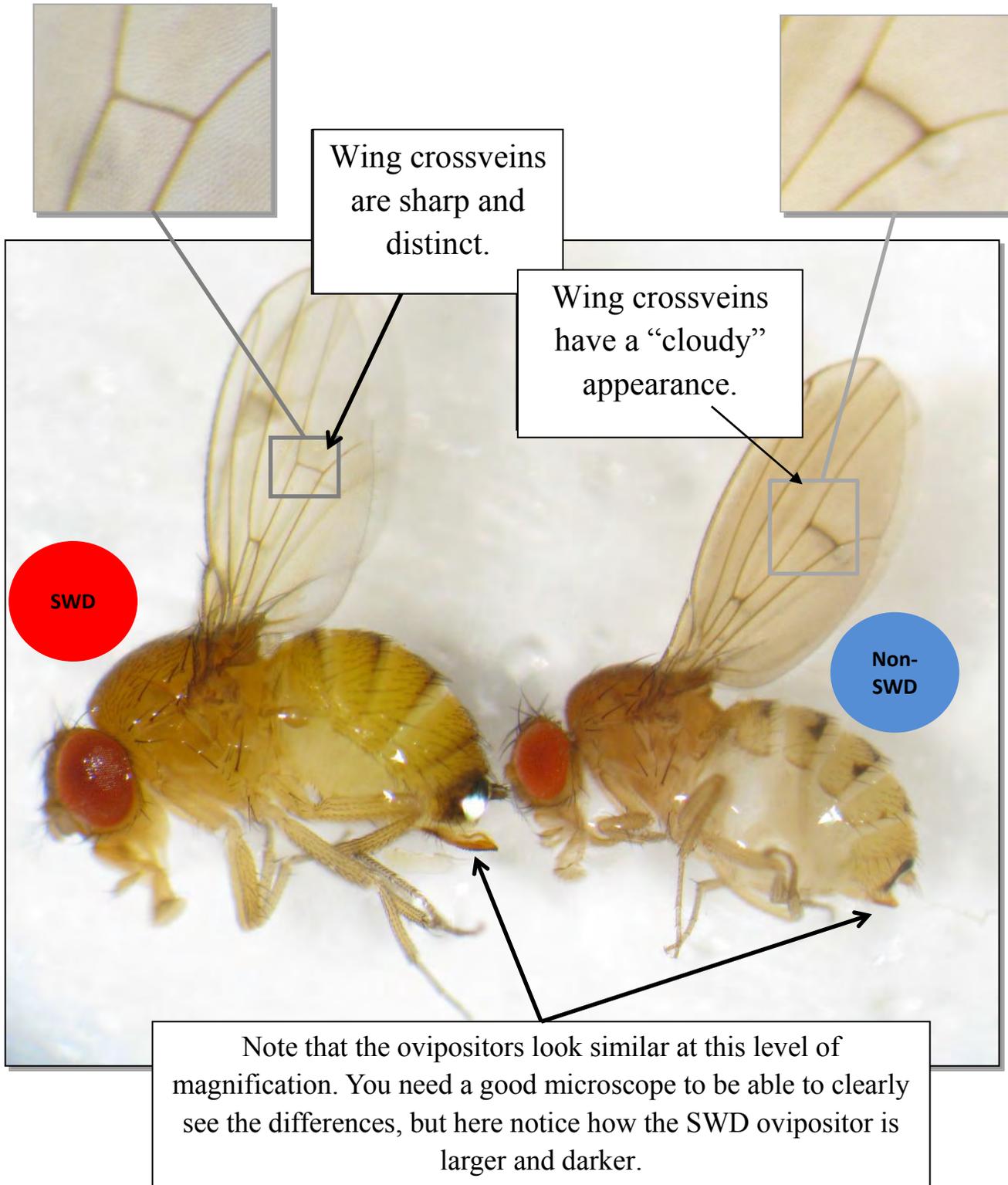
Head and thorax are dark. The darkness of the specimen can vary greatly, but usually at least the head is dark.



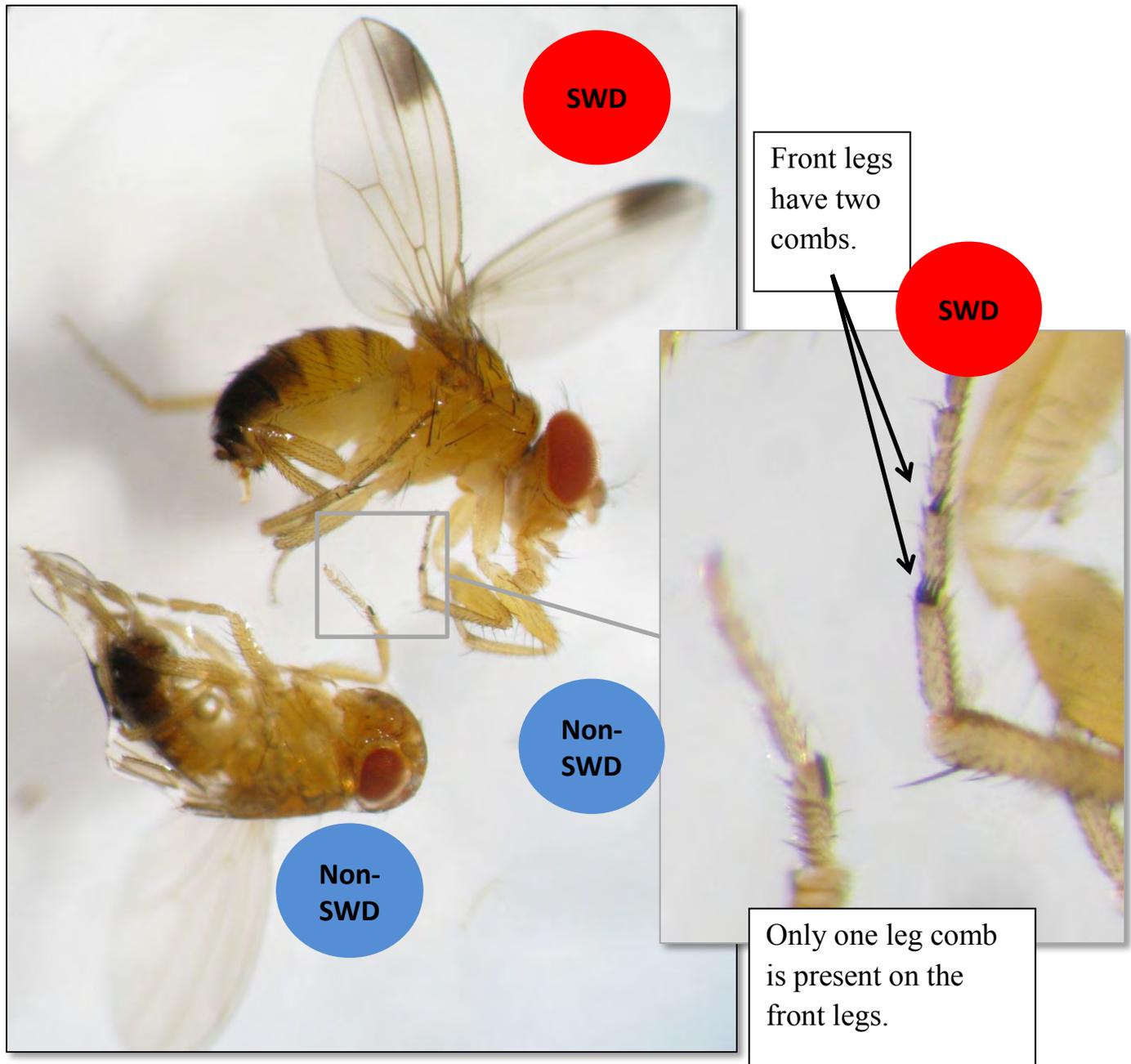
2. Abdominal Pattern



3. Wing crossveins



4. Front legs on males



Scaptomyza sp.



Spot is on 2nd wing vein instead of 1st wing vein. Front legs do not have double comb.

Common SWD Imitator Flies

These images are of flies on yellow sticky cards collected from spotted wing *Drosophila* traps. With practice, these can be distinguished from SWD with relative ease.



Spot is on the 1st wing vein, but the entire body is black instead of golden brown.

Chymomyza amoena



Wings have two bands across them instead of one distinct spot on each wing.

Leucophenga varia



Spot is on the 1st wing vein like a male SWD, but the abdomen is spotted instead of banded. Also, the front legs do not have a double comb.