

# **Friend or Foe: Identifying Insect Pests & Biological Controls**

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# Most Common Greenhouse Arthropod Pests & **Beneficials:**

**Whiteflies**

**Aphids & pred. midge**

**Thrips**

**Mites**

**Fungus gnats**

**Shore flies**

**Parasitic Wasps**

# Whiteflies

Eggs on leaf undersides, spindle-shaped, tiny. Hatch 5-10days



Larvae on undersides of leaves, abt 2 wks.

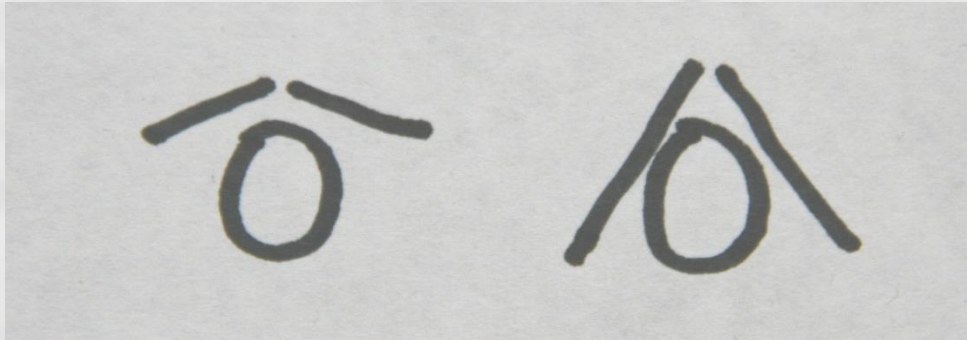


Pupae  
1 week  
Empty pupal cases stay on leaf, bright white color.



# Two common species in our greenhouses

Greenhouse WF, Sweet Potato WF



- **Tricky to identify species without good magnification & light**



**These are mostly empty cases of greenhouse whitefly.**



**These are immatures and adults  
of sweet potato whitefly.**





**The black whitefly larvae  
have been parasitized by  
*Encarsia formosa*.**



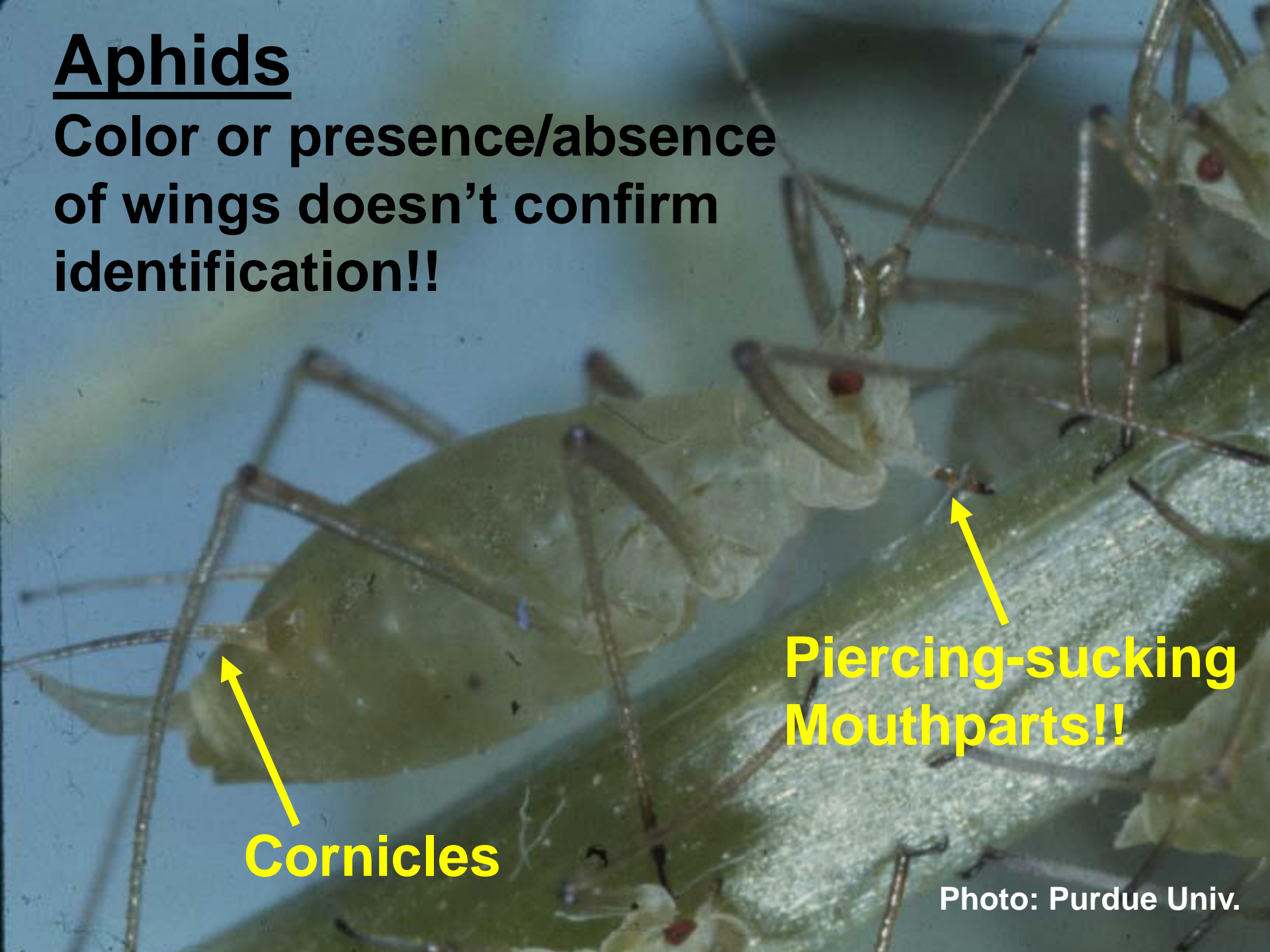
**Parasitic wasps have narrow waists**





# Aphids

Color or presence/absence of wings doesn't confirm identification!!



**Cornicles**

**Piercing-sucking Mouthparts!!**

Photo: Purdue Univ.

# Aphids that are winged show:

1. few veins, many being parallel
2. large thick spot towards forewing tip

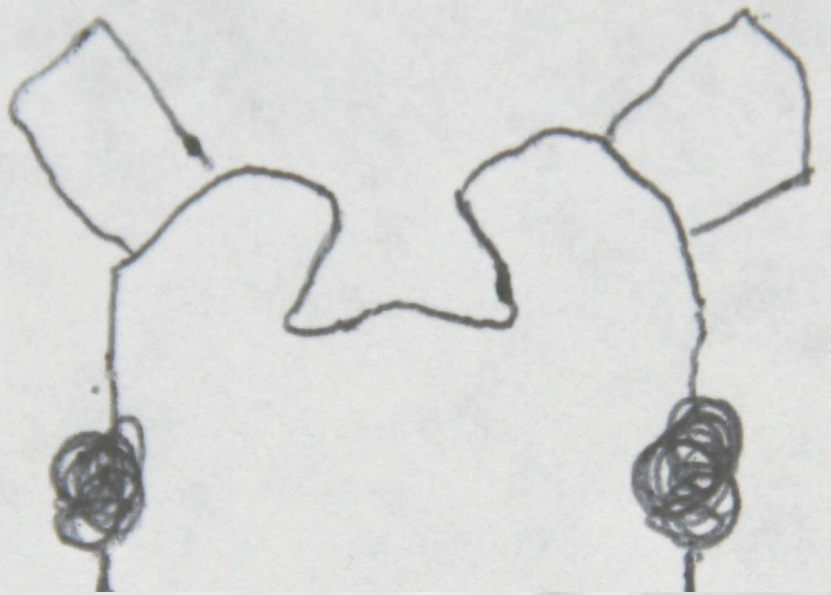


They often  
give birth after getting stuck

**Telling aphid species apart requires looking at the head, from above and slightly behind. The shape of the “notch” is important.**







## **Green peach aphid**

**less important character:**

- **They tend to be high on plants, near the growing tips**

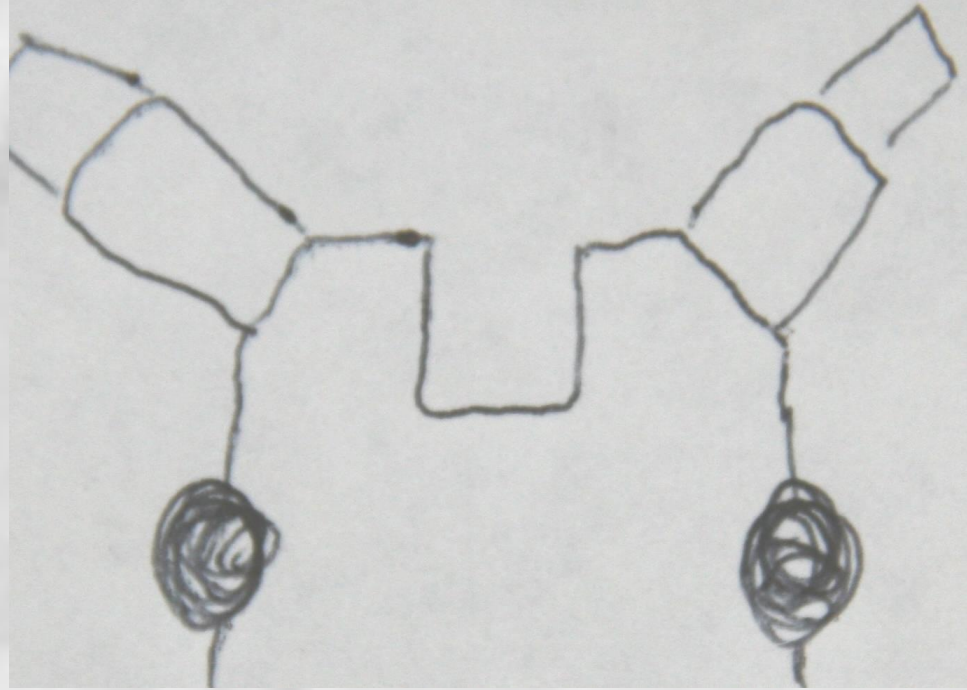
# Potato aphid

Less important characters:

- Often a slightly dark line is visible down the back.
- Various body colors: pink, yellow, green.



# Foxglove aphid

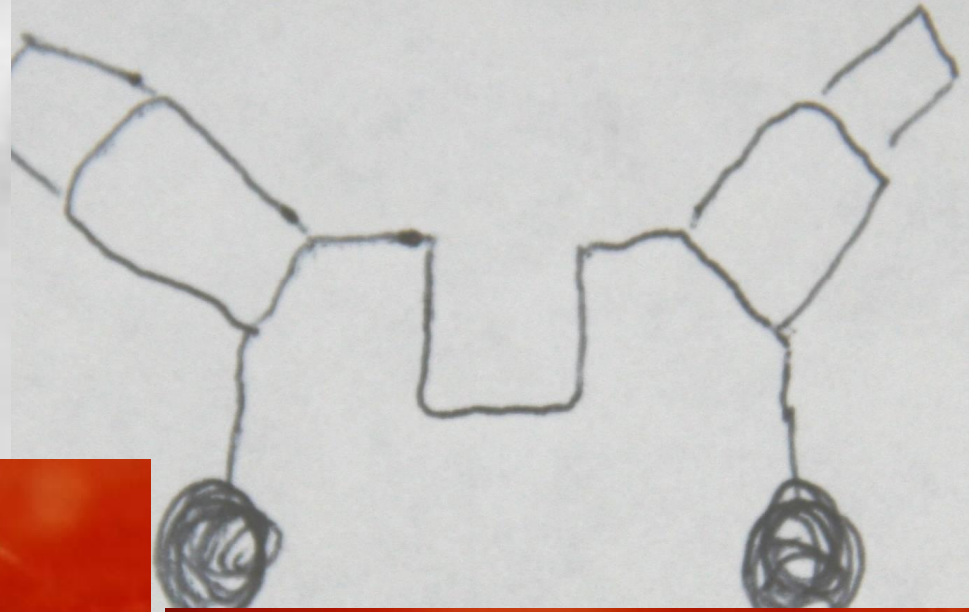


## Less important characters:

- **Body is usually shiny.**
- **Often dark patches near base of cornicles.**

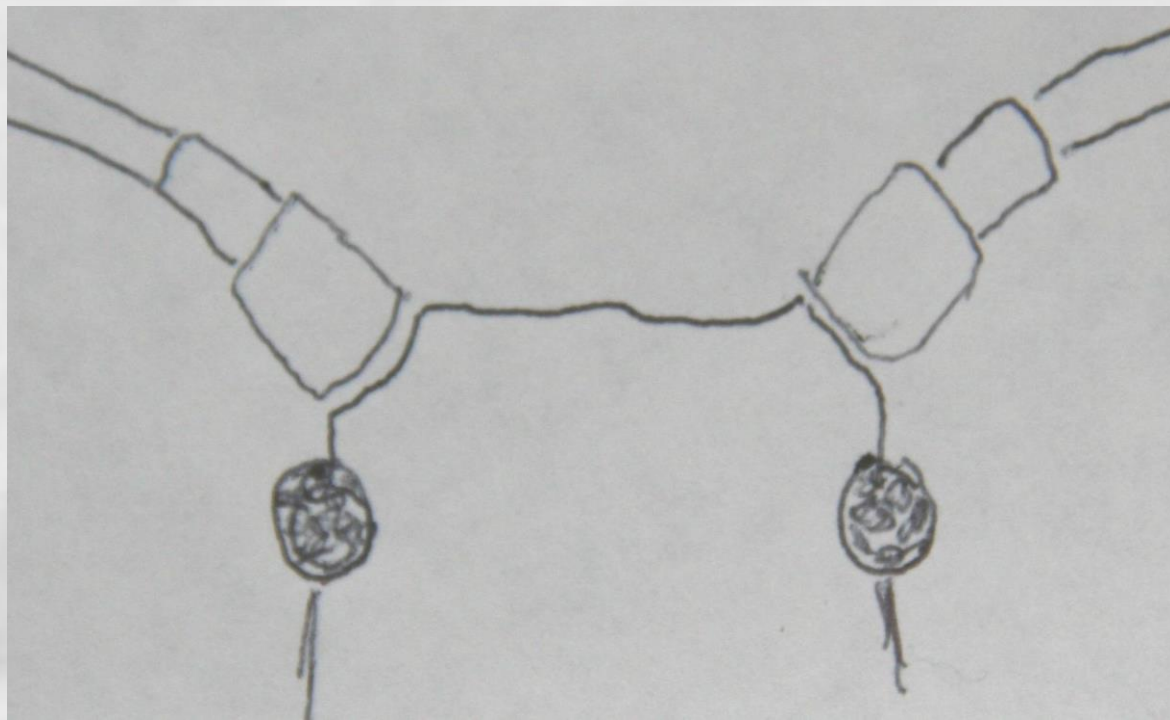


# Foxglove aphid



# Melon aphid

## Less important Characters:



- They tend to be towards plant interior, on stems or flower buds.
- Cornicles are dark, although body could be dark or light.

**Melon aphid: Many plants!**

**Green peach aphid: Many plants!**

**Potato aphid: Abutilon, carnation, cineraria, lettuce, rose, tomato, tulip...**

**Foxglove aphid: Anemone, arum, calceolaria, carnation, cineraria, dahlia, geranium, gloxinia, lettuce, nasturtium...**

**Sage, Basil, Coleus, Snaps, Zinnia, Lettuce, Ornamental pepper...**

**Cast skins are white, an obvious sign.**



The image shows two specimens of the aphid parasite *Aphidius colemani* against a light green background. Both insects are winged, with transparent wings showing a distinct network of veins. They have dark, segmented bodies and long, thin antennae. One specimen is positioned in the upper left, and the other is in the middle right. A portion of a metallic, cylindrical object is visible at the bottom center of the frame.


**These are aphid  
parasites  
*Aphidius colemani***



**Adult of aphid predator,  
*Aphioletes aphidimyza***







Larva of aphid  
predator,  
*Aphioletes aphidimyza*  
Yes, it is always  
**ORANGE**

Photo: Roger Adams, U Conn.



# Thrips

- Tiny!
- Long, slender
- Dark eyes
- Short, straight antennae





**Specimens on sticky cards show their fringe-like wings.**



Two spotted spider mite

Roughly oval. 2 spots! Tiny!





## Predator mites

- Often hard to identify
- Shape is important; pear, not oval
- Color is less reliable indicator
- Move fast





*Hypoaspis miles*  
photo by Jack  
Kelly Clark

**TSSM on left, predator mite (*Persimilis* sp) on the right (photo: Jack Kelly Clark)**



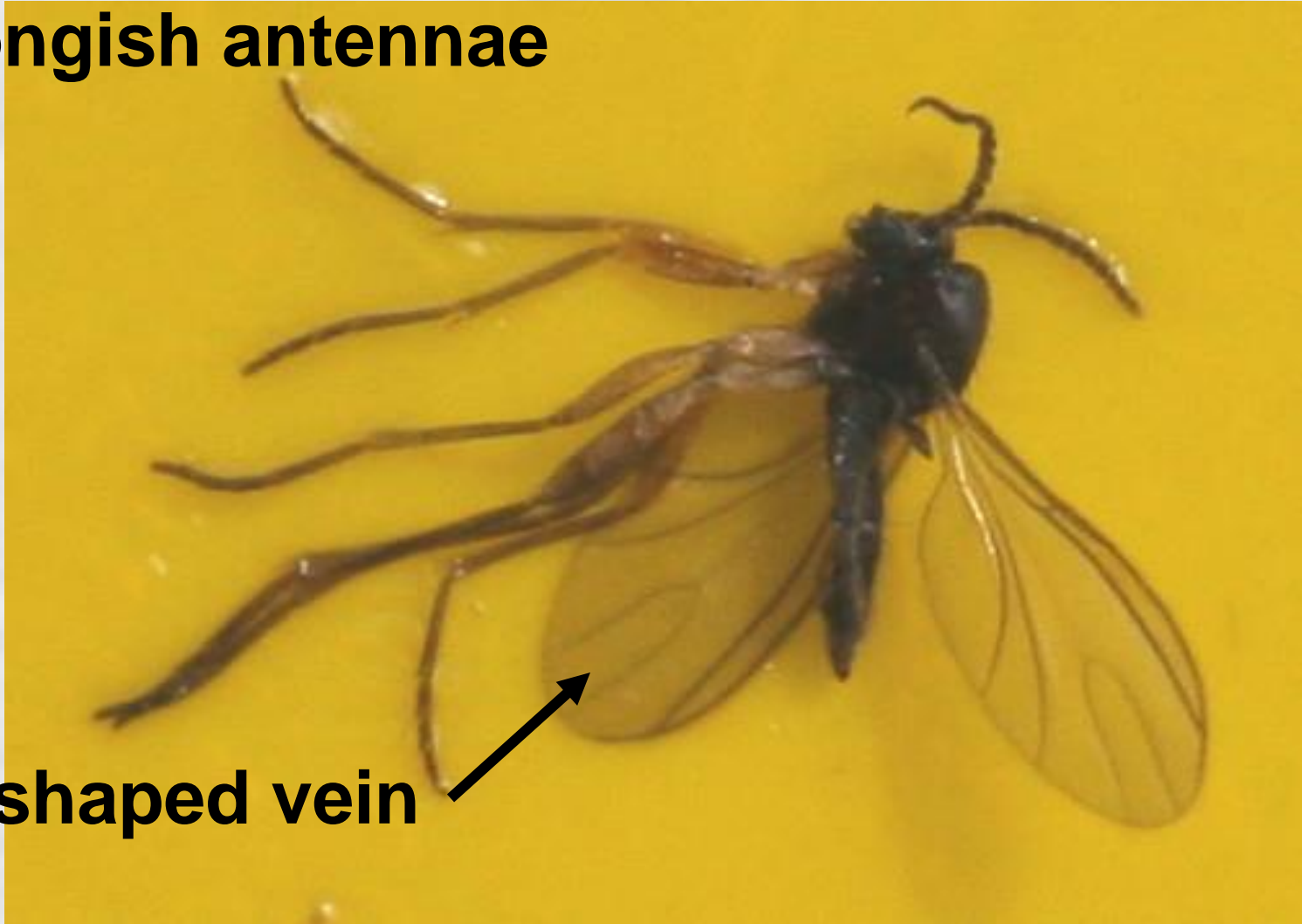
# Fungus Gnats

Long legs

Rel. thin body

No thread waist

Longish antennae



Y-shaped vein



**Larvae are in media and roots, and boring in cuttings. They have whitish or clear bodies, dark heads.**







# Shore Flies

Smoky wings with  
light spots means  
shore flies.



**Larvae live in wet, slimy conditions  
and feed on algae.**

**This is the tail end.**





A photograph of a sunset or sunrise. The sky is filled with horizontal bands of orange, red, and purple. In the foreground, there are dark silhouettes of trees and a utility pole. The text "The End" is centered in the sky in a white, bold, sans-serif font.

**The End**