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# Thrips

Pest & Natural Enemy ID  
Greenhouse Scout School  
Session 2: February 8, 2023

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## Part 1: Pest ID

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## Part 2: Natural Enemy ID

Statewide IPM Project  
1000 Regents, University of California



Thrips

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# Closeup of Typical Thrips Damage



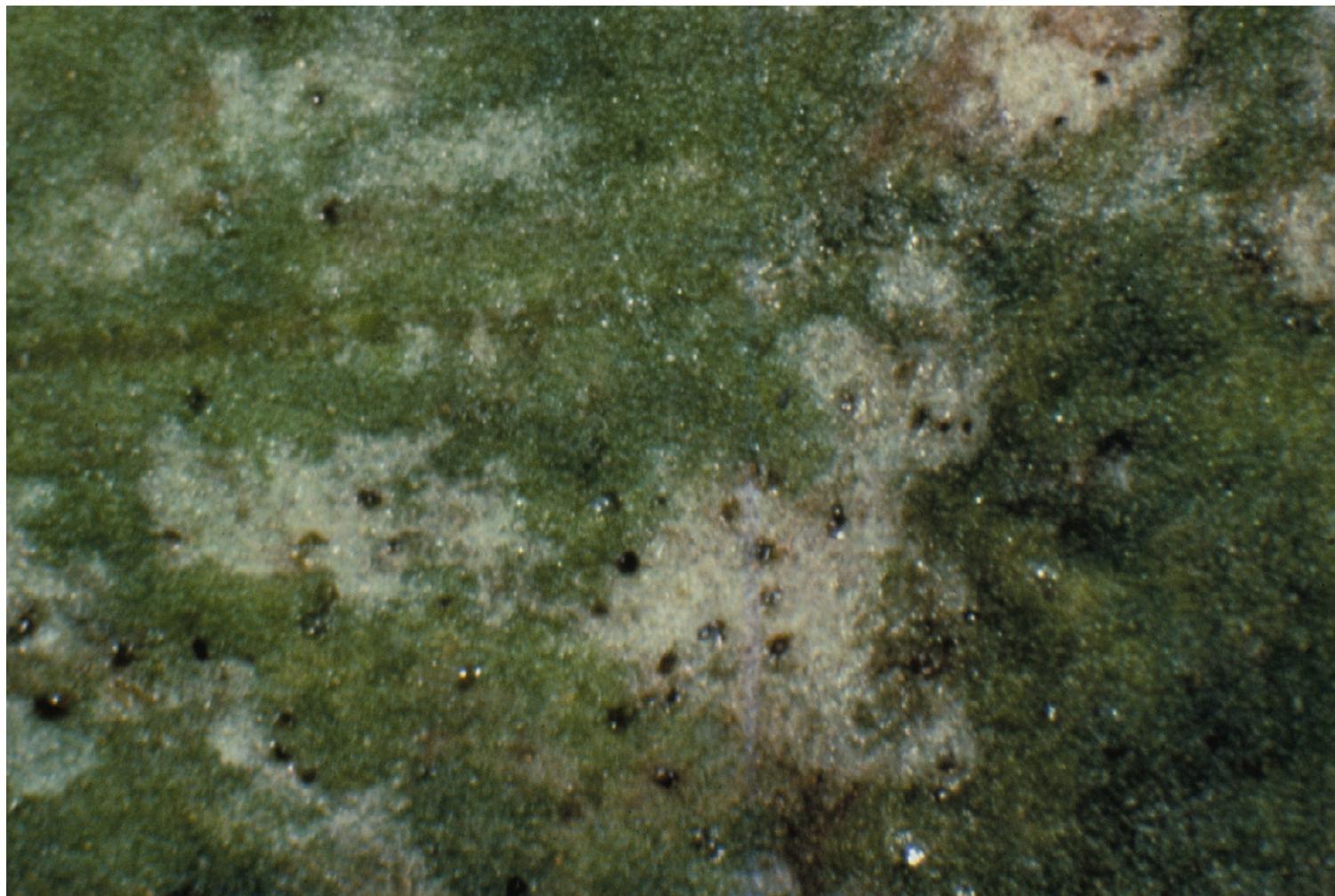


Typical Thrips Damage

# Typical Thrips Damage



**T. Smith, UMass**



Close up of  
thrips  
feeding  
damage and  
black fecal  
spots



Often found  
in tight,  
hidden  
places



Feeding in growing points can result in stunting and deformed growth



Western flower thrips can transmit  
tospoviruses (INSV, TSWV)

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Greenhouse  
thrips  
damage

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Sometimes feeding damage will be restricted to certain cultivars





Thrips damage to poinsettias

# Did thrips cause the damage?

Seeing damage like this?



How many thrips on your sticky traps?



# Thrips species can look different

Western flower thrips



Onion thrips



U. Kentucky

Echinothrips ("Poinsettia thrips")



U. Florida

Greenhouse thrips



of Florida U. Florida

But some can also look the same

Melon thrips



Western flower thrips



Onion thrips



Chilli thrips



And there can be color morphs in the same species  
The light (left), bicolor (centre) and intermediate (right) color morphs  
of western flower thrips (*Frankliniella occidentalis*)

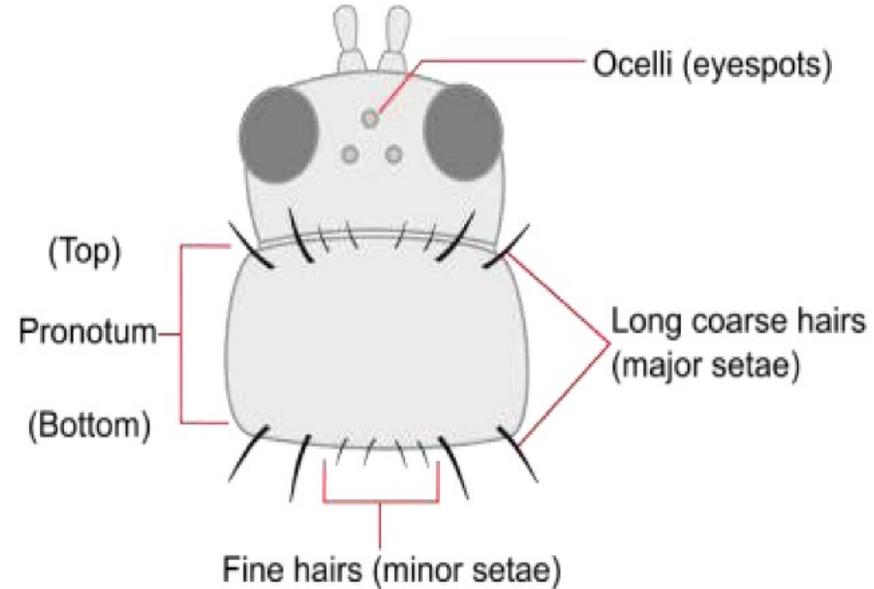
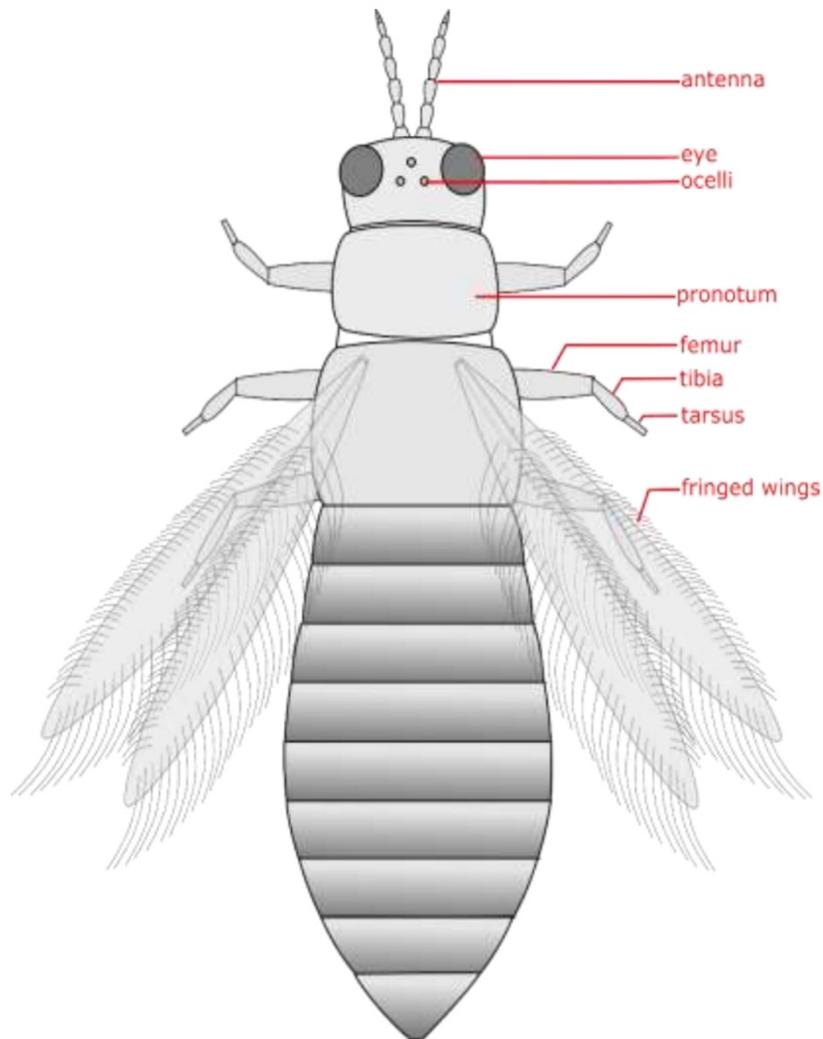


*Photo courtesy of A. Summerfield*

Best to send questionable samples to a diagnostic lab.

Advanced scouts/growers might use an identification key

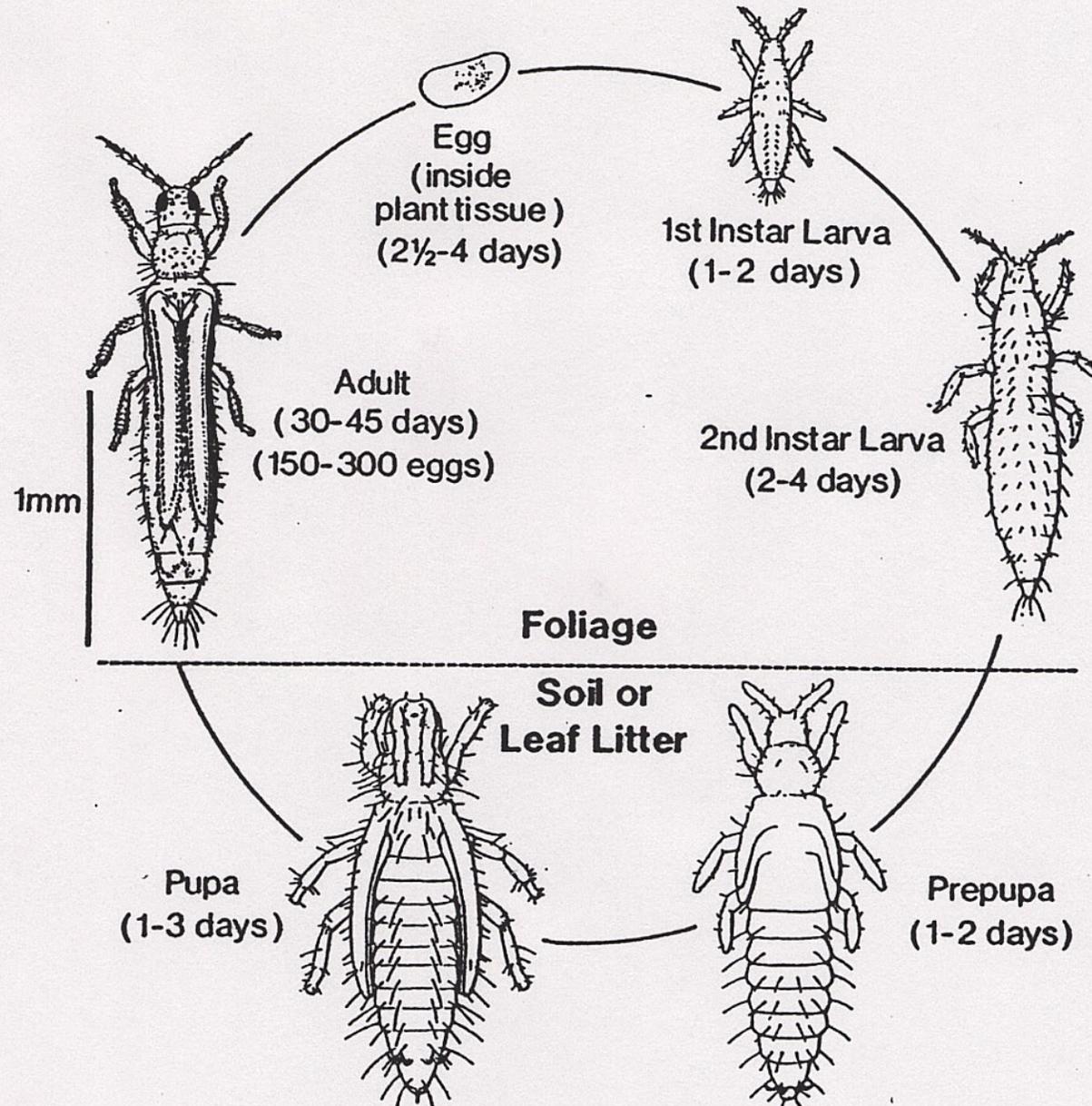
Identification characters for thrips, based on adult females



Thrips illustrations from “Simple key to important thrips pests of Canadian greenhouses”. Summerfield & Jandricic 3rd edition, 2022

<https://onfloriculture.com/simple-thrips-id-key/>

# Lifecycle of Western flower thrips



Not all thrips pupate in the soil

These are the two life stages of thrips that are most commonly seen



2nd instar



Adult

A microscopic image showing a dissected Western flower thrips egg. The egg is a small, oval, translucent structure with a distinct head and tail region. It is surrounded by green leaf tissue, which appears as a dense network of cells. The background is a dark, almost black, circular area, likely a hole in the leaf tissue. The overall image has a greenish tint.

Western flower thrips egg dissected out of leaf tissue

Incoming cuttings could have thrips eggs, even though you don't see any thrips

# Monitoring for Thrips



Use yellow sticky traps:

- Detect thrips entry
- Monitor sensitive crops/cultivars
- Measure spray effectiveness
- Monitor biocontrol program

Thrips have fringed wings



[Aggie-horticulture.tamu.edu](http://Aggie-horticulture.tamu.edu)





# Monitoring for thrips

- Use a hand lens to distinguish between a thrips and a piece of peat moss on a sticky trap. They are the same color and general size and shape.

Thrips are more attracted to blue than yellow



But yellow is best for general pest monitoring



Flower thrips  
love pollen,  
very often are  
in flowers



# Plant Taps for Thrips

# First plants to have thrips in the Spring

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- Draceanas, spikes
- Ivy geraniums (esp. Balcon types and Cascades, those with lacier leaves)  
Thrips will be found in the smallest open leaf
- Vinca vine
- Verbena
- Sweet potato vines (Ipomoea), esp. lime green ones (Margarite types)
- Scaevola
- Gerberas
- Lantanas
- Peppers

# Plants that get thrips but don't show damage right away

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- All the grey and fuzzy-leafed species:  
Ageratum, dusty miller, artemesias, helicrysums (licorice)
- Draceanas, spikes
- Vinca vines
- Thick-leafed species such as succulents, mandevillas, diplodemias  
These tough leaves don't show feeding damage as much
- *Important to check these plants because they may have thrips but not show the damage*

# Other thrips-prone plants (Not an exhaustive list!)

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- Agerathemum
- Bidens
- Dahlia
- Draceanas
- Rudbeckia
- Verbena
- Bacopa
- Chrysanthemum



Questions?