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## Aphids

Pest & Natural Enemy ID  
Greenhouse Scout School  
Session 2: Jan. 29, 2026



Entomology  
Research  
Laboratory

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# Part 2: Natural Enemy ID

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*Orius spp.*  
(Hemiptera: Anthocoridae)



de IPM Program  
agents, University of California



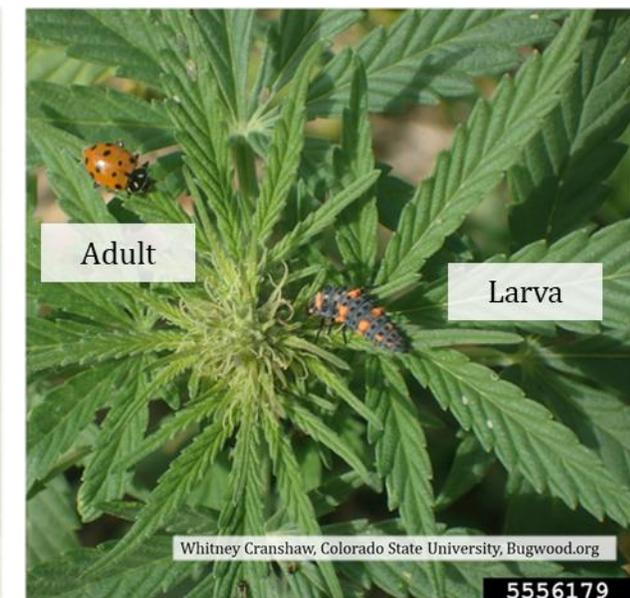
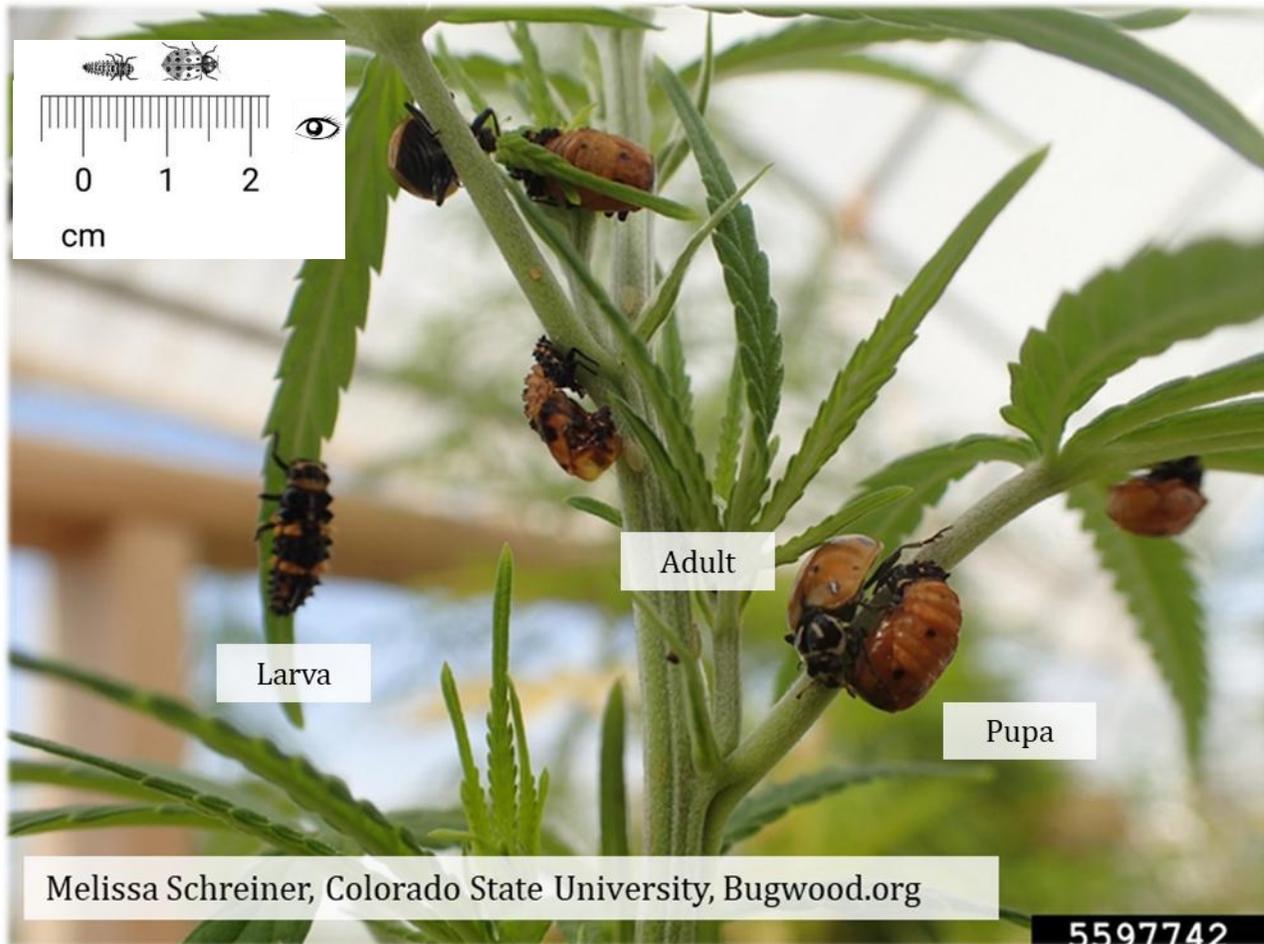
PM Project  
ts, University of California

# Lady Beetles

## *Hippodamia convergens*

### and other natural occurring spp.

(Coleoptera: Coccinellidae)

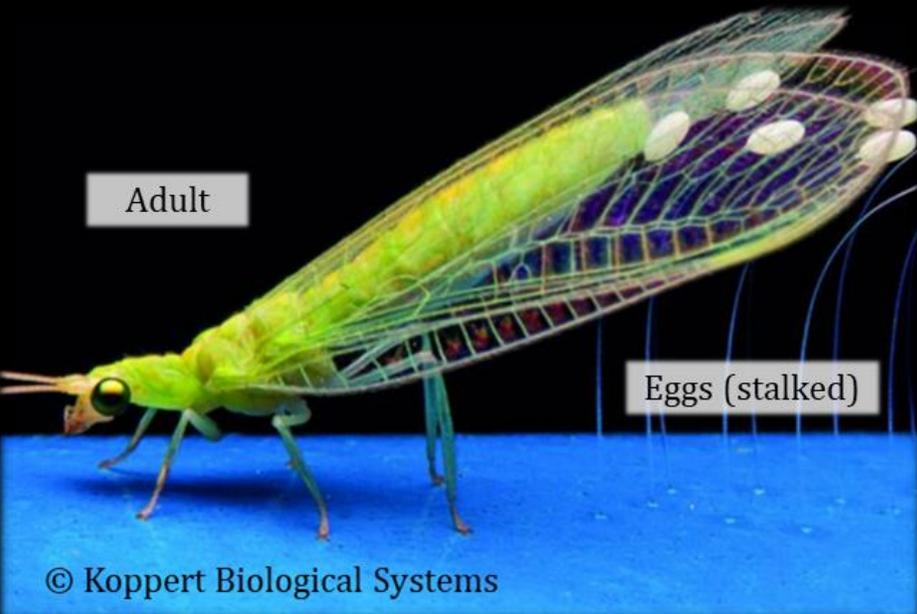




Pupa  
(silken cocoon)

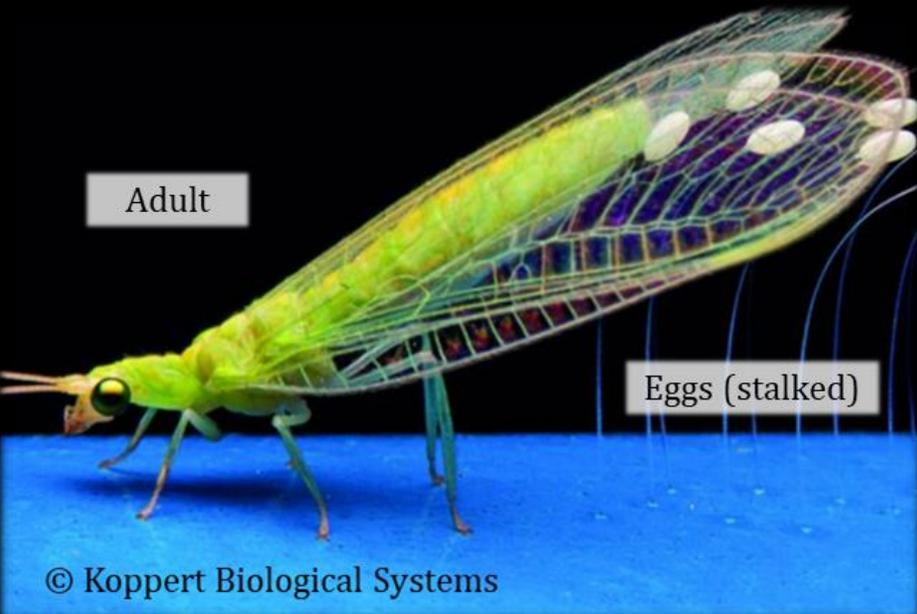
A close-up photograph of a small, light-colored, oval pupa attached to a green leaf. The pupa is encased in a silken cocoon. The leaf has a prominent vein structure.

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Adult

A photograph of an adult Green Lacewing (Chrysoperla spp.) resting on a blue surface. The insect has a bright green body and large, transparent wings with a distinct purple and blue pattern on the hindwings. Its long, segmented antennae are visible.



Eggs (stalked)

A close-up photograph of several small, white, oval eggs attached to a green leaf. The eggs are held by thin, stalk-like structures. The leaf's surface is slightly textured.

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## Green Lacewings *Chrysoperla* spp. (Neuroptera: Chrysopidae)



Larva

A photograph of a Green Lacewing larva on a green leaf. The larva is elongated, segmented, and has a brownish-orange color with darker spots. It has several pairs of legs and antennae. Other smaller larvae are visible in the background.

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**Brown Lacewings**  
*Micromus variegatus*  
(Neuroptera: Hemerobiidae)



Adult



Larvae

# Syrphid Flies (Diptera: Syrphidae)

Larva



Adult



Photo by Cheryl Frank Sullivan, Univ. of VT

Margined calligrapher  
*Toxomerus marginatus*



Adult

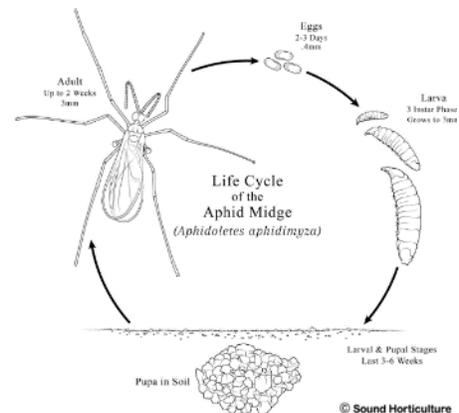
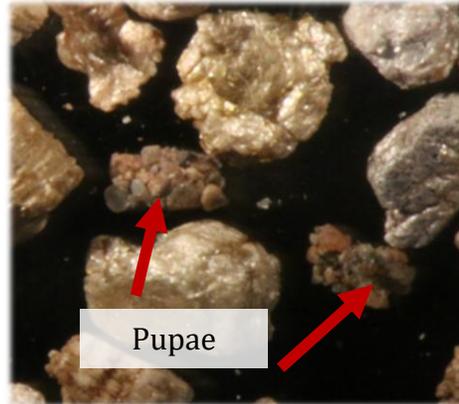
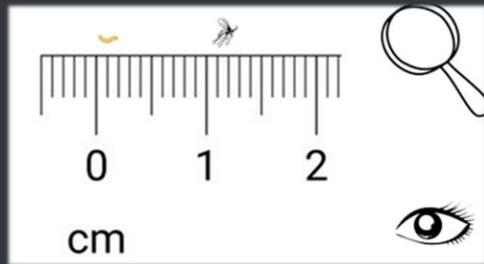
***Aphidoletes aphidimyza***  
**(Diptera: Cecidomyiidae)**



**Appearance:** Adults 2-3 mm mosquito-like with long antennae (males longer than females with longer hairs), eggs oval and orange (0.1-0.3 mm), larvae are orange maggots (2-3 mm).

**Life cycle:** 24 days at 70 °F (21°C) to complete; egg, 3 larval stages, and adults visible, pupae in soil. Larvae are predatory.

**Monitoring:** Check aphid infestations, focus on leaf undersides for eggs and larvae, adults can be caught on sticky traps.



Eggs



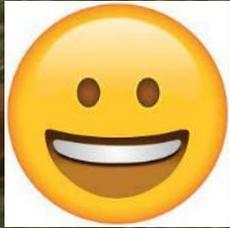
Larvae/maggots



Eggs



Larva



**Look for carcasses of aphids  
killed by *Aphidoletes***



# Aphid Parasitoids (Wasps)



**Mummies (parasitized aphids)**

# *Aphidius* spp. (Hymenoptera: Braconidae)

**Green peach & melon aphid**

*A. colemani*

**Appearance:** Adults ~ 3-5 mm long, slender, black color with long beaded antennae and constricted waist (*A. ervi* larger than *A. colemani*).

**Life cycle:** Single eggs laid in aphid nymphs, larvae develop inside feeding on aphid insides, "mummies" with pupae turn golden brown after 2-3 weeks.

**Monitoring:** Check aphid infestations, focus on leaf undersides for mummies, exit holes indicate wasp emerged. Will get caught on sticky cards.

**Green peach aphid**

*A. matricariae*

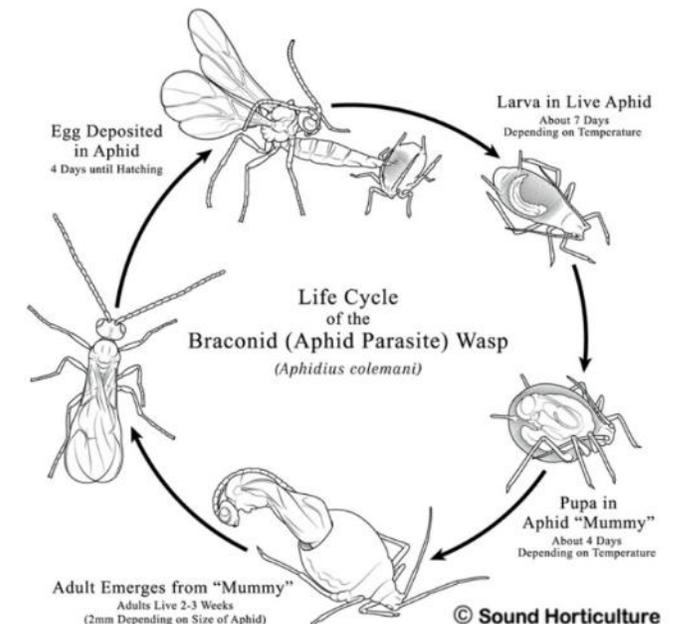
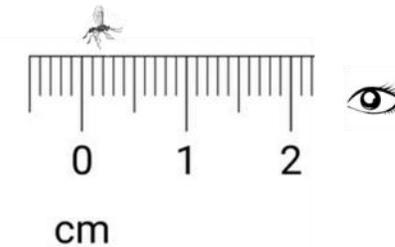


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**Potato/foxtglove**

*A. ervi*



# Aphid Banker Plants

Supports *Aphidius colemani* for green peach aphids.



Don't place card near these!



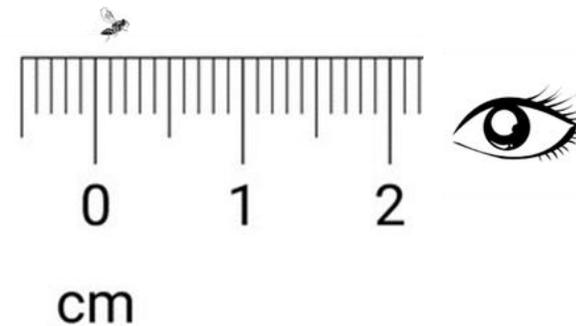
***Aphelinus abdominalis***  
**(Hymenoptera: Aphelinidae)**

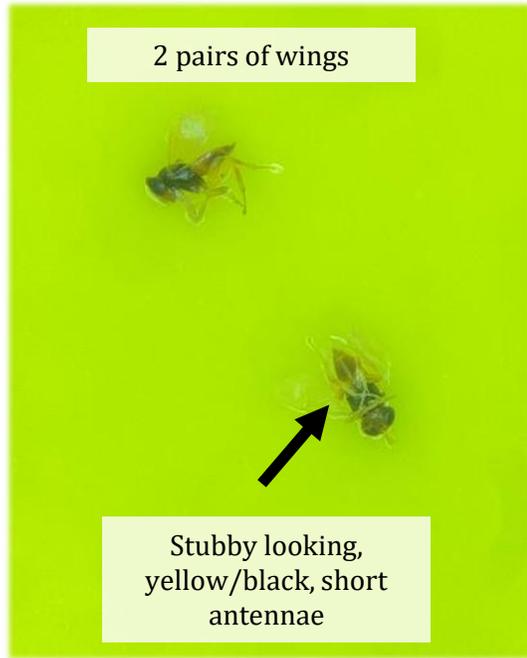
**Attacks potato/foxglove  
aphids (among others)**

**Appearance:** Adults ~ 2 mm long  
with yellow-brown abdomen and  
short antennae.

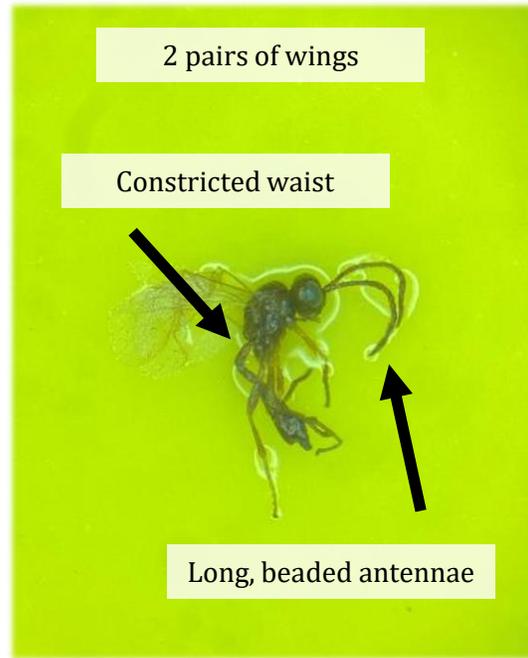
**Life cycle:** Single eggs laid in mid-  
aged aphid nymphs, mummies turn  
black after 2-3 weeks.

**Monitoring:** Check aphid  
infestations, focus on leaf  
undersides for mummies, exit  
holes indicate wasp emerged. Will  
get caught on sticky cards.

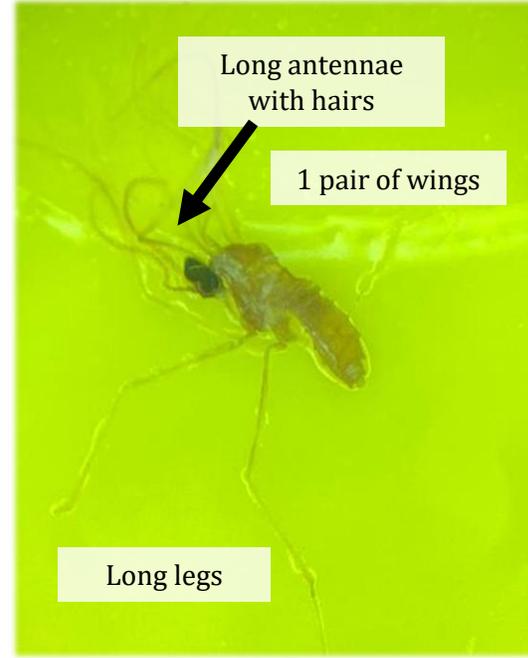




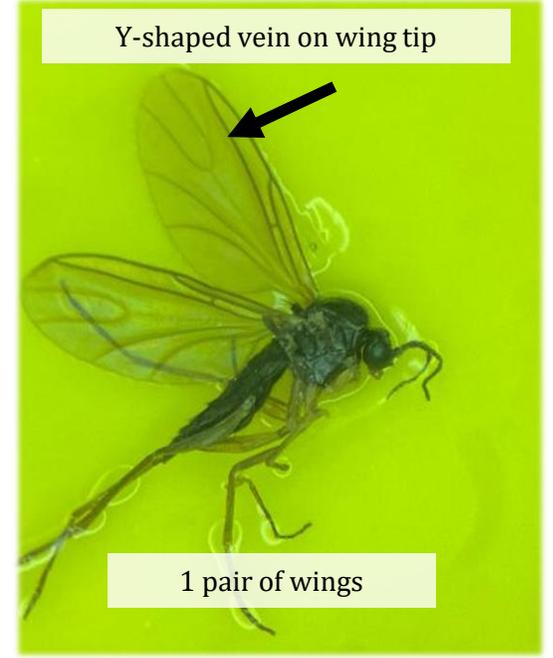
*Aphelinus* (wasp)



*Aphidius* (wasp)



*Aphidoletes* (fly)



Fungus Gnat (fly)

# Recognition Recap

Lots of syrphid flies



Winged aphids



*Orius* bug

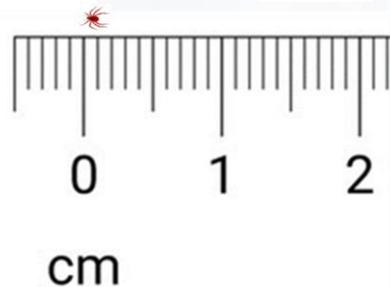


Lots of wasp parasitoids  
(*Aphidius* spp.)

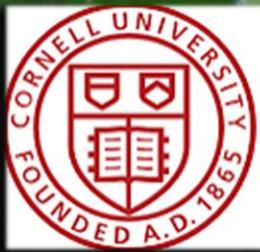


# *Anystis baccharum* (Crazee Mite)

- Has erratic searching behavior 'whirligig mite'
- Generalist (attacks aphids, thrips, mites, and more, other biocontrol agents and each other)
- "Large" red mite (~1–1.5 mm) (around 2x the size of other predatory mites commercially produced)
- Research is ongoing



# Thank You!



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