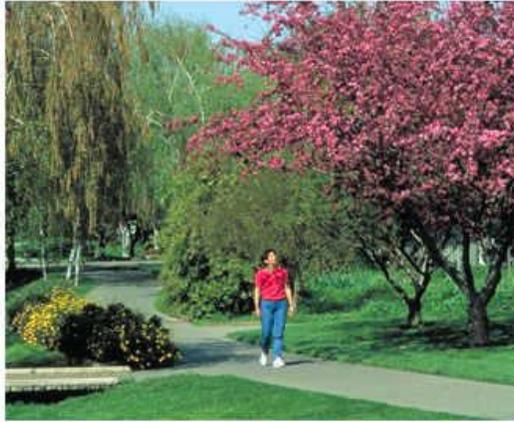


## Home, Garden, Turf & Landscape Pests



### **Garden Whodunnitts: Insect ID on the Web**

**By Mary Tran and Karen Buckland**

**UCCE Master Gardeners of El Dorado County**

It was a dark and stormy night. No, wait, it's a bright sunny day and you are inspecting your veggie garden, fruit trees, or some favorite plant in your yard. That's when you see it: a bunch of murdered leaves! So, who dunnitt?

You consider your list of causes: maybe I didn't water correctly, maybe there is a problem with the soil, or maybe a disease is spreading through my yard. But look! Right there is a bunch of insects on the damaged leaves, or maybe a single insect, or a caterpillar. Aha! What would Sherlock do now?

Sherlock would definitely find out the truth -- and you, as a good gardener, would want to make a correct identification before taking action. Why? You don't want to hurt any good guy insects that are out there defending your garden day and night (for free). If your suspect is in fact the one doing the damage, you want to use the right control method. Otherwise you might do more harm than good and still not get rid of the bad guys over the long run. You could even make the situation worse!

What to do? Get out your Sherlock hat and magnifying glass (forget the pipe), and play detective.

First, get a sample to work with. You can collect your suspect(s) in a jar or plastic baggie, or take some close-up photographs with a camera.

Second, take a good look at your sample. Is it a caterpillar or adult-form insect? How many legs does it have? What plant was it on when you found it?

Many insects are very small. For example, thrips on a leaf will look like a dusting of black pepper. You might need some kind of magnifier, such as the zoom on your camera or a magnifying glass.

Third, identify your sample. These web sites are very useful:

The “Invertebrates Menu” at the UC Davis site for Integrated Pest Management, at <http://www.ipm.ucdavis.edu/PMG/menu.invertebrate.html>.

Bugguide, hosted by Iowa State University Entomology, at <http://bugguide.net>. Click on one of the 28 “bug” silhouettes in the box at the upper left, matching your sample, then scroll down to “Identification.”

Insect identification web page of Texas A&M University, Department of Entomology, at <https://insects.tamu.edu/extension/insctans/identification/>. Click on the ID method you prefer.

Maybe the suspect is innocent and the real culprit has left the scene. These will help you recognize the good guys:

A poster called, “Meet the Beneficials—Natural Enemies of Garden Pests,” found at <http://www.ipm.ucdavis.edu/FAQ/natural-enemies-poster.pdf>.

A clickable list of insects that eat other insects (predators) or lay eggs in the bodies or larvae of other insects (parasitoids), available at <http://ipm.ucdavis.edu/PMG/NE/index.html>.

Fourth, decide what to do. If it is a good guy, just put it back or leave it alone to do its job in the garden. Otherwise, look up “best practices” for controlling it at the UC Davis site for Integrated Pest Management (<http://ipm.ucdavis.edu/PMG/menu.homegarden.html>). This site recommends methods that are both effective and do the least harm to your garden’s ecosystem.

“Quick Tips,” which are short summaries of recommendations about dealing with specific pests (<http://www.ipm.ucdavis.edu/QT/index.html>);

“Pest Notes,” which are 4-5 page summaries of the research on controlling specific insects and other pests (<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/index.html>).

Fifth, smile. You have just visited the amazing world of insects.

Although insects seem very different from us -- they breathe through holes in their bellies and can smell through their feet -- they are also a lot like us. Their muscle tissue is much like ours and their nervous system cells work much like ours. What’s more, we think alike. The shapes and colors and perfumes that attract insects to flowers are also beautiful and fragrant to us!

Insects are the most common type of animal on the planet and are essential to natural ecosystems through recycling of decaying matter and plant propagation (including pollination). They also provide food for birds, mammals, fish, and reptiles. Given their overall benefits, it seems worth

taking the time to do a little sleuthing and find the best ways to control any unwanted insect activity in our gardens.

There is no public education Master Gardener class this Saturday, June 21, 2014. UCCE Master Gardeners of El Dorado are available to answer home gardening questions at local Farmers Markets and at their office Tuesday through Friday, 9:00 a.m. to noon, by calling [\(530\) 621-5512](tel:5306215512). Walk-ins are welcome at our office, located at 311 Fair Lane in Placerville. For more information about our public education classes and activities, go to our Master Gardener website at [http://ucanr.edu/sites/EDC\\_Master\\_Gardeners/](http://ucanr.edu/sites/EDC_Master_Gardeners/). Sign up to receive our online notices and e-newsletter at <http://ucanr.edu/mgenews/>. You can also find us on Facebook.