



## Redwood Barn Nursery

1607 Fifth Street Davis, California

### 2020 Garden Turkey Awards

“I’m having a heck of a time with something eating all my lettuce!”

“I planted peas and they came up, and then they disappeared, like, overnight!”

“Something took one bite out of each of my persimmons and then knocked them to the ground!”

I share my property with lots of wildlife, and mostly we get along well. But a few of what we call ‘vertebrate pests’ can be pretty infuriating, and some of these critters find their way into town to the consternation of home gardeners in Davis. The good news is they’re easy to identify. The bad news is they are not easy to control.

Managing vertebrate pests focuses on these strategies:

- Removing food sources.
- Removing nesting sites.
- Removing habitat.
- Repellence.
- Trap and relocate (by professionals only).
- Lethal removal.
- Physical barriers.

#### Happy Thanksgiving!

In recent years wild turkeys have reached numbers in town to the point that they cause havoc just by walking through your garden.

In rural properties, natural predators and humans keep the turkey population at a reasonable balance. In town, high fecundity and low predation yields a challenge. A few dozen heavy birds with large clawed feet can do a lot of damage just by ambling through your new plantings and stopping to take dust baths.

Since “lethal removal” is out of the question in city limits, gardeners will need to rely on the other strategies, and your best bet is to focus on barriers. Make it inconvenient for the birds to eat your veggies, so they head on down the street to your neighbors.

Although turkeys can fly, more or less, they seem to prefer not to. A sturdy fence made of poultry wire at about 3- to 4-foot height will often be sufficient to get them to move along.

#### Pest of the season: White crowned sparrows

Adopting their neutral voice, Wikipedia informs us that “these birds forage on the ground or in low vegetation, but sometimes make short flights to catch flying insects. They mainly eat seeds, other plant parts and insects. In winter, they often forage in flocks.”<sup>1</sup>

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<sup>1</sup> [https://en.wikipedia.org/wiki/White-crowned\\_sparrow#cite\\_note-BNA-3](https://en.wikipedia.org/wiki/White-crowned_sparrow#cite_note-BNA-3)



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“Other plant parts” my foot. This innocuous description doesn’t do justice to their garden behavior. A more accurate description would be: rumbling in gangs, they maraud through your garden and completely annihilate young seedlings in a coordinated, systematic manner. Lettuce and peas appear to be especially popular. This is the only bird species that does significant damage in our gardens. I have never had as many complaints about white-crowned sparrows as we’ve had this fall.

They are migratory, arriving about the same time each fall (my calendar note says September 20) and leaving reliably mid-spring (April 12).

Barriers are your best strategy. They feed near the cover of bushes to be able to hide at the approach of predators, so the damage begins nearest your hedge or shrubbery.

Bird netting is not fun, as they get tangled in it. A cage-like barrier made of small-mesh wire can be set over a bed of seedlings until they’ve established after several weeks.

### **Pest of the decade: tree squirrels**

I have long battled California ground squirrels in my almond orchard. A native species, these are primarily orchard pests, although they can damage garden crops. I learned this year, for example, that they like to eat pumpkins just as they ripen.

Tree squirrels are on another level entirely.

Tree squirrels were not a problem in Davis until the 1990's. First reports of damage in gardens came in from southeast Davis and El Macero. Within a couple of years tree squirrels were throughout South Davis, then East Davis. By the mid-2000's tree squirrels were in Central and North Davis, and now damage reports come from all parts of town.

I can attest that they have spread west and south into rural areas where there is sufficient woody cover for them to breed and establish populations. As raptors and other predators increase with their territory expansion, the squirrel population will reach an equilibrium. That level depends on the extent of natural predation, amount of habitat, and number of food sources. So the damage varies from one neighborhood to another.

Gardeners have tried nearly every strategy. You can go down the checklist:

- Food sources: don’t feed any animals outside. Don’t feed the squirrels!
- Nesting sites: they are not necessarily in your yard, but likely nearby. They make nests of leaves and small branches up in trees, in overgrown tall bushes, in tree cavities, and sometimes in sheds or attics. They make multiple nests, depending on the need for cover and proximity to food sources. Good luck finding them all.
- Habitat: they like your overgrown bushes for cover. A good yard cleanup might reduce their activity.
- Trap and relocate? Nope. Illegal.
- Lethal removal: killing them is not a safe, legal, or humane option in city limits. Tree squirrels are a protected game species, so they can only be killed during squirrel hunting season. They are considered edible. (Ground squirrels are not protected. They don't taste good.)



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- Baits should not be used as they endanger pets and wildlife.
- Repellents: squirrels quickly get used to things that move or make noise. A super-soaker squirt gun with some soapy water can be somewhat effective, or at least provide a measure of satisfaction to the gardener.

So that leaves barriers.

Some gardeners surround their garden beds with posts so they can attach wire screening. It needs to go over the top of the bed.

Damage to fruit trees is infuriating. They often knock all the unripe fruit to the ground without even eating it. If you have kept your fruit trees a manageable size by summer pruning for size control, try covering them with bird netting as the fruit ripens. Or just bag some of the fruit for yourself as it is developing and hope for the best with the remainder.

A pest control pro who called in to a recent garden talk show told us his course of action. Fruit trees are pruned up to expose the trunk which is then wrapped with light aluminum flashing. The flashing is coated with Vaseline or mineral oil. Carpet tack strips are attached to the upper runners of the fence. I can't vouch for these strategies but pass them along for desperate gardeners to consider.

### Roof rats

Squirrel damage tends to be extensive, somewhat random, and occurs during the daytime -- often right in front of you, as tree squirrels habituate to humans and dogs quite readily. Limited damage occurring at night is likely from roof rats, also called tree rats. They are more fastidious, almost obsessive, in the way they feed. I have found kumquats neatly peeled underneath my tree (the peel is sweet, and the flesh of the kumquat is tart, so they just ate the peel). On a nearby navel orange, an occasional fruit will be carefully hollowed out, leaving just the peel. Damage to orchard fruit is often limited to the trees at the wilder end.

Roof rats can move through your yard without ever touching the ground. Moving with great agility from roof to fence to tree to power wires, they scurry rapidly when they are exposed to the open sky (and owls) at night. Pruning shrubs and trees away from the fence can help. Most people find they can tolerate the small amount of damage from roof rats. Increasing the number of owl boxes in an area could be a community project to help reduce the rat population.

Other mammals that cause occasional problems include opossums, raccoons, and skunks. In general these do transient damage, although they will revisit yards that have ongoing food sources. Skunks may dig in your lawn, looking for grubs. On the plus side, they also eat snails. As my mother often said, you leave them alone and they'll leave you alone.

### What kind of barrier keeps animals out?

At the hardware or feed store you will find an array of wire mesh products. For most purposes a denser mesh will be necessary. "Hardware cloth rolled fencing" is the rather odd name for a dense-woven wire metal product that is sturdy yet malleable enough to simply fold and bend



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into a protective cover. It also is sturdy enough to use as an underground barrier against pocket gophers. But that is a whole 'nother column someday.

### **Invertebrate Pest of the Year**

In terms of the sheer number brought in for ID, leaf-footed bugs are the pest of the year. They are readily identified by the wing-like or leaf-like appendage on the rear legs.

Notable for their size and odd appearance, they tend to gather (aggregate) as adults particularly as the weather is getting colder. People are often startled to find them crowded on pomegranate fruits, or on south- or west- facing walls, sometimes in large numbers. Younger ones (instars) are different colors than the adults.

This is a native insect that has moved happily onto cultivated crops. They do some barely noticeable damage to soft fruit such as tomatoes and peaches, not enough to worry about.

They can cause some of your pomegranates to rot due to injecting spoilage organisms as they feed, but ordinarily you have many unaffected fruit as well. Leaf-footed bugs do significant economic harm to almonds.

They overwinter as adults, in a lot of places. One preferred site is inside the pomegranate fruit that you didn't pick that hangs on the tree until spring. Cleaning those up in late fall can reduce populations. They are an increasing pest in much of California. The vast increases in orchard acreage are probably partly to blame, and warmer winters will likely extend the range and numbers.

There are no pesticides that you would want to use that give effective control (farmers do have some options). In a garden with sufficient diversity of wildlife, they won't build up to damaging numbers. Scrub jays and mockingbirds feed on them, and those birds are easy to encourage.

Large aggregations can be knocked into a bucket of soapy water or sucked into a shop vacuum (seal a plastic bag over the end before you put it back in your garage...).

Most important, it seems (based on the conversations I have with people encountering them for the first time): they don't bite, they don't spread diseases, and they don't do that much damage in the garden. Live and let live. If you squish one, you will quickly understand why they are in the category of true bugs that we call 'stink bugs'.

Many companies that provide household pest control also provide services for dealing with bird and mammal pests. The UCANR website provides additional control strategies:

<http://ipm.ucanr.edu/>



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[http://redwoodbarn.com/images/DE\\_garden%20turkeys/TurkeyHenDetail.jpg](http://redwoodbarn.com/images/DE_garden%20turkeys/TurkeyHenDetail.jpg)

Davis achieved nationwide fame (again) for a large tom turkey that harassed people in the downtown area until it was, um, lethally removed. The increasing numbers in flocks locally can cause problems for area gardeners. Photo by Greg Hume, Wikimedia Commons.



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[http://redwoodbarn.com/images/DE\\_garden%20turkeys/White-crowned\\_sparrow\\_perched\\_at\\_Llano\\_Seco.jpg](http://redwoodbarn.com/images/DE_garden%20turkeys/White-crowned_sparrow_perched_at_Llano_Seco.jpg)

White-crowned sparrows are migratory songbirds that arrive in our area in fall, eat lots of baby vegetable plants in your garden, and then leave in April. Photo by Frank Schulenberg, Wikimedia Commons.



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[http://redwoodbarn.com/images/DE\\_garden%20turkeys/Baby squirrel in tree 2.jpg](http://redwoodbarn.com/images/DE_garden%20turkeys/Baby_squirrel_in_tree_2.jpg)

Tree squirrels are relative newcomers to the Davis region, and are not native here. They can do a lot of damage in vegetable gardens and family orchards. Photo by Dan Leveille, Wikimedia Commons.



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[http://redwoodbarn.com/images/DE\\_garden%20turkeys/leaffooted%20bug%20nymphs%2C%20just%20hatched.jpg](http://redwoodbarn.com/images/DE_garden%20turkeys/leaffooted%20bug%20nymphs%2C%20just%20hatched.jpg)

Leaf-footed bugs are native insects that feed on crops, sometimes including fruits and nuts in our home gardens. They are sometimes found in large aggregations, and especially like pomegranates, but damage is usually limited. They can be drowned in soapy water or vacuumed up. Photo by Don Shor.



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[http://redwoodbarn.com/images/DE\\_garden%20turkeys/Leaffooted%20bugs%20on%20pomegranate.jpg](http://redwoodbarn.com/images/DE_garden%20turkeys/Leaffooted%20bugs%20on%20pomegranate.jpg)

The larvae of leaf-footed bugs have different coloration than the adults, and the leaf-like appendage is not as noticeable on the rear leg.