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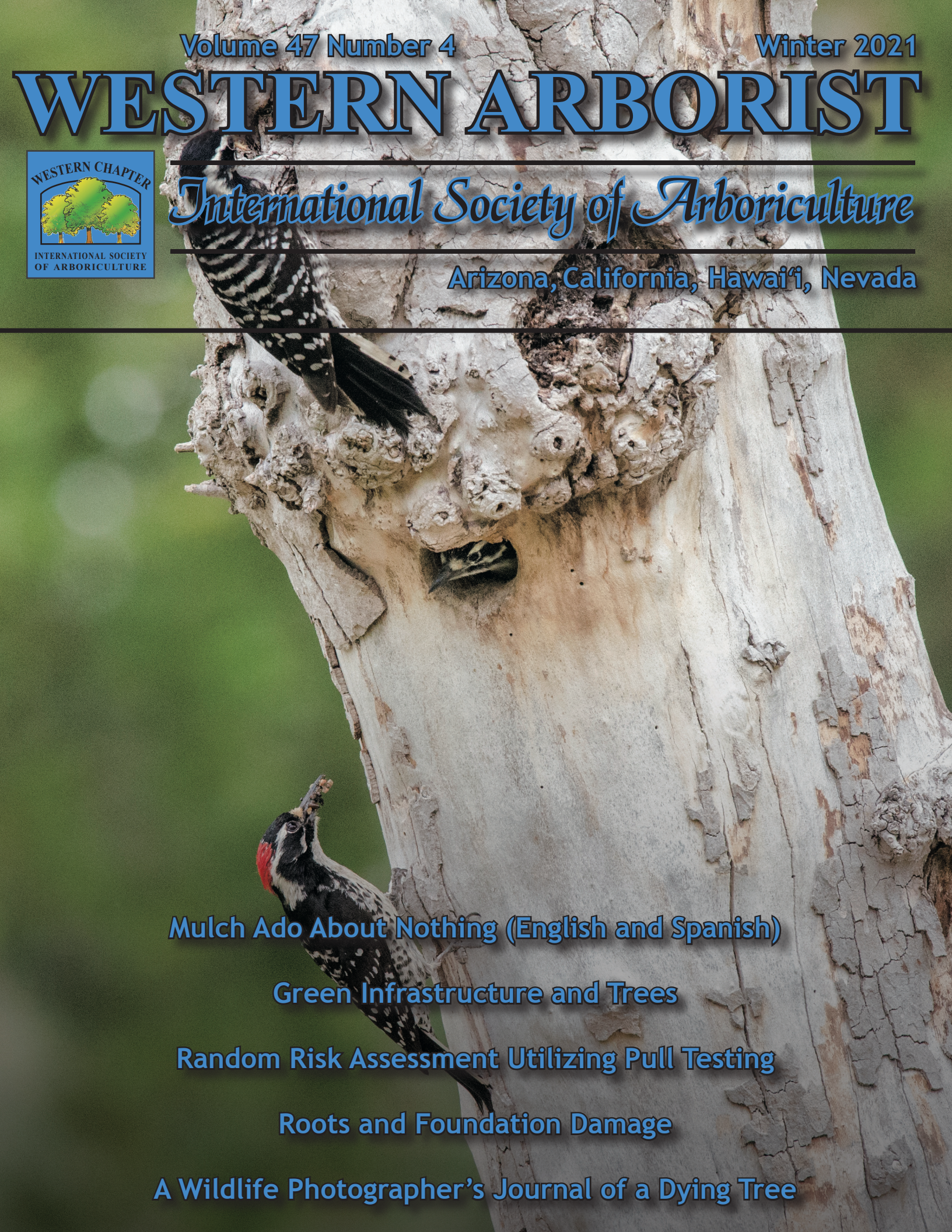

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A Wildlife Photographer's Journal of a Dying Tree

A Wildlife Photographer's Journal of a Dying Tree

Gillian Martin

All photos courtesy of Peggy Honda, except where noted otherwise

It's been five years since wildlife photographer Peggy Honda recorded the life of a dying sycamore in southern California. She did so over the period of a year. The tree stood at the perimeter of an urban park where park staff considered its risk tolerable. 'Pitiful' would describe it. A normal eye would view it as useless and dismiss it immediately. But Peggy's alertness for wildlife told her the tree promised a story. One that delights the heart. One that lures the good in us, I think. One that reveals that in nature, nothing is superfluous. She has generously allowed me to narrate it.

Before I do, I'd like to share the tree's unexpected legacy after it failed one night a few months after these photos were taken. Peggy and I saw some purpose to it still, so we assisted the ranger in identifying and saving segments which bore evidence of its service to wildlife (Figure 1). The ranger was pleased to demonstrate to park visitors that a dead tree is anything but useless. Perhaps youngsters might be enticed to observe other dying trees for signs of wildlife? We hoped so.

The tree's remains contain hieroglyphs of the story we now begin.

This is a tree where Western bluebirds (*Sialia mexicana*) are preparing a nursery. They are inheriting a nest cavity (Figure 2) excavated the year before by a Nuttall's woodpecker (*Picoides nuttalli*). This time the woodpecker has prepared a new home just below (Figure 3). The bluebird tenants are unaware of their cavity's dramatic history. The year before, a European starling (*Sturnus vulgaris*) attempted to usurp it from the woodpeckers while they were caring for their young. A serious battle ensued. For a time the two thrashed it out on the ground. The male woodpecker triumphed, however. He was able to escape back into the cavity (with the starling still in pursuit), but he turned around in time to block the hole entrance and deliver a persuasive poke to its belly (Figure 4). Ouch!

Figure 1.

Figure 2.

Figure 3.

Figure 4.

Since their young have hatched, bluebird and woodpecker parents are working extra hours (Figures 5-6). To deliver enough insect meals, they foray in all directions in relay fashion. Bluebird parents shop on the wide expanse of lawn. The woodpecker parents invest most of their efforts gleaning and probing bark (Figure 7). Between mealtimes, they take out the trash—eggshells and fecal sacks (Figure 8). Not just outside the door, but some distance away. Parents want to keep the nest and young clean but also reduce scents that might attract pests and predators. To some wildlife, however, eggshells aren't trash. They are a calcium supplement.

Raising a family is a big investment, so parents become increasingly protective of their nests. The bluebird adults decide that the woodpeckers' home is just too close for comfort. They launch an attack whenever the parents come and go (Figure 9). Timing meal deliveries becomes a game of cat and mouse. Each woodpecker parent waits undercover in a nearby tree (Figure 10). Then, when the bluebirds appear preoccupied, it's a mad dash home with the groceries.

A downy woodpecker (*Picoides pubescens*) stops by (Figure 11). Perhaps she decides the tree's occupants won't tolerate another competitor because she soon leaves. And oh yes! There's the matter of crows. They are numerous and bold. And they have kids to feed too. Chicks chirping in a cavity is a dinner bell to a crow! Luckily the crow is investigating a vacant cavity made earlier by woodpeckers. (Figure 12). It soon flies off, but crows remain on the parents' radar.

Here's a bluebird nestling who is now able to climb the walls of its home and peer out its front door (Figure 13). Hunger is a motivator. It begs in high decibels "Feed me now! Feed me first!" While

Figure 5.

Figure 6.

Figure 7.

Figure 8.

Figure 9.

Figure 10.

Figure 11.

Figure 12.

Figure 13.

Figure 14.

Figure 15.

Figure 16.

Figure 17.

calling for mom and dad, the youngster becomes acquainted with neighbors passing by, including an Anna's hummingbird (*Calypte anna*; Figure 14) and a black phoebe (*Sayornis nigricans*). The phoebe pauses to make sense of the hungry mouth turned in its direction. The nestling soon learns that not every feathered flyer delivers a meal (Figure 15).

Suddenly its attention is drawn to a racket higher in the tree. A young family of northern rough-winged swallows (*Stelgidopteryx serripennis*) is also begging to be fed (Figure 16). The tree's bare limb provides a good location for a food line. And here comes a carpenter bee (*Xylocopa* sp.; Figure 17). She's tunneling her nest in the decayed wood just above the cavity (Figure 18). She disappears through her nickel-size front door before the phoebe can make a meal of her.

Though we do not see it, a spider has strung its web across one of many knotholes in the tree. But not even this silent, mind-your-own-business creature escapes the attention of shoppers! The hummingbird is foraging for insects and spider silk to weave into her nest (Figure 19).

All quarrels and labors naturally come to rest at dusk, and this is when the sounds of the night slip into the birds' chambers. Distant cars. Crickets. Coyotes. Owls. The baby birds are learning these sounds are no cause for concern. They're likely unaware that a resident great horned owl (*Bubo virginianus*) uses their tree as a night perch. Note the evidence at the base of the tree: an owl pellet (Figure 20). The owl's gizzard works like a trash compactor, allowing the owl to regurgitate indigestible parts of prey such as bones, teeth, fur and feathers. 'Trash day' might be every day to the owl, but what's trash to the night hooter may be a calling card to decomposers, and a source of calcium to detrivores.

Oh we missed the big day! Bluebirds have recently left their nest; they are about three weeks old now. Their first flight is usually timed for only the family to witness. It is a fast, frantic test of uncertain wings driven by instinct and the urging of mom and dad. Their first landing is among a lacy curtain of leaves in a nearby tree. The tree's mottled light and the birds' unfinished feathers conveniently deceive potential predators. It's just the place to hide

Figure 18. *Photo courtesy of Kim Venhuizen*

Figure 19.

Figure 20. *Photo by Gillian Martin*

Figure 21.

Figure 22.

and keep an eye out for mom and dad (Figure 21). And it's the perfect spot to be fed, at least initially. About a week later the bluebirds' closest neighbors, the immature Nuttall's woodpeckers, fledge as well (Figure 22). They soon follow their parents to be fed and to learn the many nooks and crannies where insects can be found (Figure 23).

When flight muscles are stronger and it's safer to spend more time in the open, one bluebird fledgling returns to the dead tree hoping for a meal delivery. The unobstructed view provided by its bare branches is helpful for loudly proclaiming its hunger and attracting a parent's attention. Look at mom's agility when feeding this youngster! A house finch (*Carpodacus mexicanus*) who's perched nearby looks on with curiosity (Figure 24).

Tough days lie ahead. When bluebird and woodpecker fledglings are self-reliant, they will be chased from their parents' territory. A few weeks later the adult bluebirds begin to raise another family in the same cavity. An immature son helps mom and dad feed their second brood (Figure 25). There's a payoff. He's allowed access to the food resources in their territory for a while longer. If he makes it through the winter, next spring he will search for a suitable territory and of course compete for a heathy female. If he doesn't locate a tree cavity, he will not breed. We wish we knew his fate and that of his woodpecker neighbors; but this chapter in their story ends here. The rest is told by those who track population trends. Meanwhile, let's consider another relevant trend.

As arborists know, tolerable risk where trees are concerned is justifiably low around human development. Conservative assessments save lives, protect property, and reduce cost of liability. Of course, in other locations such as natural areas and large private properties, risk tolerance may be higher. In locations where habitat quality is at least reasonably good, intolerance of dead trees or even dead limbs in living trees decreases species diversity in two ways. First, it reduces the presence of species that may require dead or dying trees, and secondly, it reduces the ecosystem services those species and the tree provide. Risk intolerance also stifles ingenuity because it discourages debate, creative and visionary thinking, and possibly, acceptable alternatives to removal.

When I observe this incremental but steady trend, the words of deceased author and marine biologist Rachel Carson drift over me like ash: "…the tides

Figure 23.

Figure 24.

affect the whole ocean, from its surface to its floor." No additional dying trees have been retained in the location of our story, or other parks I monitor, except for one. When I visit these still-vacant spaces, my eyes and ears reach unsuccessfully for the lives that once were there. What comes to me instead is that in the natural world around us, so much of what's steadily slipping away is as unseen as vapor released from leaves.

Does the tree or dead limb need to be removed completely? This is one question we might consider more frequently. Of course, 'right tree, right place' applies to retaining dead trees as well. Because there are many complexities and considerations in this process, the Tree Care for Birds and other Wildlife program (TreeCareforBirds.com) has developed three resources that offer practical guidance for making such decisions. We consider this a worthy challenge in the interest of urban forest health and diversity.

I'd like to return to our photographer, Peggy Honda, and share this about her: she strives to earn the trust of her subjects so that her knowledge of them is intimate. Intuitively she knows how to make her prolonged and recurring visits acceptable. She stays outside their buffer zone, remains quiet and low, and wears subdued colors. Her concern for wildlife is deep and compassionate. Her images invite a sense of wonder by calling forward the primordial genius of life's origins and adaptations. Her images are also her joy, sometimes her grief, and always her hope. It has been an honor to support her hope.

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Figure 25.

shoulder during this sorrowful time." In some unconscious way I've known all along that a mourning dove's quiet, dependable presence makes it a comforting companion, a symbol of peace. What better bird for this purpose than one which is generally tranquil and is feathered in the hopeful hues of soil? I am not alone in this impression because images of doves are often on sympathy cards and historically on postage stamps, carved in human structures and on gravestones.

Would I notice if the mourning dove was no longer abundant? I would miss their assembly on powerlines. I know them by their relatively small heads, square shoulders and long, tapered tails. I would miss them at my bird bath at dawn and dusk, and on my backyard fence where mated pairs end the day by preening each other's necks. I'd miss the way they face the receeding, light-blazed west until their identities are lost in their deepening silhouettes.

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Arborist Soapbox: Trees are not Sailboats

Alison Lancaster

By no means do I claim to be an expert on this topic. In fact, I most likely have seen the same limited evidence as anyone else reading this article. These are purely my informed and observational musings on trees and wind.

Many of us have been to a client's house and seen their overpruned trees, and maybe we've asked them who did the pruning and why, and sometimes their response is that the pruning guy thinned the trees "for wind". The common conception is that trees are windsails that catch the wind in their canopies, similar to how a sailboat catches wind, and are therefore more likely to fail in wind events if they have full canopies. If this were true, then it makes perfect sense to open the canopy, similar to poking a hole in a sail, and allow the wind to pass through rather than being caught.

But trees are not like sailboats– they are more like cars (stationary cars, I guess). In general, the shape of a tree and the movement of its leaves are intended to dampen the wind and direct it around the canopy, similar to how air flows around the body of a car.

And how do you make a car more aerodynamic? Do you open the windows and allow the air to pass through the car? Certainly not! Opening the windows increases the surface area of the car, thereby increasing wind drag. No, you would make the car smaller to decrease surface area and wind drag.

The same concept applies to tree canopies - if you open a tree canopy with thinning, you expose the interior branches, increase the canopy's surface area and wind drag, and make whole tree or branch failure more likely.

But if you make the canopy smaller instead (from the outside in), you decrease the canopy's surface area and wind drag, and achieve the goal of making whole tree or branch failure less likely.

So next time someone asks you about trees and wind, let them know that trees are aerodynamic organisms, not sailboats. Think smaller, not thinned.

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