Humans and pets aren’t the only animals who can lose their homes to the wildfires blazing through Southern California each year. As flames ravage habitats in the mountains and arid grasslands, the birds around Herman Paulk’s hilltop residence in San Bernardino start looking for new food sources.

The 80-year-old avian enthusiast is happy to oblige, sprinkling food in shallow holes he digs around his yard to keep the seeds from blowing away in the high winds. When the weather calms, he fills the nearly 20 feeders on his property with a smorgasbord of treats.

The buffet attracts new friends to Paulk’s yard, as he discovered after a particularly devastating fire in 2003. “Right away we noticed a large number of California quail visiting around the base of our feeders, and California thrashers,” he says.

Paulk has recorded visits from 87 species—including loggerhead shrikes, California towhees, and Western meadowlarks—and has taken thousands of photos over the years. “When we eat meals, we are right in front of our sliding glass door, and I keep binoculars and my camera close by,” he says.

More than 50 million Americans share Paulk’s enthusiasm for feeding birds, gaining hours of visual pleasure and a connection to the natural world. Many are also motivated by a desire to help the animals cope with threats to their survival, and setting out a meal for hungry creatures seems like an obvious good deed.

But there’s more to feeding birds than hanging a few platforms on shepherd hooks and filling them with seed, and some wildlife specialists have voiced concerns that the practice may make animals dependent on handouts, spread disease, and skew migration patterns.

Fortunately for dedicated feeders and the objects of their affection, most experts agree that, done correctly, bird feeding doesn’t harm the birds and may even benefit certain species.

While nearly a third of the nation’s more than 900 nesting bird species are endangered, threatened, or in significant decline, those that routinely visit feeders are stable or growing, says ornithologist David Bonter of the Cornell Lab of Ornithology. And the ranges of feeder regulars such as tufted titmice, Carolina wrens, Northern cardinals, and red-bellied woodpeckers are expanding. “When you look at it at that level, it’s a good sign that feeding doesn’t hurt,” Bonter says.

Feeding also changes people’s attitudes toward nature, as Bonter has seen through his work with Cornell’s Project FeederWatch, a volunteer-based survey of birds in North America. “We get a lot of comments from FeederWatch participants who, after becoming acquainted with the birds visiting their yard, begin taking steps to create a more bird-friendly environment, like reducing their lawn, growing native fruit-bearing shrubs, and not having their lawn sprayed with chemicals twice a year,” Bonter says.

By following some basic tenets, you can provide a healthy environment for the animals who grace you with their company—and ensure that your winged pals aren’t harmed by your generosity.
SAFETY ALERT
The sharp increase in birds visiting Paulk’s property after the 2003 fire also brought more predators. The little Japanese pine and woodpile atop the dusty knoll where Paulk lives provide meager protection against the sharp-shinned hawks, roadrunners, Cooper’s hawks, and American kestrels ready to pounce on unsuspecting diners.

Predation by raptors and cats is indeed a major concern when feeding, and safety begins with enabling birds to escape such dangers. "If you have exposed bird feeders in the middle of a big open lawn," says Bonter, "the birds become an easy target for aerial predators."

Place feeders 15 feet away from trees, shrubs, or brush piles so birds can take cover but predators aren't close enough to launch a sneak attack. If predation becomes a problem, Bonter suggests putting the feeders away until the predators move on.

Feeders can also place birds at greater risk of slamming into windows, a serious threat that kills or injures millions each year. To cut down on window strikes, place feeders less than 3 feet or more than 30 feet away from windows. Static cling decals, some of which glow in the ultraviolet range, or strips of Mylar tape can help break up reflections. Other options include adding screens several inches outside window panes to soften the impact of collisions.

Keep confrontations between birds to a minimum by providing enough feeders to accommodate everyone and allowing ample space between feeding stations in case more aggressive birds—such as grackles, cowbirds, sparrows, and crows—swoop in for a bite. You can also separate the seed to appeal to different palates instead of serving mixes, and you can add feeders designed to discourage pushy types from perching.

The congregation of large numbers of birds at feeders can encourage the spread of disease. Birds who use tube feeders are more prone to conjunctivitis, an increasingly common illness among finches that causes red, runny, or crusty eyes. Salmonellosis, a common cause of death for feeder birds, results in a thin, fluffed-up, or lethargic appearance, while avian pox produces lesions on the unfeathered parts of a bird’s body. Moldy seed can host the aspergillus fungus, which causes serious respiratory disease in birds, with symptoms including emaciation and labored breathing or walking.

To prevent such diseases, Bonter recommends cleaning feeders every two weeks. Soak them in one part bleach to 10 parts warm water for two to three minutes, scrub, and rinse. This method works well with plastic feeders, but not wood, which tends to hold moisture and develop mold.

Bonter also moves his feeders around the yard to prevent the buildup of bird droppings and seed hulls underneath, which creates a breeding ground for bacteria, mold, and disease. Raking the ground every few days and scooping up the waste helps, too.

SEASONAL DIFFERENCES
Most ornithologists agree that feeding during spring and fall migrations won’t cause birds to stick around for weather they’re not equipped to endure. Rather, migration is triggered by amount of daylight
and hormonal changes, says Chip Clouse, outreach coordinator for the American Birding Association.

Supplemental feeding can help during the lean days of winter through early spring, when berries and seeds are difficult to find and insects are dead or dormant. Resident species such as chickadees, nuthatches, and cardinals may especially benefit from assistance. Many of these birds need fat reserves to survive colder temperatures, and foods such as black oil sunflower seeds, peanuts, chopped fruit, niger thistle, and white proso millet can provide extra calories.

But be careful: If you live in a rural area with no other feeder in the vicinity, keep in mind that birds may depend on your handouts during winter emergencies, such as blizzards or ice storms. Just three days of a severe cold snap can kill a feeder-dependent chickadee, who derives as much as 4 percent of his body fat from eating sunflower seeds in lieu of conifer seeds and berries. So if you leave town, have someone fill the feeders in your absence.

Sometimes the birds themselves should have left town long ago, but instead stayed behind for the winter due to injuries or off-kilter internal migratory mechanisms. Feeders can help these stragglers, as Connie Kogler of Loveland, Colo., learned in 2007 while hosting an unexpected guest: a streak-backed oriole. Members of this Mexican species rarely wander so far north of their native range. Kogler fed the bird peanuts, jelly, suet pellets, and mealworms to fatten her up enough to survive nighttime temperatures below zero. Named Pedro Maria for her Mexican heritage, the oriole hung around for 26 days.

While cold weather means slim pickings, late spring, summer, and fall are the seasons of plenty; feeding during these times is not necessary. Trees bear fruit, shrubs blossom with flowers and berries, and grasses and other plants go to seed.

“During summer, you’ll naturally have fewer birds visiting your feeders because almost all the birds switch over to an insect-based diet,” Bonter says, explaining that chicks need more protein from insects in order to grow healthy and strong. If you want to keep a few feeders for wildlife viewing, avoid foods such as suet and peanuts, which can quickly go rancid in the heat. In warm weather, seed is more prone to grow mold if exposed to moisture or not eaten quickly.

Regardless of the season, provide high-quality foods and fresh water when catering to the avian palate. Avoid bargain blends found in grocery and hardware stores, which often contain filler seed; to save money, you can buy seed in bulk from feed stores. And keep fresh seed in feeders, since moldy seed can cause disease.

By serving up appropriate foods in a clean and safe environment, you’ll have the satisfaction of watching your feathered guests thrive throughout the seasons.

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Celebrate the Season

**Turkeys will be an integral part** of Diane Miller’s Thanksgiving celebration this year, but not as the centerpiece of her holiday feast. Instead, the director of the Cleveland Amory Black Beauty Ranch plans to spend the day with 16 fortunate birds at the 1,250-acre sanctuary run by The HSUS and its partner organization, The Fund for Animals.

Since January 2008, the rescued animals have lived in and around a safe barn with room to roam, their new digs a far cry from their previous existence, when they lived among 84 turkeys crammed into a 20-foot-by-20-foot cage that was part of a rundown pony ride business in north Texas. Like a lot of turkeys raised without socialization or good care, this tight flock prefers the company of its own kind. “So beyond providing for their care and well-being, we just let them be,” says Miller.

For Miller and other animal lovers, the holidays can be bittersweet. But cookbook authors Isa Chandra Moskowitz and Terry Hope Romero are helping to turn the season into a time of celebration—by introducing more people to the pleasures of meat-free meals.

“I love the flavors of autumn; it’s really my favorite time to cook,” says Moskowitz, who counts a creamy green bean casserole among her can’t-miss sides. “I’ve been to Thanksgivings where people were serving turkey, but I bring a lot of my own dishes and share them. More often than not, people are more into my stuffing or my chickpea dish, or my salads or my mushroom casserole.”

For Romero, stuffing is the highlight. She created this onion and butternut roast to satisfy her craving while including a variety of holiday tastes. “Things like chestnuts and the butternut squash totally scream holiday food,” Romero says. “And I know when it comes to Thanksgiving, what people really want to eat is the stuffing. [This dish is like] stuffing with a whole meal going on.” — Andy MacAlpine

### Caramelized Onion-Butternut Roast with Chestnuts — Serves 6 to 8

*From Veganomicon: The Ultimate Vegan Cookbook by Isa Chandra Moskowitz and Terry Hope Romero (2007)*

**Casserole**

1 pound onions, peeled and sliced thinly
1/3 cup olive oil
1 pound chestnuts, fresh in the shell or frozen/jarred and pre-peeled
2 pounds butternut squash (1 medium-size squash), peeled and cut into 1/2-inch cubes
1 15-ounce can white beans, such as cannellini or navy, drained and rinsed, or a 10-ounce package of prepared baby lima beans
2 teaspoons dried thyme
1 ½ teaspoons ground coriander
½ teaspoon freshly grated nutmeg
1 ½ teaspoons salt, or to taste
Freshly cracked pepper
½ cup vegetable broth

**Crumb topping**

½ cup dry white bread crumbs
2 tablespoons olive oil
½ teaspoon dried rubbed sage
Pinch of ground cayenne
½ teaspoon salt, or to taste
Freshly cracked pepper

1. Preheat oven to 375° F.
2. **PREPARE THE CASEROLE:** Place the onions and olive oil in a 9-by-13-inch baking dish, tossing to coat the onions with oil.
3. Bake for about 30 minutes, stirring three or four times with a wooden spatula, until the onions are browned and sizzling. Remove from oven and set aside.
4. While onions are roasting, prepare whole, unpeeled chestnuts by making a small slit in the shell of each nut. Place the chestnuts onto a rimmed baking sheet and roast for 25 minutes at 425° F. Remove from oven and place chestnuts in a towel. Let them cool a bit, then tightly wrap the chestnuts and crush them to loosen their shells. Open the towel and peel. (If using pre-peeled chestnuts, skip this step and thaw if frozen, drain if jarred.) Coarsely chop peeled or thawed chestnuts and add to pan with roasted onions.
5. Add the diced butternut squash, white beans, thyme, coriander, nutmeg, salt, pepper, and broth to the baking pan, stirring so the chestnuts, squash, and beans are well coated. Tightly cover the baking pan with aluminum foil and bake for 35–45 minutes at 375° F, until the squash and chestnuts are tender.
6. **PREPARE THE CRUMBS:** Toss together the bread crumbs, oil, and sage in a bowl. Season to taste with salt, pepper, and cayenne. Remove the foil from the baking pan, top with the crumb mixture, and bake for another 15 minutes, until the top is lightly browned. Serve with cranberry sauce and Brussels sprouts and enjoy!

This dish is best made with fresh chestnuts when they are in prime season, between October and January. During other times of year or to reduce prep time, use pre-peeled, frozen, or jarred chestnuts available during the fall and winter months.

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