



Trees are for the Birds — or Should Be

**TREE CITY USA®
BULLETIN**

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“Speaking of trees without mentioning birds is akin to speaking about human architecture without mentioning its purpose and occupants,” said Gillian Martin, an Arbor Day Foundation member and advocate for bird protection. Bird habitat should definitely be listed among the myriad benefits trees provide. Birds are an essential component of a sustainable landscape — and they are in serious trouble.

It is not often that nature makes headlines in the mass media. But that is exactly what happened last year after *Science* magazine reported on the findings of Dr. Ken Rosenberg, applied conservation scientist at the Cornell Laboratory of Ornithology. Dr. Rosenberg and his team of experts sent a shock wave through the world of ecologists by revealing that wild bird populations in the U.S. and Canada have declined by almost 30% since 1970. This represents a loss of

2.9 billion breeding adult birds. Dr. Rosenberg pointed out that in less than a single human lifetime, we’ve lost almost a third of our birds.

As bleak as this picture may be, it is one that can be changed, and trees — and the people who work with them and those who appreciate them — can play a large part. In this issue of Tree City USA Bulletin, we present some ideas about how you can help.

WHAT BIRDS DO FOR US

Birds provide enormous pleasure for those who enjoy watching them — and provide the basis of a \$41 billion industry. Birds also quietly go about keeping insect populations in check. Some, especially hummingbirds, even contribute to our food supplies by pollinating about 5% of the plants grown for human consumption. Here are some other statistics, courtesy of the Garden Club of America:

- * A Baltimore oriole can consume 17 hairy caterpillars in a minute.
- * A house wren feeds 500 insects to its young every summer afternoon.
- * A pair of flickers consider 5,000 ants a mere snack.
- * A swallow can devour 1,000 insects every 12 hours.
- * A brown thrasher has been known to eat 6,180 insects in one day.
- * A pair of scarlet tanagers have been seen eating 630 newly hatched caterpillars of the gypsy moth in 18 minutes.



BALTIMORE ORIOLE



HOUSE WREN



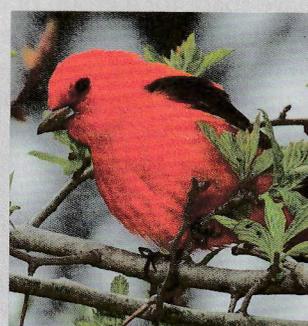
NORTHERN FLICKER



TREE SWALLOW



BROWN THRASHER



SCARLET Tanager

Source: Garden Club of America

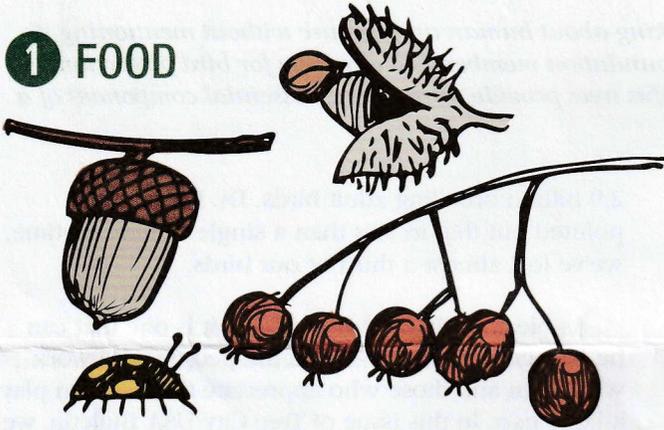


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What Birds and Other Wildlife Need ...

Urban wildlife includes many species of birds, mammals, reptiles, amphibians, insects, and even fish. However, in this issue we focus primarily on birds. But whatever the animal, whether a song sparrow or a butterfly, the key to its presence is habitat — or the place it lives. Habitat consists of the important elements discussed below, with a rule of thumb being that the greater the variety in these elements, the greater the variety of animals that live there.

1 FOOD



Each tree and shrub species has a different food value and attracts different animals. Some, like cherries, may be relished by as many as 50 species of birds. Others, such as the widely planted forsythia, or the fruitless cultivars that are so popular in urban settings, have little wildlife value. Having a wide variety of trees with high food value is the single best way to increase your pleasure of viewing wildlife — and in the long run it is cheaper than buying birdfeed!

2 COVER



Cover is essential to attract wildlife. It provides protection for breeding, nesting, sleeping, traveling, and hiding from enemies. Ideal cover for a wide range of animals is provided by dense plantings, especially of conifers. In urban settings, even a

single spruce or fir tree will help, but all the better if you have space for a group of trees on nearly any species, or a tall hedge. Wild tangles, vines, and thorny shrubs in odd corners or narrow spaces such as between a garage and the property line also provide excellent cover. Sometimes cover plantings can serve the double purpose of controlling foot and bike traffic or providing privacy.

SOME EXCELLENT COVER PLANTS:

Cedars/Junipers	Osage-Orange	Greenbriers
Firs	Pines	Honeysuckles
Hemlock	Spruces	Raspberries
Hollies	Barberries	Viburnums
Live Oaks	Blackberries	Virginia Creeper

CHAMPION WILDLIFE FEEDERS INCLUDE:

Summer Fruit

Cherries	Plums	Serviceberries
Dogwoods	Viburnums	

Fall and Winter Fruit: These are especially important to help wildlife through the worst part of the year and to save early arriving summer birds that get caught in late season snowstorms.

Apples	Eastern Redcedars	Mountainash
Crabapples	Hackberry	Sumacs
Dogwoods	Hawthorns	Viburnums

Seeds

Alders	Firs	Maples
Birches	Hemlocks	Spruces

Mast: Nuts and acorns.

Buckeyes	Black Walnut	Hazels
Butternut	Chestnuts	Hickories
		Oaks

Insects: With the exception of butterflies, attracting insects is usually not one's goal. However, most are more interesting than harmful, and many birds rely almost exclusively on insects for food. Eliminate insects and birdlife is sure to disappear.

Birches	Oaks	Sycamore
Elms	Planetree	Willows
Maples		



A WORD ABOUT PESTICIDES

When it is absolutely necessary to use chemicals to control insect pests, remember: (1) Read and follow the label directions or hire a licensed applicator, (2) spot spray rather than apply over a wide area, (3) apply only when the wind is calm, and preferably in the evening when bees and other nectar feeders are less active, (4) use sparingly, and (5) choose a chemical specific to the pest.

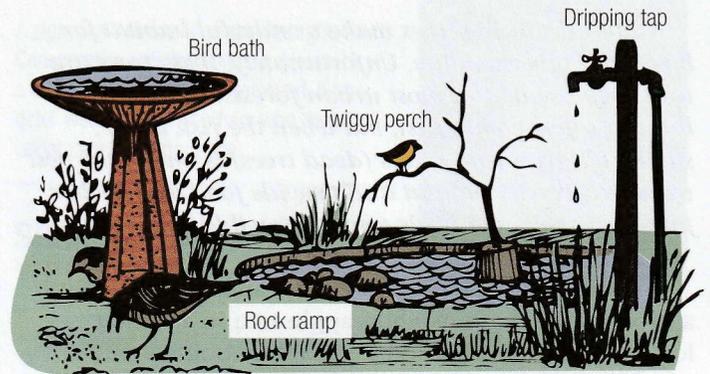
For information on safe insecticidal soaps, biological insecticides, and other least-toxic methods of control, visit the Bio-integral Resource Center's website at birc.org/pubrep.htm.

and How You Can Provide It

3 WATER

Water is as essential for wildlife as it is for humans. Provide it and you will be rewarded with more birds, butterflies, and other wildlife.

- ☑ Provide water in winter as well as summer. Keep it free of ice with a commercially available bird bath heater, car dipstick heater, or an aquarium heater. Use only safe, outdoor wiring.
- ☑ A small pool can be created by placing a child's plastic swimming tub in a hole so the top is even with ground level. Add a perch over the water and pile some rocks inside to make a ramp for small animals.
- ☑ Wildlife prefer moving water. A dripping hose works well; otherwise, change water regularly.



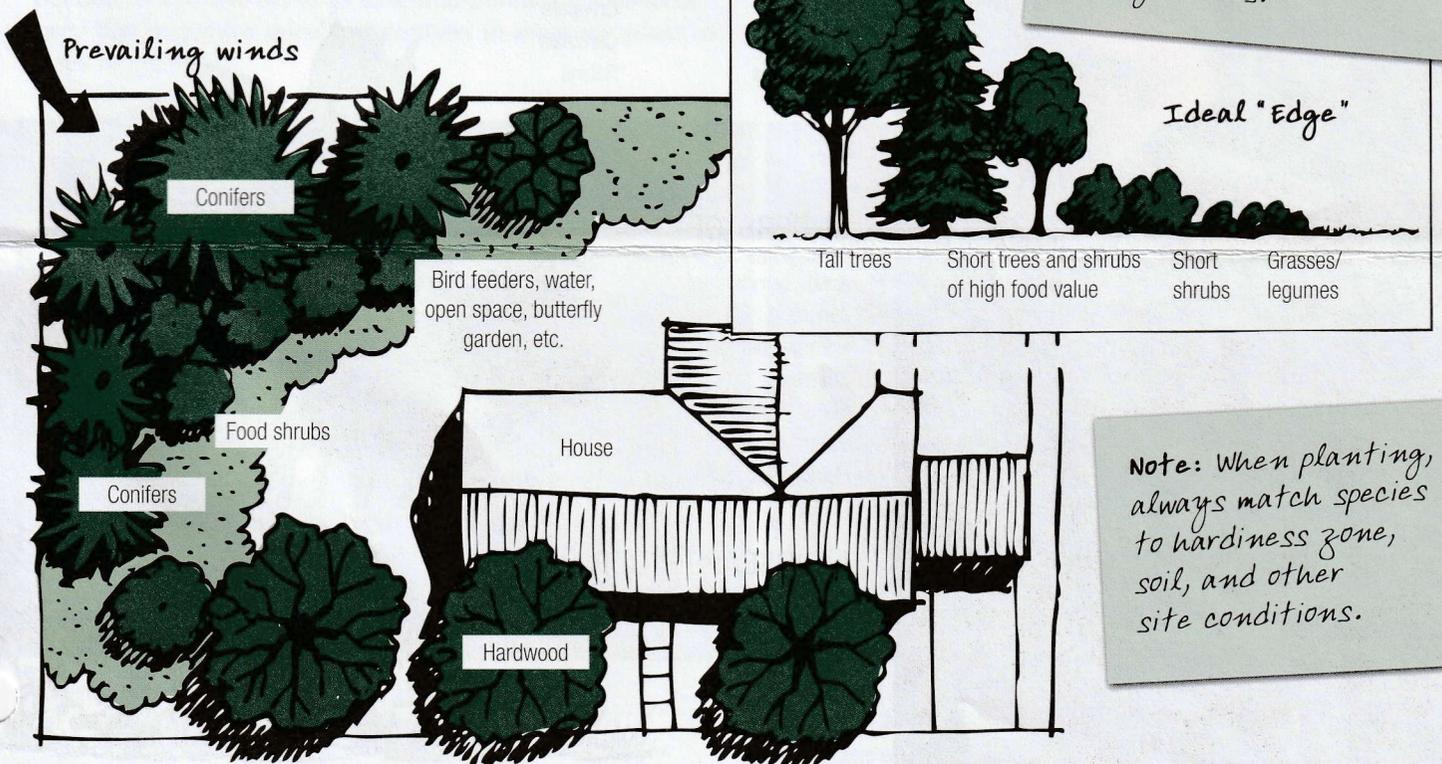
- ☑ Ponds and enlarged springs or seeps are paradise for wildlife. Even digging a hole where culverts or drain pipes discharge will help attract wildlife.
- ☑ Once you begin providing water, do not let it dry up.

USEFUL VEGETATION PATTERNS TO HELP WILDLIFE

The arrangement of food sources, protective cover, and water will make a big difference in the kinds of wildlife you attract. There are many references that show property plans to help you plant for wildlife. Basic principles include:

- ① The same arrangement that provides wind protection and shade for humans is also a key to good urban wildlife habitat.
- ② When possible, provide unbroken travel lanes (rows of trees, hedges, etc.) between wooded areas.

③ *Edge - where woods or shrubbery meet a lawn or old field - is usually the richest location for wildlife. This is due to the combination of foods available, sun and shade, and the security of an escape route. Irregular edges are better than straight lines.*



Note: When planting, always match species to hardiness zone, soil, and other site conditions.

Old Trees Are Good Trees

Old or declining trees make wonderful habitat for birds and other wildlife. Unfortunately, these trees are underrepresented in most urban forests. Of course, human safety comes first, but when the risk is low, saving old trees and snags (dead trees) is one of the best ways to diversify habitat and provide food and shelter for many species of birds and other wildlife.

That old oak with a hole in its trunk, that fir with a broken top, that unsightly apple tree in a vacant lot — these and other old trees are among wildlife's most valuable assets. Unfortunately, they are also especially vulnerable to the chain saw. The premature removal of old trees is a common mistake that robs our environment by depriving wildlife of a unique source of food and cover. The removal of old trees, including dead ones called snags, actually threatens the existence of some cavity-nesting species of birds and animals. Retention of old snag trees is especially desirable in out-of-the-way places where people are not likely to spend time. They can, however, be a safety hazard if

the area is located along paths, over buildings, or near areas where people congregate, and must therefore be sacrificed in the name of safety.

IF THEY ARE UNLIKELY TO CAUSE HARM... LET SOME OLD TREES LIVE

Mature and over-mature trees provide:

- The only suitable habitat for many species of owls, warblers, tree frogs, and other desirable wildlife.
- Larger crops of acorns, seeds, and other wildlife food.
- A community of treetop insects that are essential for many songbirds.
- Cavities for squirrels, including the delightful flying squirrel.
- Insects for food needed by woodpeckers.
- Hollow places for wild bees.



VERTICAL DIVERSITY IS EVEN BETTER

CANOPY

Warblers
Tanagers
Owls
Peewees
Flycatchers
Chickadees
Kinglets
Hawks

MID-STORY & TRUNK

Nuthatches
Woodpeckers
Sapsuckers
Creepers
Cardinals
Robins

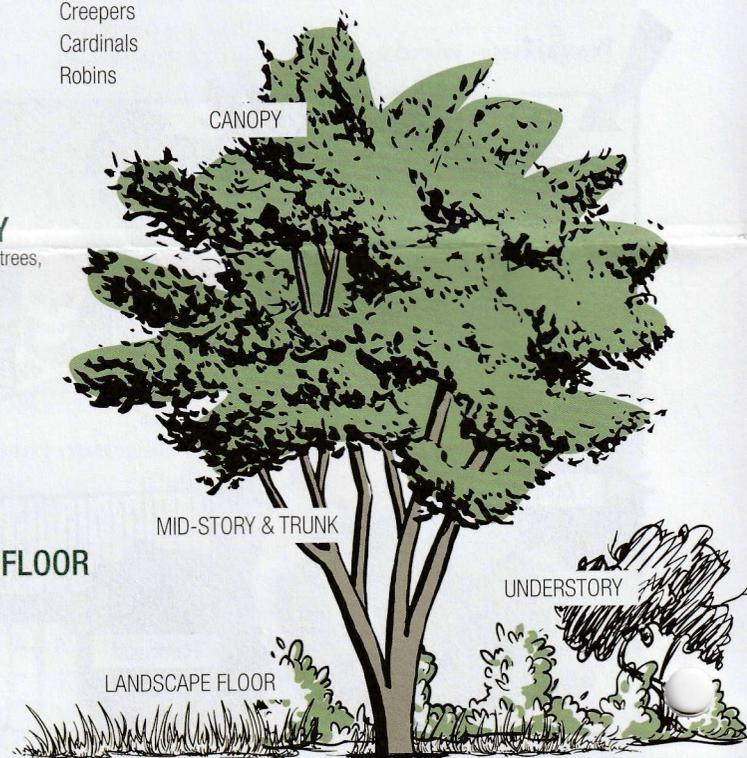
UNDERSTORY

(Small, shade-tolerant trees, shrubs, berry bushes)

Juncos
Hummingbirds
Sparrows
Some thrushes
Wrens
Goldfinches

LANDSCAPE FLOOR

Quail
Ovenbirds
Towhees



... And Dead Ones, Too

“To keep every cog and wheel is the first precaution of intelligent tinkering,” warned ecologist Aldo Leopold.

Through the ages, wildlife and plants have developed complex relationships. Often, if you remove one from the environment, the other disappears with it. Dead trees are a good example. As many as 1,200 species of birds, mammals, and amphibians use dead trees for shelter or food. Some, like woodpeckers, are absolutely dependent on these trees. Without a scattering of dead trees, the rich diversity of birdlife in America will become impoverished. At the same time, a natural control of insect populations is removed as we unwittingly eliminate the birds that evolved in relationship with decaying wood.

Cited as dangerous or unsightly, and eyed as cheap firewood, dead and dying trees are vanishing from urban, suburban, and rural landscapes. Of course, it is impractical and unwise to let all dead trees remain standing. But when the old tree poses no threat to safety or property, let it stay so that more wildlife can share our world.

Scientists believe that a scattering of dead trees goes beyond aesthetics. Birds that the ghost trees support actually reduce harmful insect populations. According to the Cooperative Extension Service, studies have shown that large populations of forest birds significantly reduce insect and small mammal problems for tree owners. One example is that woodpeckers hold down bark beetles and can control as much as 65% of emerging southern pine beetles. Snags also serve as essential perches for birds of prey that patrol for mice and gophers in areas we plant to trees or garden.

A sign, like this one available from the Cavity Conservation Initiative, helps explain why a dead tree has not been removed. It may deter wood cutters or others who do not understand its importance.



SOME WAYS YOU CAN HELP

- Leaving dead trees and broken branches is generally not recommended arboricultural practice. However in safe, out-of-the-way places these can enhance wildlife. In windbreaks, corners of lots and other places away from buildings and pedestrians, let a dead tree stand.
- Before removing a tree that is considered a hazard, consult with a qualified arborist and ask if a reduction or even a heading cut can reduce or eliminate the risk.
- If wind breaks the top of a tree, especially a conifer, do not automatically remove it. The jagged top is an excellent nest site for many species. The tree is probably safer than before the storm, and top branches will soon turn upward, covering the damage.
- Join the U.S. Forest Service and its many private and public partners in their campaign to keep snags part of our environment. For more information about this program, search online for “USDA Forest Service Animal Inn.”



Sometimes a limb in a topped tree can be a benefit. This tawny owl, a native of Europe and Asia, would agree.



Cavity nesters like this black-backed woodpecker are dependent on dead or decaying trees for protection and breeding. All species of woodpeckers and many others need these trees as they feed on insects.

Tree Care for the Birds

Proper tree care ensures the health of the tree and the benefits provided to people. But there is no reason why tree care practices can't also benefit birds.

AROUND THE HOUSE

"We're squeezing out that last bit of space, the last common birds on the landscape are declining, and we're losing hundreds of millions of birds." So said Cornell Lab of Ornithology's Dr. Ken Rosenberg. The one thing that any homeowner can do is make space available to provide for the needs of birds as outlined on pages 2 and 3. But there is more. What bird-aware arborists can do, so can property owners — and tree owners or managers can hire arborists who have special training in wildlife protection.

ARBORISTS CAN PLAY A MAJOR ROLE

Professional arborists probably affect bird habitat more than anyone else, other than land developers. If the arborist is certified by the International Society of Arboriculture, we put our trust in him or her to do what is best for our trees. An additional role is for arborists and other tree workers to also protect birds and their habitat whenever possible.

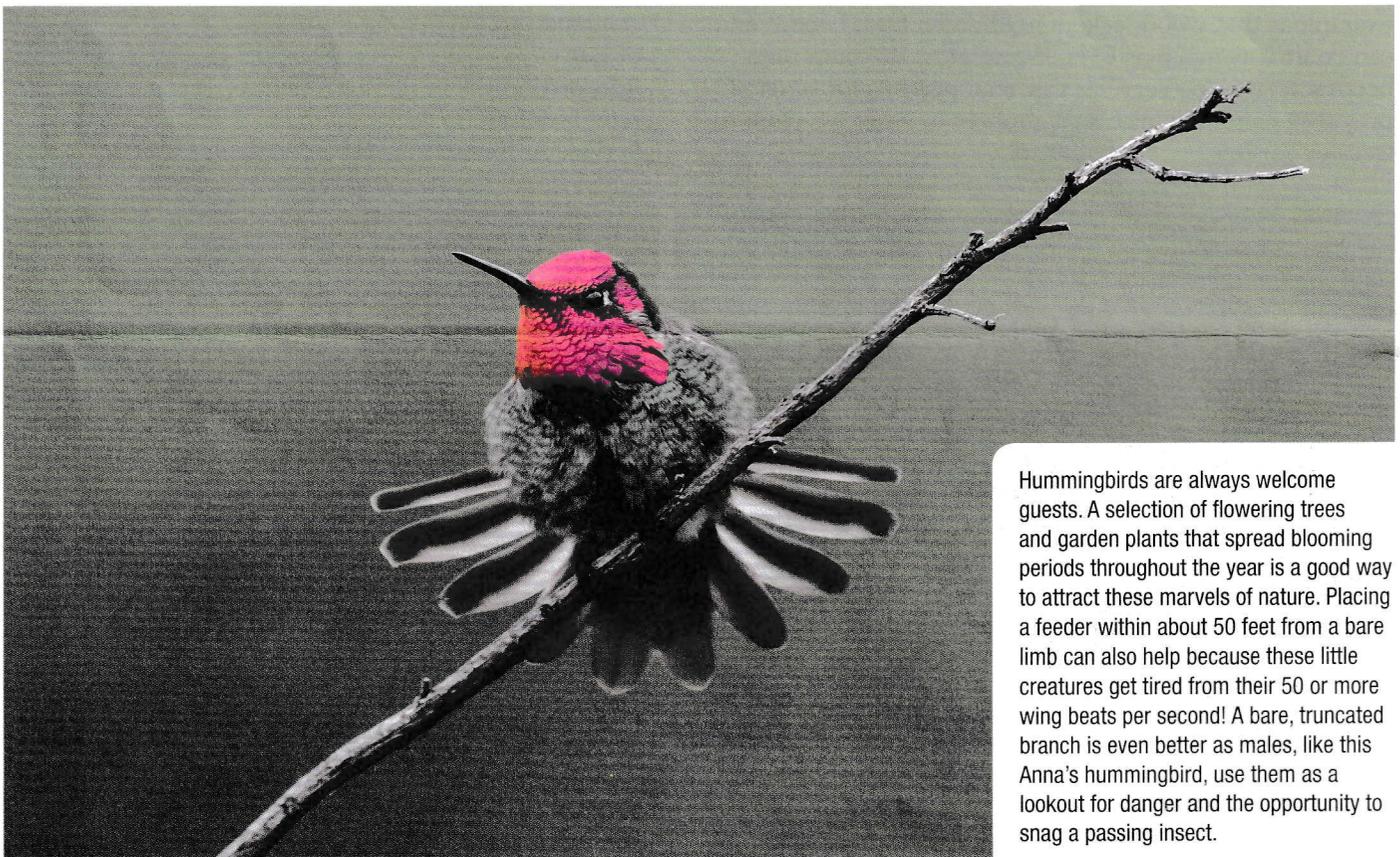
A DEDICATED, BIRD-AWARE ARBORIST WILL ...

UNDERSTAND THAT BIRDS ARE IMPORTANT.

This can be manifested in attitude, knowledge, and willingness to include wording about bird protection in a work contract. He or she will also know what laws might be involved in doing tree work around bird nests or habitat. These may include local ordinances, the Federal Migratory Bird Treaty Act of 1918, the Endangered Species Act, and the Bald and Golden Eagle Protection Act.

CONDUCT A PRE-WORK WILDLIFE SURVEY.

- Inspect the job site, preferably at dawn or dusk, looking carefully for nests both in trees and on the ground. Examine cavities for activity. They might be used year-round by some birds and mammals.
- Look for other signs of wildlife activity such as droppings, bat guano, owl pellets, shelled nuts or cones, etc.



Hummingbirds are always welcome guests. A selection of flowering trees and garden plants that spread blooming periods throughout the year is a good way to attract these marvels of nature. Placing a feeder within about 50 feet from a bare limb can also help because these little creatures get tired from their 50 or more wing beats per second! A bare, truncated branch is even better as males, like this Anna's hummingbird, use them as a lookout for danger and the opportunity to snag a passing insect.

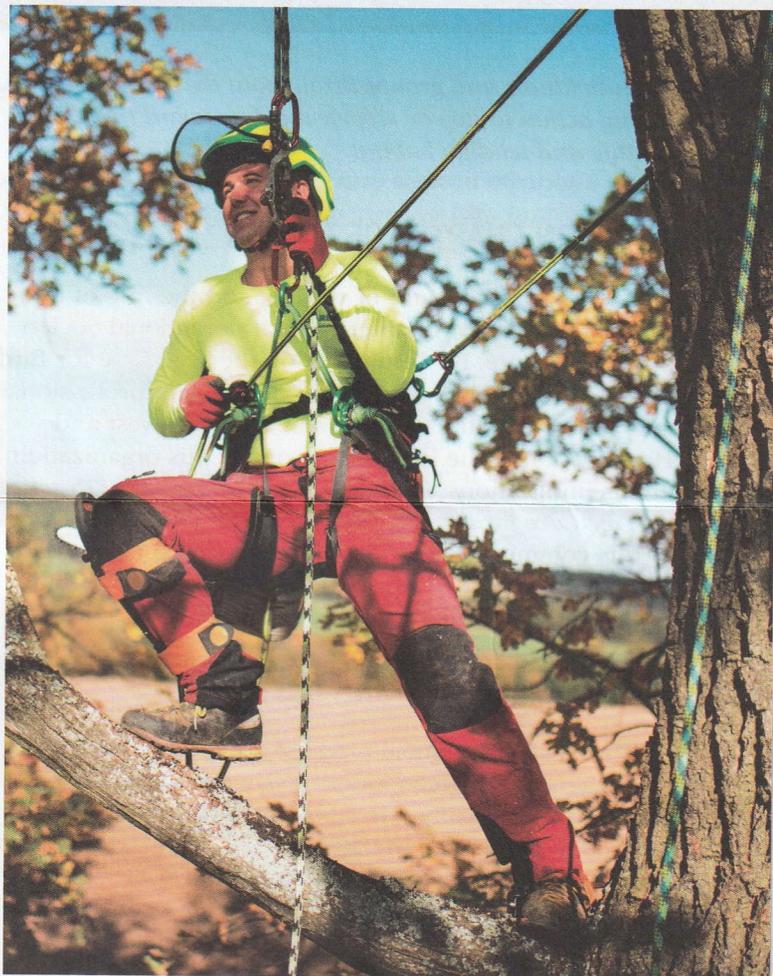
- ☑ When possible, conduct removal and pruning operations in fall or winter when nesting birds and their young are less likely to be present.
- ☑ When pruning cannot be postponed, stay at least 50 feet from active songbird nests and 500 feet away from active hawk and owl nests.
- ☑ Avoid or minimize the use of chemicals that might harm birds directly or through reduction of helpful insects.
- ☑ If the job site is not “manicured,” leave some leaf litter. It not only benefits ground-feeding birds, it also contributes to improved soil structure and fertility.
- ☑ Enroll in an arborist training program about wildlife and conduct training for all crew members. See page 8.

LOOK FOR WAYS TO MITIGATE HIGH RISK TREES.

Rather than immediately plan to remove a tree that has been assessed to pose unacceptable risk, consider whether “targets” (people or property) can be kept away from the tree, or if sections can be retained for wildlife by pruning to remove dangerous parts.

PLANT WITH WILDLIFE IN MIND.

When planting or rendering advice, consider trees that are site appropriate, climate-appropriate, and friendly to birds and other wildlife.



Arborists and other tree workers are of immense importance to protecting birdlife. Training is available to provide the awareness and techniques necessary to do tree work while at the same time preventing damage to vital habitat or impacting the life cycle of birds.



RISKS FOR BIRDS

- Pesticides
- Wind turbines
- Solar panels or other devices that require tree removal
- Feral cats and house cats allowed to run free outdoors
- Bird feeders within easy reach of concealed cats
- Discarded plastic bags and six-pack holders
- Windows unprotected by curtains, window screens, hawk silhouettes, ribbon/tape strips, or other means to prevent collisions

Protecting Wildlife Through Education

Individuals and groups throughout the country are taking action to stop or reverse the downward trend of birdlife and wildlife habitat.

WESTERN CHAPTER OF THE ISA

A leader in the cause of wildlife and the role of tree care is the Western Chapter of the International Society of Arboriculture. Its Committee on the Tree Care for Birds and Other Wildlife is composed of tree care professionals and various wildlife advocates in the Southwest and Hawaii. Among the important work of this organization are its publications, including *Best Management Practices — Tree Care for Birds & Other Wildlife*. Overall, the work of this committee advocates proper training of tree care professionals and encourages people who hire them to insist on the adoption of these practices.

THE WILDLIFE TRAINING INSTITUTE

This is an educational program specifically for arborists and others in the green industry as well as tree board members and anyone else who works with trees. The Institute was founded in 2009 and is recognized by the International Society of Arboriculture and approved for certified arborists to receive two continuing education units or credits. The online program takes about two hours to complete and leads to credentials as a Certified Wildlife ProtectorSM. It is designed to be nationwide in scope and to help professionals protect wildlife while maintaining work efficiency. The focus is on pre-work procedures, avoiding fines, and creating positive public relations.

OTHER PERTINENT CERTIFICATION PROGRAMS

WILDLIFE HABITAT COUNCIL

A broad-based consortium of conservation professionals form the council that sponsors this program. It offers certification of large and small corporate landholdings where sustainable practices are maintained that enhance biodiversity and provide conservation education. There are 26 possible themes that address habitat, species management, and education and awareness, with project



Eastern Bluebirds, male and female, perched on a flowering branch.

guidelines for each. Worldwide in scope, projects can include forests and even landscaped areas.

NATIONAL WILDLIFE FEDERATION

Certified Wildlife Habitat[®] is a voluntary program available to anyone. The educational intent is to encourage anyone with a yard, roadside green area, or even balcony space to consider planting for wildlife and caring for habitat used by birds and other wild creatures. Participants can certify their area by confirming that they use sustainable practices and have provided food, water, cover, and places for young to be raised.

THE CAVITY CONSERVATION INITIATIVE

The Cavity Conservation Initiative is a program of the Southern California Bluebird Club in partnership with Audubon members and other organizations. Its goal is to promote the safe retention of dead and dying trees to ensure the future of cavity-nesting wildlife and to enrich forest diversity. Although it focuses on southern California, it is a good example of what might be done in other parts of the country to save the ever-shrinking habitat of birds and other wildlife that need old trees to survive. The Cavity Conservation Initiative provides a wealth of educational material, online learning, available speakers, and even school activities. The goal is to educate arborists and others about the benefits of dead trees, provide guidelines for the selection and management of these trees, change public perceptions, and inspire young people to become tree advocates and good stewards of our environment.

PHOTOS COURTESY OF: Anita Friend, MCWMS (Page 5, Cavity Tree).

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FOR MORE INFORMATION

For more information about trees and links to wildlife and the organizations on this page, please visit arborday.org/bulletins.

