

# Enhancing Your Backyard Habitat for Wildlife

Connecticut Department of  
Environmental Protection  
Bureau of Natural Resources  
Wildlife Division

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Written by  
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Cover Photo:  
*Lowbush blueberry by Paul J. Fusco*

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# Getting Started

Traditionally, backyard wildlife species have been attracted primarily through the use of artificial feeders. Many small lot (1/4 to 5 acres) owners or managers are interested in attracting wildlife in a way that goes beyond

practical approach for assessing wildlife habitat by using habitat components and looking at the seasonal availability of wildlife foods.

This guide emphasizes the value of native plants for habitat enhancement and recommends their use whenever possible. Native plants are those plants that occurred in Connecticut prior to European settlement here. Because they have adapted to the local climate and soil conditions along with the wildlife that have evolved with them, native plants are a better choice than most non-native plants. Non-native plants can be used successfully in habitat enhancement; however, invasive exotic species should not be used. (Invasiveness is measured by the ability of a non-native plant to establish itself outside its original planting by seed dispersal through natural means or by wildlife). Invasive non-native plants can displace native plants by competing and aggressively crowding out their growing space. A list of invasive exotic woody plants which should be avoided is on page 18.

Habitat is influenced by land use practices, both past and present. The habitat types surrounding your backyard will greatly influence the types of wildlife you have on your property. However, there are basic things you can do to modify or add food, water, and cover to improve conditions for wildlife. With the help of this guide, other reference materials, and your enthusiasm, you can attract wildlife by improving your backyard habitat.



*Gray catbirds are common in edges of forests, where they feed on insects and berries.*

artificial feeding, by developing a landscape that improves wildlife habitat. This guide contains examples of urban, suburban, and rural lots that were improved for wildlife using habitat assessment techniques followed by improvement through habitat management practices. The reader is presented with a

## Backyard Habitat

### What Is Habitat?

Habitat is the arrangement of living and non-living components which are suitable to an organism's needs (see page 16). It is commonly defined as the area where an animal naturally lives, the "life range" which includes its basic requirements. Knowing these requirements for food, water, and cover will help you become a successful wildlife habitat manager.

Wildlife food preferences vary depending on the species; some prefer grass and leaves, while others eat seeds, fruit, or insects. Water, whether for drinking, bathing, or maintaining a moist environment, is essential for almost all forms of wildlife. Although many wildlife species get enough water from the foods they eat, water that allows a quenching drink is a big attractant. Cover, provided by trees, shrubs, flowers, brush piles, and rock piles, is essential

for protection from weather and predators, as well as for raising young.

Wildlife do not randomly occur in any one location. They are present because the habitat provides something they need. Wildlife and habitat are inextricably linked. As a small lot habitat manager, you should learn to identify what limits the presence of wildlife on your lot and then enhance the area by adding new habitat components or altering existing vegetation to create a more hospitable environment for desired wildlife species.

The typical backyard is characterized by a lawn with scattered trees and foundation plantings. To attract wildlife, you need to consider a whole host of habitat components supplied by such practices as:

1. *Planting native plants for food and cover*
2. *Altering vegetation or encouraging natural succession of plant communities*
3. *Erecting artificial nesting structures and feeders*
4. *Providing water sources*

## Natural Wildlife Food Sources

Plants grow in association with other plants that require similar site conditions, such as climate, light, soil characteristics, and moisture. Plants have evolved to adapt to certain conditions. The more you can mimic or encourage natural plant associations, the better your chances of creating functional wildlife habitat.

The structure and type of vegetation also contribute to wildlife use of an area. The density, height, and shape of plants provide varying levels of cover and foraging opportunities for wildlife. It is important to encourage structural diversity, such as three or four levels of vertical structure. The ground level plants, the shrub layer, the middle level trees and shrubs, and the upper canopy trees form the foundation of the forest ecosystem and wildlife habitat. Horizontal structure is also important. If you have a field adjoining a forest, you should encourage a gradual progression of plants from the edge of the field to the forest, rather than an abrupt, sharp contrast of field to upper canopy forest.



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*Vegetation structure and diversity will determine the types of wildlife you can attract.*



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*Plants provide food for insects, such as the cecropia caterpillar, which in turn are eaten by wildlife.*

The leaves, buds, flowers, fruits, and roots of plants supply the food base for insects, which in turn are eaten by birds, mammals, reptiles, and amphibians. Most birds actively hunt for insects, often in specific habitats. There really is no substitute for supplying insects for birds other than encouraging vegetation to grow. The more diverse the vegetation, the more diverse the insect populations will be.

## Seasonal Changes

During the year, predictable changes occur in the availability of food sources for wildlife. By planning landscaping with this seasonal availability in mind, you stand a better chance of attracting wildlife year-round. Wildlife will seek new food sources as some are depleted because of the natural cycles of production or

year-to-year shortages of particular foods. For example, fruits and seeds are widely sought when insect populations are becoming dormant.

Careful consideration of the existing conditions and how you can improve them is the key to enhancing your backyard for wildlife. The habitat components discussed on the following pages can serve as a guide for planning and assessing what is already available. The examples given are only a sample of the potential items in each category; use them as guides for determining what your lot already has, what is limited, or what can be added. Try to provide as much diversity as your lot can accommodate. Wildlife habitat management is both an art and a science, requiring knowledge of the needs of wildlife and the ability to use innovative habitat enhancement techniques.

### Wildlife habitat components *(see page 17 for scientific names)*

1. **Early Summer Fruits:** Red mulberry, highbush and lowbush blueberry, shadbush (serviceberry), black raspberry
2. **Fall Fruits:** Viburnums (arrowwood, mapleleaf, nannyberry, witherod), dogwoods (flowering, gray, red-osier, silky), common elderberry, wild cherry (black, pin, and chokecherry), spicebush
3. **Fall Nuts:** Oaks (white, swamp white, chestnut, red, black, scarlet, pin), hickories (shagbark, mockernut, bitternut, pignut), American beech, butternut walnut
4. **Fall Seeds:** Sugar maple, eastern hop hornbeam, ash (white, green, black)
5. **Persistent Winter Fruits:** Bayberry, eastern red-cedar, highbush cranberry viburnum, American holly, inkberry, black chokeberry, red chokeberry, wild grape, Virginia creeper, pasture rose, winterberry, staghorn sumac
6. **Winter Cover:** White pine, eastern hemlock, mountain laurel, pasture juniper, eastern red-cedar, American holly
7. **Spring/Summer Seeds:** Red maple, American hornbeam, silver maple, American elm
8. **Herbaceous Plants:** Little bluestem, goldenrods, wood asters, daisies
9. **Hummingbird Nectar Plants:** Tulip tree, jewelweed, trumpet honeysuckle, cardinal flower
10. **Vines:** Wild grape, Virginia creeper, American bittersweet, smilax
11. **Dead or Decaying Trees:** Cavities, snag and den trees
12. **Artificial Nest Boxes:** For bluebirds, squirrels, kestrels, wood ducks, house wrens, northern flickers, black-capped chickadees, tree swallows, purple martins, and bats
13. **Water Sources:** Birdbaths, artificial pools, ponds, streams, vernal pools, seeps, swamps
14. **Brush Piles /Fallen Logs:** Discarded Christmas trees and other woody parts of trees; hollow logs
15. **Artificial Feeding:** Box feeders, platform feeders, suspended feeders (black oil sunflower seed, thistle seed, orange halves, white proso millet)
16. **Grit Areas:** Naturally occurring or artificially supplied grit

# Food and Cover

## Early Summer Fruits

Adding early fruiting trees or shrubs to the backyard may help attract wildlife. In early summer, at the peak of nesting season, many birds are busy chasing insects to feed their young. However, some species, such as robins and catbirds, seek out early fruits in addition to insects.

Shadbush, or serviceberry, is a small tree that is an early bloomer, flowering when shad run up the Connecticut River (hence the common name "shadbush"). Its berries, which usually ripen in June, are relished by birds.

Connecticut's two native blueberries, highbush and lowbush, provide good food and cover for wildlife. The highbush blueberry grows from six to 15 feet, whereas the lowbush blueberry ranges from six inches to two feet.

Raspberry and blackberry plants provide excellent cover for wildlife, especially when allowed to spread and form dense tangles. Cottontail rabbits seek out these thickets to escape predators, and many species of wildlife eat the berries.

## Fall Fruits

As the days shorten and a crisp autumn chill fills the air, insect populations decline, and many birds switch to fleshy fruit and other high energy food sources to fuel up for their migrations. Among the woody plants which provide berries in the fall, several species of dogwoods and viburnums are especially valuable, with varieties suited to a wide range of soil and light conditions.

The most familiar dogwood is the flowering dogwood, a small tree that produces red berry clusters. Although the eastern population of this species has been afflicted by a disease (anthracnose) in the past, the flowering dogwood seems to be recovering and is commonly found growing wild in forest understory and edges. The alternate-leaf dogwood is a less known tree, distinguished by being the only dogwood with alternately positioned leaves. Its dark purple berries ripen in late summer to early fall. The fleshy fruits of dogwoods are relished by many wildlife species, including evening grosbeaks, robins, cedar waxwings, cardinals, wood



FILE PHOTO

*Blackberry plants will attract wildlife, both for their berries and for the escape cover they provide when they form dense tangles.*



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*Flowering dogwood berries are eaten by many of our local songbirds in the fall.*

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*Gray dogwood provides berries for food, and the thickets it forms provide valuable cover and nesting sites.*

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*Arrowwood viburnum is one of eight native viburnums found in Connecticut.*

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*Acorns are an important food source for a variety of wildlife, from blue jays to deer.*

thrushes, cottontails, and chipmunks.

The shrubs of the dogwood family are the silky dogwood, red-osier dogwood, and gray dogwood. The silky and the red-osier dogwoods are adapted to moist conditions. They are prolific berry producers and their green and reddish twigs provide a visual contrast to the winter snow. The gray dogwood provides excellent food and cover and is known for its ability to colonize in abandoned fields and edges to form dense habitat islands. Abandoned farm fields sometimes have scattered clumps of gray dogwoods with multiple bird nests in each clump. In the snow, cottontail rabbit trails are often seen zigzagging through them.

The native viburnums of Connecticut have often been underused as landscape plantings, but they are becoming more available through local nurseries. Mapleleaf viburnum is a small shrub that produces dark blue berries even in shaded conditions. Another viburnum, arrowwood, forms a thicket of dense stems and also provides abundant dark blue berries. Nannyberry develops into a small tree in the open. Although its blue-black berries are not consistently produced, nannyberry provides valuable cover. American cranberry bush is the only red-berried viburnum that occurs in Connecticut. It has value for its berries, which persist throughout the winter, when other foods are scarce.

Many birds and mammals eat the fruit of the wild cherry in late summer and fall. Connecticut has three native cherry trees. The black cherry grows up to 60 feet. Pin and choke cherries are medium-sized trees.

## Fall Nuts

Non-migratory wildlife species also need to fatten up to store energy for the cold winter months. Acorns from oak trees provide needed food for building good fat reserves; their availability in winter when other foods are scarce makes them especially valuable. There is evidence that wildlife find the acorns of the white oak group (white oak, swamp white oak, chestnut oak) more palatable than those of the black oak group because they contain less bitter-tasting tannin. However, the acorns of the black oak group (northern red oak, black oak, scarlet oak) may be eaten later in the winter. Planting or encouraging the growth of both oak groups is recommended.



The hickories, especially shagbark hickory, are usually teaming with squirrels in the early fall. Because hickories are not readily available as nursery stock, most trees growing in backyard areas either escaped the bulldozer or the chainsaw or were planted by squirrels.

## Fall Seeds

The most notable of the trees and shrubs that produce seeds available in the fall are the ashes, especially green ash and white ash. The seeds, which are only produced by female trees, are eaten by such birds as northern cardinals, grosbeaks, and purple finches. Another good fall seed producer is the boxelder, a less known maple tree. Eastern hop hornbeam, sugar maples, and the birches are also fall seed producers.

## Persistent Winter Fruits

Winter is a season of food scarcity. Some woody plants produce berries that persist into winter. Winterberry, for example, has red berries that are eaten in late fall, but the remaining berries turn a brownish color and last through the winter. American cranberry bush viburnum has fruit that is not widely preferred by wildlife, although during a harsh winter or a year when other foods are scarce, the berries are heavily used. Staghorn sumac also maintains its berries throughout the winter. Bayberry, a plant whose waxy fruits have historically been collected for making wax for candles, has persistent berries which are eaten by some songbirds in winter and early spring.

## Winter Cover

Evergreens, or conifers, are especially valuable as protective cover, shielding wildlife from harsh winter weather when deciduous trees and shrubs have lost their leaves. If you've ever looked underneath a dense evergreen following a snowstorm, the ground is usually bare. These bare spots are good wildlife foraging sites for seeds, grit, or other food items that otherwise are covered with snow or ice. The same plants



*Winterberry has persistent berries that help sustain robins and other wildlife during winter.*

P. J. FUSCO



*Evergreens provide shelter and cover for wildlife, especially during harsh winter weather.*

P. J. FUSCO

that provide winter cover are also good nesting sites during spring and summer.

Eastern hemlock is a shade-tolerant tree which can survive light conditions as low as five percent sunlight. A non-native insect pest, the woolly adelgid, has been killing many hemlocks in Connecticut, but this shouldn't prevent you from planting them in a backyard habitat, because, in small-scale plantings, soap-based insecticides can keep the adelgid under control. White pine, although not a dense conifer, provides winter cover, and its seeds are eaten by small mammals and songbirds. The eastern red-cedar, in addition to providing cover for wildlife, has value for its persistent berries.

## Spring/Summer Seeds

Ever wonder what the squirrels are eating in the spring and summer? Aside from some persisting acorns, they are feeding on various berries, buds, and other plant parts. They are also eating seeds from trees such as red maple and silver maple. The winged seeds of some maples become available in late spring and summer. American elm and American hornbeam are summer seed producers.

## Herbaceous Plants

Herbaceous plants, which are non-woody species such as weeds, grasses, and wildflowers, are an important element of wildlife habitat. The plants that make up the typical well-cared-for lawn are not rich in species diversity. Many native plants that are considered weeds are beneficial to wildlife. To increase the diversity of herbaceous plants, consider leaving part of your lawn unmowed, or mow it only once or twice a year to prevent woody plants from growing. The unmowed plants will produce seeds for birds to eat, and the taller plants will provide good nesting cover for some birds and cottontail rabbits. Deer, woodchucks, and other wildlife may browse on the unmowed patch, and this "meadow" environment may also be visited by colorful butterflies.

## Hummingbird Nectar Plants

Hummingbirds require large amounts of nectar to maintain their high metabolism. They are



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*During spring and summer, herbaceous plants are the bulk of a cottontail's diet.*



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*Monarch butterflies are attracted to wildflowers like goldenrod for their nectar.*

attracted to several plants that occur naturally in Connecticut. Tulip tree blossoms are visited by hummingbirds; however, viewing the tiny birds in the upper canopy of these tall trees is difficult. To attract hummingbirds, cultivate plants with tubular and brightly colored flowers which provide a rich source of nectar. Native flowers such as cardinal flower and jewelweed

are good hummingbird attractants. Common trumpet creeper is very popular with hummingbirds. Although native further south, it will grow in most parts of Connecticut and can also be trained to climb a trellis. It is not considered invasive.

## Vines

Vines can be beneficial in a backyard habitat, but they also need to be maintained to prevent them from choking out everything else. In a small area, it is important to schedule routine pruning to control vines. In addition to providing berries and flowers that help attract wildlife, vines provide good cover and nesting places. The shredded bark of the wild grape is sometimes used by the gray catbird for nest building material. Wild grape is persistent and may be eaten by wildlife in winter. Virginia creeper also has persistent winter berries and can be controlled through selective pruning.

## Dead or Decaying Trees

A dead tree is a good tree for wildlife. As trees die or decay, they attract wildlife species which feed on the insects that caused the decay. A tree that is dying or dead usually has a hollow spot or a punky, soft branch. Some animals will use the hollowed out portions for nesting sites to raise their young or for shelter. Cavities in decaying trees are excavated for nesting sites by birds such as the pileated woodpecker. This crow-sized bird will hammer out several holes as possible nesting sites, usually using one and abandoning the others. The abandoned holes of a primary excavator like a woodpecker are used by secondary cavity-nesters such as bluebirds or tree swallows, which don't excavate cavities but instead use existing ones.

Standing dead or dying trees are called snags. A hard snag has wood that is still fairly sound. A soft snag, with more advanced decomposition, usually has a punky main stem with few limbs attached. A snag with both living parts and hollowed out portions is called a den tree. A potential den tree shows evidence of rot or disease but has no cavities or hollowed out parts. Snags and den trees are important to identify because they are used by a variety of wildlife species.

Larger snags are more valuable, although snags as small as three inches in diameter are used by wildlife. You can create snags by girdling



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*The red, tubular flowers of the cardinal flower attract hummingbirds.*



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*Dead or decaying trees provide habitat for cavity-nesters like woodpeckers.*

trees--cutting two complete bands through the bark with a chainsaw or ax. The larger trees (9" or larger) tend to be more stable and capable of supporting larger cavities. The type of tree is important to consider because some die more quickly than others after girdling. Some species, such as oaks, ashes, walnut, and black cherry are easier to girdle successfully than others (maples, birches, dogwoods, cottonwood, pines, hemlock). It is best to girdle trees during the growing season (July to mid-September).

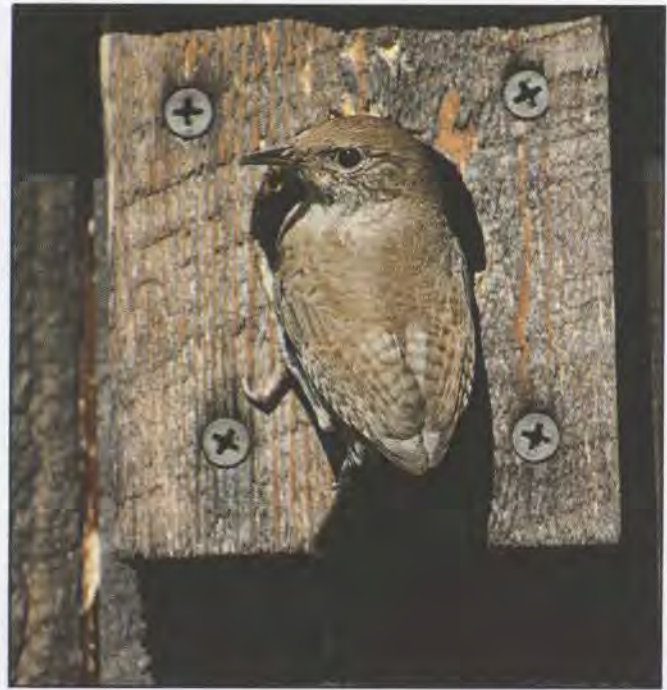
As a minimum standard, it is recommended that at least three hard or soft snags per acre and one den tree per acre be present. Because they may fall during high winds or ice storms, dead trees should not be close to buildings or high human use areas. Before encouraging snags in a backyard, human use and safety should be considered.

## Artificial Nest Boxes

If your backyard lacks trees with natural cavities, you can put up man-made nest boxes or structures. Bluebird and wood duck nest boxes are the most recognized in wildlife management for helping to restore bird populations. First, determine the best spot to place the nest box. The habitat that surrounds your lot will influence the species of cavity-nesting wildlife you can attract. If your property abuts fields or other open areas, bluebirds or tree swallows may inhabit your nest box. If you are in a predominantly wooded area with few open fields, chickadees or house wrens are likely to be attracted. Because many cavity-dwelling wildlife species compete for the opportunity to use a nest box, attracting the species you want may not be easy. Sometimes the boxes will only attract insects like wasps and moths; however, in time, they may attract your targeted wildlife species. *Discover Wildlife in Connecticut's Backyard* and *Woodworking for Wildlife*, listed in the reference section, contain useful information on nest boxes, as does the table on the next page.

## Water Sources

Water is an important component of backyard wildlife habitat, whether supplied by a simple, shallow birdbath or a sophisticated man-made pool with circulating pumps. If your lot does not have a naturally occurring water source, adding this element can do wonders for



*House wrens can be attracted to nest boxes in backyard habitats.*

attracting wildlife. In the arid West, artificial water sources mean the difference between life and death for some wildlife species. In the Northeast, water is much more plentiful, but it can also be locally limited.

A birdbath may be all you want to add to your small lot. Larger artificial pools require digging and installing an impermeable liner. This is an effective way to create habitat for frogs and other aquatic organisms. Many kits for building pools as do-it-yourself projects are now available.

Natural breeding pools, called vernal pools, are very important to identify on your property. Vernal pools are usually located in small depressions or swales that collect spring snow melt and other runoff. These pools may vary in size and they often dry up in the summer. They do not contain fish life but can support amphibian species such as the spring peeper, wood frog, and spotted and Jefferson salamanders. Many invertebrate species, including insects, crustaceans, snails, and tiny clams, may also live in vernal pools. Despite their relatively small size, vernal pools are valuable to wildlife. Learn to identify them and insure their existence by protecting them from

## Dimensions for Nest Structures

Species	Floor	Entrance Diameter	Depth	Entrance Above Floor	Height Above Ground
Bluebird	4" x 4"	1.5"	8"	6"	5-6'
Chickadee	4" x 4"	1.25"	8-10"	6-8"	6-15'
Tufted Titmouse	4" x 4"	1.25"	8-10"	6-8"	6-15'
Nuthatch	4" x 4"	1.25"	8-10"	6-8"	12-20'
Prothonotary Warbler	5.5" x 4"	1.25"	8-10"	6-8"	6-15'
House Wren	4" x 4"	1.25"	6-8"	6"	6-10'
Carolina Wren	4" x 4"	1.13"	6-8"	6"	6-10'
Tree Swallow	5" x 5"	1.5"	6"	5"	6-16'
Crested Flycatcher	6" x 6"	2"	8-10"	6-8"	8-20'
Flicker	7" x 7"	2.5"	16-18"	14-16"	6-20'
Screech Owl	8" x 8"	3"	12-15"	9-12"	10-30'
Saw-whet Owl	6" x 6"	2.75"	10-12"	8-10"	12-20'
Barn Owl	10" x 18"	6"	15-18"	4"	12-18'
Kestrel	8" x 9.5"	3.25"	12-15"	9-12"	20-30'
Red-bellied Woodpecker	6" x 6"	2"	12-15"	10"	10-20'
Downy Woodpecker	4" x 4"	1.25"	9-12"	6-8"	6-20'
Hairy Woodpecker	6" x 6"	1.5"	12-15"	9-12"	12-20'
Wood Duck	9" x 10"	3.5" x 4"	25"	18"	10-20'(a)
Gray Squirrel	10" x 11"	4"(b)	24"	20"	12-20'
Flying Squirrel	8" x 8"	3"	12-15"	9-12"	10-36'
<b>Open Platforms</b>					
Robin	7" x 8"		8"		6-15'
Barn Swallow	7" x 8"		6"		8-12'
Phoebe	7" x 8"		8-12"		8-12'

(a) Height above water surface

(b) Entrance on side of box

*For specific nest box plans for bluebirds and bats, contact the Wildlife Division at the Sessions Woods Wildlife Management Area in Burlington (675-8130). For wood duck nest box plans, contact the DEP's Eastern District office, at 295-9523.*



Vernal pools are important breeding sites for many of Connecticut's amphibians.

pollution or major alteration of the vegetation immediately surrounding them. Monitor them by looking for deposited frog and salamander egg masses in the spring.

## Brush Piles and Fallen Logs

Cover is important because it provides shelter and concealment from predators. The lack of cover may be the difference between the presence or absence of certain wildlife in a given area. One method of providing cover for wildlife is to construct brush piles. Brush piles can be made both with or without a log base. The brush pile with a log base requires more labor to construct but lasts longer. Brush piles benefit wildlife most when placed at woodland edges. They should be placed about 10 feet from the border of the woods. Some birds and small mammals will use brush piles for escape cover and, in some instances, for nesting or feeding. Over time, woody plants will grow up through or around the brush pile, blending it into the surroundings.

Downed trees with hollow branches or trunks are often used for cover by cottontail rabbits and chipmunks. Fallen hollow logs with branches placed over the top provide even better cover. Leaving dead wood and leaves on

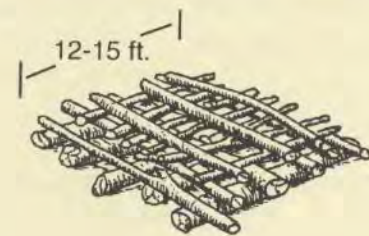
the forest floor also enhances the habitat for some reptiles and amphibians. Salamanders, for example, feed on insects found in the moist cover created by decomposing organic materials.

## Artificial Feeding

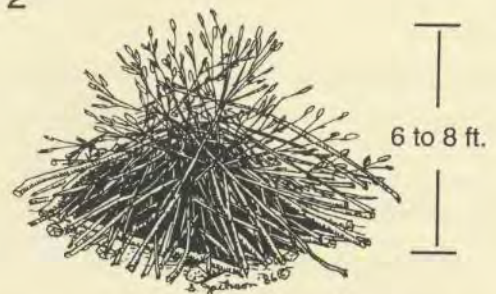
Artificial feeding of songbirds can be beneficial. However, it is not wise to feed other wildlife, such as deer, raccoons, and waterfowl, as this can create unhealthy, and sometimes dangerous, situations both for wildlife and for you.

## Brush Pile Construction

Step 1



Step 2



*Brush Pile Construction.* In step 1, the base is constructed with four tiers of logs three to eight inches in diameter (an average of 20 logs). In step 2, the base is covered by brush and smaller branches. Brush piles can also be constructed without a log base.

With the onset of cold weather, insect populations die off or become dormant. As birds seek alternative food sources, backyard feeders begin to see more activity. The species you attract will depend on the location of your lot and the type of feed you use. Of the supplemental food sources available, black oil sunflower seed is the most versatile and the most popular with many songbirds. Also, because this particular seed is not preferred by non-native birds such as house sparrows and starlings, which compete for nesting cavities with many of our native songbirds, its use may discourage their presence at the feeder. If you do not have house sparrows in your area, you can use white proso millet to add smaller seed to your feed. Goldfinches, purple finches, house finches, and pine siskins are especially attracted to black thistle seed (niger). Check the contents of commercial seed mixes to make certain that they contain a large proportion of the seeds you want rather than "filler" seeds that are not eaten by most backyard birds. Beginning in May, you can attract Baltimore (northern) orioles with orange halves. Offer them on an open platform feeder, on suspended feeders, or nailed to a tree or post.

From May through September, nectar feeders can be used to attract hummingbirds. You can make your own nectar by mixing one part sugar with four parts water and boiling the mixture for one to two minutes. Allow the nectar to cool before filling the feeder, and store the extra in the refrigerator for future use. Although hummingbirds are attracted by red or orange, it is better to have the color on the feeder than in the homemade nectar. This way, the birds will not be ingesting anything artificial that they don't really need. To prevent bacterial growth, the feeder should be cleaned with a mixture of half vinegar and half hot water and refilled with fresh nectar every two to three days.

Keeping seed feeders clean is also very important in warm weather. Don't let seed sit, especially when it is wet, and discard any seed that becomes moldy. Wet bird seed promotes the growth of bacteria which causes salmonella and aspergillosis, potentially fatal bird infections. Feeders should be scrubbed and disinfected with a mixture of one part chlorine bleach to nine parts water.



*Some birds, such as the northern cardinal, prefer open platform feeders.*

Artificial feeding can be discontinued in the spring and summer. When so much natural food is available, feeder use often drops. Although feeders can assist birds during unseasonable weather, during spring and summer, most songbirds switch to a largely insectivorous diet.

For more information on feeding backyard birds, refer to the Wildlife Division publication, *Discover Wildlife in Connecticut's Backyard*, listed in the reference section.

## Providing Suet

Beef or sheep suet may be used to attract woodpeckers, chickadees, nuthatches, blue jays, and other birds. Suet should be offered only during the colder months so it won't get rancid. Hang it out of reach of dogs or raccoons.

## Deterring Squirrels

One of the biggest problems you will have is deterring squirrels from hoarding all the food at feeders for themselves. Squirrels may provide entertainment as they perform acrobatic stunts, but they can send your replacement feed cost skyrocketing. Keeping the feeder away from overhanging branches and placing a sheet metal

guard on the post on which the feeder sits will help prevent squirrels from raiding your feeder (see page 17). There are other techniques and gadgets available on the market that can be used with various types of feeders.

## Supplying Grit and Calcium

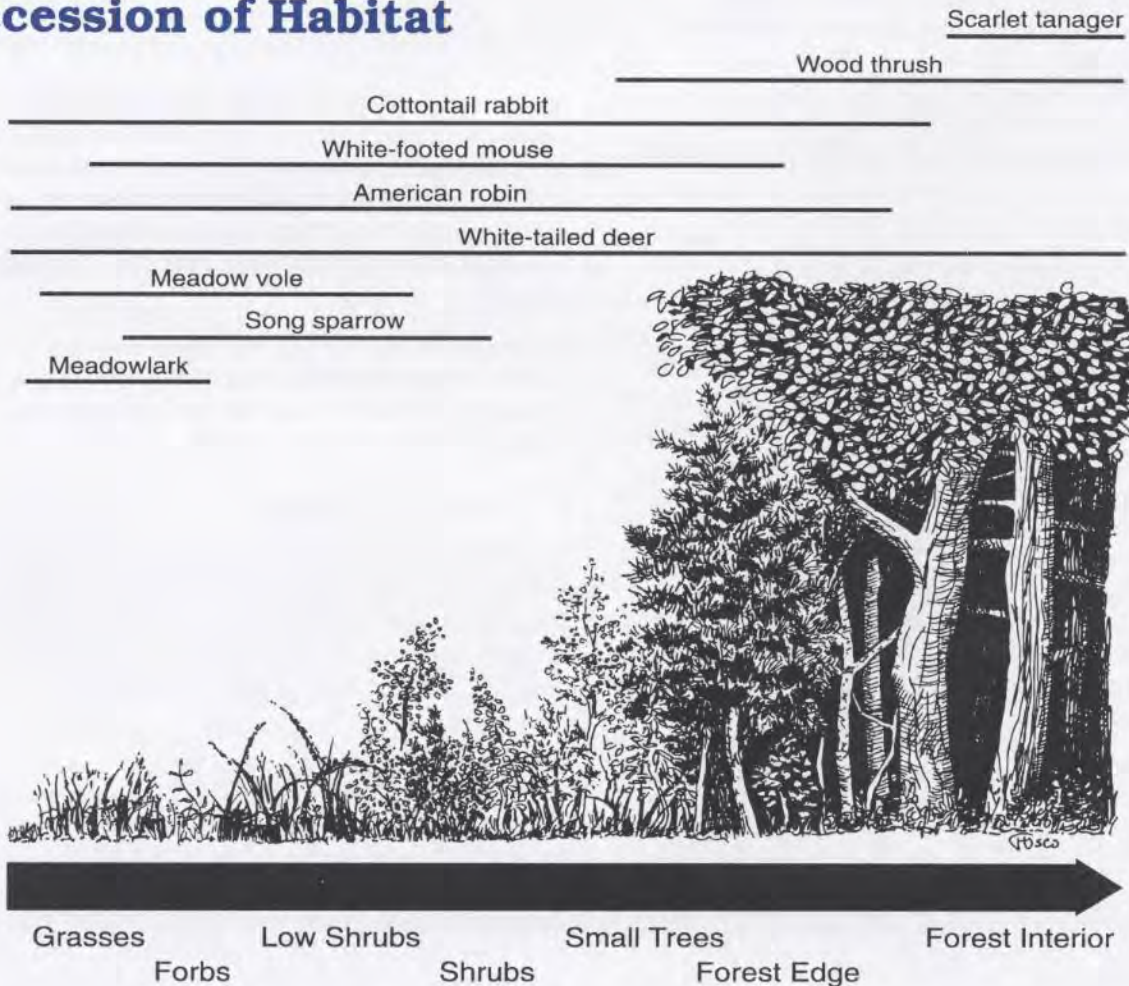
Because birds have no teeth, they need gravel and grit to help grind food in their gizzard, the muscular part of their stomach. A pile of sand or small gravel on an open platform feeder will fill this requirement, although most birds can readily find naturally occurring grit. For a calcium supplement, needed by most nesting birds to aid in egg production, place crushed eggshells in the feeder.



P. J. FUSCO

*The grit gathered by this pine siskin will help it to grind food in its gizzard.*

## Succession of Habitat





# Common and Scientific Names of Trees and Shrubs

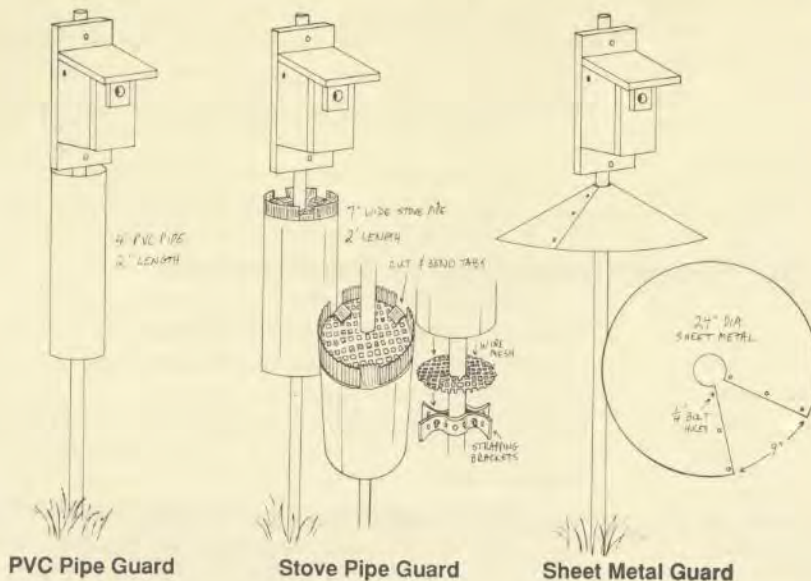
## TREES

American Beech (*Fagus grandifolia*)  
 American Elm (*Ulmus americana*)  
 American Holly (*Ilex opaca*)  
 American Hornbeam (*Carpinus caroliniana*)  
 Black Ash (*Fraxinus nigra*)  
 Black Cherry (*Prunus serotina*)  
 Black Oak (*Quercus velutina*)  
 Butternut Walnut (*Juglans cinera*)  
 Chestnut Oak (*Quercus prinus*)  
 Choke Cherry (*Prunus virginiana*)  
 Eastern Hemlock (*Tsuga canadensis*)  
 Eastern Red-cedar (*Juniperus virginiana*)  
 Flowering Dogwood (*Cornus florida*)  
 Green Ash (*Fraxinus pennsylvanica*)  
 Northern Red Oak (*Quercus rubra*)  
 Pin Cherry (*Prunus pennsylvanica*)  
 Red Maple (*Acer rubrum*)  
 Red Mulberry (*Morus rubra*)  
 Scarlet Oak (*Quercus coccinea*)  
 Silver Maple (*Acer saccharinum*)  
 Sugar Maple (*Acer saccharum*)  
 White ash (*Fraxinus americana*)  
 Swamp White Oak (*Quercus bicolor*)  
 Tulip Tree (*Liriodendron tulipifera*)  
 White Oak (*Quercus alba*)  
 White Pine (*Pinus strobus*)

## SHRUBS AND VINES

Alternate-leaf Dogwood (*Cornus alternifolia*)  
 American Cranberry Bush (*Viburnum trilobum*)  
 Arrowwood (*Viburnum recognitum*)  
 Bayberry (*Myrica pennsylvanica*)  
 Black Chokeberry (*Aronia melanocarpa*)  
 Black Raspberry (*Rubus occidentalis*)  
 Elderberry (*Sambucus canadensis*)  
 Gray Dogwood (*Cornus racemosa*)  
 Highbush Blueberry (*Vaccinium corymbosum*)  
 Inkberry (*Ilex glabra*)  
 Lowbush Blueberry (*Vaccinium angustifolium*)  
 Mapleleaf Viburnum (*Viburnum acerifolium*)  
 Mountain Laurel (*Kalmia latifolia*)  
 Nannyberry (*Viburnum lentago*)  
 Pasture Juniper (*Juniperus communis*)  
 Pasture Rose (*Rosa carolina*)  
 Red Chokeberry (*Aronia arbutifolia*)  
 Red-osier Dogwood (*Cornus sericea*)  
 Shadbush, Serviceberry (*Amelanchier canadensis*)  
 Silky Dogwood (*Cornus amomum*)  
 Spicebush (*Lindera benzoin*)  
 Staghorn Sumac (*Rhus typhina*)  
 Sweet Pepperbush (*Clethra alnifolia*)  
 Virginia Creeper (*Parthenocissus quinquefolia*)  
 Wild Grape (*Vitis spp.*)  
 Winterberry (*Ilex verticillata*)

## Predator Guard Recommendations



There are various techniques for predator-proof nest boxes or squirrel-proof bird feeders. These designs can be used for both applications.

# Habitat Enhancement

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## Developing a Plan

Using the habitat assessment from on the inside back cover, list the existing habitat components on your property. Next, make a sketch of the property showing the boundaries and the existing habitat components. A property boundary map or plot plan of your lot will make it easier to draw a sketch of it. The house footprint, driveway, roads, streams, ponds, or other landmarks make good reference points. (Use the wildlife habitat components listed on page 6 for reference.) Then, ask the following questions:

1. Which habitat components are limited or lacking on my lot?
2. What is practical or feasible to add to the lot to make it more attractive for wildlife?
3. Are there any invasive exotic plants that should be removed to improve conditions for native plants?
4. What additional wildlife species do I want to attract, and what can I do to provide habitat to attract them? (Note: The type of habitat in surrounding areas may limit species which can be attracted.)

You may need to consult field guides to identify some of the plants and wildlife that occur on your lot. A visit to the DEP's Sessions Woods Wildlife Management Area, in Burlington, would also be helpful. Wildlife habitat enhancement is demonstrated along the area's trails, and a

separate backyard habitat demonstration area contains trees and shrubs labeled to help visitors identify valuable wildlife food plants.

## Developing Your Backyard Habitat

The location and size of your property will greatly influence the species of wildlife you can attract. As an area is transformed from predominantly forested (rural) to fragmented and isolated small forests (suburban, urban), the wildlife that inhabit the area change. Some wildlife are generalists that adapt to change, while others are specialists that are less adaptable to change and less tolerant of disturbance.

The following two examples of suburban and rural lots are from the author's notes, observations, and personal experience. A study of the properties using detailed wildlife censusing techniques would yield more information about the wildlife use. Your lot may be similar to one of the examples or it may be quite different. These examples of real life situations should be a helpful guide. Learn as much as you can about the habitat components and determine what you can do to enhance your lot for wildlife. Remember, you are the habitat manager and you can plan and shape your backyard habitat to fit your goals for wildlife, as well as your needs for living space.

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## Invasive Exotic Plants Not Recommended to Be Planted

### Trees

Norway Maple (*Acer platanoides*)  
Tree of Heaven (*Ailanthus altissima*)  
Catalpa (*Catalpa spp.*)

### Shrubs

Autumn Olive (*Elaeagnus umbellata*)  
Winged Euonymus (*Euonymus alatus*)  
Privet (*Ligustrum spp.*)  
Amur Honeysuckle (*Lonicera mackii*)  
Morrow's Honeysuckle (*Lonicera morrowii*)

Tartarian Honeysuckle (*Lonicera tatarica*)  
Common Buckthorn (*Rhamnus cathartica*)  
Glossy Buckthorn (*Rhamnus frangula*)  
Multiflora Rose (*Rosa multiflora*)

### Vines

Asiatic Bittersweet (*Celastrus orbiculatus*)  
Japanese Honeysuckle (*Lonicera japonica*)

# My Own Experience

## Suburban Area

My first home was on a quarter-acre lot in central Connecticut. Because it was next door to the house where I grew up, I observed the wildlife that occurred there over many years. Most of the surrounding neighborhood had small lots (less than a half-acre) with a 10-acre undeveloped oak/hickory forest behind the houses. The bird species I observed either nesting, resting, feeding on natural plant foods, or visiting artificial feeders and water sources were: blue jay, northern cardinal, tufted titmouse, American robin, common grackle, brown-headed cowbird, American crow, European starling, house sparrow, house finch, house wren, dark-eyed junco, black-capped chickadee, Baltimore oriole, northern flicker, northern mockingbird, chimney swift, ruby-throated hummingbird, gray catbird, downy woodpecker, and eastern screech-owl. The mammals I either observed or found evidence of on our property were: gray squirrel, southern flying squirrel, woodchuck, raccoon, opossum, eastern striped skunk, eastern cottontail rabbit, white-footed mouse, short-tailed shrew, eastern star-nosed mole, Norway rat, and big brown bat. The reptile and amphibian species that I found occasionally were: eastern American toad, eastern garter snake, redback salamander, and wood turtle.

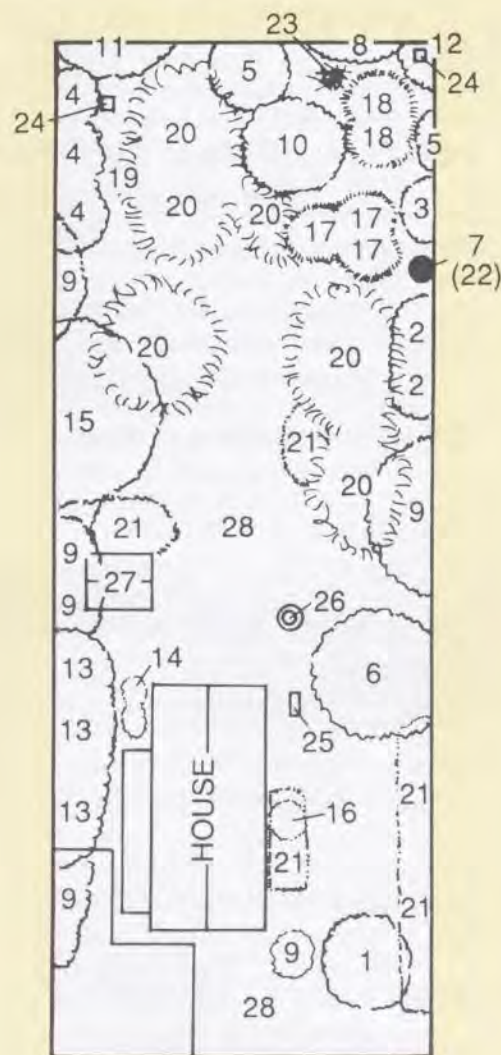
## Suburban Lot Habitat Enhancement

The space on the quarter-acre lot was occupied by a 100-year-old house, garage, lawn, and backyard garden. In assessing the wildlife habitat, we determined that there was a lack of winter cover, fall fruits, vines, dead or decaying trees, brush piles, fallen logs, water sources, nest boxes, and plant diversity.

One of the first things we did was to install a house wren nest box and a chickadee nest box. Then we set up a suet feeder and a roofed box feeder filled with black oil sunflower seed. The edges of the east and west boundaries of the backyard had a large stand of Norway maples, which are non-native and invasive trees. To increase plant diversity, we removed many of the Norway maples so the sunlight-deprived

## Suburban Lot Example

*not to scale*



- |                     |                               |
|---------------------|-------------------------------|
| 1 Apple             | 15 American Elm               |
| 2 Plum              | 16 Rhododendron               |
| 3 Black Cherry      | 17 Eastern Hemlock            |
| 4 Pear              | 18 Pitch Pine                 |
| 5 Flowering Dogwood | 19 Grape Vine                 |
| 6 Forsythia         | 20 Raspberries / Blackberries |
| 7 Red Maple         | 21 Flower / Fern Garden       |
| 8 Sugar Maple       | 22 Snag                       |
| 9 Norway Maple      | 23 Brush Pile                 |
| 10 Red Mulberry     | 24 Nest Box                   |
| 11 Red Oak          | 25 Feeder                     |
| 12 Black Oak        | 26 Birdbath                   |
| 13 Butternut Walnut | 27 Shed                       |
| 14 Arborvitae       | 28 Lawn                       |

# Backyard Habitat Assessment Form - Suburban Lot

This is an example of how the form was used to assess the suburban lot. Items in brackets are habitat components added following habitat assessment.

1. Early summer fruits 1 Red Mulberry (15'), [Many patches of blackberries and raspberries]
  2. Fall fruits 2 Flowering Dogwoods (15', 25'), 1 Black Cherry (30')  
2 Domestic Plums (10'), 3 Pears (10', 15', 20'), 1 Apple (8')
  3. Fall nuts 1 Red oak (60'), 1 Black oak (60'), 3 Butternut Walnuts (20', 25', 30')
  4. Fall seeds 2 American Elms (15', 30'), 2 Sugar Maples (50')  
Dozens of Norway Maple sprouts and small trees
  5. Persistent winter fruits None
  6. Winter cover and conifers 1 Rhododendron (4'), 2 Arborvitae (4')  
[3 Eastern Hemlocks (5')] [2 Pitch Pines (6', 8')]
  7. Spring and summer seeds 1 Red Maple (30')
  8. Herbaceous plants Golden rods, Garden Phlox, [Annual and perennial grasses, a variety of other wildflowers]
  9. Hummingbird nectar plants [Annual impatiens planted in cultivated area]
  10. Vines [Concord Grapes (trellis)] [Wild grapevines at woods edge]
  11. Dead or decaying trees [1 Red Maple (40') - girdled]
  12. Artificial nest boxes [House wren nest box] [Chickadee nest box]
  13. Water sources [Birdbath]
  14. Brush piles and hollow logs [1 Brush pile at woods edge]
  15. Grit areas [Small sand pile]
  16. Artificial feeding [Roofed box feeder] [Suet feeder]
- Species of wildlife observed on property See page 19.

Improvements made to enhance habitat See pages 19 and 21.

Additional wildlife species desired \_\_\_\_\_

flowering dogwood and black cherry seedlings would grow, increasing the types of fall fruits. We left the southern third of the property unmowed, allowing the blackberries and raspberries growing along the woods edge to spread and form dense tangles. The many new grasses and wildflowers which colonized the unmowed patch attracted butterflies and occasionally sphinx moths. We added several eastern hemlocks and two pitch pine seedlings for future winter cover and built a brush pile out of the Norway maples. We built a trellis for Concord grapevines, which were pruned annually, and we planted more grapes along the rear edge of the property, letting these vines climb unpruned. A birdbath was added to provide a water source. On the western edge of the property, we used a chainsaw to girdle the base of a large red maple with decaying limbs. Within two years, the tree was dead and downy woodpeckers were commonly seen pecking away at the bark for insects. A pair of northern flickers and a pair of European starlings were seen fighting over a nesting cavity in one of the older limbs.

## Rural Area

Our present house, on the outskirts of the same town, is located on a one-acre lot in a neighborhood of one- to four-acre lots. The east and north sides of the property are bordered by several hundred acres of undeveloped oak/hickory forest. Many of the wildlife species that are listed (in **bold**) for our current residence did not occur on the suburban lot. The bird species observed either nesting, resting, feeding on natural food plants, or visiting the artificial feeders and water sources are: **wood thrush, hermit thrush, ovenbird, scarlet tanager, ruffed grouse, rose-breasted grosbeak, mourning dove, eastern phoebe, American goldfinch, wild turkey, red-tailed hawk, white-breasted nuthatch, turkey vulture, pileated woodpecker, hairy woodpecker,** downy woodpecker, blue jay, northern cardinal, brown-headed cowbird, American robin, tufted titmouse, common grackle, American crow, European starling, house sparrow, house finch, dark-eyed junco, black-capped chickadee, Baltimore (Northern) oriole, northern flicker, northern mockingbird, chimney swift, ruby-throated hummingbird, gray catbird, and eastern screech-owl. The mammals observed were: **white-tailed deer,** raccoon, opossum,

woodchuck, eastern striped skunk, eastern cottontail rabbit, gray squirrel, flying squirrels, **red squirrel, eastern chipmunk,** white-footed mouse, eastern star-nosed mole, short-tailed shrew, big brown bat, and **red bat.** The reptiles and amphibians observed were: American toad, **wood frog,** redback salamander, **Jefferson salamander,** garter snake, and **ringneck snake.**

## Rural Lot Habitat Enhancement

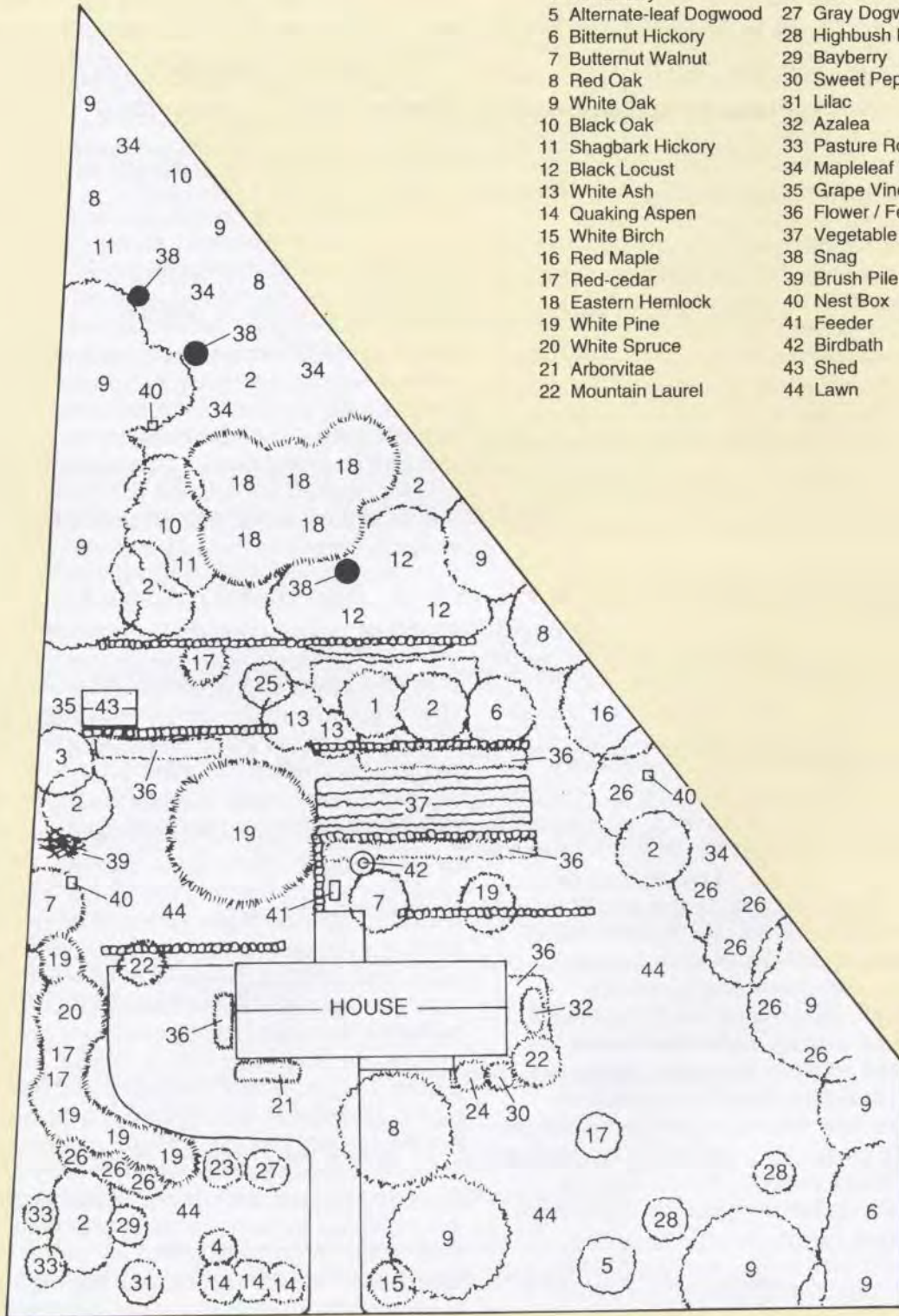
The property surrounding our present home has a variety of trees and shrubs, partly because many of the existing trees were not removed when the house was built in the 1950s. The original owner had vegetable and flower gardens terraced with cemented stone walls; however, a subsequent owner abandoned the gardens, and they became overgrown with various native and non-native trees, shrubs, and herbaceous plants. After assessing the wildlife habitat, we decided to remove the non-native woody plants that invaded the area: winged euonymus, multiflora rose, catalpa, tartarian honeysuckle, and European honeysuckle. Most of these non-native invasives spread through the undigested seeds of bird and mammal droppings. Reclaiming the area was a chore, and germinating seeds and stump sprouts make the job a continuing one. Although some of these plants had wildlife value, they choked out other plants. We decided to encourage the native plant species that occur in the surrounding forest.

In assessing the habitat components on the property, we determined that there was a lack of persistent winter fruits, water sources, brush piles, hummingbird nectar plants, and decaying trees with nesting cavities. Because the surrounding area is predominantly forested, we installed three nest boxes to attract black-capped chickadees or tufted titmice, and we placed a squirrel nest box in an oak tree. We added a birdbath, a suet feeder, and a roofed box feeder filled with black oil sunflower seed. Two winterberry shrubs, two bayberry shrubs, three red-cedars, and three pasture rose bushes were planted to increase persistent winter fruit. Four white pines were added for winter cover and privacy screening, and the gaps between them were filled with American hornbeam saplings transplanted from the woods edge. A sweet pepperbush shrub with fragrant, white-

# Rural Lot Example

*not to scale*

- |                          |                         |
|--------------------------|-------------------------|
| 1 Black Cherry           | 23 American Holly       |
| 2 Flowering Dogwood      | 24 Winterberry          |
| 3 Red Mulberry           | 25 Spicebush            |
| 4 Pin Cherry             | 26 American Hornbeam    |
| 5 Alternate-leaf Dogwood | 27 Gray Dogwood         |
| 6 Bitternut Hickory      | 28 Highbush Blueberry   |
| 7 Butternut Walnut       | 29 Bayberry             |
| 8 Red Oak                | 30 Sweet Pepperbush     |
| 9 White Oak              | 31 Lilac                |
| 10 Black Oak             | 32 Azalea               |
| 11 Shagbark Hickory      | 33 Pasture Rose         |
| 12 Black Locust          | 34 Mapleleaf Viburnum   |
| 13 White Ash             | 35 Grape Vine           |
| 14 Quaking Aspen         | 36 Flower / Fern Garden |
| 15 White Birch           | 37 Vegetable Garden     |
| 16 Red Maple             | 38 Snag                 |
| 17 Red-cedar             | 39 Brush Pile           |
| 18 Eastern Hemlock       | 40 Nest Box             |
| 19 White Pine            | 41 Feeder               |
| 20 White Spruce          | 42 Birdbath             |
| 21 Arborvitae            | 43 Shed                 |
| 22 Mountain Laurel       | 44 Lawn                 |



# Backyard Habitat Assessment Form - Rural Lot

This is an example of how the form was used to assess the rural lot. Items in brackets are habitat components added following habitat assessment.

1. Early summer fruits 1 Red Mulberry (5'), 1 Alternate-leaf Dogwood (6'),  
2 Highbush Blueberry (4'), Black Raspberry patches
  2. Fall fruits 7 Flowering Dogwoods (6'-20'), 1 Black Cherry (20'), 1 Pin Cherry (5'),  
1 Am. Holly (3'), 1 Gray Dogwood (4'), 4 Red-cedars (4'-12'), 1 Spicebush (6'), 1 Winter-  
berry (3')
  3. Fall nuts 11 White Oaks (25'-70'), 1 Black Oak (50'), 1 Red Oak (60'),  
4 Bitternut Hickory (6'-60'), 2 Butternut walnut (8', 30')
  4. Fall seeds 1 White Ash (30'), 2 White Birch (5', 8'), 5 Black Locust (20'-40')
  5. Persistent winter fruits [2 Winterberry (3')] [4 Red-cedars (4'-12')]  
[1 American Holly (3')] [2 Bayberry (4')] [3 Pasture Rose (3')]
  6. Winter cover and conifers 6 Eastern Hemlock (20'-50'), 1 White Pine (60'),  
4 Red-cedar (4'-12'), 1 White Spruce (40'), 2 Mtn. Laurel (8'), 4 Arborvitae (6'), [4 White Pines]
  7. Spring and summer seeds 1 Red Maple (50'), 14 American Hornbeam (10'-25')
  8. Herbaceous plants Goldenrods, Wood Asters, New England Aster, Garden  
Phlox, [Unmowed patches of wildflowers]
  9. Hummingbird nectar plants [Impatiens (annual)]
  10. Vines Wild grapevines
  11. Dead or decaying trees 1 Red Maple (40'), [1 Black Locust (30')-girdled]
  12. Artificial nest boxes [2 Squirrel nest boxes] [1 House wren nest box]  
[1 Chickadee nest box] [1 Tufted titmouse nest box]
  13. Water sources [Birdbath]
  14. Brush piles and hollow logs [1 Brush Pile]
  15. Grit areas [Small sand pile]
  16. Artificial feeding [Roofed box feeder] [Suet feeder] [Hummingbird feeder] [Thistle feeder]
- Species of wildlife observed on property See page 21.

Improvements made to enhance habitat See pages 21 and 24.

Additional wildlife species desired \_\_\_\_\_

spiked flowers was planted to attract butterflies. We also have patches of areas that we mow once a year with a sickle bar mower to increase herbaceous cover.

We have also started removing surplus black locust trees. Although a native tree, the black locust thrives on previously disturbed sites because it is a nitrogen fixer and sends out root suckers. We have girdled some with a chainsaw to make snags, cut down others, and pulled out the smaller ones. A brush pile was constructed out of the cut brush. We plan to add several species of trees and shrubs over the next few years to the areas that had been overtaken by invasive plants. A trumpet creeper vine trellis to attract hummingbirds and butterflies is also planned.

## Differences Between Locations

The major differences between the suburban and the rural lot are the species of wildlife and the quantity and type of habitat found on the lots and in their surroundings. The species diversity was higher on the rural lot for both plants and wildlife, despite over 15 years of reliable wildlife observations on the suburban lot and a mere three years of observations on the rural lot.

The suburban lot has a small 10 acre forest in the immediate neighborhood, whereas the rural lot has over 100 acres of adjacent forestland. Despite the differences, both lots were able to be improved for wildlife.

Remember that you are the habitat manager; your knowledge and skills can shape the future habitat on your lot. As you learn more about wildlife and its needs, you can make adjustments and improvements. Start on a small scale and expand as your knowledge and time increase. Learning to identify the plants and animals in your surroundings will help you appreciate the needs of wildlife and you will begin to see the connection between habitat and wildlife.

## Urban Area

If a lot is surrounded mostly by tar and concrete, it is difficult to attract many species of wildlife. The following example is what an urban landowner recorded seeing on his lot:

The birds included pigeons, starlings, house sparrows, grackles, robins, blue jays, cardinals, mockingbirds, goldfinches, eastern kingbirds, barn swallows, cowbirds, chimney swifts, common nighthawks, and ring-billed gulls. The mammals seen were gray squirrel, raccoon, and house mouse. No reptiles or amphibians were found on the lot. This lot attracted many of the listed birds mostly because of the presence of a white mulberry tree with an abundance of fruit in early summer. A regular artificial feeding program may have attracted a wider variety of birds. Butterflies are more apt to frequent an urban lot with flowering plants, especially perennials. Some success will depend on local proximity to parks or other open spaces or water resources. Adding a birdbath may also help attract local birds and butterflies.

Attracting diverse wildlife species to an urban lot presents a bigger challenge than with a suburban or rural lot. Habitat improvements to the lot should maximize the types of vegetation that will grow there. Encourage plantings that create habitat by clustering plants and make the planted areas as large as possible.

For heavily urbanized sections, a community-based effort is recommended; individuals with small properties can combine habitat enhancement efforts with their neighbors. A habitat enhancement project for a local school, park, open space, town forest, or other community-owned land can also be planned.

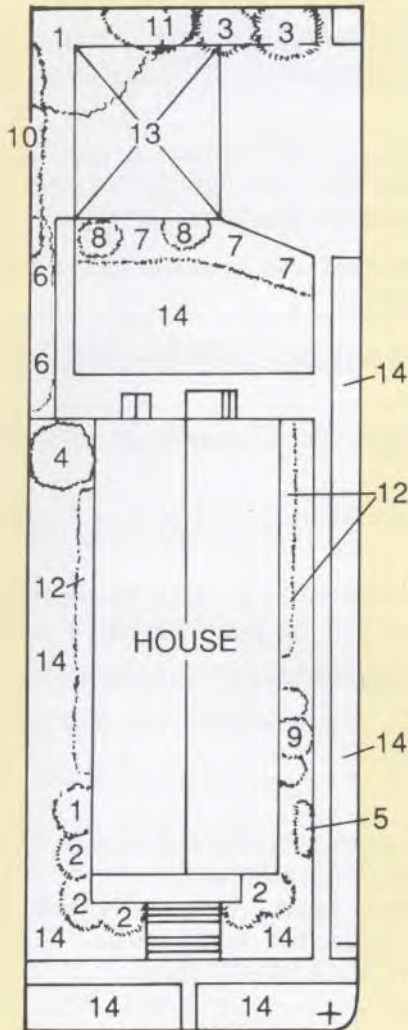
The urban resident can help conserve wildlife habitat by suggesting that undisturbed areas remain within proposed future developments in the city. This should be done during the planning stages of a development. Undisturbed areas should include native vegetation and interlink to form corridors for wildlife to travel in and use for food, cover, and nesting. These areas may require some vegetation management, such as removal of invasive non-native plants.

By retaining undisturbed areas, existing soils are also conserved, an especially important consideration in an urban area. The soil type has a profound effect on the types of vegetation that will grow on a site. Soil that has been compacted or altered significantly may lose its ability to grow the vegetation it originally nourished. Retaining the natural components of a site will enhance the site's capacity for supporting native wildlife.



## Urban Lot Example

not to scale



- 1 White Mulberry
- 2 Red-cedar
- 3 White Spruce
- 4 Lilac
- 5 Japanese Barberry
- 6 Forsythia
- 7 Roses
- 8 Hibiscus
- 9 Hydrangea
- 10 Woody Vines
- 11 Norway Maple
- 12 Annual Flowers
- 13 Garage
- 14 Lawn

## Backyard Habitat Certification

If you are interested in certifying your backyard with the Urban Wildlife Program, please contact the Wildlife Division at Sessions Woods Wildlife Management Area, P.O. Box 1550, Burlington, CT 06013-1550, or call (860) 675-8130.

The main objective of the Backyard Certification Project is to foster the appreciation of wildlife and its habitat by acknowledging those people who make an effort to learn about wildlife habitat and how to improve a property for wildlife. Applicants are sent a packet of information which includes a questionnaire, a habitat assessment sheet and a list of available publications. A small fee is charged to cover the costs of printing and mailing the information packet. Once the application is reviewed by a wildlife biologist, a certificate is mailed to the applicant. The certificate has no legal significance and does not supersede any local or state laws. It is intended to acknowledge people for their positive contribution to wildlife and their habitat.

## References for Further Reading

*American Wildlife & Plants, A Guide to Wildlife Food Habits*, Alexander C. Martin, Herbert S. Zim and Arnold L. Nelson, Dover Publications, Inc., NY. 1951. 500 pp.

*Backyard Wildlife Habitat in Vermont*, Steve Parren, Vermont Fish and Wildlife Department, Waterbury, VT. 1993. 46 pp.

*Landscaping for Wildlife*, Carrol L. Henderson, Minnesota Department of Natural Resources, Minnesota. 1987. 144 pp. Available from Minnesota Department of Natural Resources, 500 Lafayette Rd., Box 7, St. Paul, MN 55155-4007.

*Native Shrubs for Landscaping*, Sally L. Taylor, Glenn Dreyer and William A. Niering, The Connecticut College Arboretum, New London, CT. Bulletin #30. 1987. 40 pp. Available from DEP Publications, 79 Elm St., Store Level, Hartford, CT 06106-5127 (860-424-3555).

*Trees, Shrubs and Vines for Attracting Birds*, Richard M. DeGraaf and Gretchin M. Witman, University of Massachusetts Press, Amherst, MA. 1979. 194 pp.

**The publications below are available from the DEP Wildlife Division, P.O. Box 1550, Burlington, CT 06013-1550 (860-675-8130).**

*Connecticut Native Shrubs Availability List*, Peter Picone, Connecticut Department of Environmental Protection, Wildlife Division, 1992. 11 pp.

*Connecticut Native Trees Availability List*, Peter Picone, Connecticut Department of Environmental Protection, Wildlife Division, 1993. 15 pp.

*Discover Wildlife in Connecticut's Backyard*, Rita M. Duclos and Kathy F. Herz, Connecticut Department of Environmental Protection, Wildlife Division, 1989. 38 pp.

*Woodworking for Wildlife*, Carrol L. Henderson, Minnesota Department of Natural Resources, Minnesota. 48 pp.

## Native Plant Sources\*

DEP Forestry Division  
The Homesteader Seedling Program  
Pachaug State Forest Nursery  
Box 23A, 190 Sheldon Road  
Voluntown, CT 06384  
860-376-2513

New England Wild Flower Society, Inc.  
"Garden in the Woods"  
Hemenway Road  
Framingham, MA 01701-2699  
617-237-4924 or 877-7630

\*See references above for publications listing availability of native plants.

## Places to View Habitat Enhancement Demonstrations

DEP Wildlife Division  
Sessions Woods Wildlife Management Area  
341 Milford Street (Route 69)  
Burlington, CT 06013-1550  
860-675-8130

Connecticut Arboretum  
Connecticut College  
Williams Street  
New London, CT 06230  
203-447-7700

New England Wild Flower Society, Inc.  
"Garden in the Woods"  
Hemenway Road  
Framingham, MA 01701-2699  
617-237-4924 or 877-7630

# Backyard Habitat Assessment Form

Write down the number, type, and estimated size of the tree, shrub, or patch of vegetation. Include as much information as you can (see pages 20 and 23 for examples).

1. Early summer fruits \_\_\_\_\_  
\_\_\_\_\_
  2. Fall fruits \_\_\_\_\_  
\_\_\_\_\_
  3. Fall nuts \_\_\_\_\_  
\_\_\_\_\_
  4. Fall seeds \_\_\_\_\_  
\_\_\_\_\_
  5. Persistent winter fruits \_\_\_\_\_  
\_\_\_\_\_
  6. Winter cover and conifers \_\_\_\_\_  
\_\_\_\_\_
  7. Spring and summer seeds \_\_\_\_\_  
\_\_\_\_\_
  8. Herbaceous plants \_\_\_\_\_  
\_\_\_\_\_
  9. Hummingbird nectar plants \_\_\_\_\_  
\_\_\_\_\_
  10. Vines \_\_\_\_\_  
\_\_\_\_\_
  11. Dead or decaying trees \_\_\_\_\_  
\_\_\_\_\_
  12. Artificial nest boxes \_\_\_\_\_  
\_\_\_\_\_
  13. Water sources \_\_\_\_\_  
\_\_\_\_\_
  14. Brush piles and hollow logs \_\_\_\_\_
  15. Grit areas \_\_\_\_\_
  16. Artificial feeding \_\_\_\_\_
- Species of wildlife observed on property \_\_\_\_\_  
\_\_\_\_\_
- Improvements made to enhance habitat \_\_\_\_\_  
\_\_\_\_\_
- Additional wildlife species desired \_\_\_\_\_  
\_\_\_\_\_

*" I like the red dogwood because he feeds October robins, and the prickly ash because my woodcock take their daily sunbath under the shelter of his thorns. I like the hazel because his October purple feeds my eye, and because his November catkins feed my deer and grouse. I like the bittersweet because my father did, and because the deer, on the 1st of July of each year, began suddenly to eat the new leaves, and I have learned to predict this event to my guests."*

- by Aldo Leopold from Sand County Almanac