



Birds are some of the most recognizable and beloved garden visitors. They are vivacious, exhibiting unique behaviors and vocalizations. They are also beautiful, varied in their size, shape, and color. Birds provide a natural form of pest control by eating huge quantities of insects. Birds also perform an essential service to plants by dispersing their seeds over wide areas.

The loss or replacement of native vegetation to development, agriculture and the introduction of exotic species has threatened many of our bird populations. Including more bird-friendly plants and features in your landscape could help declining bird populations recover.

Designing the Bird Garden

The ideal bird garden will provide birds with a wide variety of the resources they need such as food, water, shelter and nesting sites. Including a diverse mix of vegetation types will in turn attract a more diverse array of bird species. Plants are a very important habitat element. They are a source of food for many birds, and in some cases they even provide energy sources and moisture in the form of sap or nectar. Living and decomposing plants attract many insects, which compose a large part of the diet of some birds. Plants also provide shelter and comfortable nesting sites, protecting birds from unfavorable weather and predators.

Generally, a multi-leveled planting design is recommended as each bird species has a particular preference for the elevation at which they feed and nest. Varying levels can be accomplished by planting tall and understory trees, spreading shrubs, native grasses and a few bird-attractive annuals and perennials. Consider including evergreen shrubs and trees in your

planting plan. In addition to their value as a food source in winter, they offer year-round cover from the weather as well as providing birds with secluded nesting sites. Scrubby hedge rows are also very important to some birds. They provide shelter from predators and weather extremes and, depending on the species, can be a good source of fruits and insects.

Leaving some of the leaf litter beneath bushes, trees and shrubs will give ground feeders such as thrashers, thrushes and sparrows an ideal place to feed. The decomposing leaves will also help enrich your soil. Brush piles are also attractive to ground feeding birds.

Food

Most birds will utilize different food sources depending on abundance and the time of year. A few of the most common sources of food for birds are fruits, seeds, nuts, and insects. American robins are a classic example of this behavior, eating mostly earthworms and other insects in the spring and summer and switching

over to berries and other fruits in the winter. To attract more birds to your landscape, choose a wide variety of plants that set fruit at different times of year. Eliminating pesticide use will also help make your landscape as bird-friendly as possible.

Commercial bird seed is a convenient source of food for birds. Other foods you can offer include fresh fruits and berries, nuts, peanut butter, mealworms, and suet. Monitor closely for signs of spoilage especially in the warmer months. Placing feeders in the shade can help slow spoiling. Spoiled food can put birds' health at risk and attract rodents. Set out only enough food for a few days and clean feeders regularly to avoid the spread of disease.

Many styles of bird feeders are commercially available. Be certain that the feeder you choose is designed for the food you plan to offer. Squirrels are a particular nuisance at bird feeders. There are a number of predator guards designed to keep pests away from your feeders.

Water

Birds can obtain much of the water they require in their food, but all species need a reliable source for bathing and drinking. Adding water to your garden may be as simple as placing a trash can lid on the ground or as elaborate as building an in-ground pond with water features. Gently moving, dripping, or bubbling water is highly attractive to birds. As with feeders, birdbaths should ideally be placed in the shade near shelter where the birds feel safe, but at such a distance that they may flee from their predators.

Birds often have to travel many miles in search of water in winter when most bodies of water are frozen. Concrete, terra cotta, and ceramic birdbaths crack easily in freezing temperatures. Plastic, metal, or resin are better choices for a winter birdbath. An immersion heater can be used to help keep the water from freezing. Fully integrated heated birdbaths are also available.

Shelter and Nesting

To a bird, shelter can mean anything from a place to escape from predators and bad weather to a place to nest and raise young. Plants that provide good sheltering sites are evergreen and densely branched trees and shrubs, as well as ornamental grasses with arching growth habits. Thorny shrubs also make excellent shelter and nesting habitat since the thorns can deter predators.

Providing nesting materials can be a great enticement to birds. Most birds will use animal hair, straw, feathers, bits of string and yarn or other stringy material. These materials should measure four to five inches; longer pieces could entangle birds. Nesting materials should be offered in concentrated, readily-obtainable piles to reduce the time a bird spends searching. Nesting materials may be placed near the base of shrubs or feeders. They can be placed in empty suet feeders and wire baskets suspended from trees for easy access. Do not place nesting materials directly into birdhouses, because it will look as if it is already occupied.

About fifty species of North American birds use birdhouses for nesting, and a wide variety of birdhouses are available for purchase, either preassembled or as a kit. Plans are also available to build your own. Regardless of which you choose, make sure the birdhouse is designed and built for the particular species of bird you wish to attract.

Resources

Online resources with more information on birds and bird gardening:

- Plants for Birds from the National Audubon Society
- All About Birds and NestWatch from the Cornell Lab of Ornithology

Annuals

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Amaranthus</i> spp.	amaranth	Seed
<i>Calibrachoa</i> (group)	million bells	Nectar
<i>Coreopsis tinctoria</i>	plains coreopsis	Seed
<i>Helianthus annuus</i>	common sunflower	Seed, Insects
<i>Lantana camara</i>	lantana	Nectar
<i>Salvia splendens</i>	scarlet sage	Nectar
<i>Salvia guaranitica</i>	anise-scented sage	Nectar
<i>Tagetes</i> spp.	marigold	Nectar
<i>Tropaeolum</i> (group)	nasturtium	Nectar
<i>Pennisetum glaucum</i>	pearl millet	Seed
<i>Pentas lanceolata</i>	Egyptian star flower	Nectar
<i>Petunia</i> (group)	petunia	Nectar
<i>Tithonia rotundifolia</i>	Mexican sunflower	Nectar, Seed
<i>Verbena</i> spp.	verbena	Nectar
<i>Zinnia</i> (group)	zinnia	Nectar, Seed

Perennials

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Aquilegia canadensis</i>	columbine	Nectar
<i>Asclepias tuberosa</i>	butterfly weed	Nectar, Insects
<i>Asclepias incarnata</i>	swamp milkweed	Nectar, Insects
<i>Coreopsis tripteris</i>	tickseed	Seed
<i>Digitalis purpurea</i>	common foxglove	Nectar
<i>Dianthus barbatus</i>	sweet William	Nectar, Seed
<i>Echinacea purpurea</i>	purple coneflower	Seed, Insects
<i>Geranium maculatum</i>	wild geranium	Seed
<i>Heliopsis helianthoides</i>	oxeye sunflower	Seed, Insects
<i>Heuchera sanguinea</i>	coral bells	Nectar
<i>Hibiscus coccineus</i>	scarlet rose mallow	Nectar, Insects
<i>Hosta</i> spp.	hosta	Nectar
<i>Liatris</i> spp.	blazing star	Nectar, Seed
<i>Lilium superbum</i>	Turkscap lily	Nectar
<i>Lobelia cardinalis</i>	cardinal flower	Nectar
<i>Monarda bradburiana</i>	eastern beebalm	Nectar
<i>Penstemon digitalis</i>	beardtongue	Nectar
<i>Phlox paniculata</i>	garden phlox	Nectar
<i>Rudbeckia</i> spp.	black-eyed Susan	Seed, Insects
<i>Solidago</i> spp.	goldenrod	Seed, Insects
<i>Spigelia marilandica</i>	Indian pink	Nectar

Shrubs

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Aesculus pavia</i>	red buckeye	Nectar, Shelter, Nesting
<i>Aronia melanocarpa</i>	black chokeberry	Fruit, Insects, Shelter
<i>Callicarpa americana</i>	beautyberry	Fruit, Shelter
<i>Cornus racemosa</i>	gray dogwood	Fruit, Shelter, Nesting
<i>Corylus americana</i>	American hazelnut	Seed, Insects, Shelter
<i>Euonymus atropurpureus</i>	eastern wahoo	Fruit, Shelter
<i>Hamamelis</i> spp.	witch hazel	Seed, Insects, Shelter, Nesting
<i>Ilex decidua</i>	possumhaw	Fruit, Shelter, Nesting
<i>Ilex verticillata</i>	winterberry	Fruit, Shelter
<i>Ilex</i> × <i>meserveae</i>	blue holly	Fruit, Shelter
<i>Juniperus</i> spp.	juniper	Fruit, Shelter, Nesting
<i>Lindera benzoin</i>	spice bush	Fruit, Insects, Shelter
<i>Myrica pensylvanica</i>	bayberry	Fruit, Shelter, Nesting
<i>Ribes missouriense</i> .	Missouri gooseberry	Fruit, Insects, Shelter
<i>Rosa rugosa</i>	rugosa rose	Fruit, Insects, Shelter
<i>Rosa setigera</i>	prairie rose	Fruit, Insects, Shelter
<i>Rhus glabra</i>	smooth sumac	Fruit, Insects, Shelter
<i>Rhus typhina</i>	staghorn sumac	Fruit, Insects, Shelter
<i>Rubus</i> spp.	blackberries, raspberries	Fruit, Shelter
<i>Sambucus canadensis</i>	American black elderberry	Fruit, Shelter
<i>Salix humilis</i>	prairie willow	Insects, Shelter, Nesting
<i>Taxus</i> × <i>media</i>	yew	Fruit, Shelter, Nesting
<i>Viburnum</i> spp.	viburnum	Fruit, Shelter, Nesting

Woody Ground Covers

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Cotoneaster adpressus</i>	creeping cotoneaster	Fruit, Shelter
<i>Rhus aromatica</i> 'Gro-Low'	fragrant sumac	Fruit, Insects, Shelter
<i>Symphoricarpos orbiculatus</i>	coralberry	Fruit, Insects, Shelter

Ornamental Grasses

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Schizachyrium scoparium</i>	little bluestem	Seed, Shelter
<i>Bouteloua curtipendula</i>	sideoats grama	Seed
<i>Carex cherokeensis</i>	Cherokee sedge	Shelter
<i>Chasmanthium latifolium</i>	northern sea oats	Seed
<i>Deschampsia cespitosa</i>	tufted hair grass	Seed
<i>Panicum virgatum</i>	switch grass	Seed, Shelter
<i>Sorghastrum nutans</i>	Indian grass	Seed, Shelter
<i>Sporobolus heterolepis</i>	prairie dropseed	Seed, Shelter

Trees

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Acer rubrum</i>	red maple	Seed, Insects, Shelter, Nesting
<i>Amelanchier</i> spp.	serviceberry	Fruit, Insects, Shelter, Nesting
<i>Celtis occidentalis</i>	hackberry	Fruit, Insects, Shelter, Nesting
<i>Cercis canadensis</i>	redbud	Seed, Insects, Shelter, Nesting
<i>Cornus florida</i>	flowering dogwood	Fruit, Shelter
<i>Crataegus</i> spp.	hawthorn	Fruit, Shelter, Nesting
<i>Diospyros virginiana</i>	persimmon	Fruit, Shelter, Nesting
<i>Liriodendron tulipifera</i>	tulip tree	Nectar, Seed, Insects, Shelter, Nesting
<i>Malus</i> spp.	crabapple	Fruit, Insects Shelter, Nesting
<i>Morus rubra</i>	red mulberry	Fruit, Shelter, Nesting
<i>Nyssa sylvatica</i>	black gum	Fruit, Insects, Shelter, Nesting
<i>Picea abies</i>	Norway spruce	Seed, Shelter, Nesting
<i>Pinus nigra</i>	Austrian pine	Seed, Shelter, Nesting
<i>Pinus strobus</i>	eastern white pine	Seed, Shelter, Nesting
<i>Prunus serotina</i>	black cherry	Fruit, Shelter, Nesting
<i>Prunus virginiana</i>	chokecherry	Fruit, Shelter, Nesting
<i>Quercus</i> spp.	oak	Seed, Insects, Shelter, Nesting
<i>Tilia americana</i>	American linden	Fruit, Insects, Shelter, Nesting
<i>Thuja occidentalis</i>	American arborvitae	Shelter, Nesting

Vines

<u>Scientific Name</u>	<u>Common Name</u>	<u>Uses</u>
<i>Celastrus scandens</i>	American bittersweet	Fruit, Insects, Shelter
<i>Ipomoea lobata</i>	Spanish flag	Nectar
<i>Lonicera sempervirens</i>	trumpet honeysuckle	Nectar, Insects, Shelter,
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Fruit, Insects, Shelter
<i>Vitis aestivalis</i>	summer grape	Fruit, Insects, Shelter
<i>Wisteria frutescens</i>	American wisteria	Insects, Shelter