

Beyond the Birdfeeder: Creating a Bird-Friendly Yard with Native Wisconsin Plants

BIRDS AND PLANTS – AN ANCIENT AND ENDURING COLLABORATION

By Mariette Nowak for
The Wisconsin Society for Ornithology, Inc.

Over millions of years, birds and plants have developed mutually beneficial relationships. Birds help pollinate plants, disperse their seeds, and eat the insects that can ravage them. To entice the help of birds, plants have evolved colorful, nectar-filled flowers and luscious, nutrient-packed fruits and seeds. In addition, the limbs and leaves of many plants offer nesting sites and cover for a wide variety of bird species.



Reasons to Landscape for Birds

“Small ‘islands’ of habitat can provide food resources to birds, particularly during migration.” Victoria Piaskowski, retired international coordinator, Birds Without Borders – *Aves Sin Fronteras*® project, Foundation for Wildlife Conservation, Inc., and Zoological Society of Milwaukee.



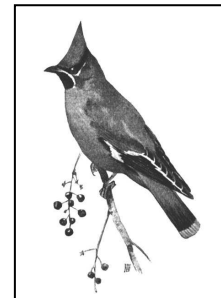
- Habitat loss is the single most important cause of the decline of species. Your yard, whatever its size, can offer habitat for birds.
- Many birds seldom or never use feeders, preferring natural foods.
- Feeder birds get only a relatively small portion of their nutrition from feeder food, especially during the critical nesting period.
- Native landscapes help sustain many other attractive species, including butterflies, moths, beetles, and the plants themselves.

Choose Native Plant Species

“Native plants, which have co-evolved with native wild birds, are more likely to provide a mix of foods – just the right size, and with just the right kind of nutrition – and just when the birds need them.” Stephen Kress, National Audubon Society.

Researchers have found that native plants are better for native birds and for the insects they need for survival. Some important findings include the following:

- More bird species and greater numbers of birds occur in areas with native vegetation than in areas with exotic, or non-native, vegetation.
- Birds nesting in weedy shrubs like buckthorn and honeysuckle are more likely to fall victim to predators such as cats and raccoons than are birds nesting in native forests. This is due to lower branches, lack of thorns, and other characteristics of the non-native shrubs.
- Cedar Waxwings that eat the berries of one species of non-native honeysuckle develop orange, rather than yellow, tail bands. This color

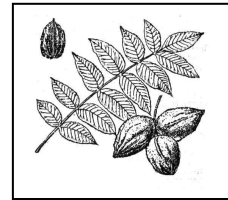


change could be harmful to the birds, since they use color in mate selection and territorial disputes.

- Most insects, so important for bird nutrition, prefer native host plants and, in fact, often lack the enzymes needed to digest non-native plants. Caterpillars are the preferred protein food for nestlings.
- Native wildflowers often offer significantly more nectar for hummingbirds than the cultivated hybrids that have been derived from them.
- Many varieties of native species, which provide food for birds throughout the year, are being replaced by a very limited number of invasive non-native species. These invasives offer food of reduced variety, quality, and seasonal availability.

Native Plants Defined

Native plants are ones that existed in an area prior to European settlement. These plants are well adapted to climate, precipitation, soils, insects, and other local conditions and are consequently easier to grow than non-natives. A list of the best Wisconsin native plants for attracting birds is given below. For further information on the plants native to your area, check with your local nature centers, colleges, universities, the Wisconsin State Herbarium (www.botany.wisc.edu/wisflora/), Wild Ones: Native Plants, Natural Landscapes (www.wildones.org), and the Wisconsin Department of Natural Resources (dnr.wi.gov).



Where to Get Native Plants

Native plants and source lists for native plants are often available at local nature centers and native plant nurseries. The Wisconsin Department of Natural Resources, Bureau of Endangered Resources, provides an online list of Native Plant Nurseries: <http://dnr.wi.gov/files/pdf/pubs/er/er0698.pdf>.

Plants should be purchased from reputable suppliers, not dug from the wild. It is, in fact, illegal to remove plants from public lands. In the case of private lands, be sure to get the landowner's permission.

For "Guidelines on the Selection of Native Plants," see the Wild Ones Natural Landscapers website (www.wildones.org).

Getting Started

- Take an inventory.
- For full yard restorations, you may want to let neighbors know what you are doing and check with officials regarding local regulations.
- Have your soil tested, a service offered through your county University of Wisconsin–Extension Office (usually listed under county offices in your phone book).

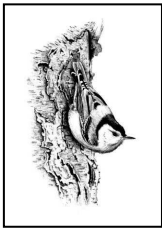
Planning Your Yard

- Keep the native plants in your yard; remove the invasive exotics.
- Mimic the multiple layers of growth found in many natural settings: trees, shrubs, vines, and herbaceous plants.
- Select plants that will provide berries, seeds, nuts, and insects for birds.

- Provide evergreens for winter shelter.
- Keep dead trees, standing or fallen, to provide insect food, cavities, and perching sites for birds. The branches of dead trees can be removed if they are dangerous.
- Create a brush pile to provide shelter.
- Leave at least some leaf litter for ground-feeding birds, who will scrape through the litter for insects.
- Stop using herbicides and pesticides, which can be ingested by birds as they feed on insects and plants. Also, don't use rodenticides, which harm or kill birds of prey when they feed on animals that have ingested the poison.
- Limit or eliminate your lawn for less mowing, fertilizing, watering, and pollution, and to make more room for natives.

Additional Possibilities

“Some habitats are of particular interest to backyard birdwatchers because small examples can be replicated in backyards, including freshwater marshes, ponds, brooks, wooded swamps, bogs, woodlots, pine barrens, streamside forests, thickets, prairies, deserts, and alpine meadows.” Donald S. Heintzelman, *The Complete Backyard Birdwatcher's Home Companion*.



- Restore or recreate the habitat(s) once native to your area – woodland, wetland, prairie, or savannah – which will attract birds native to those habitats.
- Create habitats for particular birds: a hummingbird garden, a migratory bird stopover, a bluebird haven, a woodland bird retreat, a finch garden (prairie), a winter bird area, or a wetland bird habitat.

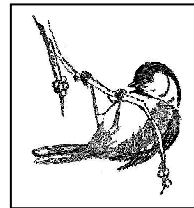
Regardless of the size of your yard, you can help reverse the loss of bird habitat. By planting the native plants upon which our birds depend, you'll be rewarded with a bounty of birds and natural beauty just beyond your doorstep.

Protect Your Birds

Keep your pet cats indoors and urge your neighbors to do the same. Cats kill millions of birds in Wisconsin each year and it has been documented that bells and declawing are mostly ineffective in preventing this predation. For more information see American Bird Conservancy's "Cats Indoors!" brochure (<http://www.abcbirds.org/abcprograms/policy/cats/index.htm>).

WISCONSIN'S BEST NATIVE PLANTS FOR ATTRACTING BIRDS

Unless otherwise noted, these species are native to most or all of Wisconsin. Native ranges are based on maps given on the University of Wisconsin Herbarium website (www.botany.wisc.edu/wisflora/).



BEST NATIVE TREES FOR BIRDS

To maximize diversity, try to have trees from each group below.

Fruit Trees

Summer Fruit

Black Cherry (*Prunus serotina*) – At least 47 species eat the fruit, including Red-headed Woodpecker, Northern Flicker, Northern Mockingbird, Rose-breasted Grosbeak, and White-throated Sparrow.
Pin Cherry, Wild Red Cherry (*Prunus pennsylvanica*) – Fruit attracts Eastern Bluebird, among others.
Red Mulberry (*Morus rubra*), southern Wisconsin – 44 species eat its fruits, including cuckoos and tanagers.



Fall Fruit

American Mountain Ash (*Sorbus americana*) – Fruit eaten by at least 14 species, including Cedar Waxwing, Brown Thrasher, Eastern Bluebird, Gray Catbird, and grosbeaks.
Showy Mountain Ash (*Sorbus decora*) – A handsome tree; fruit enjoyed by birds.

Winter Fruit

Hackberry (*Celtis occidentalis*), primarily southern Wisconsin – 24 species eat the fruit; particularly liked by Northern Flicker, Northern Mockingbird, Swainson's Thrush, and Northern Cardinal.
Eastern Red Cedar (*Juniperus virginiana*), primarily southern Wisconsin – 54 species have been noted eating the fruit, including Cedar Waxwing, Northern Mockingbird, Brown Thrasher, and Gray Catbird.



Hawthorns: Cockspur Hawthorn (*Crataegus crus-galli*), southeastern Wisconsin;
Downy Hawthorn (*C. mollis*) and Dotted Hawthorn (*C. punctata*) – Hawthorns can attract more than 20 species and are especially favored by Cedar Waxwing, Fox Sparrow, and Ruffed Grouse. In addition, they offer great cover and protection for nesting.

Seed Trees

Maples: Sugar Maple (*Acer saccharum*), Red Maple (*A. rubrum*), Box Elder (*A. negundo*), and Silver Maple (*A. saccharinum*).
American Larch or Tamarack (*Larix laricina*).
Birches: Paper Birch (*Betula papyrifera*), Yellow Birch (*B. alleghaniensis*), River Birch (*B. nigra*) (the last is native only to the Wisconsin and Mississippi River valleys) – Seeds are a favorite of Pine Siskin, and Fox and American Tree Sparrows.

Shelter Trees

Eastern Red Cedar (*Juniperus virginiana*), primarily southern Wisconsin; Eastern Arborvitae or Northern White Cedar (*Thuja occidentalis*), primarily northern and eastern Wisconsin.
White Spruce (*Picea glauca*), primarily northern Wisconsin.
Eastern Hemlock (*Tsuga canadensis*), primarily northern and central Wisconsin.

Cavity Trees

Quaking Aspen (*Populus tremuloides*).
Eastern Cottonwood (*Populus deltoides*).
Oaks: White Oak (*Quercus alba*), Bur Oak (*Q. macrocarpa*), and Northern Red Oak (*Q. rubra*).
Willows: Two natives for our area are Peach-leaved Willow (*Salix amygdaloides*) and Black Willow (*S. nigra*).



Nut Trees

White Oak (*Quercus alba*) – Acorns eaten by Northern Flicker, Red-headed Woodpecker, Blue Jay, and others.

Bur Oak (*Q. macrocarpa*) – Acorns are a favorite food of Wood Duck.

Northern Red Oak (*Q. rubra*) – Acorns eaten by many birds.

Trees That Host Insects for Birds

Oaks (*Quercus* spp.) – Host 532 species of caterpillars of butterflies and moths.

Willows (*Salix* spp.) – Host 455 species of caterpillars of butterflies and moths.

Poplars (*Populus* spp.), especially Quaking Aspen (*P. tremuloides*) and Cottonwood (*P. deltoides*) – Host 367 species of caterpillars of butterflies and moths.

Hickories (*Carya* spp.) – Host 235 species of caterpillars of butterflies and moths.

Box Elder (*Acer negundo*) and Maples (*Acer* spp.) – The genus hosts 297 species of butterflies and moths; Box Elder is a favorite among Wisconsin migrant birds.

BEST NATIVE SHRUBS FOR BIRDS

Early-Summer Berries

Serviceberries: A number of native species include Juneberry (*Amelanchier laevis*), Dwarf Serviceberry (*A. spicata*, *A. stolonifera*), and Downy Serviceberry (*A. arborea*) – The last is known to attract at least 19 species that eat its fruit.

Chokecherry (*Prunus virginiana*) – The tart fruit attracts at least 43 species, including bluebirds.

Midsummer Berries

Blackberries/Raspberries (*Rubus* spp.): Red Raspberry (*R. idaeus*, *R. strigosus*), Blackcap Raspberry (*R. occidentalis*), and Highbush Blackberry (*R. allegheniensis*) – At least 63 species eat their fruit.

American Elderberry (*Sambucus canadensis*) – At least 33 species eat its fruit, including Red-bellied and Red-headed Woodpeckers, Eastern Bluebird, American Robin, and Northern Cardinal.

Currants/Gooseberries (*Ribes* spp.): Choose native species like Wild Black Currant (*R. americanum*), Missouri Gooseberry (*R. missouriense*), and Prickly Gooseberry (*R. cynosbati*) – The berries are eaten by at least 16 species of birds.

Canadian Buffalo Berry (*Shepherdia canadensis*), native along Lakes Michigan and Superior.

Blueberries (*Vaccinium* spp.): Low-bush Blueberry (*V. angustifolium*), Canada Blueberry (*V. myrtilloides*).



Fall Berries

Dogwoods (*Cornus* spp.):

Pagoda Dogwood (*C. alternifolia*) – Fruits eaten by at least 34 species, including Downy Woodpecker, Brown Thrasher, Wood Thrush, Eastern Bluebird, and Cedar Waxwing.

Red-Osier Dogwood (*C. stolonifera*) – Fruits eaten by at least 18 species, including Gray Catbird and Wild Turkey.

Silky Dogwood (*C. amomum*) – At least 18 species feed on fruits.

Gray Dogwood (*C. racemosa*) – Its fruit is consumed by at least 17 species, including Northern Flicker, Downy Woodpecker, Northern Cardinal, and Eastern Bluebird.

Viburnums (*Viburnum* spp.):

Nannyberry (*V. lentago*) – Among birds feeding on its fruit are Gray Catbird, American Robin, Eastern Bluebird, and Cedar Waxwing.

Downy Arrowwood (*V. rafinesquianum*).



Winter Berries

Winterberry (*Ilex verticillata*) – Fruits eaten by songbirds, winter waterfowl, and upland game birds.

Sumacs (*Rhus* spp.):

Smooth Sumac (*R. glabra*) – At least 31 species eat the fruits, especially Gray Catbird, Wood Thrush, and Eastern Bluebird.

Staghorn Sumac (*R. hirta*, *R. typhina*) – 21 species eat the fruit, including Red-eyed Vireo and American Robin.

Roses (*Rosa* spp.) – Get native species that don't need pesticides and fertilizers:

Swamp Rose (*R. palustris*) – Its rose hips are eaten by at least 20 species and are preferred by Swainson's Thrush and Cedar Waxwing.

Pasture Rose (*R. carolina*).

Meadow Rose (*R. blanda*).

Prairie Wild Rose (*R. arkansana*) – At least 38 species feed on its hips, including Northern Cardinal and Brown Thrasher.

Shrubs for Nests

Speckled Alder (*Alnus incana* subsp. *rugosa*), Green Alder (*A. viridis*) (the latter is primarily in northern Wisconsin).

American Elderberry (*Sambucus canadensis*).

Roses (*Rosa* spp.): Swamp Rose (*R. palustris*), Pasture Rose (*R. carolina*), Meadow Rose (*R. blanda*).

Willows (*Salix* spp.): Pussy Willow (*S. discolor*), Prairie Willow (*S. humilis*), Beaked Willow (*S. bebbiana*).

Ninebark (*Physocarpus opulifolius*).

Shrubs for Shelter

Common Juniper (*Juniperus communis*), southern half of Wisconsin – Eastern Bluebird, Cedar Waxwing, and Purple Finch eat the berries.

Shrubs for Seeds

Speckled Alder (*Alnus incana* subsp. *rugosa*), Green Alder (*A. viridis*) (the latter is primarily in northern Wisconsin).

Shrubs That Host Insects for Birds

Pussy Willow (*Salix discolor*) – Willows (*Salix* spp.) host 455 species of caterpillars of butterflies and moths.

Red-Osier Dogwood (*Cornus stolonifera*) – Dogwoods (*Cornus* spp.) host 118 species of caterpillars of butterflies and moths.

BEST NATIVE VINES FOR BIRDS

Vines for Berries – All provide fall and winter fruit.

American Bittersweet (*Celastrus scandens*) – At least 15 species of birds eat the berries.

Grapes (*Vitis* spp.):

Riverbank Grape (*V. riparia*, *V. vulpina*) – 52 species eat these grapes; the preferred food of 24.

Pigeon Grape (*V. aestivalis*), primarily southern half of Wisconsin.

Poison Ivy (*Rhus radicans*) – At least 55 species of birds eat the fruits.

Greenbriar (*Smilax hispida*); also Carrion-flowers (*S. ecirrhata* and *S. herbacea*).

Virginia Creeper (*Parthenocissus quinquefolia*) and Grape Woodbine (*P. vitacea*) – Favorite berries of at least 35 species, including thrushes, woodpeckers, vireos, and warblers.

Vines for Shelter and Nesting

Greenbriar (*Smilax hispida*).

Grapes (*Vitis* spp.) – See above under vines for berries.



Best Vine for Hummingbirds

Trumpet Honeysuckle (*Lonicera sempervirens*).

Best Vine Hosting Insects for Birds

Grapes (*Vitis* spp.) – Host 79 species of caterpillars of butterflies and moths.

BEST NATIVE WILDFLOWERS FOR BIRDS

Asters (*Aster* spp.), the range varies for different species, but asters are found throughout Wisconsin –

Seeds eaten by cardinals, goldfinches, sparrows, chickadees, nuthatches, towhees, and Indigo Bunting. Host 112 species of caterpillars of butterflies and moths.

Coreopsis (*Coreopsis* spp.), mainly southern half of Wisconsin.

Purple Coneflowers (*Echinacea* spp.), mainly southern quarter of Wisconsin.



Joe-pye Weeds (*Eupatorium* spp.), south of Tension Zone, which bisects Wisconsin from northwest to southeast. Provide seeds and also host 42 species of caterpillars of butterflies and moths.

Wild Strawberry (*Fragaria* spp.) – Fruits attract 53 species of birds, including Northern Flicker, Wood Thrush, Cedar Waxwing, Eastern Towhee, American Robin, Gray Catbird, Brown Thrasher, and Rose-breasted Grosbeak. Hosts 81 species of caterpillars and moths.

Sunflowers (*Helianthus* spp.), the range varies for different species, but sunflowers are found throughout Wisconsin – Seeds loved by Mourning Dove, blackbirds, chickadees, finches, meadowlarks, sparrows, and White-breasted Nuthatch. Host 73 species of caterpillars of butterflies and moths.

Blazing Stars (*Liatis* spp.), the range varies for different species, but Blazing Stars are found throughout Wisconsin.

Black-eyed Susans (*Rudbeckia hirta*, *R. laciniata*) – Favorite of finches; also liked by chickadees, cardinals, sparrows, nuthatches, and towhees. Host 17 species of caterpillars of butterflies and moths.

Prairie Dock, Compass Plant, and other Silphiums (*Silphium* spp.), southern half of Wisconsin – Loved by finches.

Goldenrods (*Solidago* spp.), many wonderful natives throughout Wisconsin, but avoid Canada Goldenrod (*S. canadensis*), which is extremely aggressive and will crowd out most other wildflowers – Loved by finches. Host 115 species of caterpillars of butterflies and moths.



Ironweed (*Vernonia noveboracensis*), primarily south of Tension Zone, which bisects Wisconsin from northwest to southeast. Hosts 19 species of caterpillars of butterflies and moths.

BEST NATIVE WILDFLOWERS FOR HUMMINGBIRDS

Columbine (*Aquilegia canadensis*).

Butterfly Weed (*Asclepias tuberosa*).

Spotted Jewelweed (*Impatiens capensis*).

Cardinal Flower (*Lobelia cardinalis*).

Turk's Cap Lily (*Lilium superbum*) and Wood Lily (*L. philadelphicum*).

Wild Bergamot (*Monarda fistulosa*).

Lupine (*Lupinus perennis*), mainly south of Tension Zone, which bisects Wisconsin from northwest to southeast.

Penstemon (*Penstemon grandiflorus*, *P. digitalis*), southern two-thirds of Wisconsin.
Phlox (*Phlox divaricata*, *P. pilosa*).

BEST NATIVE GRASSES FOR BIRDS

Bluestems (*Andropogon* spp.) – Seeds of the Big and Little Bluestem are eaten by small birds in winter, including juncos and sparrows.

Other native prairie and woodland grasses also have seeds that are probably eaten by birds, but specific information is unavailable.

WORST WISCONSIN INVASIVE PLANTS

Be sure to eliminate these from your birdscaped yard.

- Purple Loosestrife (*Lythrum salicaria*).
- Tartarian Honeysuckle (*Lonicera tatarica*).
- Garlic Mustard (*Alliaria petiolata*).
- Reed Canary Grass (*Phalaris arundinacea*).
- Crown Vetch (*Coronilla varia*).
- Common Buckthorn (*Rhamnus cathartica*) and Glossy Buckthorn (*Rhamnus frangula*).
- White Sweet Clover (*Melilotus alba*) and Yellow Sweet Clover (*Melilotus officinalis*).
- Canada Thistle (*Cirsium arvense*).
- Wild Parsnip (*Pastinaca sativa*).
- Musk or Nodding Thistle (*Carduus nutans*).

RECOMMENDED READING

- Martin, A.C., H.S. Zim, and A.L. Nelson. 1951. *American Wildlife and Plants, A Guide to Wildlife Food Habits*. Dover Publications. New York. Specific information on the plants birds eat.
- Nowak, Mariette. 2012. *Birdscaping in the Midwest*. University of Wisconsin Press. Madison, Wisconsin. Excellent guide to gardening with native plants to attract birds.
- Piaskowski, V.D., K.M. Williams, G.K. Boese, and P.A. Brookmire. 2008. *The Birds Without Borders – Aves Sin Fronteras® Recommendations for Landowners: How to Manage Your Land to Help Birds* (Wisconsin, Midwest and eastern United States edition). Foundation for Wildlife Conservation, Inc., and Zoological Society of Milwaukee. Milwaukee, Wisconsin, U.S.A. Recommends native plants for birds based on research in Wisconsin.
- Salwey, M.K., J.L. Hutchens, T.L. Peterson, K. Kearns, and T. Marty. 1998. *So What Should I Plant? Trees, Shrubs and Vines with Wildlife Values*. Publication WM-223-98. Bureau of Wildlife Management, Wisconsin Department of Natural Resources. Madison, Wisconsin. http://dnr.wi.gov/files/pdf/pubs/wm/wm0223_a.pdf. Recommends native plants for birds and wildlife.
- Stokes, Donald and Lillian. 1998. *Bird Gardening Book*. Little Brown. Boston. Excellent in overall coverage.
- Tallamy, Douglas W. *A Case for Native Gardening – Bringing Nature Home*. <http://bringingnaturehome.net/>. See recommendations for herbaceous and woody plants.
- Tallamy, Douglas W. 2007. *Bringing Nature Home*. Timber Press, Inc. Portland, Oregon. A compelling argument for the use of native plants in gardens and landscapes.
- Zickefoose, Julie. 2001. *The Bird-Friendly Backyard, Natural Gardening for Birds*. Rodale Press. Emmaus, Pennsylvania. An excellent book, giving a wealth of details on landscaping for birds.

Permission granted to copy this brochure and extract from this information as desired; please give credit to the author and WSO. Visit the WSO website for an electronic copy (wsobirds.org/birdscaping).

White-breasted Nuthatch (page 3) by Thomas Schultz, published in *Wisconsin's Favorite Bird Haunts*, 3rd edition, 1989 (Daryl D. Tessen, editor; The Wisconsin Society for Ornithology, Inc., publisher).

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