GREEN SPRING GARDENS

4603 GREEN SPRING ROAD • ALEXANDRIA • VIRGINIA 22312
PHONE: (703) 642-5173 • *FAX:* (703) 642-8095
WWW.FAIRFAXCOUNTY.GOV/PARKS/GSGP

USING NATIVE PLANTS TO ATTRACT BIRDS IN THE WASHINGTON, D.C. AREA AND VIRGINIA

Gardening for wildlife is a unique type of gardening that aims to attract and sustain desirable wildlife. Birds make a garden come alive and help nourish our delight in the natural world. Native plants are species that existed in Virginia before Jamestown, Virginia was founded in 1607.

Why Grow Native Plants For Birds?

Native plants are species that grow in the region in which they evolved. Gardeners who grow native plants celebrate the beauty of our native flora and help foster biodiversity. Native plants greatly benefit birds because native species of plants and animals evolved together, so native plants are much more likely to provide the right mix of foods and support the insect populations that birds need to flourish.

Growing native plants for birds is a very important endeavor. Environmental challenges to birds include habitat loss and habitat fragmentation in North America, Central America, the Caribbean, and South America, as well as invasive species and global warming (most birds are migratory). WatchList 2007, a joint effort of the National Audubon Society and the American Bird Conservancy reveals that **over ¼ of bird species in the U.S. are imperiled.** According to the National Audubon Society and the U.S. Department of the Interior, **since 1967 there has been a 70% decline (on average) in populations of common backyard birds.**

The Needs Of Birds

1. Food - Plants provide food for birds in many forms: nectar, seeds, fruits, nuts, acorns, cones, buds, twigs, leaves, flowers, and sap, as well as harboring tasty animals such as insects and spiders. A landscape with many different plants can support birds with a diversity of appetites. Plant two or more plants of each species whenever possible, especially for woody plants that bear fruit like hollies - better pollination will result in higher fruit and seed set, and the plants will be more visible to birds. Select plants so there is food throughout the year.

- **Summer-Fruiting Trees and Shrubs**
  Fruits that ripen from late spring to mid summer are often sweet and are eagerly eaten by birds that feed on fruit. These fruits include juneberry (serviceberry), wild cherry, red mulberry, elderberry, blackberry, raspberry, and blueberry.

- **Fall-Fruiting Trees, Shrubs, and Woody Vines**
  In the fall, fruit with a high fat content is especially helpful to fruit-eating birds because it helps them build up fat reserves. Fruits from dogwood, magnolia, sassafras, sour gum (black gum), spicebush, viburnum, and wild grape are eaten by migrating and overwintering birds in the fall. Some fruits that persist into winter are eaten in the fall as well.

- **Winter Fruits Into Early Spring – Trees, Shrubs, and Woody Vines**
  Fruits that persist over the winter often have a lower fat content, so they are less likely to turn rancid and rot. This persistent food also may provide sustenance in early spring. Some persistent fruits include chokeberry, sumac, Virginia creeper, American bittersweet, rose hips, hawthorn, bayberry, hackberry, snowberry, American holly, inkberry holly, and winterberry holly. The fleshy cones of eastern red cedar, a type of juniper, is another good winter food.

- **Oak Acorns and Other Nut-Bearing Trees and Shrubs**
  Nut-bearing plants include oaks, hickories, and hazels. A few birds can crack the shells of large nuts on trees, like woodpeckers, crows, and jays. Large birds like turkeys can consume them when they fall to the ground, and smaller birds can eat them when stray bits of nuts are available. Some smaller and easier to eat nuts are also available, such as American beech and American hophornbeam.

- **Seeds** – Seeds that are eaten by birds are produced by a wide range of woody and herbaceous plants.

- **Insects and Spiders** – Native plants are crucial for insects and other wildlife to flourish because native plants support far more wildlife than non-native species. Exotic plants support few insect species when grown where they are not native. Most terrestrial bird species eat insects and spiders, particularly when reproducing and for their own energy when feeding young. Almost all North American birds other than sea birds feed their young with insects and spiders (see *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens* by Dr. Douglas Tallamy at the University of Delaware).

2. Water

- Birds need water for drinking and bathing. Birds need water in the winter as well.

- They need water to cool themselves in the heat of the summer, and prefer to bathe in shallow puddles and pools.

- Consider garden ponds (the best for all types of wildlife) or birdbaths (not very useful to other types of wildlife) if there are no natural bodies of water adjacent to the garden. Birds especially like pools with dripping or running water. Garden ponds should have a shallow area so wildlife can easily enter and exit the water to avoid drowning. Pea gravel, logs, or rocks can be used to create this shallow beach area. Add a few fish to gobble up mosquito larvae.

3. Cover, Nesting Sites, And Space

- Birds need cover as protection from predators, for nesting sites, to rest, and as shelter from harsh weather. Trees, shrubs, and vines provide cover and nesting sites for many bird species. It also helps to provide at least one clump of conifers or broad-leaved evergreens in or near the garden – they provide cover for birds the entire year.

  Other bird species find cover and nesting sites in more open habitats with a greater number of herbaceous plants, such as grasslands, meadows, and marshland.

- **Hedgerows** - For gardeners with enough space, these long, dense plantings combine short and tall trees, shrubs, vines, and herbaceous perennials into a habitat that is very attractive to birds. They are often used as living fences. They can serve as landscape corridors between natural areas, substantially increasing their value to native species. Landscape corridors are thin strips of habitat that connect isolated patches of habitat – these corridors have been found to be lifelines for native plants in recent research (www.sciencedaily.com/releases/2006/09/060901161829.htm).

- **Mature trees and standing dead trees are very valuable to birds.** Mature trees with rough bark and dead limbs harbor many insects including beetle larvae. Dead trees also provide plenty of insect

larvae for birds such as woodpeckers to eat. These trees provide cavities for nesting sites. In areas where mature and standing dead trees are rare (less than one/ acre), nest boxes for cavity nesting birds can be beneficial (www.npwrc.usgs.gov/resource/birds/manbook/manage.htm).

- **Space** - Some bird species need a great deal of space to thrive and are very territorial, while other species need less territory. Developed urban or suburban areas attract different bird species than large tracts of natural areas, such as mature forests, grasslands, or marshlands.

Other Tips For Gardening For Birds

- **Use pesticides sparingly, if at all.** Pesticides can harm birds directly, and insecticides can indirectly poison insect-eating birds. For example, about 7 million birds are killed yearly by chemicals used on lawns (www.audubon.org/bird/at_home/pdf/LawnFlyer.pdf and www.birds.cornell.edu/AllAboutBirds/attracting/landscaping/songbirds). For further information see *Reduce All Pesticides But Eliminate Those Used on Lawns* by the National Audubon Society (www.audubon.org/bird/at_home/ReducePesticideUse.html).
- **Limit the size of the lawn.** It doesn't provide much in the way of food or habitat for birds. Limit lawn to areas where use demands it, such as play areas & other foot traffic areas. Manage remaining turf areas in a more ecological fashion. Organic lawn care information is limited and more research is needed. Cornell University Cooperative Extension has a publication for the New York region: *Lawn Care Without Pesticides* by Frank Rossi (http://ecommons.library.cornell.edu/bitstream/1813/3574/2/Lawn+Care+without+Pesticides.pdf). This brochure is useful but needs to be adapted to the Washington, D.C. area. For example, certain tall fescue cultivars are best for most lawns in the Washington, D.C. area, and Kentucky bluegrass does poorly here. One organization dedicated to this cause is SafeLawns Foundation or SafeLawns.org. A founder of this organization, Paul Tukey, wrote *The Organic Lawn Care Manual* (the author is from New England, so the book is geared toward that region of the U.S.).

  There is limited grassland habitat for many birds in this region: more of these open, natural habitats are needed. Information about grasslands and meadows is found on P. 18 – 19.

- Mimic nature and grow layers of vegetation to satisfy the nesting, shelter, and food needs of many birds. A canopy of tall trees, an understory of smaller trees and shrubs, and a herbaceous layer of varying heights, with the layers intertwined by vines mimics nature.

  Each bird species has specific habitat niches for nesting and feeding, and the more diverse your garden is the wider the range of bird species you may attract. Some bird species like open, sunny areas or forest edges, while others like woodlands.

- Leave some leaf litter in a small area of the yard, or mulch garden beds with shredded leaves. Leaf litter generally has a good supply of earthworms, insects, and spiders. Ground-feeding birds pick through leaf litter in search of food.

- **Brush Piles** - Birds and other wildlife use these areas for cover, perching sites, nesting sites, and as a source of insects. Green Spring has a brush pile in the woods in the Virginia Native Plant Garden (just behind the sunny forest's edge). Do not make brush piles in low, damp spots or near busy roads.

- **Eco-Friendly Garden Cleanup** - Compost your garden debris and leaves, and leave many native perennials standing throughout the winter to provide seeds and cover for overwintering wildlife.

- **If you have a cat as a pet, keep it indoors.** Free-roaming domestic cats kill millions of birds each year in the United States. **Cats Indoors! The Campaign for Safer Birds and Cats** by the American Bird Conservancy (www.abcbirds.org/abcprograms/policy/cats/index.html) addresses this serious problem. The National Audubon Society (www.audubon.org/bird/at_home/SafeCats.html) and The

Humane Society of the United States also have excellent websites on this issue (www.hsus.org/pets/pet_care/cat_care/keep_your_cat_safe_at_home_hsuss_safe_cats_campaign/).

- **Support hunting programs for white-tailed deer to keep their populations at sustainable levels.** Heavy deer feeding degrades the understory layer in woodlands, which reduces nesting and feeding sites for forest songbirds. Nesting in more open forests makes bird eggs and nests easier for predators to spot. See *Managing Deer Damage in Maryland* by Jonathan Keys (www.naturalresources.umd.edu/Backyard/FactSheets/EB354.pdf) and *Reducing Deer Damage to Home Gardens and Landscape Plantings (With Revised Repellent List)* by Paul Curtis and Milo Richmond (www.dnr.cornell.edu/ext/chdp/Reducingdeerdamage.htm) for information about reducing deer damage.

- **Remove exotic invasive plants and replace them with native plants.** These plants reproduce quickly, displace native plant species, and are difficult to eradicate. The Division of Natural Heritage in the Virginia Department of Conservation and Recreation lists exotic invasive plant species in Virginia on their website (www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf). See the weeding section in **Garden Maintenance For The Eco-Friendly Gardener** for details (Green Spring's plant information sheets are available on the website under Gardening and in the Horticulture Center).

- **Reduce window collisions.** It is estimated that at least 900 million birds die yearly in the U.S. when they hit glass windows. Turning off unneeded lights at night is a major element in this campaign. Making glass less reflective is another technique being developed to reduce the danger to birds. Place bird feeders far away from glass windows. For more information see *Reducing Collisions Can Save Money And Migratory Birds* (www.abcbirds.org/newsandreports/stories/080225_collisions.html), *Clear And Present Danger* (http://audubonmagazine.org/features0403/alert.html), *Bird-Safe Building Guidelines* (www.nycaudubon.org/home/BirdSafeBuildingGuidelines.pdf), and *Window Collisions* (www.bcnbirds.org/window.html).

Hummingbirds

Hummingbirds are our smallest birds and some of our most acrobatic birds. The ruby-throated hummingbird is the only species that breeds in the eastern United States. Their wings average 53 beats a second, creating their trademark humming sound. The back of both males and females is an iridescent green. The iridescent feathers on the throat of males flash red in direct sunlight. Females have a white throat. Other species occasionally are seen in the Washington, D.C. area, like the black-chinned hummer and the rufous hummingbird.

Migration

- Most ruby-throated hummingbirds overwinter between southern Mexico and northern Panama.

- When flying north over the Gulf of Mexico, some start the crossing in the last days of February; they migrate as a group over a 2 to 3 month period. According to recent www.hummingbirds.net migration maps, they can arrive as early as late March in the Washington, D.C. area. They are sparse at first.

- By mid-September all the resident hummingbirds have left and only migrant birds come through. Most have left the U.S. by late September, although a few overwinter in the U.S. (the Outer Banks of North Carolina, south Florida, and along the Gulf of Mexico).

Attracting Hummingbirds

- **Nectar** – They hover while feeding. They are especially attracted to red and orange flowers that are tube shaped, such as bee balm, trumpet creeper, and cardinal flower. They are also attracted to other flower colors, such as the pink flowers of ruby spice summersweet . These nectar sippers are pollinating plants as they feast.

- They also feed on insects, spiders, and tree sap from sapsucker-drilled holes.

- Grow masses of the same plant to provide large quantities of nectar, and grow a diversity of plants that bloom at different times of the year.

- They nest in trees or large shrubs, and prefer openings in the forest and forest edges. Trees and shrubs are also used for perching and as food sources.

- They love to use soft, fuzzy materials to line their nests - cinnamon fern fuzz, pussy willow, and silk from spider webs are some of their favorite materials.

Details About Native Plants Listed Below

- Most of the plants listed here are growing in the Virginia Native Plant Garden, the Wildlife Garden, the Virginia Native Plant Society holding beds, and other gardens and natural areas at Green Spring Gardens. Plants solely for wetlands are not covered in this information sheet.

- **All plants listed are native to Virginia unless otherwise noted.** Plants not native to Virginia are native to the eastern and southeastern United States.

- Only purchase native plants that are propagated, not wild collected. The North Carolina Botanical Garden has an excellent website for our region - Recommended Plant Sources for Native Plants (http://ncbg.unc.edu/pages/48/). The Potowmack Chapter of the Virginia Native Plant Society and other native plant vendors sell plants at Green Spring (at special events in May and September).

- **The following plants have ornamental value and documented wildlife value.** Plants that are best for naturalistic use, and not appropriate for use in more formal gardens, are noted. More detailed cultural information about most of these plants is available in **Green Spring's plant information sheets** (under Gardening on Green Spring's website or in the Horticulture Center).
  If species are listed as having female and male plants (dioecious), a male plant is needed for the female plant to set fruit.

- **Scientific Names of Plants** – current names are from the **International Plant Names Index** (IPNI; www.ipni.org/index.html) and/or the **USDA PLANTS Database** (http://plants.usda.gov/; this website also has many photographs of native plants). If a second scientific name is given, it is usually an old name that is still seen in some references or used by some nurseries. The **Missouri Botanical Garden** is also an excellent reference for plant names, gardening information, and photographs: the **Kemper Center for Home Gardening Plantfinder** features plants in their Kemper Center display gardens and is an excellent website about ornamental plants (www.mobot.org/gardeninghelp/plantfinder/alpha.asp). Another resource is their plant name database for plants throughout the world at **w^{3}TROPICOS** (http://mobot.mobot.org/W3T/Search/vast.html).

- *Trees, Shrubs, and Vines for Attracting Birds*. (2nd edition. Richard DeGraaf) is an excellent book that lists many of the species of birds that use particular woody plants for food, cover, and nesting; it also lists the original reference the information was taken from.

Medium-Sized To Large Deciduous Trees

Scientific Name & Common Name of Food Plants for Birds	Bird Food Plants (Excluding Hummingbirds) and Other Comments	Hummingbird Nectar Plants (H)
Acer saccharum (sugar maple) & ***A. rubrum*** (red maple; these 2 species are the most ornamental) ***A. negundo*** (boxelder) & ***A. saccharinum*** (silver maple; the latter 2 species are best for naturalistic use)	Seeds in summer & fall; buds	
Aesculus flava (yellow buckeye)		**H** - *A. pavia* is a better plant for H - see small deciduous trees section
Betula nigra (river birch) ***B. lenta*** (sweet birch; naturalistic use)	Seeds, sap, & **catkins (spike-like flowers – subtle beauty)**	
Carpinus caroliniana (American hornbeam or ironwood; can be a small tree in some sites)	Seeds, buds, & catkins	
***Carya* species** (hickory) - see **Recommended Deciduous Trees and Large Shrubs for the Washington, D.C. Area** on the Green Spring website or in the Horticulture Center for details	Nut scraps left by squirrels or birds crack themselves	
Celtis occidentalis (northern hackberry; naturalistic use) ***C. laevigata*** (sugar hackberry; 'Magnifica' is a hybrid of these two species)	Fruit in fall & winter	
Diospyros virginiana (persimmon; usually male & female plants but sometimes have both sexes on the same plant)	Fruit & seeds in fall & winter	
Fagus grandifolia (American beech)	Small nuts, buds, non-showy flowers, & sap	
Fraxinus americana (white ash) ***F. pennsylvanica*** (green ash; another native, *F. nigra,* is not available in the nursery trade)	Seeds – only female trees fruit	
Halesia tetraptera (common silverbell; *H. carolina* no longer a valid name)	Dry fruit	
Juglans nigra (black walnut)	Birds eat nut scraps from squirrels & birds may crack nuts themselves	
Liquidambar styraciflua (sweet gum)	Seeds	
Liriodendron tulipifera (tulip tree)	Seeds in fall & winter; sap	**H** – orioles sometimes sip nectar as well
Magnolia acuminata (cucumbertree magnolia; naturalistic use)	Fruit in fall & winter	
Morus rubra (red mulberry; can have male & female plants or both sexes on the same plant; naturalistic use)	Fruit in summer	
Nyssa sylvatica (sour gum or black gum)	Fruit in late summer & fall; sap	

Ostrya virginica (American hophornbeam; can be a small tree in some sites)	Small nuts, catkins, & buds	
Platanus occidentalis (sycamore; naturalistic use)	Seeds in winter	
Prunus serotina (black cherry; naturalistic use – high value to wildlife)	Fruit in summer; sap Native plants in this genus support the 3rd largest number of butterfly & moth species in North America (see Douglas Tallamy book under references).	
Quercus **species** (oak) – see **Recommended Deciduous Trees and Large Shrubs for the Washington, D.C. Area** on the Green Spring website or in the Horticulture Center for details	Acorns, buds, & non-showy flowers. Native plants in this genus support the largest number of butterfly & moth species in North America (see Douglas Tallamy book under references).	
Robinia pseudoacacia (black locust; naturalistic use due to suckering habit)	Seeds	**H** - attracts them in the central part of the US - not mentioned for the East Coast
Salix nigra (black willow) **Note:** also shorter native willows such as ***S. humilis*** (prairie willow) – a large shrub to small tree	Catkins, twigs, buds, & seeds. Native plants in this genus support the 2nd largest number of butterfly & moth species in North America (see Douglas Tallamy book under references).	
Sassafras albidum (sassafras)	Fruit in late summer & fall	
Taxodium distichum (bald cypress)	Seeds in fall & winter for waterfowl	
Tilia americana (basswood)	Seeds	
Ulmus americana (American elm) **Note:** ***U. rubra*** (slippery elm) is also native to our region but not in the nursery trade	Seeds in late spring; buds & sap	

Note: eastern cottonwood (***Populus deltoides***) & aspen (***P. tremuloides***) should be left in sites where found naturally but generally don't plant (other plants more ornamental) – catkins, buds, twigs, & foliage eaten

Small To Large Evergreen Trees

Ilex opaca (American holly)	Fruit in winter; sap	
Juniperus virginiana (eastern red cedar; mostly female & male plants but some plants have both sexes)	Fleshy cones in fall & winter	
Magnolia grandiflora (southern magnolia; historically native to NC & south but range expanding into VA – naturalized in VA)	Fruit in fall & winter	

Pinus strobus (white pine) ***P. taeda*** (loblolly pine) ***P. virginiana*** (Virginia pine)	Seeds, needles, & sap Needles used in nest construction.	
Thuja occidentalis (American arborvitae; small tree in cultivation)	Seeds Most valued for cover & nesting sites.	

Note: *Tsuga canadensis* (Canadian hemlock) is a wonderful native tree for cover & food, but the hemlock woolly adelgid is a serious threat - an exotic insect pest.

Small Deciduous Trees

Acer pennsylvanicum (striped maple)	Seeds	
Aesculus pavia (red buckeye; NC native & further south & west) ***A. sylvatica*** (painted buckeye; can be a large shrub; naturalistic use)		**H** – red buckeye is one of their favorites
Amelanchier* species** that are trees (juneberry, serviceberry, or shadblow): ***A. arborea ***A. canadensis*** (sometimes a shrub) ***A. laevis*** ***A. × grandiflora*** (USDA says this is *A. laevis*)	Fruit in early summer	
Cercis canadensis (eastern redbud)	Seeds (northern bobwhite & a few other birds)	**H** – in some parts of the U.S. at least, like Florida
Chionanthus virginicus (fringetree; separate female & male plants or plants with perfect flowers)	Fruit in late summer & early fall	
Cornus alternifolia (pagoda dogwood) ***C. florida*** (flowering dogwood)	Fruit in fall; buds & sap	
Crataegus phaenopyrum ***C. viridis*** (hawthorn; many other species - naturalistic use)	Fruit – winter food; sap Favorite nesting spot for many species in the wild – thorns.	**H** – in some parts of the U.S. at least, like Florida
Hamamelis virginiana (witch hazel)	Seeds eaten by a few species such as wild turkey & northern bobwhite	
Ilex decidua (possumhaw holly; male plant needed for pollination)	Fruit in winter on female plants	

Magnolia macrophylla (bigleaf magnolia) ***M. tripetala*** (umbrella magnolia; ***M. fraseri*** is similar but less vigorous than other species) ***M. virginiana*** (sweetbay magnolia; some germplasm from areas south of VA is evergreen - but looks rough after very cold winters)	Fruit in fall & winter	
Viburnum prunifolium (blackhaw viburnum) ***V. rufidulum*** (southern blackhaw viburnum)	Fall & winter fruit (viburnums usually not self-fruitful so need 2 or more plants of a given species with different genetic backgrounds)	

Deciduous And Evergreen Shrubs (evergreen shrubs noted)

Aesculus parviflora (bottlebrush buckeye; native to SC, GA, & AL)		**H**
Alnus serrulata (hazel alder; naturalistic use near water)	Seeds & buds	
Amelanchier stolonifera (running serviceberry, juneberry)	Fruit in early summer	
Aralia spinosa (Devil's walking stick)	Fruit in fall	
Aronia pyrifolia (botanists have changed the name from *Aronia arbutifolia*; some botanists classify it as ***Photinia pyrifolia***; red chokeberry) ***A. melanocarpa*** (***Photinia melanocarpa*** is preferred by some botanists; black chokeberry)	Fruit in winter – don't eat right away because bitter – squirrels will eat earlier than birds; buds	
Callicarpa americana (American beautyberry)	Fruit in fall & into winter	
Castanea pumila (chinkapin; this plant has been hard to establish at Green Spring in woodland settings during dry years – needs careful attention to watering when young)	Nuts eaten by a few species The tree *C. dentata* (American chestnut) was a very important food source for wildlife until chestnut blight devastated it – extensive breeding work is being done to bring it & hybrids back into cultivation.	
Ceanothus americanus (New Jersey tea; naturalistic use – needs excellent drainage & drier sites to do well)	Seeds eaten by some species	**H**
Cephalanthus occidentalis (buttonbush)	Seeds – waterfowl eat them	**H**
Clethra alnifolia (summersweet) **Note: *C. acuminata*** is a large shrub & best for naturalistic use in moist woodland areas.	Dry fruit	**H** – *C. alnifolia* 'Ruby Spice' is one of their favorites locally – pink flowers

Cornus amomum (silky dogwood) ***C. sericea*** (redosier dogwood – showiest bark) **Note: *C. racemosa*** (gray dogwood; can be a small tree – less commonly grown in the eastern U.S. than in the Midwest)	Fruit in late summer & early fall	
Corylus americana & ***C. cornuta*** (hazelnut or filbert; naturalistic use)	Nuts, buds, & catkins	
Euonymus americanus (American euonymus or hearts-a-bursting; naturalistic use)	Seeds eaten in the fall by a few species like cardinal, wood thrush, & brown thrasher	
Gaylussacia frondosa (dangleberry, a type of huckleberry; naturalistic use)	Fruit in summer	
Hydrangea arborescens (wild hydrangea)	Some species eat seeds such as wild turkey; poisonous compound in the plant, especially in leaves & buds – doesn't stop deer!	
Ilex glabra (inkberry holly; evergreen; fruit not as palatable as some species) ***I. verticillata*** (winterberry holly) **Note:** evergreen ***I. vomitoria*** (yaupon holly) performs well in southeastern VA (native there) Male & female plants for all hollies.	Fruit on female plants in late fall & winter; *I. verticillata* is a good source of winter food – grow the species type, not cultivars, for best wildlife value – fruit will be more palatable to birds since not selected for long retention	
Kalmia latifolia (mountain laurel; evergreen)	Ruffed grouse feed on buds, foliage, & twigs Warblers nest in them (species mentioned are migrants here – nest in the VA mountains & elsewhere).	
Lindera benzoin (spicebush; male & female plants)	Fruit in fall on female plants	
Morella pensylvanica (Myrica pensylvanica) (bayberry; can have male & female plants, or some plants with both sexes on the same plant) **Note: *M. cerifera*** is evergreen but sometimes harder to grow here	Fruit in fall & winter	
Physocarpus opulifolius (ninebark)	Dry fruit – eaten by some species	
Prunus maritima (beach plum; naturalistic use – found in sandy or rocky soils in nature; extremely rare in VA) **Note:** The small tree ***P. americana*** (wild plum) is native to this region but have not observed in cultivation here (only in the Midwest – best for naturalistic use).	Fruit (has not fruited at Green Spring – need at least 2 plants with different genetic backgrounds to have fruit)	

Rhododendron* species** (native azaleas): ***R. atlanticum (coast azalea) ***R. calendulaceum*** (flame azalea) ***R. periclymenoides*** (pinxterbloom azalea) ***R. prinophyllum*** (roseshell azalea) ***R. viscosum*** (swamp azalea) Native ***R. arborescens*** & ***R. cumberlandense*** are harder to grow in some sites. (see **Recommended Small and Medium-Sized Deciduous Shrubs for the Washington, D.C. Area** on the Green Spring website or in the Horticulture Center for further details)		**H -** especially *R. viscosum* according to Brooklyn Botanic Garden (2008 publication – see reference section). *R. austrinum* (orange azalea) is mentioned as well, which is native to GA, AL, Fl, & MS.
Rhododendron carolinianum (Carolina rhododendron; evergreen; native to NC & possibly other states) ***R. maximum*** (rosebay rhododendron; evergreen)	Cover – evergreen	**H**
Rhus aromatica (fragrant sumac; male & female plants or sometimes both sexes on the same plant) ***R. copallinum*** (*R. copallina*; shining sumac; male & female plants) ***R. hirta*** (*R. typhina*; staghorn sumac; male & female plants)	Fruit in winter	
Rosa carolina (Carolina rose) ***R. palustris*** (swamp rose) ***R. virginiana*** (Virginia rose; naturalistic use for all species)	Fruit – especially in late winter when food is scarce; buds	
Rubus odoratus (flowering raspberry; the showiest member of this genus – other common names of species in this genus are blackberry & dewberry)	Fruit in the summer for the genus On large properties it is good to leave some of the less ornamental species in out-of-the-way areas – high wildlife value.	
***Sambucus nigra* subsp. *canadensis* (*S. canadensis*)** (common elderberry; naturalistic use)	Fruit in summer	
Symphoricarpos albus (snowberry; called buckbrush in the Great Plains) & ***S. orbiculatus*** (coralberry; naturalistic use for both species)	Fruit in fall and into winter	*S. orbiculatus* may attract **H**
Vaccinium corymbosum (highbush blueberry; the large-fruited species that people eat) ***V. stamineum*** (deerberry; naturalistic use) **Note: *V. pallidum*** is a common species in the wild in MD & VA - preserve it and other species where you find them.	Fruit in early summer to mid summer	

Viburnum acerifolium (mapleleaf viburnum) ***V. dentatum*** (var. *lucidum* is also available commercially; arrowwood viburnum) ***V. lentago*** (nannyberry viburnum) ***V. nudum* var. *cassinoides* (*V. cassinoides*)** (withe-rod viburnum or shonny haw) ***V. nudum* (var. *nudum*)** (possumhaw viburnum) **Note: *V. acerifolium, V. lentago, &*** ***V. nudum* var. *cassinoides*** are best for naturalistic use. Viburnums usually are not self-fruitful so need more than one plant of a given species with different genetic backgrounds.	Fruit in fall & winter - tastiest fruit eaten first	

Note: Some native shrubs are primarily used for cover & sometimes nesting sites: ***Itea virginica*** (Virginia sweetspire), ***Leucothoe fontanesiana*** (drooping leucothoe, evergreen), ***Eubotrys racemosa*** (*Leucothoe racemosa*; sweetbells leucothoe), ***Spiraea alba* var. *latifolia*** (white meadowsweet or spirea), & ***Xanthorhiza simplicissima*** (yellowroot; tall groundcover).

Woody Vines

Bignonia capreolata (crossvine)		**H**
Campsis radicans (trumpet creeper)		**H** – one of their favorites
Celastrus scandens (American bittersweet; male & female plants but some plants have both sexes)	Fruit in winter	
Lonicera sempervirens (trumpet honeysuckle)	Fruit in late summer onward	**H** –one of their favorites; sometimes orioles
Parthenocissus quinquefolia (Virginia creeper; naturalistic use – high value to wildlife)	Fruit in fall & winter	
Vitis* species** (wild grape; naturalistic use – high value to wildlife). ***V. vulpina is native to Green Spring – frost grape.	Fruit beginning in late summer & into winter Birds nest among grapevines & numerous species use grape bark in their nests.	

Note: Woody plants that are valuable to birds for food and cover but not planted by humans (on large properties, it is good to leave plants of these species for their high wildlife value):
***Smilax* species** (greenbrier or catbrier) – fruit eaten by many birds & dense cover
Toxicodendron radicans (poison ivy) – over 60 species of birds eat the fruit (www.nps.gov/shen/naturescience/poison_ivy.htm)

Herbaceous Perennials (Wildflowers)

Actaea pachypoda (doll's eyes or white baneberry)	Fruit – a few birds like American robin; poisonous to humans	
Aquilegia canadensis (wild columbine)	Seeds - a few birds such as dark-eyed junco & other sparrows	**H** – one of their favorites

Arisaema triphyllum (Jack-in-the-pulpit)	Fruit (poisonous to humans); leaves eaten by wood thrush & wild turkey - caustic to most animals	
Asclepias (milkweed): best plants for garden use are ***A. incarnata*** (swamp milkweed) & ***A. tuberosa*** (butterfly weed). Other species for gardeners: ***A. exaltata*** (tall milkweed; lovely but harder to purchase than first two) & ***A. syriaca*** (common milkweed; best for naturalistic use – spreads by deep rhizomes) **Note: *A. verticillata*** (whorled milkweed) is short-lived in gardens (very toxic also). ***A. purpurascens*** (purple milkweed) is a beautiful species but imperiled in VA, & endangered or threatened in many states. New England Wild Flower Society sells propagated plants, & a few native plant nurseries sell propagated plants. **Individuals should not collect seed of this species in public gardens or in the wild.**	Downy fluff around seeds used to provide nesting material.	**H** - *A. tuberosa; A. incarnata* listed as well
Aster (old name that is still commonly used; botanists have now divided into different genera): **see *Symphyotrichum***		
Chelone glabra (white turtlehead; naturalistic use)		**H**
Dicentra eximia (wild bleeding heart)		**H**
Echinacea purpurea (eastern purple coneflower; easiest species to grow; naturalized in VA) The true VA native is ***E. laevigata*** (smooth purple coneflower), which is imperiled in VA, federally endangered, & hard to grow. Other *Echinacea* species need to be grown away from wild populations of this plant.	Seeds from late summer into the winter	

Eupatorium species (some now reclassified into new genera but sold under older names). The Best Garden Plants: ***Conoclinium coelestinum*** (***Eupatorium coelestinum***; blue mistflower) ***Eupatorium perfoliatum*** (boneset) **Joe-Pye Weed species:** ***Eupatoriadelphus fistulosus*** **(*Eupatorium fistulosum*)** ***Eupatorium purpureum*** - the similar ***Eupatoriadelphus maculatus*** **(*Eupatorium maculatum*)** is rare in VA Smallest species of Joe-pye weed: ***Eupatoriadelphus dubius* (*Eupatorium dubium*) -** 'Little Joe' is commercially available **Note:** Do not grow ***Ageratina altissima* (*Eupatorium rugosum***; white snakeroot) in gardens – invasive, poisonous to humans, & slightly less poisonous to livestock.	Seeds - generally of low interest to birds according to Illinois Wildflowers at www.illinoiswildflowers.info/ (swamp sparrow in IL)	
Geranium maculatum (wild geranium)	Seeds - species such as mourning dove & northern bobwhite	
Helianthus angustifolius (swamp sunflower) ***H. atrorubens*** (purpledisk sunflower – best for naturalistic use - floppy) ***H. divaricatus*** (woodland sunflower; spreads quite a bit when happy; sun or light shade) ***H. strumosus*** (roughleaf sunflower; shade tolerant) **Note: *H. tuberosus*** (Jerusalem artichoke) is best left in naturalistic settings – aggressive spreader (unless like to eat lots of tubers) Annual ***H. annuus*** introduced from the Plains states – naturalized in VA.	Seeds	
Heliopsis helianthoides (false sunflower)		**H** – listed on Lady Bird Johnson Wildflower Center website at wildflower.org (not listed by Missouri Botanical Garden so probably not commonly used)

Hibiscus moscheutos (hardy hibiscus or rose mallow) **Note: *H. coccineus* & hybrids** (red hibiscus) perform well - the species is native to GA & the deep south but naturalized further north		**H** - *H. coccineus* is the best species to attract H because red-flowered; *H. laevis* not listed as H plant by Lady Bird Johnson Wildflower Center at wildflower.org
Liatris spicata (liatris, blazing star, or gayfeather) **Note:** Other native species harder to grow. ***L. aspera*** needs dry, open sites to thrive – has not done well with crowding & irrigation at Green Spring, but loves loamy soil in my home garden - I seldom irrigate. ***L. pilosa*** (*L. graminifolia*) has been harder to grow in gardens in our area – needs sandier soil.	Seeds – species like finches, dark-eyed junco, & other sparrows	**H** – *L. spicata*
Lobelia cardinalis (cardinal flower)		**H** – one of their favorites
Maianthemum racemosum* subsp. *racemosum (*Smilacina racemosa*; false Solomon's seal) & ***M. stellatum*** (*S. stellata*; star-flowered false Solomon's seal)	Fruit	
Medeola virginiana (Indian cucumber root; naturalistic use)	Fruit	
Mertensia virginica (Virginia bluebells)		occasionally **H**
Monarda didyma (bee balm) ***M. fistulosa*** (wild bergamot)		**H** – *Monarda didyma* & red-flowered forms are some of their favorites; *M. fistulosa* attracts them also
Mitchella repens (partridgeberry; technically a woody plant but prostrate so looks like a perennial)	Fruit; leaves eaten by some birds like ruffed grouse & northern bobwhite	
Penstemon digitalis (white penstemon) & ***P. hirsutus*** (hairy penstemon) **Note:** Other species are harder to grown in VA and shorter-lived.	Seeds of *P. digitalis* may be eaten - not commonly eaten in IL (Illinois Wildflowers – www.illinoiswildflowers.info/); same species eaten in WI (www.for-wild.org/land/wibirdpl.html)	**H** – both species
Phlox divaricata* & *P. pilosa Other species that perform well in gardens locally: ***P. glaberrima*** (**subsp. *triflora*** native to VA) ***P. paniculata*** ***P. subulata*** **Note:** *P. nivalis* tends to be short-lived in gardens (sandier soil needed)		occasionally **H** (*P. pilosa* mentioned by Lady Bird Johnson Wildflower Center at wildflower.org); *P. pilosa* & *P. divaricata* listed in WI (www.for-wild.org/land/wibirdpl.html)

Physostegia virginiana (obedient plant)		occasionally **H**
Rudbeckia fulgida* var. *speciosa (eastern or orange coneflower) ***R. laciniata*** (cutleaf coneflower) ***R. subtomentosa*** (sweet coneflower; native to TN, NC, & the central U.S.)	Seeds	
Salvia lyrata (lyreleaf salvia)		**H**
Silphium* species** (rosinweed): ***S. asteriscus (southern rosinweed; likes some shade unlike the others) ***S. laciniatum*** (compass plant: native to OH & the central U.S. - naturalized in VA) ***S. perfoliatum*** (cup plant; reseeds readily) ***S. terebinthinaceum*** (prairie dock) ***S. trifoliatum*** (whorled rosinweed)	Seeds *S. perfoliatum* – cups formed by large leaves hold water. Birds drink the water & eat insects in the water as they drink.	
Solidago* species** (goldenrod): The Best Garden Plants: ***S. caesia, ***S. flexicaulis*** (the first two are shade lovers), ***S. roanensis,*** ***S. rugosa,*** & ***S. sphacelata* 'Golden Fleece'** (the last three are sun lovers, although 'Golden Fleece' tolerates some shade as well). **Note:** ***S. sempervirens*** needs very dry soil & full sun or will be floppy. ***S. juncea*** is good for naturalistic use. ***S. simplex* var. *racemosa*** is nice for rock garden use but critically imperiled in VA – enjoy in nature & in public gardens. ***S. odora*** is beautiful & fragrant but needs sandier soils & excellent drainage (short-lived in heavier soils at Green Spring).	Seeds (dark-eyed junco eats seeds on the ground in the winter). In the winter, chickadees & downy woodpeckers tear open galls made by the goldenrod gallfly (from *Brooklyn Botanic Garden. Plants and Garden News.* Fall 2007/ Winter 2008. "Inviting Wildlife Into Your Winter Garden." Claire Hagen Dole. "To Feed The Birds, First Feed the Bugs." Anne Raver, *New York Times* - quoting Dr. Douglas Tallamy in *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens*)	
Spigelia marilandica (woodland pinkroot or Indian pink; native to SC, TN, KY, & other southeastern states; naturalized in VA; poisonous to humans)		**H** - one of their favorites in S.C.
Symphyotrichum novae-angliae (*Aster novae-angliae*; New England aster) ***S. oblongifolium*** (*A. oblongifolius*; shale barren aster) Best For Naturalistic Use: ***Symphyotrichum cordifolium*** (*Aster cordifolius*) – heart-leaved aster; reseeds readily) ***Symphyotrichum lateriflorum*** (*A. lateriflorus*; calico aster; tends to be short-lived in gardens) ***Symphyotrichum leave*** (*A. laevis*; smooth blue aster; reseeds readily)	Seeds & leaves of New England aster, shale barren aster, & heart-leaved aster eaten by wild turkey & possibly other upland game birds to a limited extent according to Illinois Wildflowers at www.illinoiswildflowers.info/	

Viola canadensis (Canadian violet) ***V. pubescens*** (yellow violet) ***V. sororia*** (common blue violet) ***V. striata*** (striped cream violet) (naturalistic use for all species) **Note:** Not all violets are easy to grow – ***V. pedata*** likes very dry, sunny sites & has been short-lived at Green Spring.	Not a major food source but many plant parts eaten	

Note: Some hard-to-grow hummingbird plants:
Lilium canadense & ***L. superbum*** (native lilies)

The native ***Silene virginica*** (fire pink) is short-lived and hard to grow in cultivation. The Midwestern species ***Silene regia*** is somewhat easier to grow.

Herbaceous Perennials That Are Not Highly Ornamental - Weedy but Valuable To Birds

Fragaria virginiana (wild strawberry; white-flowered & sweet fruit) **Note:** Wild strawberry is often confused with Indian strawberry (*Duchesnea indica)*, an Asian exotic invasive – yellow flowers & fruit is watery & tasteless.	Fruit	
Phytolacca americana (common pokeweed)	Fruit	

Ornamental Grasses (perennials; grasses that need to grow in wet soil are not included here)

Andropogon (bluestem; generally best for naturalistic use): ***A. glomeratus*** (bushy bluestem; needs constantly moist to wet sites, unlike most members of this genus which like drier soils; can be short-lived if doesn't get the right amount of moisture) ***A. gerardii*** (big bluestem; tends to be floppy in gardens) ***A. virginicus*** (broomsedge bluestem; tends to be short-lived in gardens so let reseed) **Note: *A. ternarius*** (splitbeard bluestem; likes dry, sandy soils – died out at Green Spring) **See *Schizachyrium scoparium* below** (little bluestem) (once *Andropogon*) **– best bluestem for garden use.**	Seeds	
Chasmanthium latifolium (river oats; naturalistic use - reseeds readily)	Seeds	
Elymus hystrix (*Hystrix patula*; bottlebrush grass; the most ornamental of the 2 species – naturalistic use) **Note: *E. canadensis*** (Canada wild rye; nice scattered about like find it in nature or for use as a quick groundcover for meadow establishment)	Seeds	
Eragrostis spectabilis (purple lovegrass; naturalistic use in dry or sandy soils – often see on slopes)	Seeds	
Muhlenbergia capillaris (pink muhly or purple muhly)	Seeds	

Panicum virgatum (switchgrass) **Note: *Dichanthelium clandestinum*** (*Panicum clandestinum*) (deertongue grass; naturalistic use)	Seeds	
Saccharum giganteum *(Erianthus giganteus;* giant plumegrass) ***S. brevibarbe* var. *contortum*** (*E. contortus*; bent-awn plumegrass or sortbeard plumegrass)	Seeds	
Schizachyrium scoparium (little bluestem; the best bluestem for garden use & naturalistic use– long lived & good performer)	Seeds	
Sorghastrum nutans (Indian grass; best for naturalistic use - reseeds readily)	Seeds	
Sporobolus heterolepsis (prairie dropseed)	Seeds	
Tridens flavus (purpletop or redtop; naturalistic use)	Seeds	
Tripsacum dactyloides (eastern gamagrass; naturalistic use)	Seeds	

Ornamental Sedges (perennials; sedges that need to grow in wet soil are not included here)

Carex grayi, C. pensylvanica, C. plantaginea, *&* ***C. shortiana*** **Note: *C. vulpinoidea*** (naturalistic use) – in wetland areas in nature but can tolerate moist garden soil	Seeds Cover for taller species	

Ferns

Osmunda cinnamomea (cinnamon fern; a perennial that likes to grow in moist to wet sites)		Brown fuzz at the base of the fronds is a favorite hummingbird nesting material.

Biennials

Ipomopsis rubra (standing cypress; native to NC & southeastern U.S.)		**H**
Rudbeckia hirta (Black-Eyed Susan; biennial or short-lived perennial) ***R. triloba*** (three-lobed coneflower; biennial or short-lived perennial) **Note:** for bird gardening grow the wild form of ***R. hirta*** & not cultivars.	Seeds (both species, less so for *R. hirta* - occasionally eaten by goldfinches - Illinois Wildflowers at www.illinoiswildflowers.info/)	

Annuals

Impatiens capensis (jewelweed; naturalistic use)		**H** – one of their favorites

Importance Of Natural Areas To Birds

Many birds have very specific habitat requirements, or are found in specific areas of Virginia at certain times of the year (most birds are migratory). Most bird species will not be attracted to gardens, especially if there are no large natural areas nearby, and can only be enjoyed and preserved in their native habitats.

Grassland and Shrubland Birds – Birds found in these increasingly rare habitats are showing significant declines in the eastern U.S. (www.nps.gov/nero/science/FINAL/SARA_birds/SARA_birds.htm and www.fs.fed.us/psw/publications/documents/psw_gtr191/Asilomar/pdfs/1178-1183.pdf). According to the American Bird Conservancy, the most threatened bird habitats in Virginia are:

- Early successional habitats in eastern deciduous forests (ranges from open grasslands to areas with varying densities of woody shrubs and small trees)

- Bottomland hardwood forests - See the brochure *Riparian Forest Buffers - Native Plants for Conservation, Restoration and Landscaping* for a list of native plants for restoration in floodplains (published by the Natural Heritage Program of the Virginia Department of Conservation and Recreation; available at www.dcr.virginia.gov/natural_heritage/documents/riparian.shtml). However, it is much easier to leave natural areas intact than it is to try to restore them.

Grasslands and Meadows - Grasslands are natural communities dominated by native grasses. Grasslands in Virginia are mostly found in places with extreme environmental conditions or are maintained by disturbances such as fire or infrequent mowing. For gardeners who love naturalistic design and wildlife habitat, a meadow is the gardener's version of a grassland community. These naturalistic gardens are planted with a mix of native grasses and wildflowers. **Grasslands and meadows provide excellent cover for ground-nesting birds and seeds from summer into winter.**

In order to keep grasslands and meadows from reverting to woodland in the eastern U.S., they need infrequent mowing or burning. Meadows are generally cut down or mowed every year or two – this is often done in mid to late winter. They can't be cut down during the bird breeding season in the spring through the summer, and birds like sparrows and finches will finish off stray seeds in the winter if these habitats are cut down late. Burning can be used in less developed areas with careful management. See the brochure *Grasslands - Native Plants for Conservation, Restoration and Landscaping* for a list of native grassland plants for habitat restoration in Virginia (published by the Natural Heritage Program of the Virginia Department of Conservation and Recreation; also at www.dcr.virginia.gov/natural_heritage/documents/natvglnd.pdf).

References About Birds

Books By The National Audubon Society

(the website for this organization is www.audubon.org)

- *The Sibley Guide to Bird Life and Behavior.* Illustrated by David Sibley. Edited by Chris Elphick, John Dunning, Jr., and David Sibley.

- *The Sibley Guide to Birds.* Written and illustrated by David Sibley.

- *The Sibley Field Guide to Birds of Eastern North America.* David Sibley and Rick Cech.

Other Guide Books

- *National Geographic Complete Birds of North America*. Edited by Jonathan Alderfer.

- *National Geographic Field Guide to the Birds of North America* (5th edition). Edited by Jon Dunn and Jonathan Alderfer.

- *Kaufman Focus Guide. Birds of North America.* Kenn Kaufman.

- *A Field Guide to the Birds of Eastern and Central North America* (5th edition) by Roger Tory Peterson and Virginia Marie Peterson (now historic).

Specifically For Virginia

- The Virginia Society of Ornithology (http://virginiabirds.net/) – local chapters are The Audubon Society of Northern Virginia (www.fairfaxaudubon.org/) and the Northern Virginia Bird Club (www.nvabc.org/). The Virginia Society of Ornithology publishes *Virginia's Birdlife. An Annotated Checklist. Virginia Avifauna No. 7.* Steven Rottenborn and Edward Brinkley, 4th Edition (2007).

- *A Birder's Guide to Virginia (ABA Birdfinding Guide)* – older source of information about birds in Virginia

U.S. Geological Survey Websites (Part Of The U.S. Department Of The Interior)

- Mason Neck National Wildlife Refuge in Fairfax County - bird checklist for the preserve (www.npwrc.usgs.gov/resource/birds/chekbird/r5/masoneck.htm)

- Patuxent Research Refuge in Maryland - bird checklist for the preserve (www.npwrc.usgs.gov/resource/birds/chekbird/r5/patuxent.htm)

- Patuxent Bird Identification InfoCenter - photographs, identification tips, distribution maps, life history information, songs, and videos about North American birds (www.mbr-pwrc.usgs.gov/Infocenter/infocenter.html)

Other References

- Cornell Lab of Ornithology (www.birds.cornell.edu) – extensive research, conservation programs, and educational programs and publications.

- *The American Bird Conservancy Guide to the 500 Most Important Bird Areas in the United States.* Robert Chipley, George Fenwick, Michael Parr, and David Pashley (the website for this organization is www.abcbirds.org).

References About Gardening For Birds

Brooklyn Botanic Garden All-Region Guides

(also see their wildlife gardening website at www.bbg.org/gar2/topics/wildlife/)

- *The Wildlife Gardener's Guide.* Janet Marinelli (their most recent publication – 2008).

- *Hummingbird Gardens. Turning Your Yard into a Hummingbird Heaven.* Stephen Kress, Guest Editor.

- *Bird Gardens. Welcoming Wild Birds to Your Yard.* Stephen Kress, Guest Editor. Brooklyn Botanic Garden.

National Wildlife Federation

(this organization runs the **Certified Wildlife Habitat** program – details at www.nwf.org/backyard/)

- Garden for Wildlife information (www.nwf.org/gardenforwildlife/)

- American Beauties Native Plants - sample bird garden design and plant list (www.abnativeplants.com/index.cfm/fuseaction/home.landscapePlans/recID/3/index.htm)

- Native Plants from American Beauties - information and pictures of a number of native plants (www.abnativeplants.com/index.cfm/fuseaction/plants.main/index.htm)

Other Gardening References

- *Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens.* Douglas Tallamy.
- Maryland Wild Acres Program and *Habichat* quarterly newsletter. Maryland Department of Natural Resources (www.dnr.state.md.us/wildlife/wildacres.asp#habichat).
- *Trees, Shrubs, and Vines for Attracting Birds*. 2nd edition. Richard DeGraaf.
- *Native Plants for Wildlife Habitat and Conservation Landscaping. Chesapeake Bay Watershed.* U.S. Fish and Wildlife Service (www.nps.gov/plants/pubs/chesapeake/).
- Native Plant Database. Lady Bird Johnson Wildflower Center. The University of Texas at Austin (www.wildflower.org/plants/result.php?id_plant=LISP).
- *Gardening for the Birds*, Thomas Barnes. The University Press of Kentucky.
- *The Wildlife Gardener's Guide to Hummingbirds and Songbirds from the Tropics*. Susan Day, Ron Rovansek, and Jack Griggs.
- *Bird Watcher's Digest*. A magazine for bird enthusiasts with information about gardening for birds (www.birdwatchersdigest.com/site/index.aspx).

Developed by Brenda Skarphol, Curatorial Horticulturist

If ADA accommodations are needed, please call (703) 324-8563. TTY (703) 803-3354