

KEYSTONE NATIVE PLANTS FOR BIRDS NORTH CAROLINA PIEDMONT

These keystone plants host the insects that are essential for our ecosystem to function. Doug Tallamy, who developed the concept, has written that landscapes without a few species from these genera will have "failed food webs, even if the diversity of other plants is very high." FYI, the caterpillars feeding on these plants are one of the primary food sources needed for songbirds to raise their nestlings. For more information and additional plants, go to forsythaudubon.org/using-native-plants/

The TOP keystone plants in each category are the ones at the beginning of each section.

See Key on Page 3

Rank ordered within category

| Trees | | | |
|--|--|------------------|--------------------------------------|
| Common Name | Genus/Species | Wildlife Benefit | # of caterpillars supported by genus |
| Oak (White, Willow, Red, Scarlet, Shumard) | <i>Quercus spp.</i> | LH, SE | 488 |
| Black Cherry | <i>Prunus serotina</i> | LH, BE, NE | 362 |
| Plum (Wild, Chickasaw) | <i>Prunus americana, P. angustifolia</i> | LH, BE, NE | 362 |
| Carolina Laurel-Cherry (Ev) | <i>Prunus caroliniana</i> | LH, BE, NE | 362 |
| River Birch | <i>Betula nigra</i> | LH, SE | 299 |
| Black Willow | <i>Salix nigra</i> | LH | 279 |
| Maple (Red, Southern Sugar, Sugar, Chalk) | <i>Acer spp.</i> | LH, SE, NE | 254 |
| Flowering Crabapple | <i>Malus angustifolia</i> | LH, BE, NE | 245 |
| Hickory (Bitternut, Mockernut, Pignut, Shagbark) | <i>Carya spp.</i> | LH, SE | 242 |
| Pine (Shortleaf, Virginia, White) (Ev) | <i>Pinus spp.</i> | LH, SE | 232 |
| Elm (Slippery, Winged, American) | <i>Ulmus spp.</i> | LH, SE | 171 |
| Hawthorn | <i>Crataegus spp.</i> | LH, BE, NE | 138 |
| Black Walnut | <i>Juglans nigra</i> | LH, SE | 136 |
| American Beech | <i>Fagus grandifolia</i> | LH, SE | 124 |
| Ash (White, Green) | <i>Fraxinus spp.</i> | LH, SE | 121 |
| Dogwood/Flowering Dogwood | <i>Benthamidia/Cornus florida</i> | LH, BE, NE | 101 |
| Serviceberry (Downy, Eastern) | <i>Amelanchier spp.</i> | LH, BE, NE | 94 |
| American Hop-hornbeam | <i>Ostrya virginiana</i> | LH, SE | 82 |
| Ironwood | <i>Carpinus caroliniana</i> | LH, SE | 71 |
| American Persimmon | <i>Diospyros virginiana</i> | LH, BE, NE | 55 |
| Hackberry (Southern, Northern, Dwarf) | <i>Celtis spp.</i> | LH, BE, NE | 47 |
| American Holly (Ev) | <i>Ilex opaca</i> | LH, BE, NE | 44 |
| American Sycamore | <i>Platanus occidentalis</i> | LH, SE, NE | 42 |
| Buckeye (Red, Painted) | <i>Aesculus spp.</i> | LH, SE, NE | 38 |
| Sweetgum | <i>Liquidambar styraciflua</i> | LH, SE, NE | 37 |
| Black Gum/Sour Gum | <i>Nyssa sylvatica</i> | LH, BE, NE | 37 |
| Sassafras | <i>Sassafras albidum</i> | LH, BE, NE | 32 |
| Eastern Red Cedar (Ev) | <i>Juniperus virginiana</i> | LH, BE | 29 |
| Eastern Redbud | <i>Cercis canadensis</i> | LH, SE, NE | 25 |
| Magnolia (some (Ev)) | <i>Magnolia spp.</i> | LH, BE | 24 |
| Tulip Tree/"Yellow Poplar" | <i>Liriodendron tulipifera</i> | LH, SE, NE | 18 |
| Sourwood | <i>Oxydendrum arboreum</i> | LH, NE | 14 |
| Pawpaw (Common, Dwarf) | <i>Asimina spp.</i> | LH, BE, NE | 12 |
| Fringe-tree | <i>Chionanthus virginicus</i> | LH, BE, NE | 12 |

Shrubs

| Common Name | Genus/Species | Wildlife Benefit | # of caterpillars supported by genus |
|--|--|------------------|--------------------------------------|
| Blueberry (Rabbit Eye, Sparkleberry, Smooth Highbush, Deerberry) | <i>Vaccinium spp.</i> | LH, BE, NE | 237 |
| Tag Alder | <i>Alnus serrulata</i> | LH, SE | 168 |
| Blackberry | <i>Rubus spp.</i> | LH, BE, NE | 140 |
| Rose (Carolina, Swamp) | <i>Rosa spp.</i> | LH, BE, NE | 105 |
| American Hazelnut/Filbert | <i>Corylus americana</i> | LH, SE, NE | 104 |
| Viburnum (Blackhaw, Southern Arrowwood, Maple-leaf, Swamp/Southern Wild Raisin, Downy Arrowwood) | <i>Viburnum spp.</i> | LH, BE, NE | 99 |
| Northern Witchhazel | <i>Hamamelis virginiana</i> | LH, SE, NE | 68 |
| Rhododendron (Catawba, Great White) | <i>Rhododendron catawbiense</i> <i>R. maximum</i> | LH, NE | 55 |
| Azalea (Pinxterflower, Swamp, Flame) | <i>Rhododendron spp.</i> | LH, NE | 53 |
| Sumac (Smooth, Shining) | <i>Rhus spp.</i> | LH, BE, NE | 53 |
| Holly (Winterberry, Deciduous, Inkberry (Ev), Yaupon (Ev)) | <i>Ilex spp.</i> | LH, BE, NE | 44 |
| New Jersey Tea | <i>Ceanothus americanus</i> | LH, NE | 37 |
| Ninebark | <i>Physocarpus opulifolius</i> | LH, NE | 29 |
| Elderberry | <i>Sambucus canadensis</i> | LH, BE, NE | 29 |
| Buttonbush | <i>Cephalanthus occidentalis</i> | LH, SE, NE | 24 |
| Mountain Laurel (Ev) | <i>Kalmia latifolia</i> | LH, SE, NE | 23 |
| Strawberry-bush/Hearts-a-bustin' | <i>Euonymus americanus</i> | LH, BE, NE | 13 |
| Spicebush | <i>Lindera benzoin</i> | LH, BE, NE | 11 |
| Red Chokeberry | <i>Aronia arbutifolia</i> | LH, BE, NE | 3 |
| Sweetshrub/Carolina Allspice | <i>Calycanthus floridus</i> | LH, SE, NE | 3 |
| American Beautyberry | <i>Callicarpa americana</i> | LH, BE, NE | 2 |
| Wax-myrtle (Ev) | <i>Morella spp.</i> | LH, BE, NE | 2 |
| Sweet Pepperbush | <i>Clethra alnifolia</i> | LH, SE, NE | 1 |
| Virginia Sweetspire | <i>Itea virginica</i> | LH, SE, NE | 1 |

Perennial Flowers

| | | | |
|---|---|------------|-----|
| Goldenrod (Axillary, Licorice, Rough, Zigzag) | <i>Solidago spp.</i> | LH, SE, NE | 102 |
| Wild Strawberry | <i>Fragaria virginiana</i> | LE, BE, NE | 69 |
| Sunflower (Appalachian, Woodland, Swamp) | <i>Helianthus spp.</i> | LH, SE, NE | 64 |
| Common Boneset | <i>Eupatorium perfoliatum</i> | LH, NE | 33 |
| Crimson-eyed Rose-mallow | <i>Hibiscus moscheutos</i> | LH, NE | 28 |
| Wild Geranium | <i>Geranium maculatum</i> | LH, SE, NE | 27 |
| Violet (Bird's-foot, Blue, Smooth Yellow, Wood Violet) | <i>Viola spp.</i> | LH, NE | 27 |
| Ironweed | <i>Vernonia noveboracensis</i> | LH, NE | 21 |
| Wild Indigo | <i>Baptisia spp.</i> | LH, NE | 20 |
| Southern Sundrops | <i>Oenothera fruticosa</i> | LH, SE, NE | 17 |
| Black/Brown-eyed Susan | <i>Rudbeckia fulgida, R. hirta</i> | LH, SE, NE | 16 |
| Cutleaf/Green-headed Coneflower | <i>Rudbeckia laciniata</i> | LH, SE, NE | 16 |
| Wild Quinine | <i>Parthenium integrifolium</i> | LH, NE | 15 |
| Milkweed (Eastern Swamp, Butterflyweed) | <i>Asclepias incarnata, A. tuberosa</i> | LH, NE | 13 |
| Beebalm (Scarlet Beebalm, Wild Bergamot, Spotted Horsemint) | <i>Monarda spp.</i> | LH, NE | 12 |
| Aster (Eastern Aromatic, Smooth Blue, White Heart-leaved) | <i>Symphyotrichum spp.</i> | LH, SE, NE | 11 |
| Wild Columbine | <i>Aquilegia canadensis</i> | LH, SE, NE | 10 |

Perennial Flowers continued

| Common Name | Genus/Species | Wildlife Benefit | # of caterpillars supported by genus |
|---|---|------------------|--------------------------------------|
| Lyre-leaf Sage | <i>Salvia lyrata</i> | LH, NE | 8 |
| Beardtongue (Eastern Smooth, Blue Ridge) | <i>Penstemon laevigatus, P. smallii</i> | LH, NE | 7 |
| Phlox (Creeping, Eastern Blue, Garden, Moss) | <i>Phlox spp.</i> | LH, NE | 7 |
| Coreopsis (Threadleaf, Lobed Tickseed, Star Tickseed, Greater Tickseed) | <i>Coreopsis spp.</i> | LH, SE, NE | 6 |
| Cardinal Flower | <i>Lobelia cardinalis</i> | LH, SE, NE | 6 |
| Maryland Golden-aster | <i>Chrysopsis mariana</i> | LH, NE | 5 |
| Blazing-star | <i>Liatris spp.</i> | LH, SE, NE | 5 |
| Mountain-mint (Silverleaf, Short-toothed, Narrow-leaf) | <i>Pycnanthemum spp.</i> | LH, NE | 4 |
| Fire-pink | <i>Silene virginica</i> | LH, SE, NE | 4 |
| Golden-Alexander | <i>Zizia aurea</i> | LH, NE | 3 |
| Joe-pye-weed | <i>Eutrochium spp.</i> | LH, SE, NE | 2 |
| Eastern Solomon's-plume/"False Solomon's-seal" | <i>Maianthemum racemosum</i> | LH, BE, NE | 2 |
| Bloodroot | <i>Sanguinaria canadensis</i> | LH, BE, NE | 2 |
| Eastern Bluestar | <i>Amsonia tabernaemontana</i> | LH, NE | 1 |
| Purple Coneflower | <i>Echinacea purpurea</i> | LH, SE, NE | 1 |

Grasses, Sedges and Ferns

| | | | |
|-------------------------------------|--------------------------------------|--------|----|
| Sedges (many native species) | <i>Carex spp.</i> | LH, SE | 36 |
| Switchgrass | <i>Panicum virgatum</i> | LH, SE | 31 |
| Bluestem | <i>Andropogon spp.</i> | LH, SE | 19 |
| Little Bluestem | <i>Schizachyrium scoparium</i> | LH, SE | 9 |
| Yellow Indian Grass | <i>Sorghastrum nutans</i> | LH, SE | 8 |
| River Oats | <i>Chasmanthium latifolium</i> | LH, SE | 7 |
| Cinnamon Fern, Royal Fern | <i>Osmundastrum sp., Osmunda sp.</i> | LH | 6 |
| Christmas Fern | <i>Polystichum acrostichoides</i> | LH | 5 |
| Lady Fern (Southern, Northern) | <i>Athyrium spp.</i> | LH | 4 |
| Pink Muhly/Hairgrass | <i>Muhlenbergia capillaris</i> | LH, SE | 3 |

Vines

| | | | |
|---|--------------------------------------|------------|----|
| Coral Honeysuckle | <i>Lonicera sempervirens</i> | LH, BE, NE | 31 |
| Virginia Creeper | <i>Parthenocissus quinquefolia</i> | LH, BE | 29 |
| Lanceleaf Greenbrier/Jacksonbrier (Ev) | <i>Smilax smallii</i> | LH, BE, NE | 19 |
| Leatherflower Clematis | <i>Clematis viorna</i> | LH, SE, NE | 11 |
| Trumpet-creeper | <i>Campsis radicans</i> | LH, NE | 7 |
| Purple Passionflower, Yellow Passionflower | <i>Passiflora purpurea, P. lutea</i> | LH, BE, NE | 5 |
| Cross-vine (Ev) | <i>Bignonia capreolata</i> | LH, NE | 2 |
| Pipevine | <i>Isotrema macrophylla</i> | LH, NE | 2 |

Keystone species primary source
nativeplantfinder.nwf.org

Compiled by Forsyth Audubon
from a list originally produced by
New Hope Bird Alliance

ForsythAudubon.org

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*KEY

(Ev) = Evergreen

Benefit to Wildlife: LH = larval host
SE = seed/nut producing
BE = berry/fruit producing
NE = nectar producing

of Caterpillars supported

This is for the entire genus rather than each species. It relates to Doug Tallamy's concept of Keystone genera that he recommends planting to provide the most food for wildlife.