

NATIVE PLANT LAYERS

FOREST CANOPY and SHADE TREES

heights of 20 - 60+ feet
Migratory birds, such as Baltimore Oriole, American Redstart, Red Eyed Vireo and various warblers build spring nests in the high canopy of urban forests. Seasonal migration and nesting synchronizes with insect and plant life cycles. Clusters of native tree catkins are habitat to moths, caterpillars, katydids, and other insects that provide dietary protein during bird nesting. Cavities within large old trees offer nesting sites for numerous birds, including wrens, woodpeckers, bluebirds, owls, chickadees and flickers. Forests in city parks and streams corridors, which provide numerous human health benefits, are also essential habitat for migratory birds seen throughout the Hartford metropolitan area.

- American Beech, *Fagus grandifolia*
- American Elm, *Ulmus americana* 'Valley Forge'
- American Sycamore, *Platanus occidentalis*
- Birch, *Betula*, 16 natives, esp. river birch, *Betula nigra*
- Black Cherry, *Prunus serotina*, Pin Cherry, *P. pensylvanica*
- Eastern redcedar, *Juniperus virginiana*
- Hickory, *Carya*, 9 natives, esp. Shagbark, *C. ovata*
- Maple, *Acer*, natives, esp. sugar and red maple, *A. saccharum* and *A. rubrum*
- Oak, *Quercus*, 29 natives, esp. White Oak, *Q. alba* and Swamp White Oak, *Q. bicolor*
- Pine, *Pinus*, esp. White Pine, *Pinus strobus*
- Sassafras, *Sassafras albidum*
- Willow, *Salix*, esp. black willow, *S. nigra*, *S. amygdaloides*

UNDERSTORY TREES

heights of 10 - 20 feet
Buds of understory trees that bloom early in the spring serve as a food source to insects and early migratory birds, such as the Palm Warbler. Migratory flycatchers, such as the Eastern Phoebe, nest and feed within the understory.

- Chokecherry, *Prunus virginiana*
- Eastern Redbud, *Cercis canadensis*
- Flowering Dogwood, *Cornus florida*
- Serviceberry, *Amelanchier canadensis*
- Willow, esp. Pussy Willow, *Salix discolor*

SHRUBS

heights of 4 - 10 feet
Shrubs provide berries for birds from early June through late winter. Although insects are a primary food source during nesting, berries offer energy during migration. Bitter berries, such as the winter berries and juniper berries, provide critical nourishment during periods of freezing temperatures for migratory birds that travel from northern areas to winter within the lower Connecticut River watershed.

- American Holly, *Ilex opaca*
- Bayberry, *Myrica pensylvanica* (dry soils) *M. gale* (wet)
- Button Bush, *Cephalanthus occidentalis*
- Chokeberry, black and red, *Aronia melanocarpa* and *A. arbutifolia*
- Dogwood, esp. Gray and Silky, *Cornus racemosa/paniculata*, and *C. amomum*
- Elderberry, *Sambucus canadensis*
- Highbush Blueberry, *Vaccinium corymbosum*
- Inkberry, *Ilex glabra*
- Juniper, *Juniperus communis*
- Spicebush, *Lindera benzoin*
- Summersweet Clethra, *Clethra alnifolia*
- Viburnum, esp. Arrowwood and Cranberrybush *Viburnum dentatum* and *V. trilobum*
- Winterberry, *Ilex verticillata*

MEADOW WILDFLOWERS and GRASSES

heights of 1 - 5 feet
Nectar from flowers attracts insects and hummingbirds. Wildflower and grassland meadows offer seeds and grains in late summer and during autumn migration for birds such as the American Goldfinch. Birds that nest in meadows, such as the Eastern Meadowlark are endangered due to mowing practices that cut apart nesting sites and reduce the availability of seeds and insects. Seeds remain a critical food source for birds during winter months when insects are dormant and the ground is covered in snow.

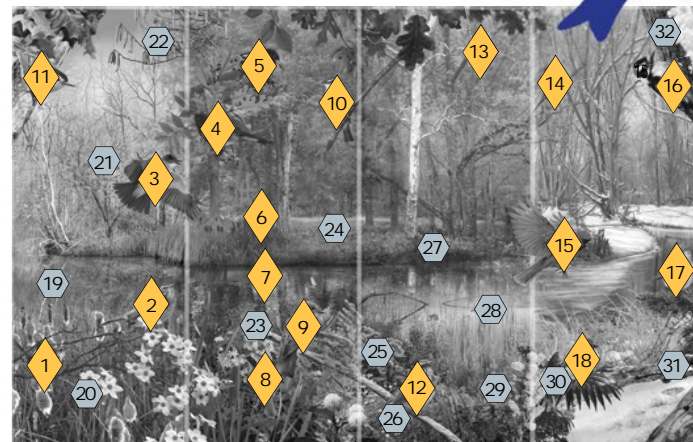
- Aster, native varieties, *Symphotrichum novae-angliae*
- Bee Balm, *Monarda didyma* and *M. fistulosa*
- Black-eyed Susan, *Rudbeckia hirta* and *R. laciniata*
- Cardinal Flower, *Lobelia cardinalis*
- Cattail, *Typha angustifolia*
- Coneflower, *Echinacea pallida*
- Joe-pye, *Eupatorium*
- Indian Grass, *Sorghastrum nutans*
- Little Bluestem, *Schizachyrium scoparium*
- Lupine, *Lupinus perennis*
- Milkweed, *Asclepias exaltata* and *A. tuberosa*
- Sunflower, *Helianthus divaricatus* and *H. helianthoides*
- Switch Grass, *Panicum virgatum*

GROUNDCOVERS, FERNS and VINES

heights of 1 - 3 feet
Insects, worms and grubs in the leaf litter are food for migrant and resident birds, especially in the spring when ephemeral forest floor groundcover blooms before tree leaves grow into a dense canopy.

- Bloodroot, *Sanguinaria canadensis*
- Dutchman's Pipe, *Aristolochia durior*
- Marginal Wood Fern, *Dryopteris marginalis*
- Mayapple, *Podophyllum peltatum*
- Royal Fern, *Osmunda regalis*

for more information see www.parkwatershed.org



The illustration depicts urban-adaptive migratory birds in context with seasonal food sources and birds that live in the Hartford metropolitan area throughout the year.

- Migratory Birds:** 1) Carolina Wren; 2) Palm Warbler; 3) Eastern Phoebe; 4) American Redstart; 5) Baltimore Oriole; 6) Red-winged Blackbird; 7) Tree Swallow; 8) Common Yellowthroat; 9) Eastern Bluebird; 10) Red-eyed Vireo;
- Year-round Residents:** 11) White-breasted Nuthatch; 12) Song Sparrow; 13) Black-capped Chickadee; 14) Red-tailed Hawk; 15) Northern Cardinal; 16) Downy Woodpecker; 17) Tufted Titmouse; 18) American Goldfinch
- Seasonal Food Sources:** 19) Clean Water; 20) Caterpillars; 21) Larvae; 22) Catkins; 23) Mayfly; 24) Grasshoppers; 25) Nectar; 26) Spiders; 27) Mosquitoes; 28) Dragonflies; 29) Wildflower Seeds; 30) Sumac; 31) Winterberry; 32) Insect Eggs and Larvae

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GREATER HARTFORD PLANT PALETTE

to cultivate urban habitat for MIGRATORY BIRDS



City of Hartford parks and open spaces are urban bird havens along the Atlantic flyway. The flyway, which follows the Connecticut River watershed into Canada, is an important migratory pathway for birds that breed in the Northeast and winter in the tropics. The hundreds of thousands of birds that fly thousands of miles during spring and fall migration depend upon available food, shelter, and clean water to ensure safe passage to annual nesting areas. Bird habitat within city parks, open spaces and backyard gardens can be enhanced through cultivation and maintenance of diverse plant ecosystems.

City of Hartford, Trinity College and Park Watershed, developed this Plant Palette with support from the 'Urban Conservation Treaty for Migratory Birds' which is a program of the United States Fish & Wildlife Service.



Migratory and resident birds depend upon the availability of clean water, shelter for nesting and native plants for seasonal nourishment.