

York County Envirothon- 3rd and 4th Grade Forestry

# Sample Backyard Species Fact Pack!

*This packet is provided to help bring all the concepts and terminology together with some sample species.*

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Sources

# Flowering Dogwood

## *Cornus florida*



### Identification Features:

- Leaves have OPPOSITE arrangement.
- Leaves are simple and 3-5 inches long.
- Leaf margin is entire or smooth.
- Leaves turn bright red in fall.
- Buds look like miniature garlic cloves or onions.
- Flowers look large and white (but the white parts are actually bracts, and the flowers are yellow in the center).
- Seeds are egg shaped red drupes in clusters of 2-5 visible in fall.
- Bark is broken into small blocks like alligator skin.
- Small tree that grows about 30 feet tall.



### Habitat:

- Forest understory (grows beneath taller trees)
- Neighborhoods and parks

### Wildlife Value:

- Drupes are eaten by squirrels, chipmunks, mice, grey fox, black bear, skunk, beaver, white-tailed deer, quail, cardinals, mockingbirds, robins, turkey, and woodpeckers.
- Leaves and twigs are eaten by white-tailed deer, beaver, and Eastern cottontails.
- Leaves are food for over 115 species of butterfly and moth caterpillars including the Monkey Slug, also known as the Hag Moth and the Stinging Rose Caterpillar.
- Dogwood flowers provide nectar for pollinating insects like bees, beetles, and butterflies.



### Human Value:

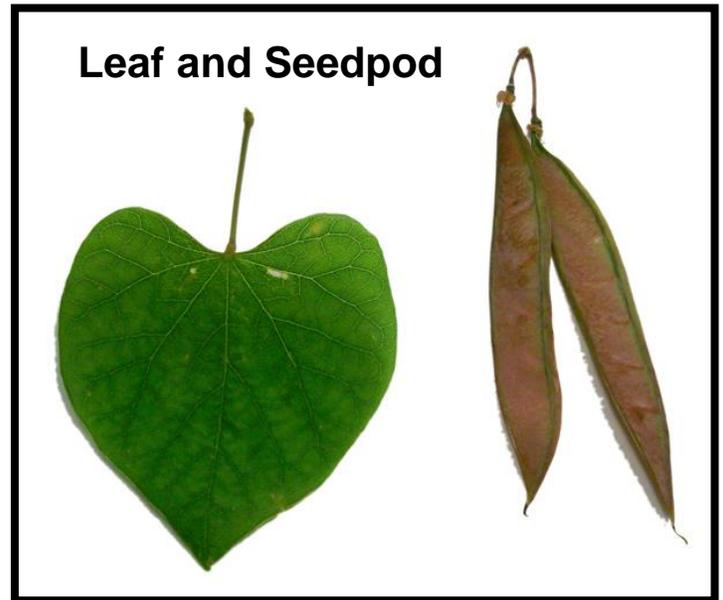
- Decorative tree for yards and businesses.
- Flowering Dogwood is planted to improve soil because leaf litter decomposes quickly providing nutrients to the soil.
- Wood is used for handles, charcoal, golf club heads, roller skate wheels, knitting needles, and more! Wood is hard, strong, and shock resistant.

# Eastern Redbud

## *Cercis canadensis*

### Identification Features:

- Leaves have alternate arrangement.
- Leaves are simple.
- Leaves are heart-shaped, 3-5 inches long.
- Leaf margin is entire or smooth.
- Flower is ½ inch long pink or purple in clusters along the twigs, branches, and trunk before leaves emerge in spring.
- Fruits are flattened, dry, brown seedpods 2-4 inches long. Each pod contains flat brown seeds.
- Small tree up to 30 feet tall.



### Habitat:

- Understory tree in woods and valleys
- Neighborhoods and parks

### Wildlife Value:

- Redbud is the larval host plant for over 15 species of butterflies and moths including the commonly seen American Dagger Moth, *Acronicta Americana*. Look for this caterpillar in late summer.
- Hummingbirds drink nectar from redbud flowers in the spring.
- Honeybees collect pollen from redbud flowers in the spring.
- White-tailed Deer eat the twigs and leaves.
- Bobwhite quail and songbirds eat the seeds.
- Insects like weevils eat the seeds and leaves.



### Human Value:

- Native Americans used the bark and roots of Eastern Redbud to make tea and to treat whooping cough and other illnesses.
- Eastern Redbud flowers are edible.



# Silver Maple

## *Acer saccharinum*

Leaf in fall



### Identification Features:

- Leaves have OPPOSITE arrangement.
- Leaves are simple.
- Leaves are up to 5 inches long.
- Leaves have five lobes with coarse teeth.
- Leaves are silvery white below.
- Leaves turn red or yellow in fall.
- Flowers are green or red and appear in clusters in spring.
- Fruits are called samaras.
- Bark is thin, smooth, and gray when young. Older bark breaks into long strips, loose at ends.
- Medium tree reaches over 100 feet tall.

### Habitat:

- Backyards
- Stream banks
- Floodplains

### Wildlife Value:

- Nesting tree for wood ducks.
- Samaras are eaten by turkeys, finches, grosbeaks, squirrels, and chipmunks.
- Beavers eat the bark.
- Deer and rabbits eat the twigs.

### Human Value:

- Timber is used for furniture, boxes, & crates.
- Sap can be made into syrup.
- Grows quickly & provides shade. However, large brittle branches can be dangerous too close to buildings.



# Red Oak

## *Quercus rubra*

### Identification Features:

- Leaves have alternate arrangement.
- Leaves are simple.
- Leaves have 7-11 lobes with several bristle-tipped teeth.
- Male flowers are catkins in spring. Female flowers are spikes.
- Fruits are acorns 2-2.5 inches long.
- Medium to large size tree that can reach up to 90 feet tall.

### Habitat:

- Forests
- Parks

### Wildlife Value:

- Oak trees are larval host plants for over 500 species of butterflies and moths including the Red-spotted Purple Butterfly, the Io Moth, and Spotted Apatelodes.
- Branches and leaves are eaten by white-tailed deer, elk, cottontail rabbits, and moose!
- Many mammals eat the acorns of red oak including the white-footed mouse, eastern chipmunk, flying squirrel, and deer mice.
- Birds like the northern bobwhite, red-headed woodpecker, bluejay, and ruffed grouse eat the acorns. Many species of ducks also eat the acorns including the golden-eye duck.
- Many red oak trees hold onto their brown leaves in the winter making them good shelter for a variety of birds and mammals.

### Human Value:

- Red oaks can be planted in polluted areas such as old coal mine spoils to restore a natural habitat.
- Traditionally acorns of many oak trees were used by Native American peoples as a food and medicine source. Red Oak acorns were soaked and boiled to remove bitter tannins.



# Sycamore

*Platanus occidentalis*

Leaf



## Identification Features:

- Leaves have alternate arrangement.
- Leaves are simple with palmate veins, 4 to 13 inches wide.
- Leaves have 3-5 lobes with coarse teeth.
- Fruits are round balls of tiny winged achenes (seeds).
- Flowers are either male or female and appear in round green or red clusters.
- Bark is mottled like camouflage clothing and scaly.
- Large tree reaches over 100 feet tall and reaches up to 13 feet diameter trunks.

## Habitat:

- Stream banks
- Street sides and parks

## Wildlife Value:

- Seeds are food for birds.
- Tree hollows are used as nesting sites for birds and squirrels.
- Sycamore tussock moth caterpillars are commonly seen nibbling the leaves in late summer.

## Human Value:

- Wood is used for lumber, wood pulp, butcher's blocks, furniture, boxes, floors, & particle board.
- This tree grows quickly to reforest old fields or flooded streambanks.



# Black Walnut

## *Juglans nigra*

One Leaf



### Identification Features:

- Leaves have alternate arrangement.
- Leaves are COMPOUND.
- Leaflets are lance shaped.
- Leaves have 15-24 leaflets. Each leaflet is 2-4 inches long with small teeth.
- The leaf stem has very fine hairs (unlike a woody branch).
- Seeds are round nuts, 1-2 inches in diameter. Seeds ripen in the fall. Seeds are covered by a thick, green, spongy husk seen below.
- Male flowers are called catkins and look like dangling green earrings. They are visible as the young leaves are opening in the spring. Male and female flowers look different.
- Large tree grows up to 100 feet tall.

### Habitat:

- Forests with moist soils, floodplains, and low on hillsides.
- Backyards and parks where squirrels have planted them.

### Wildlife Value:

- Nuts are eaten by squirrels.
- Yellow-bellied sapsuckers drill holes in the bark to eat sap.
- Twigs are eaten by deer, mice, and Eastern cottontails.
- Walnut leaves are food for over 130 types of caterpillars and many other types of insects including aphids, lace bugs, and Luna Moths.

Seeds



Nut Shell Opened by Squirrel

### Human Value:

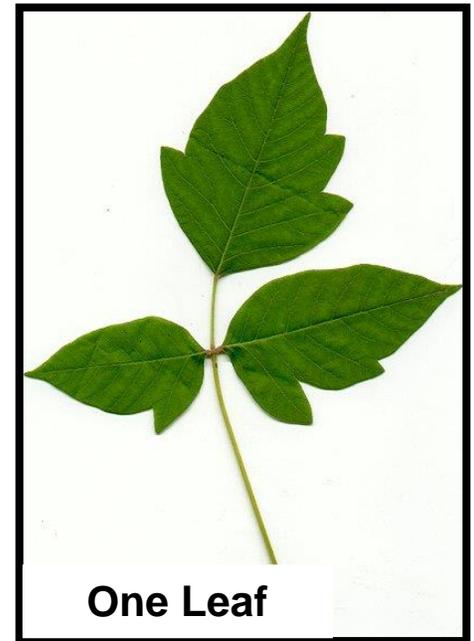
- Wood is used to make quality furniture, musical instruments, and guns.
- Shells are ground for use in many products including cleaning jet engines, filler in dynamite, and an ingredient in car tires.
- Nuts are harvested for use in cakes and cookies and ice cream.

# Poison Ivy

*Toxicodendron radicans*

## Identification Features:

- Leaves have alternate arrangement.
- Leaves are palmately COMPOUND.
- Each leaf has three leaflets.
- Leaflets are lance shaped.
- Poison ivy can grow as a groundcover, vine, or shrub.
- The vine has a hairy appearance.
- Flowers are small and green or white.
- Drupes are small and whitish gray.



## Habitat:

- Can live almost anywhere, including dry or moist sites, woods or fields, roadsides and paths.
- It is found in backyards where birds have left the seeds behind after digesting the drupes.



## Wildlife Value:

- At least 75 species of birds eat the fruits and seeds of poison ivy.
- Mammals including bears, deer, muskrats, Eastern Cottontails, squirrels, mice, and rats eat the leaves, stems, and fruits of poison ivy.
- Several birds use the hair-like rootlets of the vine as nesting material.

## Human Value:

- Poison ivy may cause rashes for humans who come in contact with any part of the plant. Therefore, poison ivy is generally removed where humans may come in contact with it.
- Poison ivy may be valuable as a native plant that can colonize disturbed areas protecting soil from erosion.



# American Holly

*Ilex opaca*

## Identification Features:

- Leaves are alternately branching and thick, leathery EVERGREEN.
- Leaves are elliptical, 2-4 inches long, with a spiny toothed margin.
- Some plants are males and some are females. Flowers are small and white.
- Fruits are berry-like red drupes that appear in fall.
- Light grey smooth bark.
- Small tree reaching 40 feet high.

## Habitat:

- Street sides, parks, and yard hedges.
- Forest understory.

## Wildlife Value:

- Drupes are eaten by white-tailed deer, grey squirrels and eighteen species of birds including mourning doves, wild turkeys, and Northern bobwhite.
- Dense branches provide shelter and nesting habitat.
- Flowers are pollinated by bees, ants, wasps, and moths.

## Human Value:

- Popular for landscaping due to beautiful evergreen color and red fruits.
- Branches are used for Christmas decorating.
- Wood is used for cabinets, handles, piano keys, and violin pegs.

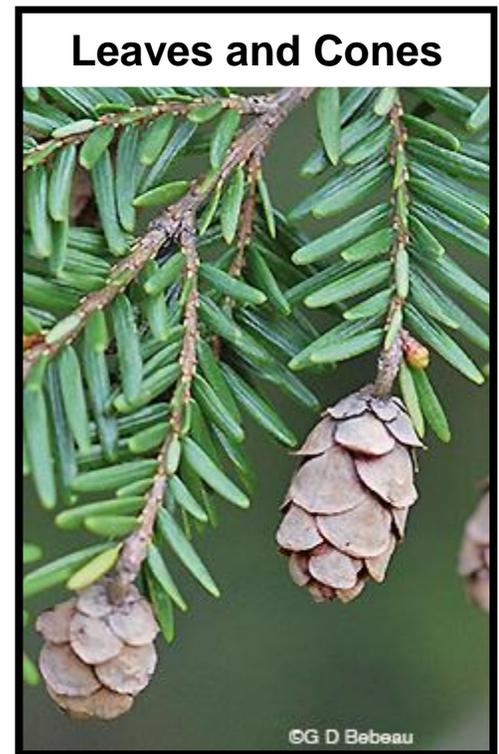


# Eastern Hemlock

## *Tsuga canadensis*

### Identification Features:

- Leaves are EVERGREEN.
- Leaves are needles attached singly to branches.
- Needles are flattened and about ½ inch long.
- Needles are dark and glossy above and light green with two white lines below.
- Male and female flowers look different.
- Seeds are in tiny cones ¾ inch long. Cones are egg-shaped. Under each cone scale are two small winged seeds.
- Large, long-lived tree. Some old growth forests have hemlocks that are up to 400 years old!



### Habitat:

- Cool, moist forests
- Backyards and parks
- Planted as hedges in some yards

### Wildlife Value:

- Ruffed Grouse, wild turkey, and songbirds eat the seeds.

- Many birds find shelter on the branches of Hemlock trees.
- The deep shade that hemlock trees provide helps keep forest streams cool.



Crossbill Eating Hemlock Seeds



### Human Value:

- Tannic acid was harvested from Hemlock tree bark for tanning leather.
- Wood was used in construction.
- Hemlock is the state tree of Pennsylvania.
- American Indians used hemlock wood as an ingredient in bread and soups. Tea was made from leaves which have high vitamin C content.
- Used in landscaping as a visual or wind screen. It can be shaped into rectangular hedges.

# Eastern Red Cedar

*Juniperus virginiana*

## Identification Features:

- Short, SCALY leaves are EVERGREEN.
- Red Cedar has two types of flowers. Male flowers are yellowish-brown and female flowers are light bluish-green.
- Flowers turn into berry-like cones that turn blue in September.
- Bark is reddish-brown and peeling off.
- Small tree reaches up to 40 feet tall.

## Habitat:

- Fields, roadsides, forest understory

## Wildlife Value:

- Cedar is the host plant for over thirty-five species of butterfly and moth larva including the Juniper Hairstreak.
- Young Red Cedars get eaten by white-tailed deer, mice, and Eastern cottontails.
- Cones are eaten by many birds and mammals including American robins, cedar waxwings, purple finches, American crows, woodpeckers, skunks, raccoons, and many more.
- Red Cedars are important cover for small mammals and make great nesting sites for birds.
- Many fungi like to grow on Red Cedar.

## Human Value:

- The wood of Red Cedar is used for fence posts, poles, paneling, furniture, pencils, pet bedding, and chests.
- Red Cedars are planted as Christmas Trees and as hedges.
- Red Cedars are planted in backyards and parks to attract wildlife.
- Red Cedar wood has insect-repelling properties, so it's used to help repel clothing moths by putting wood or shavings in closets and chests.



**Cones**



**Bark**



**Juniper Hairstreak**



**Fungi, *Gymnosporangium juniperi***

# Eastern White Pine

*Pinus strobus*

## Identification Features:

- Leaves are EVERGREEN needles in clusters of five. Each needle is 2 ½ - 5 inches long and bluish green.
- White Pine flowers are shaped like small yellow or red cones.
- Seeds are in cones 5-8 inches long. Cones do not have prickles. Each cone scale holds two winged seeds.
- Large tree reaches 50-90 feet high. Historically, White Pines have been found to reach over 150 feet tall and live over 400 years!

## Habitat:

- Forests
- Neighborhoods and parks

## Wildlife Value:

- Seeds and needles are eaten by birds, squirrels, chipmunks, voles, and mice.
- Deer and Eastern Cottontails eat the young twigs.
- Beavers, Eastern Cottontails, and Porcupines eat the bark of white pine.
- Needles are food for over 203 species of caterpillars including loopers, inchworms, the Pine Devil Moth, and the Imperial Moth.
- Many fungi parasitize White Pine including the Honey Mushroom and Dye Polypore.
- Birds make their nest in the branches of white pine, especially Bald Eagles.

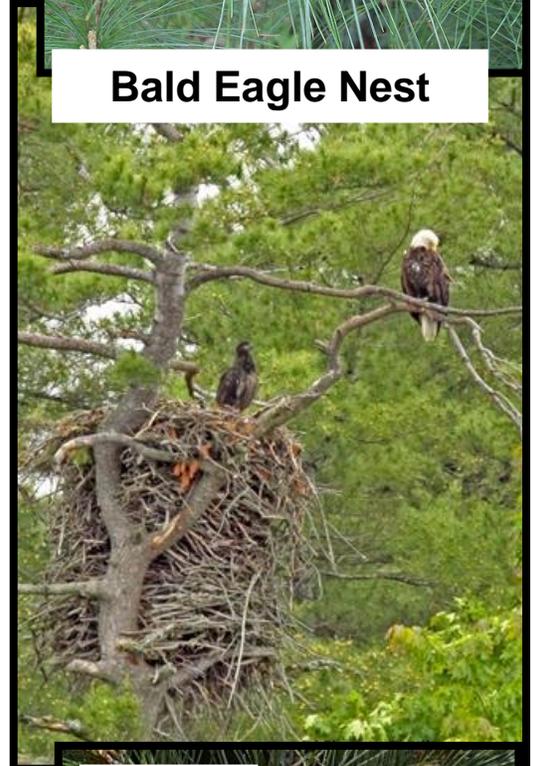
## Human Value:

- Planted in parks and neighborhoods for shade and privacy.
- Valuable timber is used for furniture, cabinets, house construction, matches, and paper.
- Historically its wood was used for ship masts because of their large straight trunk.

Needles



Bald Eagle Nest



Cones



Flowers



# **Excellent Tree Fact Resources!**

## **Common Trees of Pennsylvania**

[http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr\\_20029752.pdf](http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20029752.pdf)

**www.iNaturalist.org** – Submit photographs of any plant or wildlife that you've found on the website or phone/tablet app! iNaturalist will attempt to identify your photo for you! Pick a suggested identification and other users can agree or suggest a better identification. This is a great learning tool. Plus, each of your observations becomes a data point for scientists. "Seek" is an alternative application that is also fun to use. With "Seek" you do not need to take a photo, but rather scan the plant with your phone camera. (You will need to create an account or login with Facebook or Google accounts to use it.)

## **USDA Plants Database**

<https://plants.usda.gov/java/>

## **US Forest Service – Tree Factsheets (includes wildlife value)**

[www.fs.fed.us](http://www.fs.fed.us) (To find them google species name and "Index of species information")

## **Virginia Tech Dendrology Factsheets**

<http://dendro.cnre.vt.edu/dendrology/factsheets.cfm>