The Bronx River Forest is one of the oldest forests in New York City and remains a remnant of the magnificent hardwood forest that once blanketed our region; even after decades of industrialization and social change. Today, thanks to the Bronx River Alliance’s aim to improve, protect and restore the Bronx River and its corridor; it is the home to many native wildlife and plant species located In the Bronx Area. The Bronx River Corridor with its immense history is not only a part of our past, but also a part of our present, and ultimately our future. Therefore it is important to enjoy the wonders that it has to offer not only by providing us with bountiful education resources, but also with peace and tranquility.
To successfully be able to identify trees one must first understand that trees are not only diverse in name. There are many factors found in a forest that can help in identifying trees, such as habitat. Trees just like animals grow and thrive in different climates and habitats, for example pin oaks are often found in swamplike poorly drained floodplains. While going through this tree guide you will not only learn the names of many of the native trees found in the Bronx River Corridor, but basic identification techniques that will help you group and easily remember them. By following the table of contents below you will slowly find yourself becoming more confident about your tree identification skills, good luck and enjoy!

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Deciduous plants are those that lose their leaves for part of the year. This process is called abscission. Abscission is more technically defined as the shedding of a body part. For plants, this would mean the shedding of important parts such as leaves, fruit, flowers and seeds. In the case of cool climate plants, the period of abscission would occur in the winter, while for tropical plants it would occur in the dry season. Unlike deciduous trees, conifers or evergreens, are trees with needle like leaves and cones, which normally keep foliage throughout the entire year.

**Silver Maple is a Deciduous tree**  
*Acer saccharinum*

**Eastern Hemlock is a Conifer**  
*Tsuga canadensis*
A very useful reference for proper plant identification is a collection of dry plant specimens. Plant specimens are obtained from plant presses which remove all the moisture from a plant, leaving it dry and well persevered. Below is a detailed description of how to make a plant press and what to do with your specimen once dry. For more information and an extended version of this lesson please go to http://watershed.csumb.edu/ron/roncor/cor/press.htm

Instructions
Have students place the plants in a once-folded newspaper. Write the student's name, date and plant collected on a slip of paper. Instruct students to arrange the plant so the floral parts and other identifying characters are well displayed. Place the folded newspaper with its plant specimen enclosed between blotters of approximately the same size as the folded newspaper and enclose in plant press. (Plant press and divider cardboard should also be this size or slightly larger). Apply weight or pressure to plant press by use of weights, straps or tightened rope.

http://biology.arizona.edu/sciconn/lessons2/Barber/Activity3a.htm

One of the easiest ways to identify trees is by identifying the types of leaves they have. Leave come in different shapes, colors and sizes. When identifying leaves by type they can be either simple or compound.

Simple

Compound

When identifying leaves by arrangement, they can be either opposite or alternate

Opposite

Alternate

Based on these leaf types and arrangements, leaves can be classified into four large groups.

Simple and Opposite

Simple and alternate

Compound and Opposite

Compound and alternate
After classifying leaves by arrangement or type it becomes important to a detailed look at some more specific characteristics, such as leaf shape, leaf margin, leaf apexes and leaf base. These four characteristics will distinguish for example two trees that both have simple leaves with an opposite arrangement from one another, allowing one to do a more specific identification.

### Leaf Shapes

- Linear
- Elliptical
- Oval
- Lanceolate
- Deltoid
- Oval
- Orbicular
- Ovate
- Obviate
- Star-shaped

### Leaf Margins

- Entire
- Dentate
- Toothed
- Wavy
- Double serrate
- Lobed
- Incised

### Leaf Apexes

- Acuminate
- Acute
- Obtuse
- Truncate
- Bristled pointed
- Rounded

### Leaf Bases

- Wedge Shaped
- Oblique
- Rounded
- Heart Shaped
- Truncate
Tree Bark Rubbing

Give each student a sheet of paper and a crayon, and have each student peel off the paper around the crayon.

Have the students pick a tree that they want to identify and have them place the sheet of paper over the tree's bark, either by holding it with their hands or attaching it with tape onto the tree.

Once that is done they can start to rub the crayon on the paper so that the pattern of the bark can print onto the paper.

Once every student has their tree rubbing, have them sit and compare the differences and similarities between the bark of each tree.

Although bark rubbing can be an excellent way to properly identify trees, it is not the best, due to the fact that not all trees have the best surface texture. An example of this is:

River Birch
http://homepage.mac.com/cohora/plants/birch.html

Tree species are not only diverse in the types of leaves they have, but they also have different types of bark. The bark of a tree acts as a protective coat for its sensitive cambium layer. The porous layer allows the tree to breathe and protects it from extreme weather conditions, intense sunlight, disease and/or lacerations. These are some basic bark types which differentiate one of the trees from another and will allow you to have another method of identifying a tree.

Scaly
Sweet Gum Tree
Liquidambar styraciflua

Furrowed
Black Cherry tree
Prunus Serotina

Shaggy
Shag Bark Hickory Tree
Carya ayata

Papery
River Birch Tree
Betula Nigra

Spiky
Honey Locust tree
Gleditsia triacanthos

Smooth
Black Cherry tree (Young)
Prunus Serotina
Although identifying trees by their fruit is not the easiest, it helps to know what type of fruit a tree bares. There are four general fruit types simple, aggregate, multiple, and accessory.

**Simple Fleshy Fruits**

- Berry
  - *Persimmon*
- Drupe
  - *Plum*
- Pepo
  - *Pumpkin*
- Hesperidium
  - *Lemon*

**Simple Dry Fruits**

- Samara
  - *Maple Samara*
- Nuts
  - *Acorn*
- Legumes
  - *Tamarin*
- Grain
  - *Corn*

**Aggregate Fruits/Multiple Fruits**

- Strawberry
- *Berry*
- Pineapple
- *Blackberry*

**Accessory Fruits**

- Pome
  - *Apple*
- Pome
  - *Pear*
- Pome
  - *Quince*
Common Trees

In this section we will use some of the basic tree identification techniques that have been addressed throughout this guide and apply them to some of the common trees found in the Bronx River Corridor. When identifying trees it is very important to write down detailed descriptions and gather as much information possible so that each tree can be uniquely distinguished and easier to identify in the future.

**River Birch**
*Betula nigra*

- Alternate leaves
- Leaf Shape: deltoid
- Leaf Margin: toothed
- Leaf Apex: acute
- Leaf Base: wedge shaped
- Papery bark
- Mostly tolerant to both wet and dry soils
- Bronx River location: Shoelace Park, South Forest and North Forest

**Cottonwood**
*Populus fremontii*

- Alternate leaves
- Leaf Shape: deltoid
- Leaf Margin: dentate
- Leaf Apex: bristle pointed
- Leaf Base: truncate
- Furrowed bark
- Tolerant to flooding and erosion/flood deposits surrounding the wood.
- Bronx River location: Soundview

**Red Maple**
*Acer Rubrum*

- Opposite leaves
- Leaf Shape: star shaped
- Leaf Margin: incised
- Leaf apex: truncate
- Leaf Base: heart Shaped
- Shaggy bark
- Bronx River location: North Forest, South Forest, and Shoelace Park
**White Oak**  
*Quercus Alba*

- Alternate leaves
- Leaf Shape: Obviate
- Leaf Margin: Lobed
- Leaf Apex: Rounded
- Leaf Base: Wedge shaped
- Scaly bark

**Red Oak**  
*Quercas Alba*

- Alternate leaves
- Leaf Shape: obviate
- Leaf Margin: incised
- Leaf Apex: truncate
- Leaf Base: wedge shaped
- Scaly bark
- A good street tree that tolerates pollution and compacted soil
- Bronx River Location: Shoelace Park

**Black Willow**  
*Salix Nigra*

- Alternate leaves
- Leaf Shape: elliptical
- Leaf Margin: entire
- Leaf Apex: acuminate
- Leaf Base: wedge shaped
- Scaly bark
- Aid in stream bank stabilization
- Bronx River location: Shoelace Park

**Sassafras**  
*Albidum*

- Opposite leaves
- Leaf Shape: elliptical outline
- Leaf Margin: entire, 2 or 3 lobed
- Leaf Apex: acute, or obtuse
- Leaf Base: wedge shaped or rounded
- Furrowed bark
- Can be used for medicinal purposes and its roots can be used to make a flavorful tea.
- Bronx River location: Fort Knox
Pussy Willow
_Glaucous Willow_
Alternate leaves
Leaf Shape: elliptical
Leaf Margin: entire
Leaf Apex: rounded
Leaf Babes: rounded
Furrowed bark
Its natural growth is in wet habitats
Bronx River location: Shoelace Park, South Forest, 233rd Street.

Sycamore
_Platanus racemosa_
Opposite leaves
Leaf Shape: orbicular
Leaf Margin: dentate
Leaf Apex: truncate
Leaf Base: heart shaped
Furrowed bark
Lives best in moist soils
Bronx River Location: Cricket Pitch, North Forest

Honey Locust
_Gleditsia triancanthos_
Opposite leaves
Leaf Shape: elliptical
Leaf Margin: entire
Leaf Apex: rounded
Leaf Base: rounded
Spiky bark
Tolerant to pollution salt and drought
Bronx River location: Behind French Charlie

Sweet gum
_Liquidambar Styraciflua_
Alternate leaves
Leaf Shape: star shaped
Leaf Margin: toothed
Leaf Apex: acuminate
Leaf Base: truncate
Scaly bark
Does not tolerate polluted sites
Bronx River Location: North Forest
Location Key:
**Fort Knox**: located right below Gun Hill Rd.
**Shoelace Park**: located between 211th street and 233rd street.
**North Forest**: located between Burke Ave. (Burke Bridge) and Fort Knox
**South Forest**: located between Burke Ave. (Burke Bridge) and Kazimiroff Blvd.
Resources and Bibliography

Resources key:

*     Photography
F     Factual Reference

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