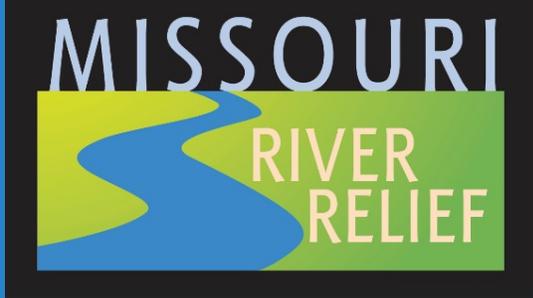




Common Trees of the  
Missouri River Bottoms:  
A Guide for Students



## About this Guide:

This guide was created by Missouri River Relief, a nonprofit organization dedicated to connecting people to the Missouri River.

This guide was designed to be used by elementary and high school students. The goal of this guide is to provide an engaging, hands-on experience for students beginning to learn about Missouri River floodplain trees. It is not designed as a foolproof taxonomic tree ID guide. While the trees included in this guide can be found in many Missouri River floodplain forests, the list is not exhaustive for all locations.

Many Missouri River floodplain trees can be very tall with leaves out of reach; as such, we formatted this guide to focus on bark providing the most direct identifier for the student. Tree bark is at student level! Because many guides focus on leaves and stems to ID trees, we understand that this is a unique approach to learning tree species.

## How to Use this Guide:

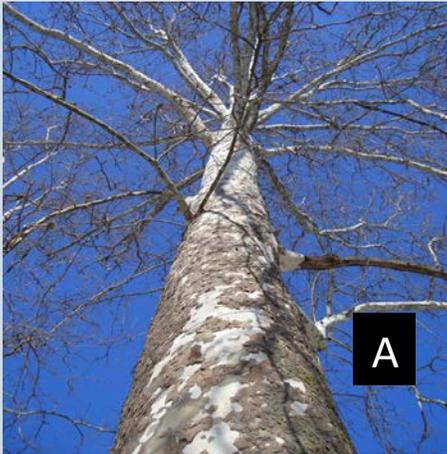
To begin, locate a tree. Next, find the bark description that best fits the appearance of its bark. The bark descriptions all have the symbol (➤) next to them and are located under the column "If the tree has". Follow the bark identifier to the right hand side, under the column "Go to," which will either provide you with the name of your tree, or direct you to another question.

These secondary questions are also located on the in the "If the tree has" column, but they are indicated by numerals. For example, if your tree has "Flaky bark at the middle of the tree, and smooth, white skin at the top of the tree," you would proceed to question (1). If your tree fits this second descriptor, "Wide leaves with pointy tips," then your tree is an American Sycamore, as displayed on the far right hand side.

There are instances where multiple identifiers will be available for the same question. For question (4), the primary identifier "Flat bark" leads to a second set of questions: 3a, 3b, and 3c. These questions follow the same format, only you will choose which of the three best fits the description of your tree. In one case, a tree would have three identifying characteristics. After choosing "➤ Flat bark" followed by "3b, Leaves in sets of three or five" followed by "4, Dark green twigs," you discover that your tree is a Box Elder.

In addition to the written tree guide, there are photographs accompanying the guide on the left hand side of the page. Each photo has a letter, which corresponds to its common name in a guide that can be found on page 6. Use this feature as you wish, but the authors of this guide suggest that these photos be used primarily as a supplementary tool.

## Examples of Tree Bark

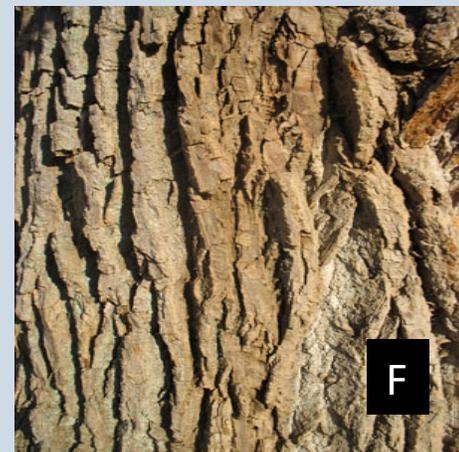


## Tree Bark Answers on Pg. 6

8/22/2017

If the tree has		Go to
➤	Flaky bark at the middle of the tree, and smooth, white skin at the top of the tree	1
<b>1</b>	Wide leaves with pointy tips	<i>American Sycamore</i>
➤	Bumpy bark with warts	2
<b>2</b>	Shiny leaves with teeth	<i>Common Hackberry</i>
➤	Flat bark	3
<b>3a</b>	Small leaves with silver on bottom and green on top	<i>Silver Maple</i>
<b>3b</b>	Leaves in sets of three or five	4
<b>3c</b>	Dark green leaves that are different shapes	<i>Red Mulberry</i>
<b>4</b>	Dark green twigs	<i>Box elder</i>
➤	Blocky bark with deep ruts	5
<b>5a</b>	Triangular leaves that wave in the wind	<i>Eastern Cottonwood</i>
<b>5b</b>	Dark green and glossy leaves, with corky branches. Look for huge acorns on ground	<i>Bur Oak</i>
➤	Dark gray-brown bark with scars along it	6
<b>6</b>	Thin, grass-like leaves	<i>Black Willow</i>
➤	Peeling, light brown bark, with paper-like texture	7
<b>7</b>	Green wedge-shaped leaves with a sharp point	<i>River Birch</i>

## Tree Fun Facts



### Tree Name

### Information

Eastern Cottonwood

*(Populus deltoides)*

- Their cotton-like seeds are dispersed by the wind, and can be found along the waterline on sandbars and river banks.
- A fast-growing tree, which can grow to over 100 feet high.
- Require flooding or other disturbance to regenerate.
- Eagles build their nest in these trees year after year, because the large branch size can withstand heavy weights.
- The Missouri Indians, whose name means “People with Big Canoes”, used these trees for their dugout canoes.

American Sycamore

*(Platanus accidentalis)*

- The bark flakes off of this water-loving tree.
- One of the largest eastern hardwood trees.
- Small mammals, like raccoons and possums, live in the cavities of the trunk .
- Holds its round “pom-pom” seed clusters throughout most of the winter.

Common Hackberry

*(Celtis accidentalis)*

- Grows really tall on floodplains.
- Pioneers used its tough, flexible wood for cabin floors.
- Attracts winter birds, such as the robin and mockingbird that eat its fruit.

Silver Maple

*(Acer saccharinum)*

- Named for the silvery underside of their leaves.
- Wood Ducks and other birds like to make nests in the limbs.



Box Elder  
(*Acer negundo*)

- The name Box Elder comes from its former usage in the manufacture of wooden crates, pallets, and boxes.
- These trees, related to maples, help to shelter wildlife and stabilize stream banks.
- Often confused with poison ivy because the leaves can grow in sets of three.



Red Mulberry  
(*Morus rubra*)

- Another common tree you may encounter along the Missouri River is the White Mulberry tree, a native of Asia.
- Fishermen often set their lines under fruiting mulberry trees because catfish feed on these berries.
- If you squeeze the leaf stem, you may see some white sap.
- The fruits ripen in spring, and can be eaten raw or used for cooking.

Black Willow  
(*Salix nigra*)

- Honey tree – beneficial to bees
- Provides food to 'browser' animals, such as deer, beaver and rabbit.
- During the American Revolution, the wood of black willow (and of other willows) was made into fine charcoal, which was then used to make gunpowder.
- This is one of many species of willow found in the Missouri River floodplain.
- Willows are one of the first trees to colonize new sandbars after a flood.



River Birch  
(*Betula nigra*)

- Tend to grow in clumps of multiple trunks, often in groups of three
- Seeds are food for small mammals and birds

Bur Oak  
(*Quercus macrocarpa*)

- Bur Oaks have the largest acorns of any oak tree in North America.
- The slightly toxic acorns were boiled several times before being used as food by many Native American tribes.

### Tree Bark Guide:

Picture Letter	Tree Name
A	American Sycamore
B	Common Hackberry
C	Silver Maple
D	Red Mulberry
E	Box Elder
F	Eastern Cottonwood
G	Black Willow
H	River Birch
I	Bur Oak

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