

# Large Rivers

# Natural Communities of Arkansas



**General Characteristics:** A river is a natural body of running water that flows into a lake, another river, or the ocean. Arkansas has almost 12,000 miles of rivers. Smaller water courses, such as creeks, streams, and brooks, form tributaries which come together in the main channel of a large river. The area of land which drains all of these tributaries into one main river is called a "watershed." Five large rivers, with watersheds of several thousand square miles, flow through Arkansas. Free-flowing large rivers were once dynamic forces in the natural landscape, creating islands, sloughs, marshes, and oxbows. Today, man-made dams and other alterations have changed the natural flow of most large rivers. The "riparian zone" (area around the river) provides rich habitat for a variety of plants and animals that are adapted to spending at least part of their lives in the water. Vegetation helps to stabilize the river bank and reduce erosion.

**Current Status in Arkansas:** The map at the right shows the five large river systems in Arkansas: the Mississippi River, the Arkansas River, the White River, the Ouachita River, and the Red River. They all have some type of man-made structure or modification, ranging from channel improvements and pumping stations to major locks and dams. These rivers are used for transportation (moving tons of products); irrigation for crops; industrial water supplies (cooling processes and diluting wastes); municipal water supplies; electrical energy production; and recreation. We are facing critical decisions about how to balance the many human needs and uses of these rivers and the natural communities that depend on the aquatic habitat.



**Species Key**

1. Red-eared Slider <i>Trachemys scripta elegans</i>	7. Sweet Pecan <i>Carya illinoensis</i>	13. Persimmon <i>Diospyros virginiana</i>
2. Black Willow <i>Salix nigra</i>	8. Sycamore <i>Platanus occidentalis</i>	14. Broad-leaved Arrowhead <i>Sagittaria latifolia</i>
3. Alligator Gar <i>Atractosteus spatula</i>	9. Bald Eagle <i>Haliaeetus leucocephalus</i>	15. N. American River Otter <i>Lontra canadensis</i>
4. Belted Kingfisher <i>Ceryle alcyon</i>	10. Giant Cane <i>Arundinaria gigantea</i>	16. Sand Bur <i>Cenchrus incertus</i>
5. American Paddlefish <i>Polyodon spathula</i>	11. Swainson's Warbler <i>Limnithlypis swainsonii</i>	17. Interior Least Tern <i>Sterna antillarum athalassos</i>
6. Eastern Cottonwood <i>Populus deltoides</i>	12. Honeylocust <i>Gleditsia triacanthos</i>	18. Smart Weed <i>Polygonum coccineum</i>

**Flora and Fauna:** Large rivers support diverse and productive natural communities with readily available water and rich soils in the floodplains. Most of the dominant woody plants are adapted to periodic flooding. Some have deep root systems that serve as anchors, such as the cottonwood. Some have flexible stems, like the black willow, that allow them to bend with changing water flows. Many animal species feed, rest, and reproduce in the sheltered environment of large rivers. Much of the world's freshwater fish production occurs in large rivers, including two of the biggest fish in Arkansas: the alligator gar and the paddlefish, which utilize the backwaters of deep, wide, low-gradient rivers. Many fish-eating predators live and hunt in riparian corridors. The sleek body of the river otter makes it the fastest aquatic mammal in North America. The belted kingfisher uses its strong beak for catching small fish just below the water's surface, while the bald eagle will thrust its large talons deep in the river for fish over a foot long. The federally endangered interior least tern prefers wide river channels dotted with sand and gravel bars for nesting. Channelizing and dredging on these areas, along with locks and dams have greatly reduced such habitat.

<http://www.naturalheritage.com>

Arkansas Natural Heritage Commission  
 1500 Tower Building • 323 Center Street • Little Rock, AR 72201  
 501-324-9619 • email: arkansas@naturalheritage.org

