



Stream Team Academy
Fact Sheet Series

#1: Tree Planting Guide

#2: Spotlight on the Big
Muddy

Watch for more Stream
Team Academy Fact
Sheets coming your way
soon. Plan to collect the
entire educational series
for future reference!

SPOTLIGHT ON THE BIG MUDDY

An Educational Series For Stream Teams To Learn and Collect

The Missouri River is a long and fascinating stream that originates in southwest Montana, flowing southeasterly for 2,522 miles and passing through six states before entering the Mississippi River at St. Louis. It is the longest river on the North American continent.

Historically, fur trappers and traders led the way in navigating the Missouri River, using canoes and flat-bottomed French boats. Larger vessels, keelboats, first navigated the river in 1804 when Lewis and Clark explored the recently purchased Louisiana Territory. In 1819 the steamboat came to the Missouri. Steamboat traffic was vital to the opening of the west and reached its peak in 1880. Taking advantage of the paddle wheeler's shallow draft, river men eventually pushed the head of navigation to Fort

Benton, Montana, 2,285 miles from the mouth. During these early days the river meandered widely, occupying at one time or another most of the valley from bluff to bluff. Unpredictable bank erosion, snags (sunken trees), and floods presented a constant threat to navigation and many boats became victims. (continued on back)

BIG MUDDY SPOTLIGHTS

◆ *The pre-altered Missouri River represented one of North America's most diverse ecosystems with abundant braided channels, riparian lands, chutes, sloughs, islands, sandbars, and backwater areas. These habitats were created and maintained by natural erosion and deposition which continuously reshaped the channel and floodplain.*

◆ *At its headwaters, the Missouri is a clear mountain stream but does not remain that way as it flows east and south, receiving excessive silt runoff. The river earned its nickname, the "Big Muddy," because of its high sediment loads.*

◆ *The Missouri River drains one-sixth of the United States and provides roughly 15 percent of the water that the Mississippi pours into the Gulf of Mexico.*

◆ *The river is the focus of eight major interests: flood control, navigation, irrigation, hydropower, water supply/water quality, recreation, fish, and wildlife. These issues are often the center of controversy and are all addressed in the US Army Corp of Engineers Master Manual.*



Photo by: Discovery Corps

Keel boats, like this one, were used by early travelers of the Missouri River.



The Missouri River is home to many beautiful views like this one at Manitou Bluffs in Boone County.

Because the Missouri River is so long and its basin is tied to so many different types of land use, its water quality can be impacted by many sources. Both point source (direct outflow) and non point source (received from the land) runoff are potential problems for the river. In many cases, the river is a reflection of the water quality in nearby tributary streams. Because of this cumulative effect, specific problems can be difficult to pin point. Researchers today working on the Missouri River estimate the water quality as moderate to good and impacts seem to be more apparent downstream of large urban areas.

Big rivers harbor unique fish species and the Missouri is no exception. The most abundant fish include gar, gizzard shad, common carp, river carpsucker, buffalo, channel catfish, flathead catfish, white bass, and freshwater drum. Other species that are especially characteristic of the river are lamprey, shovelnose and pallid sturgeons, paddlefish, skipjack herring, goldeye, blue sucker, and blue catfish.

The Missouri River runs deep in the history of our state. Many communities were established along its banks and careers are still made today from the

opportunities it provides and the resources it offers. It not only harbors treasure, but also many opportunities for us to enjoy a spectacular flowing water resource. If you haven't taken the opportunity to enjoy the Big Muddy lately, perhaps it's time. Take a drive along one of the highways that follows the Missouri River bluffs, walk the Katy Trail and enjoy the scenic overlooks, go for a boat ride or fishing trip, look for treasures along one of its sandbars, or participate in one of the Missouri River cleanups. This is truly one of our state's grandest resources and one that the whole nation can be proud of.

BIG MUDDY SPOTLIGHTS

- ◆ *The river formerly saw wide fluctuations in flow with peaks in spring and early summer but is now managed from eastern Montana to northern Nebraska by the Mainstem Reservoir System, made up of six dams and reservoirs created between 1935 and 1944. Today, 35 percent of the river is impounded and 32 percent has been channelized.*
- ◆ *Channelization shortened the river by 72 miles, resulting in a loss of 127 miles of river shoreline habitat.*
- ◆ *The Missouri River supports at least 60 species of mammals, 301 species of birds, and 52 species of reptiles and amphibians. Because of the habitat changes in the river, several of the birds, bats, and fish it supports are listed as threatened and endangered under the Endangered Species Act.*

Sources:

Jefferson City, MO News Tribune, *Facts about the Missouri River* 11/14/99;
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The Fishes of Missouri by William L. Pflieger;
Lewis and Clark Bicentennial Lower Missouri River, A Guide to Recreation & Visitor Safety;
Discoverycorps.org/pics.htm.

