

Partnerships Make Things Possible ...

Kimberly Rea, CPRP



**US Army Corps
of Engineers**®
St. Louis District



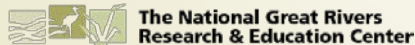
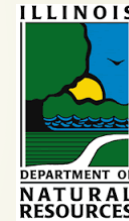
Learning Objectives

- ▶ Participants will learn how partnerships expand opportunities for education and outreach.
- ▶ Participants will take away 3 new ideas to use at their projects.
- ▶ Participants will learn how engaging citizen involvement makes the difference between a good product and a great product.

Partners Make it Possible!



MEETING OF THE
RIVERS
FOUNDATION



Our Partnerships

- Maximize positive impacts.
- Create diverse opportunities.
- Reach targeted audience bases containing larger numbers.
- Leverage resources (funds/people/volunteers).
- Protect and enhance the resources we love...
- And... "Together we are more relevant."





Programs/Events

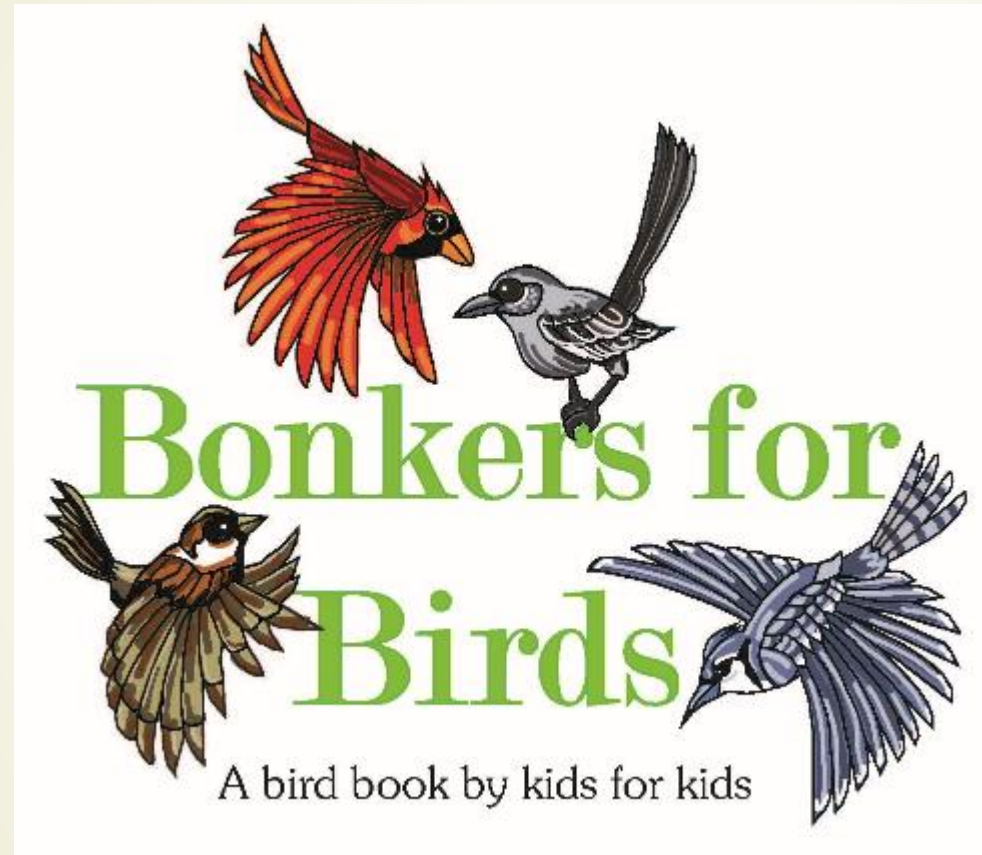
- River Runts
- Earth Day Forest Park
- Live Life Outside
- Pere Marquette Fishing Fair
- WOW St. Louis
- Little Creek Summer Camp
- YMCA Summer Camps
- Lewis & Clark Community College Water Festival
- Who Works the River? @ NGRM
- Owl Fest @ Treehouse Wildlife Center

Meeting of the Rivers Foundation



- The vision of the **Meeting of the Rivers Foundation**, through the **National Great Rivers Museum**, is...
- to offer education and outreach activities through effective partnerships,
- to provide high-quality education and interpretive experiences that advance the public awareness and understanding of great river issues,
- to promote and inspire greater public and private environmental stewardship, and...
- to promote and inspire active involvement in the protection, preservation, and sustainable use of our three river environments.

Bonkers for Birds



MEETING OF THE
RIVERS
FOUNDATION



THE **Audubon** CENTER
AT RIVERLANDS

Cabela's
WORLD'S FOREMOST OUTFITTER



@Bonkersforbirds

Bonkers for Birds

- 4th & 5th Grades
- Celebrating 12 years
- Community Displays
 - Lambert International Airport
 - St. Clair Square Mall, Illinois
 - Missouri Botanical Garden, St. Louis
 - Cabela's, St. Louis
 - Galleria Mall, St. Louis



Bonkers for Birds

- 1st Place Winner from each classroom
- Grand Prize Winner
- People's Choice Winner
- Awards presented during Masters of the Sky event
 - Meeting of the Rivers Foundation sponsors prizes for winners.



People's Choice voting at the National Great Rivers Museum



Bonkers for Birds

A bird book by kids for kids

Recognize biodiversity and choose to preserve it!

The Meeting of the Rivers Foundation (MTRF)



Research

Each participating class is assigned a native bird species. Through research, students discover details about their bird, including information about habitat, migration patterns, food sources, and field markings.



Impact

Each year the Bonkers for Birds program grows to reach more students in the St. Louis and Metro region. Park Rangers teach students about biodiversity, specializations, identification, and the Mississippi Flyway.

Illustrate

Students use creativity, imagination, and information they find about their native bird to create their own depiction. Subtle details give the pictures context, especially within the habitats drawn in the backgrounds.



Future

The MTRF will continue the Bonkers for Birds outreach program in partnership with the US Army Corps of Engineers. The Foundation will work to include an increasing number of local schools and teachers.

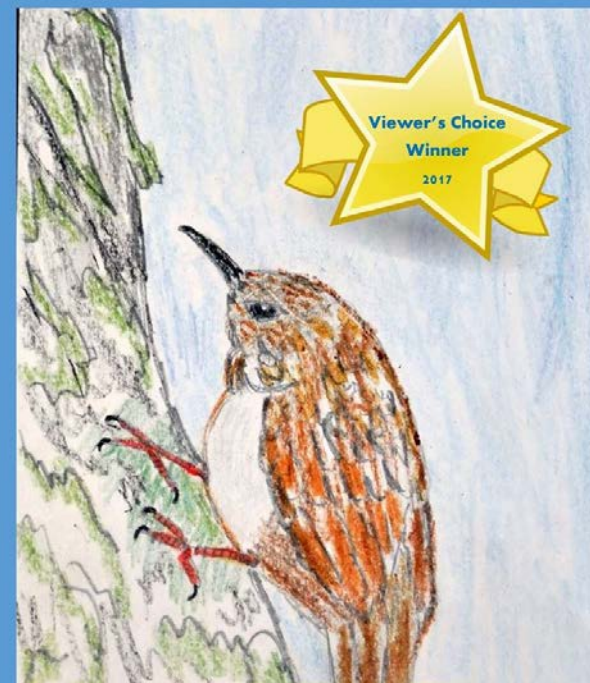
Color

Students learn about birding and identification and are encouraged to use their knowledge to create life-like field markings and realistic surroundings in their artwork. Depictions are reviewed for accuracy.



MTRF

The Meeting of the Rivers Foundation will continue to support the Bonkers for Birds project. This support includes funding as well as a dedicated group of volunteers who assist throughout the program.



Mimi Ragsdale ▣ Mascoutah Elementary



Elizabeth Myers ▣ Keysor Elementary



MEETING OF THE RIVERS FOUNDATION

The Meeting of the Rivers Foundation proudly presents the Eleventh Annual Bonkers for Birds Contest and Field Guide.

The vision of the Meeting of the Rivers Foundation—through the US Army Corps of Engineers' National Great Rivers Museum's education and outreach activities, provides an effective partnership. This partnership continues to provide high quality education and interpretive services that advance public awareness and understanding of great rivers issues. Joint activities promote and inspire greater public and private stewardship. Active involvement in the protection, preservation, and sustainable use of our river environments is also achieved.



Research

Each participating class is assigned a native bird species. Through research, students discover details about their bird, including information about habitat, migration patterns, food sources, and field markings.

Impact

Since 2007, the Bonkers for Birds program has reached more than 13,500 students from the St. Louis metro region. Corps rangers teach students about biodiversity, specializations, ID, and the Mississippi Flyway.

Illustrate

Students use creativity, imagination, and information they find about their native bird to create their own depiction. Subtle details give the pictures context, especially within the habitats drawn in the backgrounds.

Future

The MTRF plans to continue the Bonkers for Birds outreach program in partnership with the US Army Corps of Engineers. We will expand the program to include more teachers and students.

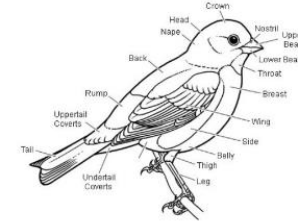
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Students learn about birding and identification and are encouraged to use their knowledge to create life-like field markings and surroundings in their artwork. Depictions are reviewed for accuracy.

MTRF

The Meeting of the Rivers Foundation continues to support the Bonkers for Birds project. This support includes funding as well as a dedicated group of volunteers who assist throughout the program.

Parts of a Bird



Key Terms

Crest: a showy tuft on the head of a bird

Habitat: the place or environment where an animal naturally lives

Migrant: an animal that shifts from one habitat to another, usually on a seasonal basis

Niche: a habitat with the necessary requirements for a species to survive

Resident: a bird species that stays in one habitat year-round; does not migrate

Species: a group of individuals with common characteristics and a common name

Birds mostly black



Birds mostly black and white



Birds mostly blue



Birds mostly brown



Birds mostly gray



Birds have prominent green



Birds have prominent orange



Birds mostly red



Birds mostly white



Birds mostly yellow



Certificate of Recognition



This certificate is awarded to

First Last
School name

2017 Bonkers for Birds Contest

Bird Species

AWARD

Roxane Krutinger, US Army Corps of Engineers

Julie Watson, Audubon Center at Riverlands



Bonkers for Birds Statistics

2017: 118 classes; 2,360 students

2016: 109 classes; 2,180 students

2015: 100 classes; 2,009 students

2014: 85 classes; 1,682 students

2013: 80 classes; 1,613 students (furlough)

2012: 90 classes; 1,814 students

2011: 57 classes; 1,121 students

2010: 47 classes; 724 students

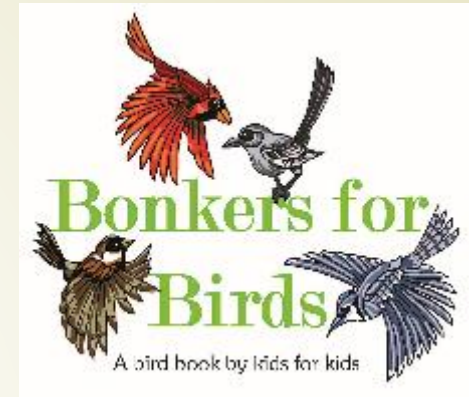
2009: 17 classes; 350 students

2008: 24 classes; 480 students

(est. 24 classes X 20 students per class)

2007: 3 classes; 24 students

TOTAL 2007-2017: 730 classes; 14,357 students



Fish FINatics



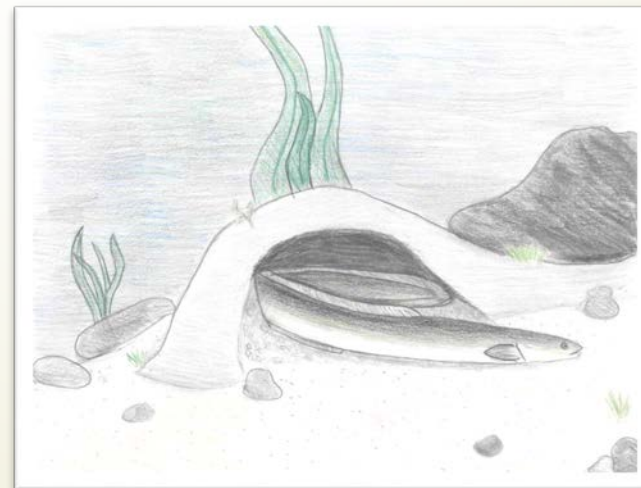
MEETING OF THE
RIVERS
FOUNDATION

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE

Fish FINatics



- Grades 6-8
- Pilot program in 2015
- Introduces students to the biodiversity of fish that live in our river systems.
- 1st Place Winner from each classroom



About Fish FINatics

The 1st Annual Fish FINatics Art contest is a great success! Over 1,100 local 6th, 7th, and 8th grade students from 43 classes in the St. Louis Metro area participated. Here in this field guide you'll find the winners and their fish artwork.

U. S. Army Corps of Engineers Park Rangers and Volunteers visited each classroom to teach an introductory lesson on native fish. Students learned about the biodiversity of fish in the Mississippi River, the specializations of each species, and how to identify an unknown fish.

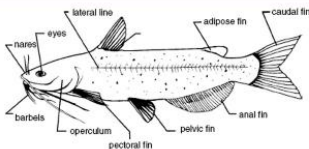
Each class was assigned a fish species to research and draw. Students were encouraged to use a variety of field guides and other resources during their research efforts and to get outside to find their fish species in the wild. The contest introduced students to fishing and to scientific research. The students discovered information regarding their species including: behavior, range, habitat preferences, and physical features.

The Fish FINatics program reinforces the concept of biodiversity that students have learned. This concept is critical in understanding the natural world and how each species has a unique niche in the ecosystem. Many students are already familiar with biodiversity; however, this program places the study into a local context. Fish FINatics reinforces the idea that biodiversity is found all around us.

The Fish FINatics program gives students a peak into the secret world of these aquatic creatures. The aim of this program is to inspire children to appreciate the diversity and the value of nature that surrounds them. The program also encourages students to become ecologically responsible earth citizens who share the planet with their new finned friends.

COVER ART BY: MAGGIE NI (UPPER LEFT); PAIGE EIKEL (UPPER RIGHT); OLIVIA SPANGLER (LOWER LEFT); AND GRACE SCHALLERT (LOWER RIGHT).

The Anatomy of a Fish



Fins - Appendages made up of bony structures that support a membrane.

Dorsal fin - Fin located on the top of the fish along the midline.

Adipose fin - A secondary, smaller dorsal fin; not found on all fish.

Pectoral fin - Fin located on each side of the fish near the gills.

Anal fin - Fin located along the midline on fish's bottom (ventral) side.

Pelvic fin - A paired set of fins on the bottom side of the fish.

Caudal fin - The fish's tail fin.

Gills - Organ made of thin tissue used in aquatic respiration (breathing).

Operculum/Gill cover - Large bone covering the gills to protect them.

Barbels - Thread-like sensory structures used for taste or smell; located near the mouth.

Swim Bladder - A balloon-like organ that can be inflated and deflated to help regulate a fish's buoyancy; almost all fish have a swim bladder.

Lateral Line - A sensory organ that helps a fish detect movement in the water, water currents, and pressure changes; made of a series of fluid-filled sacs each with a hair like sensor; create a visible line along the fish's side.

Nostrils/Nares - Used to detect odors in the water (fish can smell!).

How to Use this Field Guide

The fish species included in this Fish FINatics guide are grouped by families with common and scientific names such as Catfish (*Ictaluridae*), Perch (*Percidae*), and Sunfish (*Centrarchidae*). The common name family icons (see the chart for examples) are listed in alphabetical order on the top of the drawings on the guide's pages. And, within the family groups, you will find the individual specie drawings.

If you catch an unknown fish, you can use its body shape to determine which family it belongs. Each fish family typically exhibits one or sometimes two basic body shapes. For example, all members of the "Catfish Family" have long, stout bodies with flattened heads, barbels around the mouth, a tall but narrow dorsal fin, and an adipose fin. Even if you do not know right away what species of catfish you have caught, you can determine that it belongs to the "Catfish Family" from those basic characteristics. Then, you can look for the "Catfish" icons in this guide to narrow it down to a particular species.

Fish Family Chart & Table of Contents	
B	Bowfin Family <i>Amia</i> Page 6
C	Catfish Family <i>Ictaluridae</i> Pages 6, 7
D	Drum Family <i>Sciaenidae</i> Page 8
G	Gar Family <i>Lepisosteidae</i> Pages 9, 10
H	Herring Family <i>Clupeidae</i> Pages 10, 11
L	Lamprey Family <i>Petromyzonidae</i> Page 11
M	Minnow Family <i>Poeciliidae</i> Page 12
P	Paddlefish Family <i>Polyodontidae</i> Page 14
S	Sculpin Family <i>Percidae</i> Pages 15, 16
T	Temperate Bass Family <i>Morone</i> Page 26, 27
	Sunfish Family <i>Centrarchidae</i> Pages 21-25
	Sturgeon Family <i>Acipenseridae</i> Pages 17, 18
	Suckers Family <i>Catostomidae</i> Pages 19, 20
	Silverside Family <i>Atherinidae</i> Page 17
	Carps <i>Cyprinidae</i> Page 16

B Bowfin Family

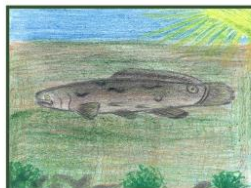
Amia calva

Habitat: Deep waters with vegetation in warm-water lakes and rivers.

Range: Mississippi River drainage; southern half of Illinois River.

Food: Fish and crayfish. Feeds in shallow weed beds.

Average Size: 12 to 24 in. and 2 to 5 lbs.



Brittain Davis - Trimpe

C Channel Catfish

C Catfish Family

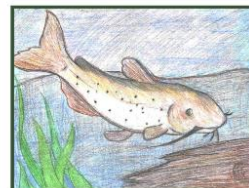
Ictalurus punctatus

Habitat: Clean, fast-moving streams with deep pools.

Range: Mississippi River from its head waters to Gulf of Mexico. Common in Illinois.

Food: Insects, crustaceans, fish, and some plant debris.

Average Size: 12 to 20 in. and 3 to 4 lbs.



Maggie Ni - Alton

C Catfish Family

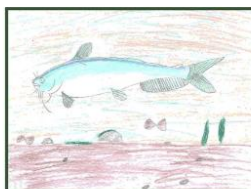
Ictalurus furcatus

Habitat: Swift current or deep flowing pools of large rivers.

Range: Common in the Mississippi River south of the Missouri River.

Food: Small fish, and injured or dead shad.

Average Size: 2 to 3 ft. and 20 to 40 lbs.



Austin Reinhardt - Trimpe

C Flathead Catfish

C Catfish Family

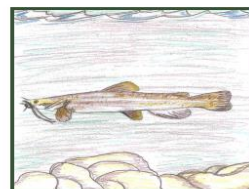
Pylodictis olivaris

Habitat: Deep pools of large rivers and impoundments.

Range: Mississippi River watershed. Common in large rivers and impoundments throughout Central and Southern Illinois.

Food: Fish and crayfish.

Average Size: 20 to 30 in. and 10 to 20 lbs.



Cynthia Jimenez - Frontier

Our Mississippi Education Guide

- Developed by the St. Louis, Rock Island & St. Paul Districts
- Navigation and Ecosystem Sustainability Program (NESP) mitigation funds.
- Grades 5-6



Our Mississippi is an instructional program for educators of students primarily in 5th and 6th grades. Much of the information and many of the activities have extension information for both lower and upper grade levels.

NewPOT Solutions Charitable Foundation



MISSION OF NPSCF

"To develop, mentor, and support the personal, academic, and athletic career potential of students."

Purpose - Our purpose is to leverage the sport of football to reach elementary school, middle school and high school youth to maximize their ability to achieve personal success.

Population Served - NewPOT Solutions Charitable Foundation (NPSCF) targets financially-disadvantaged students in Metropolitan St. Louis communities.



Our Mississippi

BOOT CAMP



L&C Community College



MISSION

Lewis and Clark's Building Futures youth development program guides community youth (ages 16-24) through GED® prep to bridge courses in preparation for college or work, and follows up with those students after placement.

YouthBuild USA has a network of 260 urban and rural YouthBuild programs in 46 states. [The Building Futures YouthBuild AmeriCorps Program](#) is a non-traditional GED course serving young adults between the ages of 16-24 years of age in Madison County and is sponsored by Lewis and Clark Community College. The Building Futures YouthBuild program offers GED certification while also incorporating job training in basic construction methods, safety (OSHA) and first aid certifications. Students participate in professional development objectives, core competencies and leadership activities through AmeriCorps service projects, community event committees, community cleanups and child advocacy initiatives. The YouthBuild program serves as a second chance for unemployed young people who left high school without a diploma to reclaim their education and gain skills they will need for employment, and to become the leaders of tomorrow. The Building Futures YouthBuild program also serves as a platform for students to transition into post-secondary education after they obtain their GED. Through the Lewis and Clark Community College Adult Education Department, YouthBuild students have post-secondary transitional opportunities in welding, automotive, ICAPS, bridge to health sciences, Highway Construction programs and more.



Youth Build Projects

- Trail overlook – Ellis Bay
- NGRM Wall Repair
- Boat Dock Refurbish
- Audubon Center Entry Ceiling
- NGRM Parking Lot Island Planting



Mississippi River Water Trail Association



ABOUT

The Mississippi River Water Trail Association (MRWTA) was established through the American Canoe Association to support and enhance the Mississippi River Water Trail and encourage community involvement.

The MRWTA showcases the Mississippi river as a paddling destination rich with cultural heritage, wildlife, natural areas, and history. The MRWTA promotes and encourages safe paddling opportunities on the Mississippi River. Volunteers provide support by maintaining trail rest areas, primitive campsites, and facilities to ensure quality recreational opportunities for paddlers.

The MRWTA promotes safety awareness and provides activities, events, and educational opportunities. The MRWTA also facilitates collaboration with communities, organizations, and agencies to foster sound safety and conservation practices along the river.



- Water Safety
- Paddle Festival
- Firecracker Race
- Earth Day @ Forest Park
- Droste Park You Can Paddle Day
- Life Outside
- Speaker Series
- Paddling Clinics



The Audubon Center at Riverlands



MISSION

The mission of The Audubon Center at Riverlands is to connect people to the beauty and significance of the Mississippi River and the Great Rivers confluence, to inspire conservation of the river's rich diversity in birds, wildlife and other natural resources, and to support healthy, vibrant communities.





Audubon Center

- RMBS Welcome Center
- Avian Observatory
- Rivervision Leadership Program
- Summer Camps
- Trails
- Special Events
- Bird Survey Protocol

Avian Observatory

- USACE
- Audubon Center
- Washington University
School of
Architecture



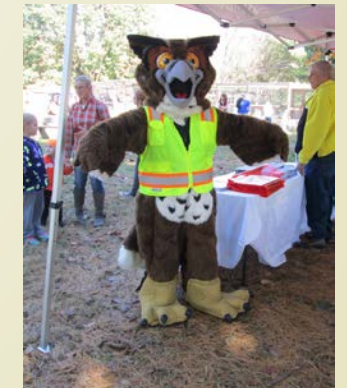
Avian Observatory

- Washington University School of Architecture
 - Research
 - Design
 - Fabricate
 - Install



Our Volunteers...without them **NOTHING** is possible!

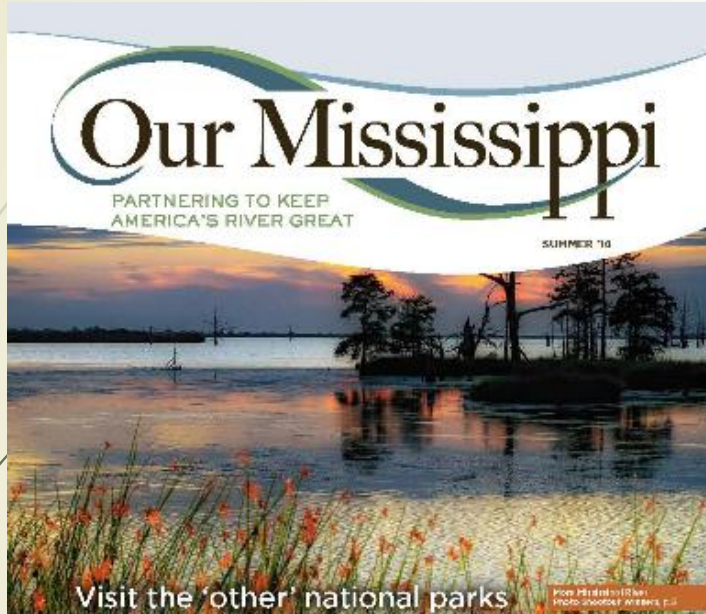
- NGRM Operation
- Lock and Dam Tours
- Programs
- Special Events
- Bookstore Operations



Our Volunteers...without them **NOTHING** is possible!



Our Mississippi Newsletter



Visit the "other" national parks

Photo: Michael R. Hill
Photo: Andrew Weber, p. 10

The U.S. Army Corps of Engineers is partnering to help protect the river by offering boating, fishing, and hiking along the Mississippi River shores and beyond.

IMAGINE the state's historic Delta. One of the last remaining natural river deltas in the world, it's a place of incredible beauty and diversity. It's a place where the river meets the land, and the land meets the river. It's a place where the river is the lifeblood of the state, and the land is the lifeblood of the river.

The U.S. Army Corps of Engineers is partnering to help protect the river by offering boating, fishing, and hiking along the Mississippi River shores and beyond. This partnership is a key part of the Corps' mission to maintain the river's health and vitality for future generations.

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Bonkers for Birds

Read and fill out the "Bonkers for Birds" page, color and writing. We'll give you a drawing of the bird you drew. You'll also get a chance to win a prize. The drawing contest is open to all ages. The contest is open to all ages. The contest is open to all ages.

OUR MISSISSIPPI KIDS

Draw a line from the state to its "state bird."

(Some states share the same bird.)

Our Mississippi

PARTNERING TO KEEP AMERICA'S RIVER GREAT

FALL '10

The river gets a D+

First basin report card prompts areas of strength and concern.

SCHOOLS IN SESSION... **THE RIVER GETS A D+**... **SCHOOLS IN SESSION**... **THE RIVER GETS A D+**...

MIGRATION CELEBRATION

2010 Year of Birding

It's the Year of Birding on the Mississippi River, a migratory flyway dotted with vast wildlife refuges, thriving bottomland hardwood forests, parks and islands—all offering critical habitat for rest and food.

MILLIONS OF BIRDS make their way along the Mississippi River each spring—some 40 percent of the country's migratory species—and their needs. (Birds, waterfowl, songbirds, migratory birds, and other species.)

The U.S. Army Corps of Engineers is partnering to help protect the river by offering boating, fishing, and hiking along the Mississippi River shores and beyond. This partnership is a key part of the Corps' mission to maintain the river's health and vitality for future generations.

Source: www.ourmississippi.org

Mississippi River Connections Collaborative



2013
Year of
Bicycling

2014
Year of
Geotourism



2015
Year of
Fishing



2016
Year of
Birding



2017
Year of Trails

Upcoming: 2018 - Year of Arts, Culture & Music

Official
Partners:



Delta Regional Authority



Big River
STRATEGIC INITIATIVE

Great Rivers Greenway



@MississippiYearOf



Questions?



Contact Information

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@GreatRiverWaterTrail

@Mississippiyearof

@Ourmississippi