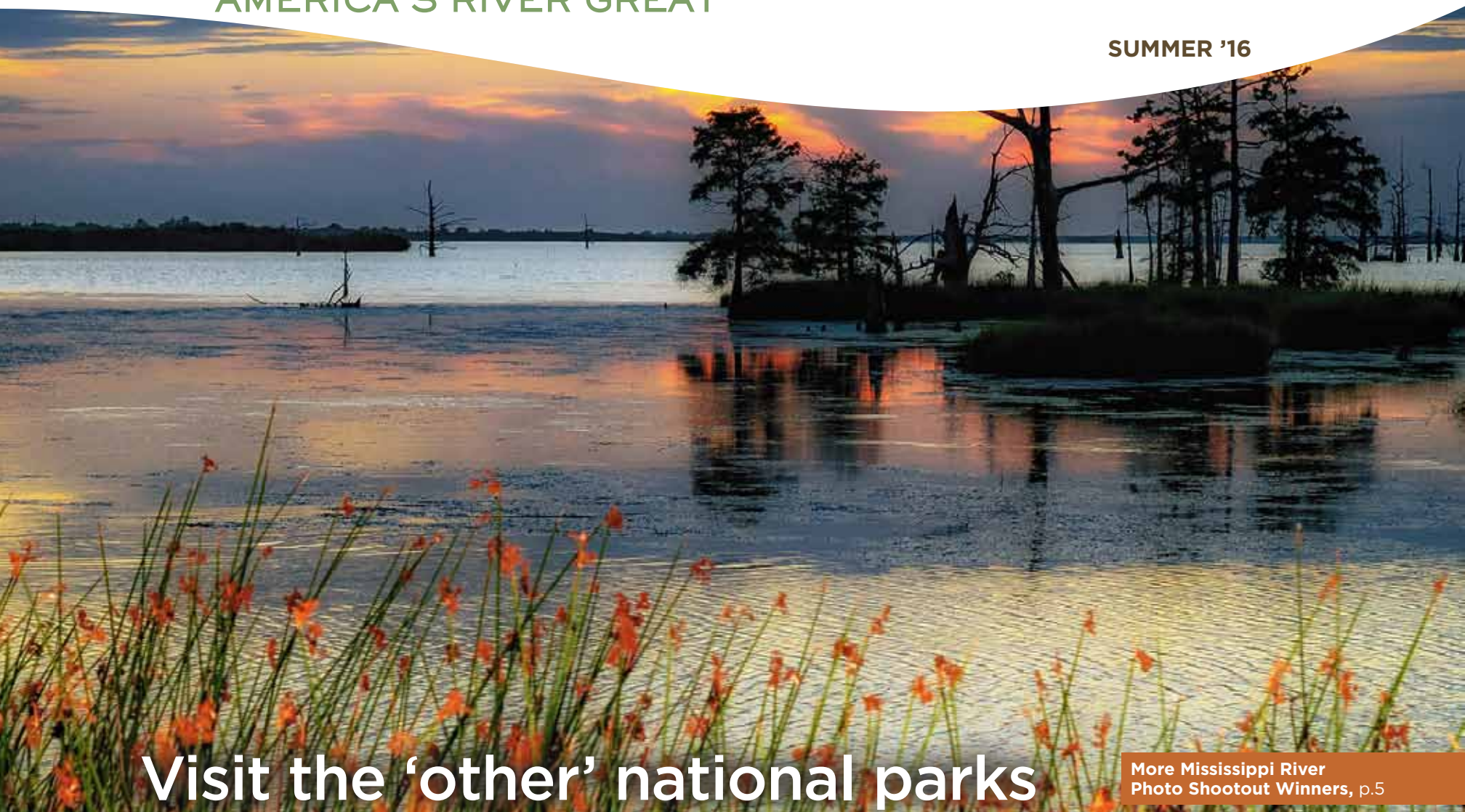


# Our Mississippi

PARTNERING TO KEEP  
AMERICA'S RIVER GREAT

SUMMER '16



## Visit the 'other' national parks

More Mississippi River  
Photo Shootout Winners, p.5

The U.S. Army Corps of Engineers is the nation's largest recreation provider, offering camping, boating, fishing and hiking along the Mississippi River shores and beyond.

**IMAGINE** the massive Anheuser-Busch Clydesdales draft horses prancing across a major dam. That Super Bowl-worthy moment took place in June as part of a year-long celebration commemorating the 75th anniversary of Wappapello Lake and Dam in the gentle Ozark foothills.

For more than 75 years, the 45,000-acre project operated by the U.S. Army Corps of Engineers has offered a family-friendly getaway in southeast Missouri, a couple of hours south of St. Louis and not far from the major ranch base of the iconic team. Fringed by forests, campgrounds and marinas, the lake has provided flood protection from the St. Francis River and outdoor recreation and relaxation for millions of visitors.

Given the team's ties to the nation and state of Missouri, it was fitting that the high-stepping Clydesdales delivered the

key anniversary show, complete with empty beer wagon. For years, they've been the symbol of the Anheuser-Busch brewery in St. Louis and closely associated with the St. Louis Cardinals baseball team. One of the team's most famous moments came

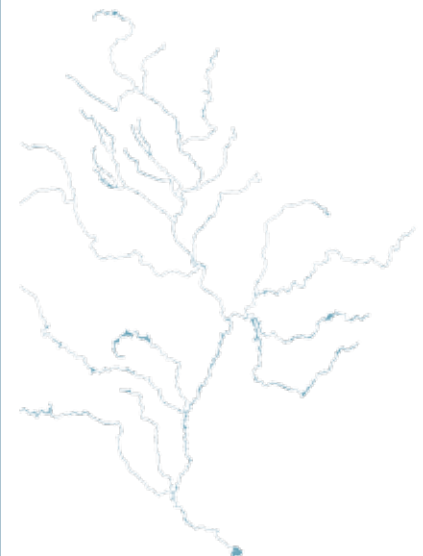
ABOVE: *Mississippi River Delta*, by JB Manning, winner of Best of the Delta in the Mississippi River Photo Shootout.


when it delivered one of the first cases of Budweiser when Prohibition ended to President Franklin D. Roosevelt, though it was Roosevelt's older cousin, Teddy, who forever tied the Roosevelt name to the nation's park system. During the elder Roosevelt's administration, five new parks were created, 18 national monuments, four national game refuges, 51 bird sanctuaries and 100 million acres of national forest preserves.

As the nation celebrates the 100th year of a national park legacy that started with the founding of Yellowstone National Park, what often is forgotten is that U.S. Army officers with the Corps of Engineers were at work exploring future national park lands well before then. The St. Paul District built Yellowstone's first roads and trails, allowing for the initial public access. That legacy has evolved to the point that today the Corps is the nation's largest provider of recreation opportunity—larger than even the National Park Service.

"The Army and Corps often gets overlooked as a provider of recreation when in fact we have been involved for much longer than our country recognizes," says Cindy Jackson, Operations Project Manager at Wappapello Lake. "The uniform the Corps wears is similar to the Park Service, but the military uniform

Continued on page 2 >>



 **Our Mississippi** is a quarterly newsletter of the U.S. Army Corps of Engineers about its work in the Mississippi River Basin. It is published in cooperation with other state and federal agencies and other river interests with whom the Corps collaborates and partners toward long-term sustainability of the economic uses and ecological integrity of the river system.



LEFT: Rocky bluffs and sunlight filtering through the forests are common sites at the Eau Galle Recreation area on the upper river. ABOVE: The chance to camp on the river's shore is a draw to sites within the Mississippi River Project on the central river.

worn during the early Yellowstone years was what the uniforms have emerged from. The former drill sergeant hat is our park ranger hat, and the green and gray uniform is military themed with creases and all.”

The Leech Lake Dam and Reservoir in the Mississippi River’s headwaters area was one early, if accidental, Corps recreation offering. Constructed in 1883, it was part of the nation’s earliest attempts to control the depth of the mercurial Mississippi for navigation, says Vanessa Hamer, historian for the Corps St. Paul district. Water would be strategically released so that boats hauling material for milling and logging industries further downstream could rely on a relatively navigable waterway. But it was pretty, and people wanted to swim and fish. In 1913, three years before Yellowstone became a

*Within just the Corps’ Mississippi Valley division, there were 862 recreation areas with nearly 12,000 campsites, 961 miles of trails, 582 boat ramps and 11,500 marina slips. That year, 392,000 contacts were made in division parks between rangers and members of the public.*

park, the Corps issued a permit for a boat landing to allow access for people to the lake via government property.

“The Corps of Engineers is a builder,” Jackson adds. “I like to think of the movie, ‘Field of Dreams.’ Build it and they will come. We built reservoirs, and the people did come. People are drawn to water and sunsets and natural scenic vistas.”

The Corps found itself in a tricky situation, though, of wanting to make the natural resources accessible but still protect them. Congress authorized the Corps to officially manage lands for that recreation purpose, then, through the Flood Control Act of 1944. During the post-World War II era, there was a corresponding explosion of wealth and leisure time, says Eric Reinert, Corps of Engineers Curator for the Office of History at Corps Headquarters. From the 1950s though 70s particularly, families increasingly spent their resources on fishing, boating, hiking and camping. A 1950 report, he said, cited more than 75 Corps projects being used for recreation just six years after it became an authorized mission. In that single year there were 10 million visitor days at Corps-run projects.

A 2013 report indicates popularity hasn’t slowed. Within just the Corps’ Mississippi Valley division, there were 862 recreation areas with nearly 12,000 campsites, 961 miles of trails, 582 boat ramps and 11,500 marina slips. That year, 392,000 contacts were made in division projects between rangers and members of the public.

Those contacts might be as simple—but impactful—as when, over the Memorial Day weekend and other busy times at spots like on the Illinois River near Ottawa, Ill., rangers would stop boaters to reward kids wearing life jackets with stickers, coloring books and frisbees. “Safety is a big deal for us,” he said. “We want them to have fun today and be able to come back next weekend and have fun again.”

Some lakes, like Wappapello, have created their own iconic safety messenger, in this case a boy named Willie B. Safe who was accident prone as a youth but who has wised up over time. Plans are in the works to feature Willie on a boat-themed play structure in front of the visitor center, wearing his life jacket with thumbs up for safety. While Bobber the Water Safety Dog is most used Corps-wide, that evolved from characters like the popular-in-the-’70s Freddie the Fish, Ewbank said. “He’d say, ‘Don’t drown. It might spoil your day.’”

#### From river banks to bayous

Corps recreation areas have similarly evolved to reflect the travel times and character of a given location. A master plan for the Mississippi River Project in the Rock Island District is looking at ways to better accommodate a growing number of large RVs while still keeping the resource protected. Plans for

the Headwaters recreation areas in northern Minnesota are seeking to further protect cultural resources while also interpreting the history—the way it’s done at a newly renovated Sandy Lake Visitor Center. There, artifacts, including those representing Native American presence for thousands of years, are displayed.

Variety is another hallmark of Corps recreation areas along and near the Mississippi and Illinois Rivers. At the far north, campsites are sheltered within the North Woods, and one recreation area features a record-sized Paul Bunyan rag doll. At the southern end, recreation takes place in the mysterious delta at which the Atchafalaya River and Gulf of Mexico converge with alligator-filled swamps through which rangers travel by air boats. In between lie sections within the Rock Island District and St. Louis Districts where campers can pitch tents directly on the river’s shores or within beautiful lake projects. Throughout, there are lakes great for fishing, trails for mountain bikes, horses and hikes.

“Whatever type of environment you like to be in, you can find it at a Corps project,” Ewbank said. “Take just the Illinois Waterway Project. On the upper end, you’re in Chicago itself, on a river about four stories below ground level with the Willis Tower rising up nearby. As you travel down the river, it’s nature on both banks and you’ve got rock bluffs. You get to Peoria and you find commercial development and boat-in restaurants, and then you go out again and find farmlands on both sides. It’s a microcosm of the country—a little bit of everything.” —K.S. AND M.G.

WILDLIFE FEATURE

# The Painted Turtle



**Even with shells like armor** and a heritage that dates back some 250 million years, turtles are today among the world's most endangered vertebrates. But some species are better than others at withstanding human and nature's impacts—including more intense and frequent flooding on the Mississippi River. Finding out why is the subject of a 29-year study on a river island within a popular U.S. Army Corps of Engineers recreation area.

For these nearly 30 years, Professor Fredric Janzen of the Department of Ecology, Evolution and Organismal Biology at Iowa State University, has worked with colleagues and students in his summer turtle camp to monitor painted turtles, best known as the kind every kid wants for a pet.

While many researchers lean toward endangered varieties of a species for study, this team has picked one of the most common—and for good reason. Might this be a species most likely to withstand changes wrought by climate change, and can we learn from that?

"Their range is the east to west coast, from south-central Canada to Mexico," Janzen said. "You don't have to be a genius to know that's a lot of different environmental circumstances. April in Toronto or further north is not the same as April in Albuquerque. The question we have is, 'How on earth do they make that work?' And yet, they seem to flourish."

Though painted turtles are thriving in many other river systems and national wildlife refuges, Janzen said, the population at Thomson Causeway on the Mississippi River appears to be the largest—numbering somewhere in the low thousands. And that's true even in the wake of three decades of challenges wrought by storms, Mississippi River floods, human capture for food and medicine, and animal predation.

The potential impact of climate change is one focus of the research; however, the biggest recent risk has come from another creature of nature—hungry raccoons on the hunt for turtle eggs. Raccoons have destroyed nearly 100 percent of the turtle young over the past few years, he said. While turtles are notoriously long-lived, he says, "we're marginally concerned of what this will mean in the long term. . . . We have a lot of adults, but the base of the pyramid is negligible. Almost no nests are surviving."

What is most concerning, he says, is the "one-two punch" of the loss due to raccoons and ability in some states for commercial harvesters to legally (within state regulations) to take the adults.

Iowa is one of a very few states that also allows for commercial harvest of non-endangered turtles. Turtle soup is not found on many Midwestern menus these days (though Campbell's in the 1920s sold a then-popular Cream of Turtle soup), but they're harvested for a variety of other purposes. One worry is their popularity in Asia; in China and elsewhere, turtles are a feast food, one thought to hold a variety of medicinal and life-enhancing qualities. There's so much interest in the way turtles have been decimated across Asia as a result that Janzen has been contacted by reporters for China's national television network who want to see the thriving turtle population and learn more about potential climate threats.

Is the painted turtle at risk, like many of its rarer cousins, of potential ex-

tinction? Janzen isn't so sure. They're surviving wildly varied temperature ranges, traumatic floods and interaction with the hundreds of people who camp at Thomson Causeway each day, he says, and are surprisingly tolerant.

"But I subscribe to the idea that we should keep common things common," he said. "There's only so much anything can handle." —K.S.

## THE PAINTED AT A GLANCE

**You're on your own, kids:** Females emerge from the water from mid-May to end of June and dig a nest anywhere from right along the water's edge to 200 meters away, digging with their back legs for more than an hour and laying on average 11 squishy, leathery eggs in a clutch, soft enough they can exchange moisture with the ground. From there, the babies are on their own, staying in the nest after hatching until the following April or May and living off the extra yolk.

**Pretty babies, plainer grownups:** The underside of young turtles is a brilliant combination of orange-red, yellow and olive green, but while they get plainer as they age, they keep the trademark yellow and red thin striping on their heads.

**Cold, schmold:** Partly explaining their wide range is an unusual physiology that lets them withstand extended temperatures below zero through what scientists call "supercooling," a suppression of the body's freezing point.

**Girls like it hot, boys like it cool:** Air/ground temperatures experienced by embryonic turtles in their middle month of development determine their sex. If the female turtle lays eggs in a sunny, open spot on a beach, all babies in the hatch are likely to be girls, while a cold, rainy cloudy summer might more likely produce boys. Prof. Janzen's original climate change hypothesis is that warming climates would bias births toward more females. That hasn't proven totally true due to more frequent storms and cloud cover. Researchers found "warming holes" in the Upper Midwest where clouds and precipitation made ground temperature cooler, leading to a bias toward more males.

## SEE AND LEARN

Go to the National Mississippi River Museum and Aquarium in Dubuque, Iowa, and you'll find turtles from across the Mississippi River watershed—and elsewhere. Among those currently on display are a green sea turtle too injured by a boat strike to survive in the wild, two rare alligator snapping turtles that wouldn't survive in the wild on their own, and an endangered Blanding's turtle found being smuggled with other tiny hatchlings as part of Asia's burgeoning food, medicinal and pet trade. Their stories personalize the many threats to turtles, showcase the facility's conservation focus and offer a rare peek into behavior that can't help but fascinate. Alligator snapping turtles, for example, are usually found lying motionless with their mouths open, occasionally wiggling their worm-shaped tongue to attract fish for dinner (RIVERMUSEUM.COM). For more sea turtle viewing, check out the Audubon Aquarium of the Americas in New Orleans (AUDUBONNATUREINSTITUTE.ORG/AQUARIUM).

# Boosting river resilience through partnership and innovation

Marvin Hubbell remembers a day on the Illinois Waterway with a project biologist, watching as the man caught a short-nose gar—a torpedo-shaped fish with rows of interlocking scales that resemble armor—and spontaneously announced: “Welcome to a representative of the Devonian period.”

A light bulb went off, says Hubbell, the Army Corps-based Regional Program Manager of the Upper Mississippi Restoration (UMRR) Program. “I thought, ‘Talk about resilience!’ We have six fish on the Mississippi River that would be relatively ancient—the bowfin, gar, sturgeon, paddlefish...all with ancestors over 63 million years old. So the river has some inherent strengths.”

The river’s length and the way it flows between floodplains and backwaters helps with sustainability, he said, but there also are daunting challenges too that will require some ongoing intervention. The impoundment for navigation locks and dams changed the flow regime, and the ecosystem is also affected by other human use, climate change and more. How to keep the Upper Mississippi resilient amid all challenges is what the UMRR program is focused on, he says, as it commemorates 30 years of program success and learning and looks to the next 50 and beyond.

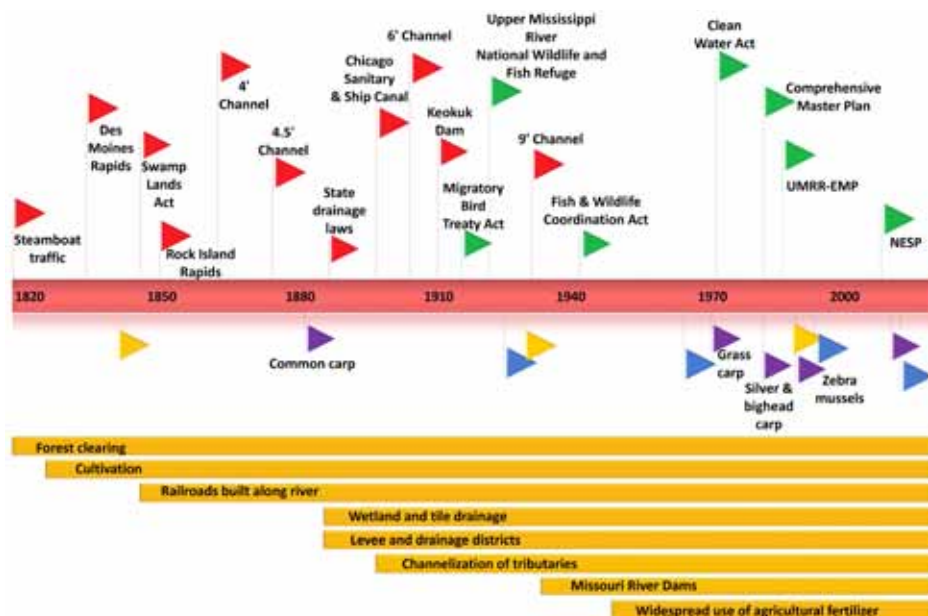
## Celebrating 30 years by planning for the future

The most notable fact of UMRR’s 30 years of existence is both what it has achieved and what’s still left to be done. While restoration projects abound on the Mississippi River, this one is notable in its official mission. Congress created the program in 1986 when it designated the Mississippi River a nationally significant ecosystem as well as a nationally significant navigation corridor. In effect, it formed the UMRR as the ongoing check and balance for river resilience.

A first task—and success—was forging a strong regional partnership in an atmosphere of conflict between river navigation and environmental interests, Hubbell said. The authorization of a second 600-foot lock at Melvin Price Locks and Dam in Alton, Ill., in the late 1980s was characterized as one of the largest conflicts between environmental and navigation interests in the Upper River history. That animosity has been replaced by a true partnership among multiple river interests, in large part through the partnering work on UMRR. “We’ve gone from conflict to collaboration over the uses of the river and how it should be managed,” Hubbell said. “Congress played a part in this by setting the tone, but it didn’t happen overnight.”

Today, the program is managed and carried out by a coalition that includes several federal and state agencies and non-profit organizations. Through the partnering work, the program has benefitted more than 100,000 acres and created a body of knowledge on large-river restoration and sampling techniques being adopted elsewhere in the county and world. Since 2005 the Corps of Engineers has reported approximately 70,000 acres as benefitting from environmental restoration efforts; the UMRR has contributed nearly 50 percent of those acres.

“An exciting fact is that we have had our scientists go to at least five continents to share with others what we’re doing here, and other countries have picked it up and begun using it as a model,” Hubbell said.



ABOVE: *The chart above illustrates some of the threats or stresses to the river system over time and the corresponding response (in green arrows) to help with sustainability.*

Communication has been a key to success. Dialogue between engineers and biologists has led to the development of restoration parameters that have been instrumental in replicating project successes like the development of winter habitat for fish—down to the velocity of water and depth needed for fish to survive winter ice cover. Those overwintering projects have, at some locations, seen up to a 5,000 increase in fish stock at the project site, gains that level off around six to 10 years in. Both techniques and trends are captured in manuals as a way to transfer knowledge across districts and generations. New positions like a landscape ecologist are also being added to the team, Hubbell said, as the program evolves to look at habitat restoration as a system versus individual habitat area or species.

“The John Anfinson book, *The River We Have Wrought* identifies the UMRR program as testing the concept that the Upper Mississippi River can be managed as both a nationally significant ecosystem and navigation system in what Anfinson calls the fourth river,” Hubbell said. “He says, the UMRR is the beginning of that era which is adding environmental restoration as part of the river’s life. For me, it’s a high motivator to think that we are laying that foundation for the future. What will the fourth river ultimately look like? We don’t know, but it’s exciting to be able to play a small part in helping to shape that future.” —K.S.



### MY MISSISSIPPI

**Steven Marking, 54, Riverlorian, St. Paul, Minnesota**

“I grew up on Brice Prairie, a community along the shores of Lake Onalaska (Pool 7), where the old Black River channel once flowed. The Black River Bottoms, Lake Onalaska, and the Main Channel of the Mississippi at Dresbach and Dakota Minnesota were my back yard playground.

“My father is Leif Marking, retired aquatic toxicologist for the United States Fish and Wildlife Service in La Crosse, so the river was both his work and his recreation. He taught me to swim, fish, water ski, camp, and hunt on the river. From the time I was allowed to pilot the fishing boat I spent every minute I could on the river.

“After graduating, I pursued a career in opera, and so I lived on the east coast in and around New York City for a long time. Each time I came back to Wisconsin I got some river time in. I eventually realized that I was happiest when I was on the river. In 2010 I moved back to the river. I am now a riverlorian/entertainer for American Cruise lines, and have performed my show over 200 times at various venues.

“Each time I visited Wisconsin from New York, I would borrow my dad’s camera and photograph all the riparian scenes and its inhabitants. In 2009 I had enough photos to put to music and create a river themed show. I sang art songs and folk settings by modern composers, some American popular songs, and some show tunes. The show was a success, and *Our Mighty Mississippi* was born.

“I realized that my audience liked the stories I tell just as much as the songs that I sing. I have two favorite stories. One tells of how Lake Agassiz and the great river Warren carved out the beautiful bluffs we have on the upper Mississippi, and the other tells of the formation of our Upper Mississippi National Fish and Wildlife Refuge.

“My main mission is to bring an awareness to and love for the Mississippi River, its backwaters and tributaries, and its watershed. It is not just a part of our history, it is who we are. You can’t be more connected than that.” —T.B.

# The Mississippi, through many lenses

More than 100 photographers entered the Mississippi River Photo Shootout, an effort to curate a first-of-its-kind collection of contemporary photographs that interpret and celebrate the Mississippi River and life through works as diverse as the river itself. Watch [mississippiriverphotoshootout.com](http://mississippiriverphotoshootout.com) for information on where the exhibit will next travel from its base at the Jacoby Arts Center in St. Louis, Missouri, and Corps' National Great Rivers Museum in Alton, Illinois.



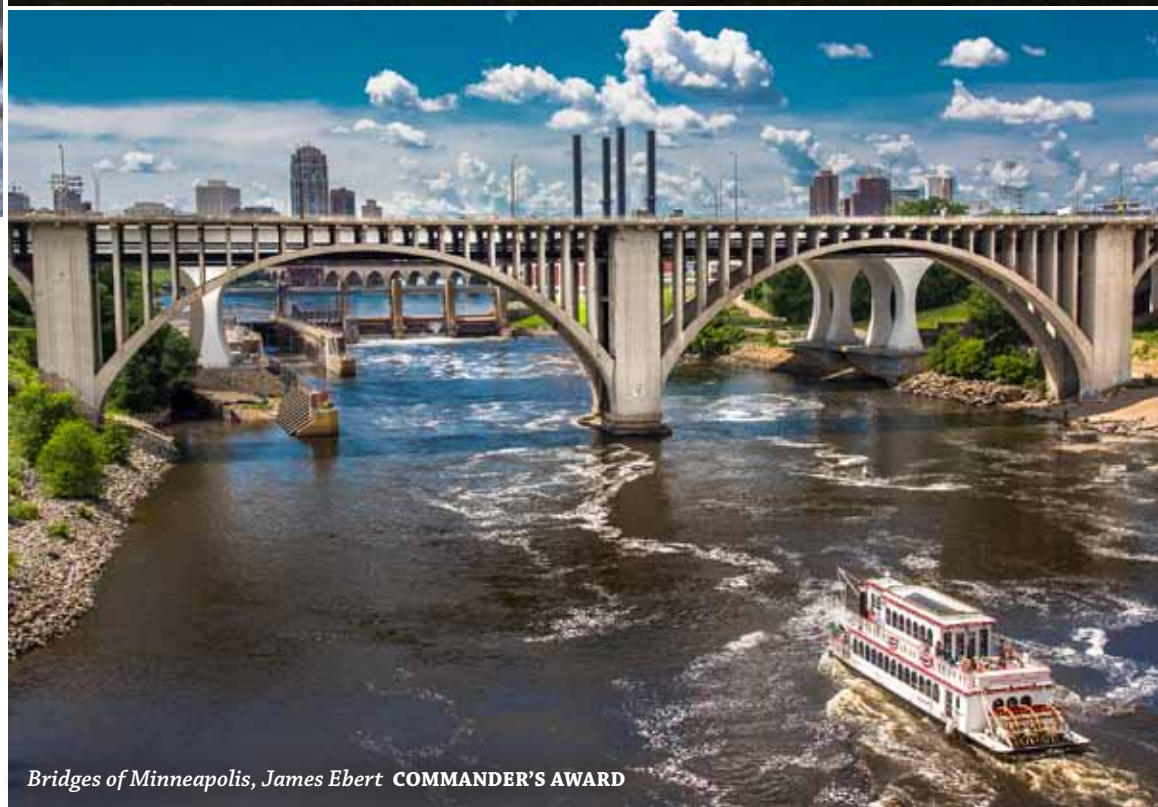
*Bald Eagle Fishing, Douglas Threewitt* **SECOND PRIZE WILDLIFE**



*Catch of the Day, Saji Madapat* **MERIT AWARD**



*Evening Veil, Bob Firth* **BEST OF SHOW**



*Bridges of Minneapolis, James Ebert* **COMMANDER'S AWARD**



*Spring Sunrise at Brady's Bluff, John Sullivan* **MERIT AWARD**



*Creole Queen on the Mighty Mississippi, R. Pierce* **MERIT AWARD**

On the cover: *Mississippi River Delta, JB Manning* **BEST OF THE DELTA**



Thomson Causeway Recreation Area

# Go Camping with the Corps

## A RECREATION SAMPLER



### NEW ORLEANS DISTRICT

#### Atchafalaya Basin

Visitors to this world of quiet beauty in south central Louisiana can paddle a canoe through Bayou des Ourses or Indian Bayou and spot alligators, herons, egrets and roseate spoonbills. Unusual opportunities like crawfishing and wood stork watching are a draw, as is the meandering trail through the bottomland hardwood forest that may lead to an ancient cypress tree, close-up wildlife viewing or migrating songbirds.

One of the last great river swamps in the nation, Atchafalaya Basin sprawls over more than a million acres of bayous, cypress stands and marshes. The Corps' Atchafalaya Basin Flood System area encompasses 595,000 acres from U.S. 190 south to Morgan City.

The Corps owns three recreation areas in Atchafalaya basin. Indian Bayou, about 28,500 acres of lands and waters, is owned and managed by the Corps. The 17,500-acre Bayou des Ourses Area (Bayou of the Bears) and 2,300 acre Shatters Bayou are managed in partnership with the Louisiana Department of Wildlife and Fisheries. Varied activities offered include fishing, hunting, birdwatching, biking and canoeing, kayaking and boating using glass-bottom boats. There's also archery, trapping, camping, horseback riding, nature photography and wildlife viewing.

**Fun fact:** Several endangered and threatened species live there, including the Louisiana Black Bear, Bald Eagle, American Alligator, Bachman's Warbler and Pallid Sturgeon.

**Ranger tips:** Watch out for poisonous snakes, don't feed the alligators and wear orange vests and hats during hunting season.

### VICKSBURG DISTRICT

#### Sardis Lake Recreation Area

It's no wonder that Sardis Lake Recreation Area in northwest Mississippi attracted a million visitors last year.

Park rangers say their sparkling lakes hold some of the biggest crappie in the whole country, and anglers come from many states for a chance to catch crappie, catfish and largemouth bass. The 98,000-acre scenic playground, about an hour outside Memphis on the edge of the Mississippi Delta, also offers boating, beach-side swimming, water skiing, camping, picnicking, mountain biking and hunting.

Sardis has two lakes—an Upper Lake that's 32,000 acres in summer and a 400-acre Lower Lake with sandy beaches and an Arboretum with fitness and nature trails. Hikers and mountain bikers traverse upland hardwood and pine forests and cypress swamps.

Sardis Lake was built for flood control during the Depression as part of a historic project to tame the Mississippi River and its primary tributaries, and it celebrated its 75th anniversary last year. Thousands of workers toiled to clear out brush and build the dam, completed about 1940, on the Little Tallahatchie River.

**Fun fact:** Sardis Lake is consistently rated in the top five lakes for crappie in the United States, and the St. Jude Bass Tournament held at the lake is the longest-running fishing tournament in the nation.

**Ranger tips:** Life jackets are required in all boats, and alcohol is banned. Don't forget a fishing rod, swimwear and fun family items for picnicking.

### ST. LOUIS DISTRICT

#### Wappapello Lake and Dam

Wappapello in the gentle Ozark foothills is celebrating its 75th anniversary this year with a series of special events including military displays, monster trucks, square dancing, lawn mower races, the world famous Clydesdales, a fishing derby and fireworks.

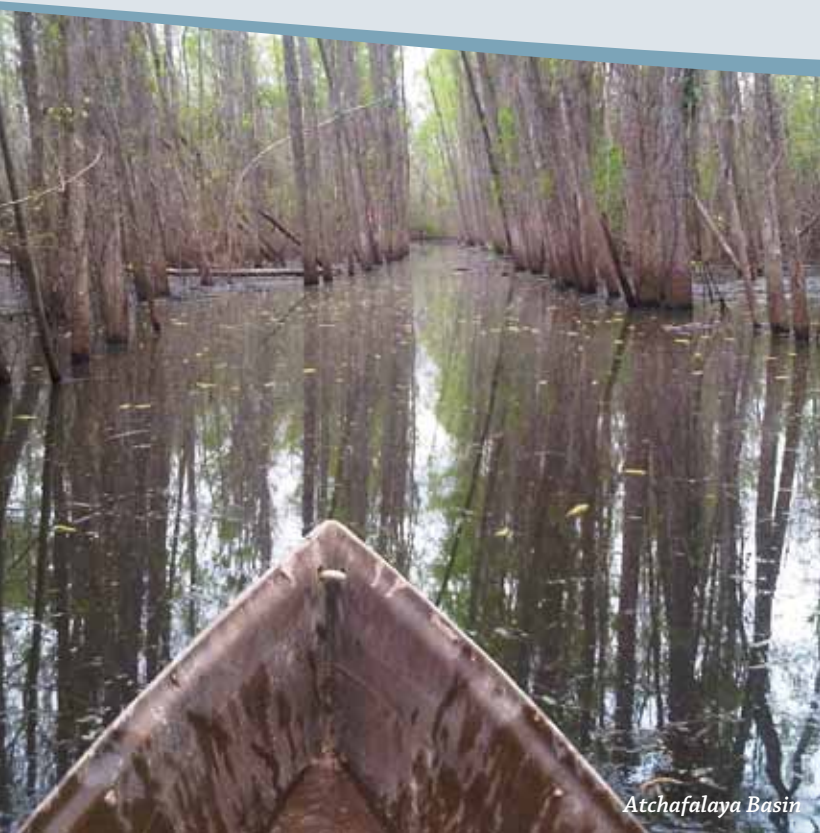
Over its 75 years, the 45,000-acre lake project has provided flood protection from the St. Francis River and outdoor recreation and relaxation for millions of visitors on a peaceful lake fringed by forests, campgrounds and marinas.

It has offered a friendly getaway a couple of hours south of St. Louis and three hours north of Memphis, halfway between Branson and Nashville. Boaters enjoy exploring the lake's many coves while anglers come for the plentiful crappie, bass and bluegill. Picnic sites, three sand beaches for swimming and interpretive programs offer family fun while miles of trails attract walkers, non-motorized mountain bikers and horseback riders. Hikers can pick up the Ozark Trail here.

Greenville Recreation campground, on the National Register of Historic Sites, holds a Black Powder Rendezvous each April recreating pre-1840s Missouri life and Old Greenville Days in September. Wappapello has about 430 campsites, six on an island.

**Fun fact:** Wappapello's mascot, Willie B. Safe, is used to teach water safety awareness.

**Ranger tips:** See the building foundations from the old city of Greenville, which was moved in 1941 to make way for the reservoir. Interpretive signs have been recently installed. Nearby is Union Cemetery with Civil War soldiers.



Atchafalaya Basin



Sardis Lake Recreation Area



Sandy Lake Recreation Area



Wappapello Lake and Dam

## ROCK ISLAND DISTRICT

### Thomson Causeway Recreation Area

Birdwatchers flock to this Mississippi River destination in northern Illinois to see thousands of migrating shorebirds and waterfowl at the Potters Marsh Wildlife Area. Anglers come to catch a variety of sport fish, sometimes a prized muskie. Other visitors like to watch the river flow, with its passing boats and barges, or see the summer marsh flowers. For day trippers, picnickers or campers, this year-round, busy recreation spot offers outdoor activities that appeal to a wide variety of interests. Thomson Causeway, a little over an hour from Dubuque, Iowa, the Quad Cities and Rockford, Ill. and close to Clinton, Iowa and a variety of attractions, lies both on an island in the Mississippi River and on the riverbanks by Main Street in Thomson, Ill. That means some of the most beautiful river views of all the Corps recreation areas. A causeway connects the two parts of the site, and the Great River Trail for bicyclists and hikers runs by the entrance. The recreation area has three playgrounds, three picnic shelters, horseshoe pits and a boat launch. The Hidden Slough Nature Trail, a must-visit, winds through nearly a mile of bottomland forest. Or stay the night. The campground—open May 1 through the fourth Sunday in October—provides 131 campsites, electric service, concrete pads, showers and dump stations and reservations are accepted.

**Fun fact:** Two large Indian burial mounds are in the day use area.

**Ranger tip:** After the summer ranger programs end, there's a camper craft show and bake sale Sept. 3 and a campground Halloween Trick or Treat night Oct. 15.

## ST. PAUL DISTRICT

### Sandy Lake Recreation Area

A sunset over Big Sandy Lake. A walleye dinner. A flickering campfire. The call of a loon.

That's all part of the North Woods experience offered at this popular recreation area near McGregor in the Mississippi Rivers headwaters region of northern Minnesota. Set in a forest of mixed hardwoods and towering red and white pines, Big Sandy Lake is a favorite spot for boating and fishing for walleye, Northern pike, crappie and sunfish. Visitors also come to camp, swim, picnic, hike and view wildlife. Campers and day use visitors can spot bald eagles, deer, mink, river otters, porcupines, chipmunks and occasional black bear.

They also can glimpse into Big Sandy's historic past, which began when ancient Native Americans settled on its shores almost 10,000 years ago. The lake was part of a historic canoe route that linked the Mississippi River to Lake Superior. Fur traders built trading posts on its banks in the 1700s. In 1895, the dam was completed. The old lock house has been converted into a small museum that displays archaeological and historical artifacts.

The friendly recreation area an hour west of Duluth has two lake boat ramps, one boat ramp on the Sandy River, docks, a fishing pier and the only public swimming beach on the lake. The campground has 59 campsites for RVs and tents, a group cabin and playgrounds.

**Fun fact:** The original timber dam, later replaced by concrete, had a lock that allowed steamboat traffic to pass through until 1958, when the lock was closed.

**Ranger tip:** It's as fun in winter as summer with great cross-country skiing and ice fishing. —M.G.



*Meet a Volunteer* Jack Ebertowski is just one of thousands of volunteers who help make federal recreation areas run smoothly. Ebertowski has volunteered at the Cross Lake Recreation Area since May, spending 30 hours a week performing maintenance and light carpentry duties. He also conducts aquatic invasive species education at boat landings and will through September.

Jack retired from the construction industry and also from Minnesota National Guard in 2003 as a Command Sergeant's Major, E9, with the aviation battalion at St. Paul, Minnesota. He has been a tremendous asset, Corps rangers say, in just his first month volunteering. He plans to return next year. —C.H.



## Fighting floods by giving nature a boost

As unusually powerful rain storms become more frequent in the country's heartland and elsewhere, river and coastal communities are looking for ever more innovative ways to prevent the resulting floods. Some, like a particularly noteworthy project in Dubuque, Iowa, are giving a boost to both lifestyle and the ecosystem in the process.

After six disaster declaration-level storms left low-income neighborhoods—including some behind the flood wall—devastated, the city uncovered or “daylighted” a creek that was buried in the late 1800s as part of a now obsolete storm sewer system. The city is now converting some 240 alleys to “green” pavement that allows water to gradually filter into the soil below. And that’s just the beginning.

“We found it’d be cheaper and greener to resurrect the creek from the sewer, to put the creek back where it belongs and restore its floodplain,” said Assistant City Manager Teri Hawks Goodmann. “We’re also bringing green space and a linear park back to vulnerable neighborhoods, adding community orchards and gardens and more play areas. Most importantly, we’ll have all this while not losing water conveyance capability. With a restored floodplain and creek, we’ll be able to manage greater flow than we could before.”

Dubuque, which will complete the second phase of the Bee Branch Creek project (PICTURED ABOVE) next year, is a just one model for what a group of planners, counties and organizations like The Nature Conservancy hope will become win-wins. They’re promoting projects that complete multiple missions, offering unprecedented flood protection and boosting quality of life and the natural ecosystem in the process.

Innovation is needed more than ever, says Jordy Jordahl, director of America’s Watershed Initiative, a collaborative that involves business, non-profit organizations and agencies like the U.S. Army Corps of Engineers.

“One of the unusual things about flooding like what we received in December is it affected the entire Mississippi River watershed,” he said. “This is not just a Dubuque or any other one-community story. This is about everybody.”

Jordahl and others note that extreme weather events have become the norm for communities across the nation. Since September 2010, counties housing 96 percent of the total U.S. population were affected by federally declared weather-related disasters, according to a statement by a coalition that includes The Nature Conservancy for which Jordahl works, the American Planning Association, the Association of State Floodplain Managers and the National Association of Counties. Average flood losses across the country have increased steadily to a combined \$10 billion annually.

To help meet growing challenges, The Nature Conservancy is publishing a guide in late 2016 that focuses on potential solutions for flooding that also produce other benefits like improved water quality or enhanced wildlife habitat and recreational areas. Mark P. Smith, director of TNC’s North America Water program, says the guide will highlight projects like Dubuque’s creek renovations or a first-of-its-kind ecosystem restoration and flood risk reduction authorization in Sacramento, California. Through the project on the Sacramento River, the U.S. Army Corps of Engineers has partnered with TNC and a local levee district to set back a long-time levee and “make room for the river” in a philosophy similar to that used by the Mississippi River and Tributaries Project on the Lower Mississippi. In this case, initial funding was raised by members of an economically distressed community who rely on income from nearby walnut, almond and plum groves. The citizens started a “Levee Festival” featuring local music and food that raised \$100,000 over the course of a few years.

The Nature Conservancy, state and local funding helped match the eventual federal investment authorized by Congress, and when the Corps completes the setback levee, it will protect 3,700 acres of farmland and 750 homes and businesses while also enhancing habitat for 34 threatened and endangered species.

“There will always be flooding,” Smith notes, “but the siting guide will help communities think about how to be more resilient, how to recover more quickly, minimize impacts and restore floodplains, which are some of our most biologically important lands.”

The way nature responds to floodplain restoration was quickly evident in Dubuque, where redeveloping a stream as a natural storm sewer alternative has resulted in a wildlife bonanza. Recently, Goodmann says, state biologists counted as many as 30 species of fish in the creek, which flows into the Mississippi. The city will offer boating, kayaking and fishing lessons along the new creek, and a new stream-side bike trail is buzzing with families heading all the way to the famous “Field of Dreams” in Dyersville, Iowa, to which it connects. Additionally, a newly-won U.S. Housing and Urban Development grant will help families repair flood-damaged homes in historic but often low-income neighborhoods.

“We have a vision that all residents can enjoy and appreciate beauty,” says Goodmann, “and the city has a primary obligation to provide for the health and safety of its citizens. This touches all the notes.” —K.S.

ABOVE: *Aerial view of the Upper Bee Branch Creek Restoration, including parks and handshells, scheduled for completion next year.*



### MY MISSISSIPPI

Leo Hendrix, 66, Captain, MV *Mississippi*, Memphis, Tenn.

“Professionally, I started on the river in 1972. I was a deck hand for Huffman Towing out of St. Louis, and then I became a pilot for the company. I had a kind of dysfunctional youth, and I saw the river as sort of an escape, a way to get away from the life I had. It seemed like such a powerful force. It was a quest for adventure, a chance to get away from the mundane aspects of life where I wasn’t having a whole lot of success.

“I worked on some casinos and for 15 years for the Delta Queen steamboat company. I came on the (MV) *Mississippi* as assistant master in 2009 and became the master in 2014. Somebody once told me that working on the river was long stanzas of peace and boredom punctuated by frantic moments of bedlam. And that’s pretty much the way it is. Most of my memories of the river are of beautiful sunrises and sunsets, dusk on the Upper Mississippi, tranquil moments. Then there are those other moments.

“Being a good pilot is about knowing the river, knowing what the current is likely to do at a certain stage. That just comes from going over it time and again. I always remember a man who taught me the river saying ‘No matter what you do, ‘keep your cool.’ And you don’t want to fight it. You don’t want to fight the brown God; you want to work with it. Why would I ever want to fight something I love?”

PICTURED, FROM LEFT: *Captain Leo Hendrix with Joanne Mann, Nashville District, and Aaron Kirk, 1st Mate.*



## HAPPY BIRTHDAY, ARMY CORPS!

### *Rock Island District fulfills vision of early explorers*

The Rock Island District of the U.S. Army Corps of Engineers turns 150 in August in a celebration of where it began and where it is today—a juggler of a six-fold mission that includes support for the Department of Defense, provision of a reliable waterway; work on keeping the ecosystem healthy, safe and resilient; flood risk management; leadership and expertise in emergency situations; and recreation opportunities. But it all started with exploration and vision, according to these excerpts from a piece published on the district's centennial year.



ABOVE FROM LEFT: *An early photo by Corps photographer Henry Peter Bosse shows a ship removing river snags. A team of engineers in a district "concrete laboratory" in 1935.*

Long before there were permanent offices of the Corps, officers were exploring, mapping and surveying its rivers. After the War of 1812, settlement of the Mississippi Valley began in earnest, and the rivers were the key to the opening of the whole vast region. In the years from 1817 to 1823, Congress commissioned Major Stephen H. Long, a notable member of the Corps of Engineers, to undertake a number of explorations in the upper Mississippi Valley. He was a man of vision, and in his numerous reports to Congress he described the major streams, discussed their importance for future trade and travel, and showed how they could be supplemented by roads and canals. He spoke of these rivers as "the cords which will ultimately unite the northern interests of the country." Largely as a result of his work in the upper Mississippi Valley, Congress assigned the responsibility for improvements of the nation's waterways to the Corps of Engineers.

A fortunate coincidence in the opening of the Mississippi Valley was the simultaneous development of the steamboat. The coming of the steamboat underscored the need for improvement of the upper Mississippi. Although some of the worst obstructions had been removed, the upper river was far from being a dependable avenue of commerce. The most serious obstacles were two long reaches of rock rapids, the Des Moines Rapids extending from Keokuk to Montrose, and the Rock Island Rapids from the town of Rock Island to Le Claire. These rapids virtually halted steamboat traffic except during high river stages. One young officer assigned to this duty was Lieutenant Robert E. Lee. In one letter, he wrote: "I need not tell you what a beautiful country it is and I think at some time, some future day, must be a great one... The formation of a good channel through these rapids will be of immense advantage

to the country, and great anxiety seems to be felt on the subject."

In 1866 Congress authorized the Corps to plan and construct a lateral canal along the Iowa side of the river to bypass the rapids at Keokuk. This project marked the birth of the Rock Island District.

The next step was to provide a depth throughout the upper river which would be sufficient for navigation during the period of low flows in the late summer months. In 1878, therefore, Congress authorized the first comprehensive project on the upper river, directing the Corps of Engineers to provide a channel with minimum depth of 4 feet all the way through to St. Paul. It is estimated that as many as 1,100 steamboats plied the upper river. Mark Twain, whose tales of earlier and more adventurous days on the Mississippi have entertained millions, revisited the upper river in the late 70's and remarked, somewhat wistfully, that "with a charted channel, removal of snags, and other modern conveniences, river piloting has become as safe as driving a stagecoach".

Despite improvements, commercial navigation on the upper river was waging a losing battle. Convinced by Corps of Engineers studies that the economy of the Midwest would greatly benefit by a channel of 9-foot depth on the upper river that would accommodate the large tows and powerful new towboats beginning to be used on the Ohio and lower Mississippi Rivers, Congress in 1930 authorized such a project from the mouth of the Missouri River to Minneapolis. The improvement was accomplished by the construction of a series of 28 locks and dams, twelve of which were built by the Rock Island District. The last of the series was lock and dam No. 14, near Le Claire, opened to navigation in June 1939.



### MY MISSISSIPPI

#### Col. Craig Baumgartner, Commander, U.S. Army Corps of Engineers, Rock Island, Ill.

"I grew up in upstate New York, in a town situated on the Seneca River. My father and mother had a small boat when I was young. We enjoyed boating and swimming and fishing on the river and surrounding lakes. Water has always been an important part of my life. My first introduction to the Mississippi River was when I arrived at the Rock Island District in June 2015. I vividly remember saying to myself: This feels like home.

"The Mississippi is viewed as America's River. It's part of our national fabric from the exploration of Lewis and Clark to the writings of Mark Twain. The river assisted in our country's expansion west. It connects the borders of this vast landscape like no other natural resource. Today, it represents a key economic engine not only for America but for the globe. So as we move forward, it's important that we sustain this vital resource for all it provides for American lives so we can keep assuring its vitality and caring for its overall health.

"Any time you reach a milestone like commemorating the Rock Island District's 150th anniversary, it's a good time to take stock. You've got to appreciate where you were, where you are now and where you're going. One of the main reasons the district came into existence is to make the Mississippi River navigable. From the 4½-foot (deep) navigation channel to the present day 9-foot channel and lock and dam system, the Rock Island District has been endeavoring to keep the river open and economically viable. Over the years, we've expanded our role on the river and its watershed to be sure we're caring for environmental impacts. The pressing need is to modernize as our current navigation system state is degrading. Couple that with the needs for ecosystem restoration and add in the ever present question of available funding, and you'll find a representation of what will challenge us most as we look into the future.

"We're going to be celebrating our 150th year anniversary in August, while the Motor Vessel Mississippi is in the Quad Cities. On the boat, we plan to highlight the District's history with posters and pictures. Our mission really evolved when we went from a 4½-foot navigation channel to our current system. Our evolution was parallel to that of the nation. In 1986, our Congress recognized the Mississippi River and watershed as not only a nationally significant commercial navigation system but also a nationally significant ecosystem. Out of that came the Upper Mississippi River Restoration Program, which is celebrating its 30th anniversary this year. That in some ways was a game changer, and a lot has evolved from that."

## OUR MISSISSIPPI KIDS



## Building Tomorrow's Leaders

### Mississippi River boot camp encourages new generation of river stewards

Some two dozen middle school scholars gathered together in early June to immerse themselves in the Mississippi River watershed (though ideally not literally) as part of the first class using the "Our Mississippi" curriculum guide in a five-week summer school boot camp.

The free "Our Mississippi" guide has for several years provided teachers with a mix of classroom, self-directed and collaborative lessons on the Upper Mississippi River that meet a wide range of national learning standards through a multidisciplinary approach; hands on projects have students trapping sediment in bottles, making a Venn diagram of predators and prey or following the routes of early explorers—all ways to learn about river systems, history and better management.

The first-ever camp is a collaboration between the NewPOT Solutions Charitable Foundation, the Riverview Gardens School District and the U.S. Army Corps of Engineers (its River Project and its St. Louis District STEM Team) to engage students with the river and its watershed—using America's River as the basis for lessons in science, technology, engineering, arts and math.

"The development of this camp curriculum is another way we are able to educate our youth about the Mississippi River watershed, the importance of community engagement, and encourage careers in river related fields to include engineering and natural resources," says Tommy Smith, Interpretive Services Team Lead for the Rivers Project Office. "It is also a way for us to package a program that can be used by other schools and summer camp programs in their areas of the river to get more students involved and foster a new generation of conservation stewards."

The camp includes workshop sessions, hands on activities, service projects and field trips to showcase potential river-related careers and ideas for community involvement and volunteering.

Adult community volunteers will even help with camp instruction, offering role models and potential mentors. Mentoring is part of the mission of NewPOT Solutions Charitable Foundation ([NEWPOTSCF.ORG](http://NEWPOTSCF.ORG)), to develop, mentor, and support the personal, academic, and athletic career potential of students.

"We believe that it takes a whole village to raise the child," said Wendell Stevens, Chief Operations Officer for NewPOT. "In that spirit, we are extremely proud to be partnered with the U.S. Army Corps of Engineers. Through their commitment of time, talent, and resources employed by The Rivers Project Office, we certainly can deliver on the promise and achieve the desired outcome." —K.R.

Find the entire curriculum under the education and outreach link at [ourmississippi.org](http://ourmississippi.org).



## WATER SAFETY IS FUN!



1. Know your boat – each boat has its own purpose. Make sure you use your boat correctly.
2. Always wear a life jacket while riding on a boat.
3. Make sure a responsible adult is operating the boat.
4. Ride a PWC only with an experienced adult driver.
5. Don't stand in a small boat.
6. Don't sit on the gunwale or bow of a moving boat.

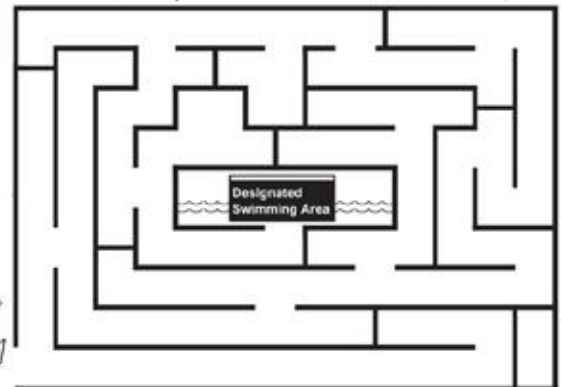
P Q W E R T Y I U T I L I T Y O P A  
 O E S D B U O Y F G H J K U L Z X C  
 N Z R X C V B N M Q W E R O T Y U I  
 T O P S A S D L F G H J K B L Z X C  
 O V B N O M A I N F L A T A B L E X  
 O R T Y U N I O P A S D F N G I H R  
 N W E R G T A Y U I O P A U S F D E  
 Z X C I V B N L M A P O I R U E Y S  
 T R S E W Q L K W J H G F D S J A I  
 M G N S A I L B O A T B V F L A G U  
 C N X P Z L K J H G T F D S A C W R  
 G I F E S K I I N G D E S A O K P C  
 Z H X E C V C B N M A S R D F E G H  
 J S K D L O A R Q W E Y A C H T R T  
 Y I U B I P N Q L K J H G F R D S A  
 G F D O S A O P O I U Y T R E A W Q  
 H J T A O B E S U O H K L Z X C F V  
 I U Y T R E S A I L B O A R D W Q T

Find the boating words hidden in this puzzle. Look forward, backward, up and down.

- |             |                     |
|-------------|---------------------|
| BUOY        | SAILBOAT            |
| OAR         | CRUISER             |
| SKIING      | SAILBOARD           |
| FLAG        | UTILITY             |
| RUNABOUT    | PERSONAL WATERCRAFT |
| LIFE JACKET | CANOE               |
| SIGNAL      | INFLATABLE          |
| FISHING     | SPEEDBOAT           |
| PONTOON     | HOUSEBOAT           |
| YACHT       |                     |



Find the way to the safe swimming spot



1. Learn to swim well.
2. Always swim with a buddy.
3. Swim in a designated area and make sure an adult watches you.
4. Wear a life jacket if you can't swim well or if you are just learning to swim.
5. An air mattress or swimming does not take the place of a life jacket.
6. Never dive or jump into unknown waters.

# Summer play—your way

Many a classroom lesson plan—from geography to college level literature and engineering to grammar school spelling (as proof, just try to spell M-I-S-S-I-S-S-I-P-P-I without breaking into rhyme)—have been built around the Mississippi River. But when school lets out for the summer, the subject you want to practice is more akin to recess. This year’s centennial of the National Park Service is a great time to explore public lands of all varieties, whatever your favorite way to play.



**Biking** | Trails with river views, often from high on a bluff, make the Mississippi a popular biking destination. But bike across two historic Mississippi parks for rewarding insights into cultural traditions of the Deep South. At

Vicksburg National Military Park, get your bearings by watching the 20-minute orientation film at the visitor center, then bike to living history demonstrations explaining why this location was a crucial turning point to the Civil War (NPS.GOV/VICK). Then, be sure your camera is along when you glide a scenic stretch of the 444-mile long Natchez Trace Parkway—an undulating landscape framed by fertile farmlands, lush forests and breathtaking overlooks. Using the state’s five bicycle-only primitive campgrounds, you can plan to ride 30-60 miles a day then stop at provided tent sites with picnic tables, fire grates and restroom facilities with water inside (NPS.GOV/NATR).

Put on your citizen scientist hat and celebrate Year of Birding; in July alone, the Audubon Society reports 29 resident species here, including sandhill cranes, eastern bluebirds, dickcissels, and common yellowthroats. For other assured sightings, head to the confluence of the Mississippi and Missouri rivers; the Corps-run Riverlands Migratory Bird Sanctuary has an Audubon center on site (RIVERLANDS.AUDUBON.ORG) with interpretive displays and trails designed for great viewing.

**Canoeing** | For a breathtaking nature show, launch your river trip at the confluence of the Coon and Mississippi Rivers in Dayton, Minnesota, for 12.7-mile paddle to Minneapolis via Minnesota’s 72-mile long river part and outdoor urban natural wonder, the Mississippi National River and Recreation Area. Another popular launch is Lion’s Levee Park in St. Paul Park (picnic areas and lighted parking available) for short paddles in backwater areas lined with cliffs. Experienced paddlers emerge from the backwaters out into the shipping channel past Grey Cloud Island to a boat launch on Grey Cloud Trail (WWW.NPS.GOV/MISS/INDEX.HTM).

**Fishing** | If you think shore, pier and boat fishing are your only angling options, think again. Grab your gear for a unique experience on one of Wisconsin’s famous fishing barges, built on the banks of the Mississippi in Alma, Genoa, LaCrosse and Trempealeau. Locally known as fishing floats, these highly stable and fully-outfitted platforms produce some of the best catches in the Midwest: walleye, bass, bluegill, catfish, pike, perch, sturgeon and even the occasional sauger. Float fees typically include water shuttle service from the town dock to the barge. Call ahead to confirm availability, and plan to spend a few extra minutes in the local

bait shops, not only to get reliable tips, but also to hear the best fish tales! (TRAVELWISCONSIN.COM/ARTICLE/FISHING/BARGE-FISHING-THE-MISSISSIPPI-RIVER)

**Golf** | TPC Louisiana, home of the PGA TOUR’s Zurich Classic of New Orleans, is not only one of the nation’s top public golf courses, it also boasts a grand representation of bayou natural habitat. Master architect Pete Dye designed this 7,600-yard, par-72 championship course to incorporate natural vegetation and numerous cypress trees to promote great golf without disturbing local wildlife and ecosystems. Keep your eyes open for heron, egret and ibis; turtles, frogs and alligators, as well as rabbits, minks and deer (TPC.COM/LOUISIANA-ABOUT-TPC-LOUISIANA).



**Urban Adventure Under Construction** | The 630-foot Gateway Arch in St. Louis, Missouri, is America’s tallest man-made monument. Designed by architect Eero Saarinen to commemorate the roles of Thomas Jefferson and St. Louis in the westward expansion of the United States, the Arch is part of the 91-acre Jefferson National Memorial. Right now, the Arch is undergoing a \$380 million expansion, a public-private partnership to create a new museum below the Arch and to renovate the park grounds and riverfront. During construction, the National Park Service is hosting “Journey to the Top” tram rides to an observation platform on top of the soaring monument, complete with film on Arch plans. Tip: Before you go, check on construction progress, which may involve temporary changes to normal operating hours (GATEWAYARCH.COM). —R.B.



**Birding** | Minnesota, Wisconsin, Iowa and Illinois each claim portions of the Upper Mississippi River National Wildlife and Fish Refuge. A Globally Important Bird Area, the site is home to great blue herons, great egrets and double-crested

cormorants in rookeries, all of which take center stage during summer in the floodplain forest. Look for groups of American white pelicans feeding in formation or soaring over the refuge. And if you schedule time in marshy areas during early morning or late evening, you may hear the song of the sora rail, affectionately known as “the laughter of the marsh.”

## FESTIVAL FUN

The Mississippi River is a backdrop for hundreds of festivals—and in the case of one, a perfect excuse for a day off. The **“Take a Day OFF” festival** comes July 30 at Stearns County’s Mississippi River Park in central Minnesota. Anyone can come to learn or perfect sports like canoeing, fishing, paddle sports, archery and more; make-and-take projects for kids have included walking sticks and other tools to boost nature fun (TAKEADAYOFF.ORG).

Have your eye on that alabaster statue of a bald eagle in flight? Join one of the 20-member teams who’ve since 1987 competed in the **Tug Fest** tug-of-war across the Mississippi between Port Byron, Illinois and LeClaire, Iowa. The 30th year festival, an event for which the Coast Guard shuts down the river, is held Aug. 11-13 and includes a parade, live entertainment and fireworks over the river.

Or maybe a chance to cackle (in public) like the witch in the Wizard of Oz is more your thing; you’re in luck at the **Day in Oz festival** in Clarksville, Missouri Aug. 27. Breakfast with Dorothy, the Scarecrow, Glenda and more, dunk the Wicked Witch and go on an old-fashioned cake walk (FACEBOOK.COM/ADAYINOZ FESTIVAL).

For more river events and travel ideas, go to the new geotourism site, created by National Geographic in partnership with The Mississippi River Connections Collaborative (MISSISSIPPIRIVER.NATGEOTOURISM.COM).



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## River of Romance

When Chad Pregracke was planning his wedding to wife and colleague Tammy Becker, there was little question where the nuptials would take place—along the Mississippi River, in their back yard, near Lock and Dam 14. And why?



“There aren’t enough pages in the magazine,” he says, “to express how both Tammy and I feel about the Mississippi River.”

Both are active in Pregracke’s company, Living Lands and Waters, where the work of his crew and 87,000 volunteers has collected some 8.4 million pounds of debris from the nation’s rivers and earned Chad the prestigious Jefferson Award for Public Service. And they are not alone in finding enough romance inherent in the river to celebrate an engagement or marriage along its shores, or in the middle of the channel. Riverboats are increasingly popular wedding venues. So are sandbars, parks and riverfront museums.

The location of the Mississippi River Museum and Aquarium has made it a relatively popular marriage venue. Some 10 or 15 ceremonies are held each year on museum grounds along the river. Engagements have been perhaps even more notable, says John Sutter, director of marketing and sales. With staff per-

mission and help from a diver, one man proposed via an underwater sign in the Gulf of Mexico tank—right amid the tarpon, black drum and pompano. One couple married rather spur of the moment, Sutter noted, after she came in saying, “I had a dream about the Little Mermaid last night and I have to get married in front of an aquarium.”

Generally, it’s less a specific dream and more the dreamy beauty and mystique that draws couples to the river as wedding backdrop. Sometimes, it’s a fascination with engineering marvels like the locks and dams. The National Great Rivers Museum in Alton, Ill., has hosted weddings in front of its Melvin Price Locks and Dam and the flocks of white pelicans that frequent the adjacent Riverlands Migratory Bird Sanctuary; white tablecloth receptions take place indoors in front of river exhibits.

Beauty and convenience weighed heavily in the decision of Chad and Alicia Bounds to marry at Tara Wildlife, a park area near Vicksburg, Mississippi. Both employees of the U.S. Army Corps of Engineers, they said their vows underneath a massive tree, took photos with one of the river’s oxbow lakes as backdrop. The whole wedding party stayed the night in a lodge within the park, some sneaking out to fish the river’s banks while the wedding was being set up.

The river is so pretty,” Alicia says. “I grew up in Arkansas not far from the Mississippi. There’s just something about it.”

## River mayors go international with climate change message

Mississippi River mayors represented the waterway early this summer at the U.S.-China Climate Leaders Summit, stressing the importance of river valley ecology in capturing carbon. They also traveled to Mexico for the World Assembly of River Basins and got more signatories to an agreement to protect surface and ground waters to ensure food security and access to drinking water, both ways to mitigate climate change threats.

Freshwater wetlands like forests, marshes, streams and creek vegetation fed by rivers adds to greenhouse gas storage capacity, according to Roy Buol, Dubuque, Iowa mayor. Since China produces food for more than 20 percent of the world’s population—partly sustained by its agriculturally rich river plains—China must be included into the efforts to protect food-producing river basins from climate change, the mayors said.

Scan here with your smartphone to go to the *Our Mississippi* website. Here, you can subscribe to our e-edition, read past editions and find river-related education materials.



Send story ideas to [editor@ourmississippi.org](mailto:editor@ourmississippi.org)

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