



"Current" News

Winter/Spring 2013

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Did you know:

- The 39-Mile District encompasses not only the first 39 miles of the Missouri River below Fort Randall Dam, but also the lower 20 miles of the Niobrara River and 8 miles of Verdigre Creek which flows into the Niobrara.
- The 39-Mile District was designated in 1991, 13 years after the 59-Mile District was designated in 1978.
- The Niobrara National Scenic River (Valentine, NE) was also designated in 1991 and includes 67 miles of the Niobrara River.

MNRR's 39-Mile District

Lisa Yager, MNRR Biologist

The 39-Mile District of the MNRR was my childhood backyard. I grew up watching bald eagles soar, sandbars and channels morph and change with time, the season's blossom and fade as foliage along the ever-present bluffs turned to gold then brown and back again. The narrow river valley, lined with old-growth cottonwood trees, brought a sense of security. Dam releases and other river issues were ordinary conversation. Watching the river was the perfect pastime. The Wild and Scenic nature of this stretch of the Missouri River was personal. I came to know this river intimately years before I wore an NPS arrowhead and uniform.

In 1991, when I was just five years old, the MNRR was expanded to include the 39-Mile District which flowed right past my parent's farmstead. This district encompassed not only the first 39 miles of the Missouri River below Fort Randall Dam, but also the lower 20 miles of the Niobrara River and 8 miles of Verdigre Creek, a tributary of the Niobrara. Congress decided that this stretch of river was special and worthy of protection for future generations.

I experienced the river's "outstandingly remarkable values" years before I learned what those words literally meant. The *ecological, fish and wildlife, geological, scenic, recreational and cultural values* were the framework in which I saw the world.



An autumn setting sun highlights the scenic beauty of the 39-Mile District. Photo by Wayne Rames.

I grew up with a fascination for how the river worked, to understand how all - sandbars, water, cottonwoods and fish to name a few - *ecological* was seamlessly interconnected. That same childhood fascination and curiosity led to years of study and degrees in river ecology.

Fishing was a common hobby and food source for my family. My fondest fishing memories are not catching the largest or first fish, but simply enjoying the river and experiencing my first intimate contacts with *fish and wildlife*. I can vividly recall the excitement of catching a fish (even just a channel catfish), as well as the setting sun, reflecting on the calm, glass-like water.



The 39-Mile District is marked by a narrow channel and stunning bluffs. Photo by Greg Latza.

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Saltcedar: Not Your Average Cedar

Since 2001 county, state, and federal weed managers have conducted the annual 'Saltcedar Search and Destroy' which, as the name implies, is a one day event where participants scoured saltcedar habitat and pulled or sprayed any plants found. Why has saltcedar been on the radar of weed managers in the area for some time?

Saltcedar, also known as tamarix or tamarisk, is a wetland invasive tree that was brought to North America for ornamental use and to help vegetate the arid southwest. Outwardly, the plant looks a lot like eastern red cedar, but the two species are rarely confused. They occupy very different habitats and saltcedar produces showy pink flowers and is deciduous (it drops its leaves in the fall), unlike eastern red cedar.

Five things you should know about saltcedar:

- Originally from central Asia and the Mediterranean, saltcedar is well adapted to dry climates.
- Saltcedar is what's called a water spender, as opposed to a water saver – think cactus, it uses lots of water pulled from deep underground to survive dry conditions. The large amount of water evaporating out of its leaves results in a buildup of salts. When the leaves drop in the fall, they increase the soil salinity which eventually inhibits other plants from growing nearby.
- The early life cycle of saltcedar is very similar to cottonwoods and willows. Both produce small, fluffy, wind and water dispersed seeds which require nearly barren, moist soil to germinate. Because of this similarity it is likely saltcedar could further reduce cottonwood abundance in the future.
- Saltcedar matures very quickly; young of the year plants are known to flower and produce seed, but it still manages to live for over 100 years.
- Since the 2011 flood, saltcedar has exploded along the river. Over 200 plants were pulled from sandbars from between the Bow Creek and Vermillion-Newcastle Bridge areas just this past fall (2012). Reports from the Lewis and Clark delta area also indicate widespread salt cedar infestation. Agencies, including the NPS, are devoting extra time and effort to control saltcedar this summer. Hopefully these efforts can control saltcedar before the plants become too large to hand pull and require costly herbicide applications. Saltcedar is definitely a weed to watch for.

What can you do?

- Watch for salt cedar in low-lying areas with sparse vegetation. A good rule of thumb is to look in areas with cottonwood seedlings or other wetland noxious weeds like purple loosestrife.
- Plants up to three feet tall can be hand pulled, slightly larger ones may be pulled with weed wrenches or brush grubbers. Be sure to get the entire root and watch for resprouting.
- Larger trees will need to be sprayed with aquatic approved herbicides containing imazapyr, triclopyr, or glyphosate with either foliar or cut-stump treatments.
- After spraying it is advised to not cut or remove the plant for two years, to reduce the possibility of resprouting.



A "Search and Destroy" volunteer with a pulled salt cedar plant.



Salt cedar are often found in moist sand, often in the same areas as cottonwood seedlings. Salt cedar in photo foreground; cottonwood seedlings in background.

River Steward Recognition

A shining example of river stewardship can be found in the halls of Niobrara High School in Niobrara, Nebraska. High school students, with the help of their teacher Sharla Hanzlik, have been working together to stop the spread of purple loosestrife in both the Niobrara and Missouri Rivers.

While purple loosestrife could be considered a beautiful flower, it is also an invasive species, spreading throughout the United States and the local area. Purple loosestrife chokes out native vegetation and can negatively impact the local ecosystem, an ecosystem the town of Niobrara depends upon.

Beetles as a Biological Control Agent

This innovative class project began in 2007 when the class was introduced to purple loosestrife on a field trip to the ‘purple loosestrife dig’ where numerous state, county, and federal agencies collect the noxious weed’s roots. The collected roots are used to grow purple loosestrife in a controlled environment to host *Galerucella* beetles. These beetles feed exclusively on purple loosestrife, creating a great biological control agent. The beetles raised are then released into the natural environment to control the noxious purple loosestrife.



A Galerucella beetle, raised by students at Niobrara High School.

The students, with the help of Mrs. Hanzlik, turned this concept into a class project where students learn and apply both science and valuable life skills. Students apply the concepts of ecology to “ranching” and “raising” the purple loosestrife bugs at the school. They then release them into purple loosestrife infested areas. In spring, the students help dig up the purple loosestrife roots, and take some back to the school’s bucket garden to grow their own *Galerucella* beetles. The beetles are released to specific areas with purple loosestrife. The students use a square frame called a quadrat, placed at specific locations within the flood plain to determine what percentage of the vegetation is purple loosestrife.

Over years of repeated monitoring the students can get a handle on how well their beetles are controlling the noxious weed and what other plants are repopulating the area. Over the years the students have released

hundreds of thousands of beetles controlling purple loosestrife over a large area of the Missouri and Niobrara River wetlands.



A student releases bugs onto purple loosestrife.

Building Life Skills

Students also create resumes, interview for project leadership positions (public relations, field manager, data analysis, and web and video design) on the project in front of a panel of reviewers, and give presentations. All while learning to apply ecology and stewardship in a practical manner.

The project has been a huge success because of the drive of the students. Of course, some of that drive stems from competing to upstage the previous classes work. Yet the students also feel a real sense of stewardship because they are helping to preserve the ecosystem right outside of their classroom. A class survey of the community found that 85% of the community’s gross income comes from tourists, 90% of which came to enjoy the river in some way (visit the state park, hunting, fishing, etc.). Helping preserve the ecosystem also helps to sustain the local economy.

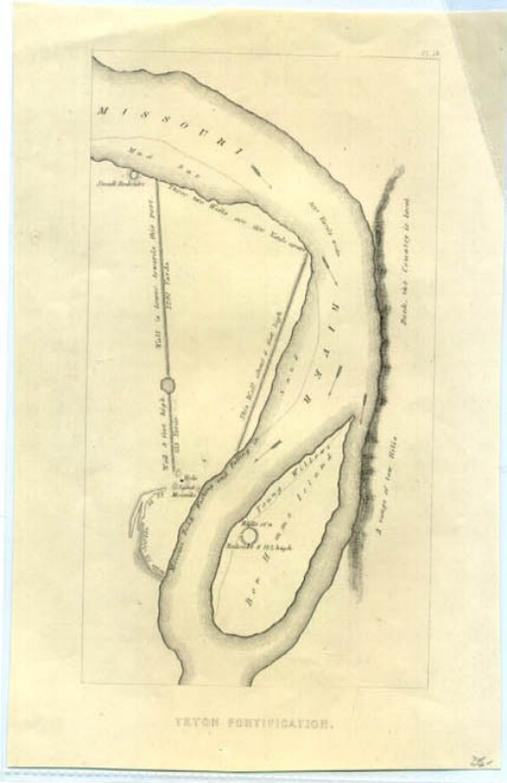
“What these kids are doing is unbelievable” said Doug Smith, Dixon County Weed Superintendent. “They are helping their community while becoming stewards of the critical lands that surround their area. which is very important because they will be responsible for both in the future.”

The students also grasp the importance of both their project and the surrounding river ecosystem. Student Liam Key said: “I realize how much our town really depends on [this project and the river]. Without our local environment, we have nothing. The people rely on our ecosystem more than the wildlife does. I’ve learned a sense of respect as well as a sense of responsibility. Everybody has to pitch in and help.”

The students and Niobrara High School are to be commended for their work in protecting and preserving this vital ecosystem. They are truly river stewards.

Place Names: What's in a Name?

Recently I (Chris) have been doing extensive research on Place Names of the MNRR. It's quite revealing to discover how the counties, communities and points of interest along the river corridor received their names. In the process we can learn quite a lot about the history of the area. This is especially true for the 39-Mile District.



Historic Bon Homme Island

abouts the lower portion of the 39-Mile District. Bon Homme means, "Good Man" in French. Just exactly who was this "Good Man?" None of the sources are sure, but it is surely linked to the numerous French fur traders who plied the river in the early 19th century.

Running Water – at the downstream boundary of the 39-Mile District - is also a translation from French. It was first known as "L'Eau Qui Court." A French phrase that literally means "water that runs." This was in reference to the nearby confluence of the Missouri and Niobrara Rivers. Speaking of Running Water, it had several other names before its current derivation. These included Mineral Springs which was the first settlement after the signing of the 1858 Yankton Sioux Treaty. It was soon abandoned during the Minnesota Sioux War.

Sometimes the most interesting names concern places that have long since disappeared. "Iron Post" was once a settlement/boat landing, but it started out as well an Iron Post. The

name refers to a marker which was placed in the ground to denote the eastern border of the Fort Randall Military Reservation. The nearest current settlement to what was once Iron Post is the small reservation community of Greenwood. There has been some recent conversation that the iron posts may well still be standing. Unfortunately the same cannot be said of the settlement!



Fort Randall Chapel in 1947.

At the head of the 39-Mile District stands Fort Randall, which though long since abandoned, now gives its name to a dam, a creek and a recreation area. A simple rule of thumb when it comes to the names of western forts is that the namesake had to be deceased. Randall comes from the name of Daniel Randall, a former paymaster in the U.S. Army. Mr. Randall seems to have been neither famous nor infamous, but he must have had some powerful friends in high places. They ensured his name is still with us today.

Finally, the rich Native American heritage is most prominently displayed in the name of the mighty river itself. White explorers named the river "Missouri" after a tribe of Indians who lived along its banks. The name meant "people with wooden canoes." That name has stuck and so have many others up and down the MNRR corridor. By learning the history behind these place names we gain a better understanding of the many diverse cultures that call the river corridor home.

If you would like to share your own stories about place names or places lost to history along the Missouri National Recreational River corridor please send your messages to Chris_Wilkinson@nps.gov.

Bald Eagles Thrive along MNRR

Throughout our nation's history, bald eagles have been a symbol of freedom, justice, strength, and resilience. The eagle became the National emblem in 1782 when the great seal of the United States was adopted. The eagle has appeared on all official seals of the United States, as well as on most coinage, paper money, and on many U.S. stamps. Even though the bald eagle has played such a prestigious role in our culture, its populations have diminished over time. President John F. Kennedy once said, "The fierce beauty and proud independence of this great bird aptly symbolize the strength and freedom of America, and we shall have failed a trust if we allow the eagle to disappear." After almost 70 years, the bald eagle populations are back to sufficiency. Many thriving populations happen to be located right here on the Missouri National Recreational River.



Bald eagles gain a white head and tail at age 4-5.

Along with our country, the bald eagle has faced challenges crucial to its prosperity. By the 1930s, people became aware of the diminishing bald eagle population, and in 1940 the Bald Eagle Act was passed. This reduced the harassment by humans, and eagle populations began to recover. However, at the same time DDT and other insecticides began to be widely used. These chemicals entered the food chain and were later consumed by birds of prey. Bald eagles were officially declared an endangered species in 1967 in all areas of the United States south of the 40th parallel, under a law that preceded the Endangered Species Act of 1973. In the last 30 years, the bald eagle has made a dramatic recovery. The bald eagle populations made such a comeback that they were removed from the Endangered Species list in 2007. Despite delisting, the bald eagle is still protected by the Bald and Golden Eagle Protection Act.



Three juvenile bald eagles sit atop their nest, just about able to fly. Active nests will produce 2-3 chicks.

The success of the bald eagle can be seen along our home stretch of the Missouri River. In the winter months, eagles can be seen feeding in the open waters below Gavin's Point and Fort Randall Dam. Juvenile Eagles are often sighted in nests in large cotton wood trees in late May through July. Each year, the park monitors eagles on the 39-mile and 59-mile segments of the MNRR, as well as the lower Niobrara River. Monitoring efforts include viewing with the use of binoculars and spotting scopes. The status (active, inactive) of the eagles and nest productivity (number of chicks fledged) are documented and recorded using GPS. All results are shared with the SD Game, Fish and Parks and the Nebraska Game and Parks Commission. The local population has steadily been increasing over the past decade and is expected to continue to increase.

39-Mile District, cont.

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I have always been astonished by the personality and beauty of the chalkstone bluffs which line much of the 39-Mile District. Each bluff layer has a unique story to tell. As a child I dreamed of finding the next fossil, maybe a plesiosaur (you can always dream big). I still eye the bluffs with a critical eye, not only to understand their story, but also to note the unique *geological* story.

Our home was surrounded by astounding scenic beauty; yet, it was so familiar that it became commonplace. However, I would quickly be reminded of the river's scenic qualities by those who witnessed this beauty for the first time. Seeing and understanding the scenic beauty through new eyes is still invigorating.

The island side channel directly across from my home was peaceful, full of abundant wildlife. It was truly an example of the river's natural qualities and ecology. Exploring this side channel, particularly by solo kayak, was always my favorite *recreational* activity and remains a vivid memory.

Old Baldy, a known point of interest for the Lewis and Clark expedition, was visible from my home with just the right angle of morning sun. That simple reminder could be overwhelming, knowing I was in the same vicinity as so many explorers, steamboat captains, and Native Americans. It was my reference point for understanding our shared *cultural* heritage.

Now, the Missouri River is my career and I have the privilege to work with "my" section of the Missouri River. The 39-Mile District of the MNRR lies at the very core of who I am. Now I have the pleasure of sharing that passion and understanding with other park stakeholders. Witnessing someone experience the 39-Mile District for the first time or through a new perspective is still a joy.

The Missouri River is my playground, my classroom, and my home. It can be yours as well!



MISSOURI NATIONAL RECREATIONAL RIVER

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We're on the Web!

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Find us on Facebook,
Twitter, and YouTube!

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Upcoming Special Events

- Friday, May 3rd - Missouri River Watershed Festival (Riverside Park in Yankton from 7:30 a.m. - 12:00 p.m.)
- Saturday, May 4th - 10th Annual Missouri River Cleanup (Meet at Riverside Park in Yankton)
- Saturday, May 4th - MNRR Booth at South Dakota Birding Festival (Armory in Wagner, SD)
- Sunday, May 5th - South Dakota Birding Festival - Guided Tours of the Karl Mundt National Wildlife Refuge from 8:00 a.m. - 12:00 p.m.
- Friday, May 10th - Niobrara State Park Outdoor Rendezvous from 9:00 a.m. - 4:00 p.m.
- Saturday, May 11th - MNRR/Missouri River Institute Paddle Event - Time & Place To Be Determined
- Saturday, May 18th - MNRR Aquatic Invasive Species Awareness Day
- Saturday, May 25th - South Dakota Kayak Challenge (Riverside Park in Yankton to Chris Larsen Park in Sioux City)



Volunteers begin to load boats for the 2012 Missouri River Cleanup at Riverside Park in Yankton, SD. Join us in 2013!

For more information or to volunteer, contact Dugan Smith at (605) 665-0209 . "Like" our Facebook page (Missouri National Recreational River) for updates and info!