The Lower Platte River Corridor Alliance will be hosting public meetings to discuss our completed Recreation Master Plan and Water Trail development. We hope to see you there!

Ashland Meeting: March 22, Open House 6:00-6:30, presentations and discussion 6:30-8:00, Ashland Community Center

Fremont Meeting: April 5, Open House 5:30-6:00, presentations and discussion 6:00-7:30, City Auditorium Community Room

Columbus Meeting: April 7, Open House 5:30-6:00, presentations and discussion 6:00-7:30, Legion

For more information, check out our website: lowerplatte.org

Upcoming LPRCA Events in 2016

NARD Run at Chalco Hills April 9th, 9:00 a.m.
LPRCA Quarterly Meeting, May 3rd, 9 a.m. at LPSNRD in Lincoln
LPRCA Kayak Tour: June 7
LPRCA Water Quality Open: August 25th, 2016, Quarry Oaks
Lower Platte River Summit: November 2016

Check www.lowerplatte.org for updates about upcoming events and meetings

For Further Information contact:
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Lower Platte River
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The voice of the Lower Platte.
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PLATTE RIVER Update

Winter/Spring 2016

Lower Platte River CORRIDOR ALLIANCE

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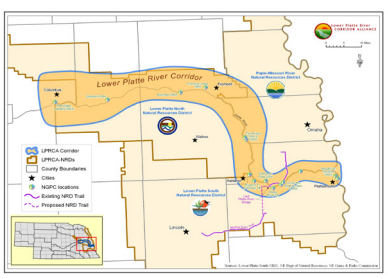
Biannual Newsletter of the Lower Platte River Corridor Alliance



LPRCA MEMBERS

Lower Platte North NRD
Lower Platte South NRD
Papio-Missouri River NRD
NE Dept of Natural Resources
NE Dept of Environmental Quality
NE Health & Human Services
NE Game & Parks Commission
NE Military Dept
University of Nebraska - Lincoln
Conservation & Survey Division,
UNL School of Natural Resources
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Meghan Sittler & Ann Wilton

From the Coordinator:

It's hard to believe that by the time this arrives in your mailbox and on our website that we will be just a few days from starting another busy spring season. This edition of the Platte River Update looks back on projects and studies completed late last year by both the LPRCA and our partners. Our recurring feature, "Communities of the Platte" looks way back to one of the earliest European visits and documentations of the Lower Platte River. We then look forward to next steps in many LPRCA and partner efforts and events.

One of those next steps is a series of public meetings for the Lower Platte River Recreation Master Plan beginning in late March and continuing into early April. The meetings will be held in Ashland, Fremont and Columbus. Please take a look inside this edition of the Platte River Update to find out more about the meetings, the recreation plan and how you can become involved. We hope you'll also take the time to jot down the dates of the upcoming LPRCA events as well as some great events in the Corridor over the spring, summer and fall months. We hope you enjoy this edition and as always please let us know if you have questions, comments, or ideas for our next Platte River Update!

News Around the LPRCA

Cass County Flood Risk Project

By Mitch Paine, Floodplain Management, Nebraska Department of Natural Resources (NDNR)

In early 2013, NDNR and the US Army Corps of Engineers (USACE) approached the Village of Cedar Creek and the City of Louisville about digging deeper into flood risk information for properties in their communities. Both towns in Cass County were extremely interested and so set off the 2 year Cass County Mitigation project that yielded tremendous results for all partners.

Cedar Creek and Louisville wanted to build upon previous flood mitigation conducted in 2006. Those plans included individual structure elevations, but were based on LiDAR estimates, not field surveys. While the prior plans offered a lot of data and mitigation alternatives, the communities wanted enhanced surveys and property-level analysis along with more public participation, and NDNR and USACE were interested in this effort too. The Cass County project was part of an ongoing effort, called the Nebraska Silver Jackets partnership, by state and federal agencies to collaborate on flood-related projects.

The goal of the project was to encourage mitigation actions with the best and most up-to-date flood risk information.

The largest effort in the project was the data collection phase. Surveyors from NDNR worked in Cedar Creek and surveyors from USACE worked in Louisville. At each structure, the surveyors shot the elevation of the observed first floor. Because they did not have access to go inside homes, they did not measure the elevation of the basement floor. Over 500 structures were examined throughout both communities.

After collecting elevation information for the structures in the communities, the data was compared to Cass County Assessor data and other building characteristics. Then, all of the building data was put into the context of flood risk and buildings were compared against multiple floodplains (10-year, 25-year, 100-year, etc.). Flood elevations were calculated for each building, and based upon average damage costs, an expected annual damage estimate was given. Expected annual damage gives us a way to think about how often a building may get flooded and the average extent and cost of the damage while forcing us to think of those total costs split up year by year.

Using the data collected for each structure, USACE was able to figure out

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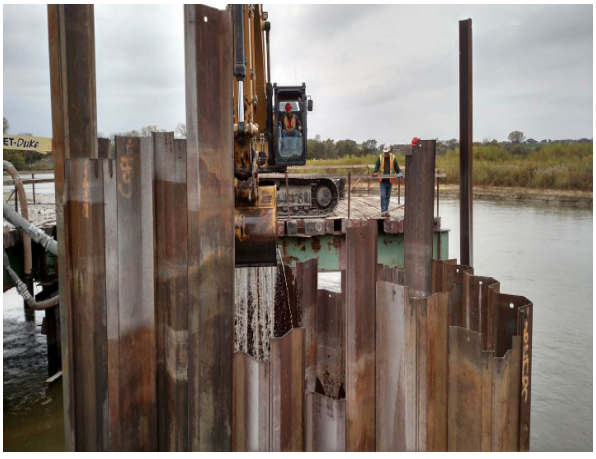
LPRCA Project Update: Pier Removal

By Meghan Sittler, LPRCA Coordinator

After 8 years of planning, permitting, and raising funds, the Lower Platte River Corridor Alliance (LPRCA) completed the removal of five old railroad bridge piers from the Platte River at Two Rivers State Recreation Area this past fall. Over the past 10 years the LPRCA has removed old abandoned bridge piers from the Platte River at three other locations to make the Platte River a safer river for recreationists, to reduce flood risk and to restore the Platte River.

The contractor, Hawkins Construction, began work in-river in mid-August. A temporary bridge was constructed to reach the piers. The demolition process was completed well ahead of schedule with the fifth and final pier being removed on October 22nd and the temporary bridge being fully removed from the Platte River during the second week of November. The construction caused a temporary closure of Riverside Campground at Two Rivers SRA but the campground will resume normal operations. Final seeding of the disturbed area at the campground will occur in spring.

The project was made possible through funding from the three Natural Resources Districts that are members of the Lower Platte River Corridor Alliance, a grant from the Nebraska Environmental Trust and a grant from the Recreational Trails Program, administered by the Nebraska Game and Parks Commission. More information about the project as well as photos of the piers and demolition can be found on the LPRCA website: lowerplatte.org.



Left: Sections 1-8 of the temporary bridge
Right: Removing the last parts of Pier 5
Bottom: Rebar and Metal removed from Pier 4

→

LPRCA Project Update: Recreation Master Plan

By Meghan Sittler, LPRCA Coordinator and Ann Wilton, LPRCA Intern

A new Lower Platte River Recreation Master Plan has been prepared for the Lower Platte River Corridor Alliance and the Nebraska Game and Parks Commission. The plan was done in partnership with the United States Army Corps of Engineers through their Planning Assistance to States program. The planning effort was initiated in 2014 as a response to growing inquiries and interest by the public in improved access to the Platte River as well as the growing demand for outdoor recreation opportunities.

The initial focus of the planning effort was to examine the opportunity to create a Lower Platte River Water Trail by identifying opportunities for new or improved access to the Platte River, camping facilities and services—both existing and new, as well as providing adequate information and educational resources. The primary focus of the final planning document remains focused on those goals. However, after hearing from the public through a public opinion survey done as part of this planning effort, as well as other stakeholders in the Lower Platte River Corridor, the plan was broadened to include land based trails, maintenance issues, and other tourism and educational elements.

Accordingly, the Plan has four major goals with more specific recommendations and ideas under each goal. The four major goals include to improve river access and camping opportunities for the public, to use recreation to connect Nebraskan's with the river corridor, to improve maintenance and resources such as camping facilities at existing and new recreation sites, and to promote recreation through marketing and public education. Recommendations provided in this plan are at a conceptual level and are intended to guide future recreation planning opportunities and decisions along the Corridor.

The LPRCA in partnership with Nebraska Game and Parks Commission and the National Park Service will be hosting a series of public meetings in communities within the Corridor. The meetings will provide an opportunity to present the information within the plan, current efforts by NGPC for water trail planning and implementation as well as their focus on the Lower Platte as a recreation destination, and importantly to hear from the public about ideas, partnership opportunities and challenges to connecting people to the diverse resources of the Lower Platte River Corridor through expanded recreation. More information about the plan and can be found on the LPRCA website.

Want to learn more? Check out our public meetings

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which properties were most at risk and determine appropriate mitigation alternatives for each structure. Both communities stressed doing outreach and meeting with property owners as part of the project, so the agencies sought to make the data useful to homeowners and business owners. Maps were created, flood information by address was assembled, and flood insurance scenarios were developed, all to help the average homeowner understand how they could reduce risk for their property.

The public was invited to attend an open house in Louisville on February 24th, 2015 to learn more about the data collected and mitigation actions they can take. Over 75 community members attended, many of whom were from Cedar Creek and were concerned with flood insurance rates. Randy Behm and Tony Krause from USACE, Shandi Teltschik from FEMA, and Mitch Paine from NDNR presented at the open house. The presentations consisted of an overview of home mitigation and floodproofing techniques, an overview of flood insurance changes, specific mitigation scenarios and benefits, and how homeowners can start their own risk reduction projects.

Homes like this one in Cedar Creek have their first floor 4 or 5 feet below the base flood elevation. Elevating this home would reduce flood and flood insurance, and make the family safer.

The message that NDNR, USACE, and FEMA were trying to get across is that while home elevation projects, for example, are expensive, they can drastically reduce the amount a homeowner pays in flood insurance and actually improve the value of their building. Elevation also provides an effective way to reduce a family's risk from flooding.

After the presentations, various staff from USACE, NDNR, and FEMA sat with residents to help them understand their own property conditions. The one-on-one conversations helped bring the complex world of floodplain management and flood insurance down to an understandable level. Most of the audience members stayed to discuss their own property with the agency representatives. They left with a much better understanding of their property risk and their options to reduce it. The feedback showed that residents found the project incredibly helpful and useful.

While the open house was a very successful event, Dee Arias and Chuck Paukert, CFM, the floodplain administrators for Louisville and Cedar Creek, respectively, have taken all of the information about properties and used it to enhance their own outreach to citizens. When people call their offices to inquire about properties, they now have a wealth of information to give to their callers. With all of the additional flood risk data, better decisions can be made about improving buildings, home sales, buying flood insurance, building on adjacent lots, and doing mitigation projects to reduce flood risk.

In the coming years, hopefully this work will inspire flood mitigation projects like community-led buyouts and individual home elevations. Already, some homeowners have expressed a serious interest in elevating their home. NDNR and USACE hope to find financial resources to help both Cedar Creek and Louisville continue to reduce their flood risk and make their communities even better places to live.

If your community is interested in doing a similar project, contact Mitch Paine at mitch.paine@nebraska.gov or visit the Silver Jacket's website http://floods.dnr.nebraska.gov/.

Communities of the Platte

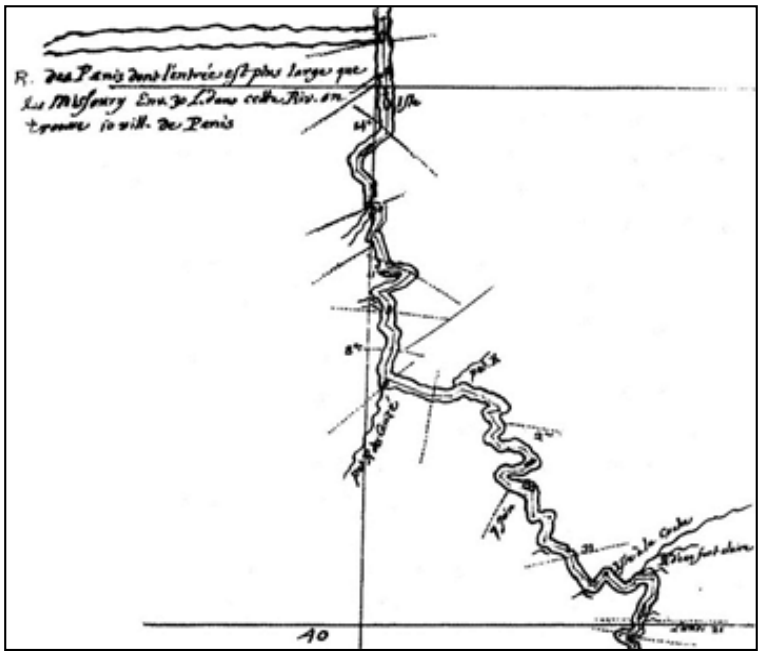
The *Rivière Platte* Visited

By Harlan Seyfer, Historian, Plattsmouth National Historic District

The map accompanying this article is a detail from the earliest known map showing the mouth of the Platte River, drawn by the French cartographer Guillaume Delisle in Paris around 1716. It was based on descriptions provided by Étienne de Veniard, Sieur de Bourgmont. Our detail includes the Missouri River from the future Nebraska-Kansas state line (at 40° latitude) up to the Platte River.

In the 1700s France, Britain, and Spain were competing for control of North America. The British colonies clung to the Atlantic coast; New France stretched from Canada to New Orleans, while Spain dominated the southwest around Santa Fe. Vast, unexplored lands lay between all three claims.

Étienne Bourgmont is a fascinating character. Born in 1679, he was convicted of poaching at age 19 and fled to Quebec rather than pay the fine. Early on, he demonstrated a talent for languages and diplomacy with the Indians. He attracted the attention of Sieur de Cadillac, founder of Detroit (thus the car name), who gave him a commission in the French Marines and assigned him command of Fort Detroit, when Cadillac was absent. Quite an accomplishment for a young officer. However, Bourgmont deserted his post after an affair over a woman, and spent several years with the Missouri Indians. Meanwhile Cadillac became governor of Louisiana. He had not forgotten his protégé, and in 1714 he secretly paid for Bourgmont to explore the Missouri River to reinforce France's claim to the area. Bourgmont had orders to make treaties with the tribes encountered and to identify good locations for trading post and forts. Cadillac's ulterior motive lay in his potential profit from trade with the indigenous tribes.



Upon his return, Bourgmont wrote two reports of his exploration, which were immediately sent back to France. Both mention the Platte River. In L'Exacte description de la Lousianne (The Exact Description of Louisiana) he wrote:

Upstream is the wide river called by the French and by the Indians the Nibraskier, a tributary that flows from the northwest and west-northwest. Ten leagues up [this river] are the Maquetantata, a tribe allied with and friendly to the French. They are on the bank of a small river whose water is salty and from which they make salt. All the trade of these Indians is in peltries.

A few comments on this passage are in order. As far as is known this is the first mention of the name that was to be attached to our state. Nibraskier, an Otoe word for "flat water", was translated by later French trappers into their language as the Rivière Platte. A land league was an informal (thus highly variable) measure of distance, approximately 2.75 miles. The Maquetantata are the Otoe Indians. The small river, you may have guessed, is today

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News Around the LPRCA

Patterson Farm becomes a protected oasis of rolling farmland and forest in our fastest growing county

By David Sands, Nebraska Land Trust

In September, the Nebraska Land Trust (NLT) completed the final conservation easement of four that were needed to protect the 693-acre Patterson Farm in western Sarpy County, near Schramm State Park. This final easement makes Patterson Farm the second largest protected property (after Fontenelle Forest) in our state's smallest and fastest growing county.

More important than the acres protected are the resources on those acres, which are emblematic of the Nebraska Land Trust's mission to preserve agricultural, historical, and natural values. These values include terraced croplands with prime soils that produce excellent yields without irrigation; Native American sites that tell us about the people who lived in these bluffs before the pioneers; spring-fed streams that flow over rocky beds under a gallery of mature oak/hickory woodlands; and scenic views along a mile of Highway 31 as it winds down into the Platte Valley.

The effort to preserve these resources started in 2008, with a "handshake agreement" between Ron and Carol Patterson and the Nebraska Land Trust. They agreed to try and protect all four parcels that comprised the farm, even though two were owned by other family members at the time. The Nebraska Land Trust agreed to try and raise the funds that were needed, which were largely provided by the Natural Resources Conservation Service and the Nebraska Environmental Trust. There were no guarantees and it was a long road, but the Pattersons and Nebraska Land Trust ultimately reached a shared destination; a protected oasis of rolling farmland and forest in our state's most populous region.

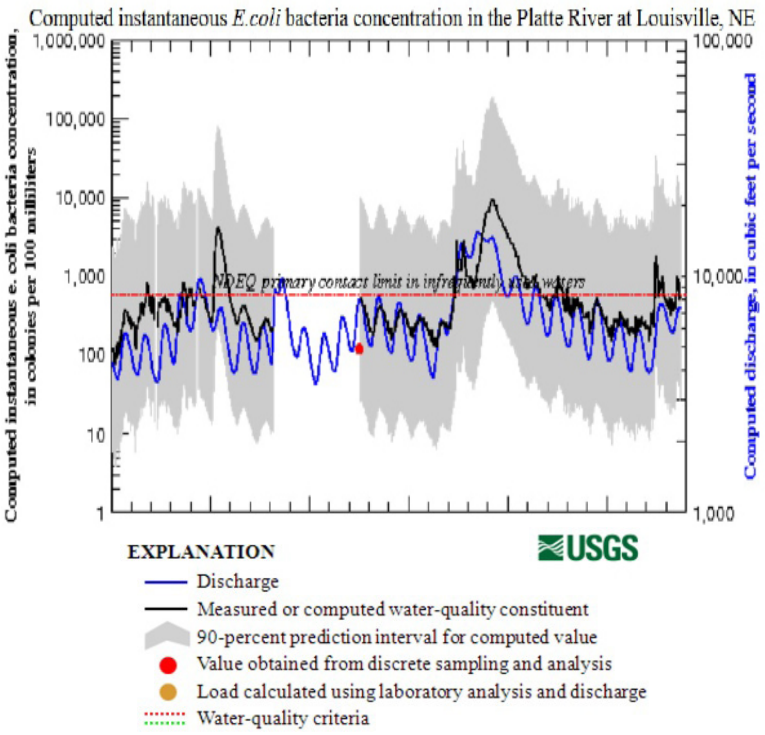
The Nebraska Land Trust's mission is to foster the protection of agricultural, historical and natural resources on land in Nebraska, through education, partnering, and permanent conservation. The Lower Platte River is one of NLT's conservation focus areas. If you are interested in finding out more about their easement process, contact David Sands or visit their website: nelandtrust.org.

News Around the LPRCA

New Website Continuously Estimates Water Quality

By Matt Moser and Dave Rus, United States Geologic Survey

A collaborative effort between the U.S. Geological Survey (USGS) Nebraska Water Science Center, several member agencies (Papio Missouri River NRD, Lower Platte South NRD, Lower Platte North NRD) of the Lower Platte River Corridor Alliance (LPRCA), and the Nebraska Environmental Trust has produced a webpage that displays real time and archived estimates of selected water-quality totals. The webpage focuses on four sites in the lower Platte River corridor: Shell Creek near Columbus, Salt Creek near Ashland, the Elkhorn River at Waterloo, and the Platte River at Louisville.



Since 2007, the USGS and LPRCA have continuously measured water temperature, dissolved oxygen, turbidity (a measure of the water clarity), and specific conductance (a measure of the mineral content of the water) from April to October at these sites. At the same time, the USGS and the Nebraska Department of Environmental Quality collected and analyzed water-quality samples for a range of water quality constituents, including bacteria and nutrients. The continuous and discrete sampling datasets were combined to develop statistical relations between the two.

The statistical relations utilize totals that are continuously measured and discrete samples such as E. coli to estimate total concentrations. By linking those statistical relationships with web-based software, the concentrations are estimated on a near-real-time basis. Past and present estimates, as well as the data and statistical models that go into the estimates can be viewed in tabular form or as graphs (as shown). The graphs have the additional benefit of showing the statistical strength of the estimated constituent and, when applicable, the likelihood that a regulatory limit is being exceeded. These estimates are publicly available and can be useful to natural resource managers, drinking water utilities, recreational users, or the general public.

The estimates can be viewed on the web by scanning the QR code, viewing the source report (Relations of Water-Quality Constituent Concentrations, Schaepe, Soenksen, Rus 2014), by going to: http://nrtwq.usgs.gov/ne/ or lowerplatte.org.

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Communities of the Platte

Salt Creek. Peltries are untanned furs.

Bourgmont's second report, Route Qu'il fau tenir pour monter la riviére du Missouri (Route to be Taken to Ascend the Missouri River), is perhaps more interesting from our perspective. It is a navigational log, recording compass headings, distances travelled each day, and landmarks. He described his approach to the Platte:

Saturday 16 [June, 1714] *North one league; at the start an island of half a league; to the west a prairie of one league, at the end of which the river of the Pani is found. Its mouth is wider than the Missouri at that point. About 30 leagues up this river are ten villages of the Indians called the Panis.*

The narrative picks up from the expedition's campsite of the previous night. The 'island of a half a league' is Tobacco Island, south of Plattsmouth. The 'river of the Pani' is the Platte River. The 'Pani' are the Pawnee Indians. With exceptions, the French tended to name rivers after the principal or first tribe encountered living on its banks. Riviére des Panis was the name Bourgmont intended for the Platte. 16 June 1714 is the date Bourgmont and his group reached the mouth of the Platte River, where he stopped keeping his journal. As a result, Delisle, back in Paris, had no detailed information on the shape of the Platte.

Confluence of Platte and Missouri Rivers Today

Interestingly, Delisle's note in French, which we see on the map, translates "River of the Panis, which mouth is wider than the Missouri. Approximately 30 leagues upstream are found 10 villages of the Panis." Allowing for the art of translation, this wording is strikingly similar to that in Bourgmont's Route document. The map itself has an interesting history. When Delisle died his cartographic materials, considered state secrets by the French government, were filed away in the French Marine History Museum. There the map lay until it was rediscovered by Waldo and Mildred Wedel, while researching Midwestern Indian tribes in 1979. That inscription was the key to connecting it with Bourgmont.

Bourgmont and his group may not have been the first Europeans to see the Platte. However, any predecessors would have been illiterate coureur de bois. Although somewhat tolerated, these were unlicensed, therefore illegal fur traders; hence, not inclined to document their exploits. Bourgmont and his crew, on the other hand, had the backing of the Governor of Louisiana.

A final note: it is interesting to speculate that this was not Bourgmont's first trip to the Platte. He had married into the Missouri tribe, who lived in today's central Missouri state. The Missouri and Otoe tribes separated in the seventeenth century, but the two small tribes maintained close ties. Did Bourgmont visit his in-laws prior to 1714?

News Around the LPRCA

Where do all the terns go?

By Lauren R. Dinan, Nongame Bird Program, Nebraska Game and Parks Commission
Mary Bomberger Brown, Tern and Plover Conservation Partnership, University of Nebraska School of Natural

It's the time of year when we have to bundle up in hats, coats, mittens, and scarves to face the cold weather and snow every time we step outside. Maybe that's why we've begun to wonder, where are the Interior Least Terns (*Sternula antillarum athalassos*) and Piping Plovers (*Charadrius melodus*) that share the warm summer months with us along the Lower Platte River spending the winter? Are they hanging out on some sunny beach along the coast of Texas or did they venture all the way to the Atlantic coasts of Central and South America or maybe to one of the Caribbean Islands? We do know that our Lower Platte River plovers spend the winter months on beaches along the US Gulf and southern US Atlantic coasts. Currently, we don't know very much about where our terns spend the winter; presumably along the coasts of Central and South America, but we don't know that for sure. We also don't know the route our terns take to reach their wintering areas. Despite what we don't know about them, we do know that reliably, terns return to Nebraska in May to nest and leave in August to make their way south for the winter.

Lauren R. Dinan

Adult terns are a bit smaller than American Robins (9 inches from tip of the beak to tip of the tail, robins are 10 inches long) and wear a black cap with a white forehead patch, yellow beak and legs, white belly, and gray back. Terns don't breed until they are 2 years old. During their 'gap year', 1-year-old terns wear a slightly different plumage—dark beak and legs, black line through the eye, dusky primary feathers, and a carpal bar (dark line on the leading edge of the wing). Like plovers, terns place their nests on the bare, open sand they find on midstream river sandbars, sand and gravel mines, and lakeshore housing developments. They lay 2 or 3 eggs in 4-inch diameter scrape nests and incubate the eggs for about 21 days. After the eggs hatch, both parents tend the chicks until they are able to take care of themselves at about 21 days of age. They eat small fish (beak length or shorter—about 2 inches) they capture by plunging beak-first into the water and spearing the fish.

In effort to learn where our terns spend the winter and to better understand their movements along the Lower Platte River during the nesting season, we began placing individually numbered metal bands on terns' legs in 2008. To date, we've banded 1,186 terns; all but 20 of them were banded as 1- to 20-day-old chicks. From 2008-2014, we only placed metal bands on terns' legs. This worked well enough for us to keep track of chicks in the nesting areas, but to read the band numbers, we had to capture the birds, which can be time-consuming. To remedy this problem, in 2015, we started placing blue plastic bands engraved with a unique two character alpha-numeric code on the bird's leg opposite the metal band. The code on these alpha-numeric bands can be read at a distance and allows us to identify individuals without having to re-capture them. In 2015, we captured 25 adult terns, five of them were birds we banded in previous years as chicks in nesting areas along the Lower Platte River.

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This bit of information tells us that at least some, and maybe many, of the terns we see during the summer are old friends returning home to nest.

From 2008 to 2015, five of the terns we banded along the Lower Platte River have been re-sighted during the winter--all of them along the Gulf Coast of Texas in August and September. You're right, strictly speaking, August and September aren't winter months, but they are non-nesting season months, so we refer to them as 'winter'. It is hard to say for sure if these birds stayed in Texas for the winter of if they continued flying south to the Atlantic Coasts of Central or South America. Either could have happened, as terns are known to both stage in flocks along the Gulf Coast before heading further south and to remain on Gulf Coast beaches.

As more alpha-numeric bands are placed on terns and more are re-sighted during the nesting and winter seasons, we will gain even more information about where there birds are going and their survival prospects. By better understanding their movements, we will become better at managing and protecting these birds during the warm summer months when they are with us here in Nebraska. If you ever see an Interior Least Tern or Piping Plover wearing leg bands, please let us know. If you can read the color band combination or the alpha-numeric code, please let us know that information, too—but, please, don't disturb the birds while you're observing them.

For more information or to report an Interior Least Tern of Piping Plover sighting, contact ternsandplovers@unl.edu.

Lauren R. Dinan

Lauren R. Dinan