

TERN AND PLOVER CONSERVATION PARTNERSHIP

AS THE PLOVER TERNS



VOLUME 15, ISSUE 1

FALL 2010



INSIDE THIS ISSUE

Coordinator's Corner	2
Outreach	3
NaturePalooza!	4
Field Season 2010	5
Our Plovers on the Gulf	6
Loup River Birds	7
Congrats!	7
Ornithological meetings	8
Program Info	9
Consider a Donation	10

Introducing TernCam!



by Ben Wheeler

In case you haven't heard, our terns have gone high tech! In July 2010, the Tern and Plover Conservation Partnership introduced TernCam to our website followers. TernCam is a real-time live streaming video that captures the daily life of a nesting Least Tern.

The TernCam project is intended to promote public awareness of the Loup and Platte River systems in Nebraska and to engage citizens in tern and plover conservation. TernCam gives people the opportunity to observe the bird's nesting activities without posing threats to the birds or their nest. Many of these people would not otherwise see Least Terns.

TernCam is located on a privately-owned sand and gravel mining operation on the North Loup River near Ord. The TernCam was designed by FiveNines Technology Group based in Lincoln, NE. The camera assembly is entirely wireless and includes a high-definition zoom camera,

solar panel, and a wireless internet connection. The live streaming video of an Interior Least Tern nest is sent via a cellular phone signal to the Tern and Plover Conservation Partnership website. Website visitors witnessed hatching of the eggs and feeding of the chicks.

site is currently showing highlights from the 2010 season, but will be live again in summer 2011. Visitors will hopefully see another successful hatch from one of Nebraska's endangered birds. We are planning a TernCam photo contest, online forum and visitor questionnaire for next year.



Aaron from FiveNines sets up TernCam.

The TernCam project is a partnership between the Nebraska Natural Legacy Project, Nebraska Tern and Plover Conservation Partnership, Nebraska Environmental Trust, Nebraska Game and Parks Com-

mission, US Fish and Wildlife Service and the University of Nebraska at Lincoln.

To access the TernCam webpage, visit <http://ternandplover.unl.edu/terncam.htm>.

The TernCam webpage received approximately 2,000 visits from 28 states and 14 countries including USA, Australia, Canada, United Kingdom, India, Ireland, Philippines, Bangladesh, Spain, Indonesia, Japan, Maldives, Romania and Germany. We

like to think that the Interior Least Tern has now become a household topic to many residents of Nebraska and beyond.

The TernCam web-



Coordinator's Corner

Our Summer 2010 field season was memorable, especially because of the challenges the terns and plovers faced during some really wet and stormy weather. As in past seasons, we followed nesting terns and plovers at several locations. This year those locations included four along the Loup River and twelve along the Lower Platte River.

Monitoring the Birds

We saw the first plover of the year on 19 April near Ashland and saw the first tern of the year about three weeks later, on 7 May, near Fremont. Early in the season we observed both terns and plovers courting and starting to nest on river sandbars. Unfortunately for those birds, several severe thunderstorms in June and the resultant river flooding overtopped the sandbars and washed away their nests. Within 72 hours after their nests were destroyed, the birds that had nests on the sandbars moved to off-river sites (sand and gravel mines and lakeshore housing developments) and began re-nesting. Another series of storms washed out many of these re-nesting attempts and some of those birds tried nesting for a third time, which is unusual on the Platte River. We are fortunate that in Nebraska the birds have access to these alternative habitats, especially in years with high water events. We are even more fortunate to have mine personnel and private landowners who are concerned about the welfare of the birds.

All of the nests we monitored (41 plover and 247 tern) were located at off-river sites (sand and gravel mines and lakeshore

housing developments). There were a couple of nests on sandbars, but the flooding made it too dangerous for us to be out on the river so we weren't able to monitor them closely (we do know that they did hatch and fledge some chicks). The plovers laid eggs from 4 May through 17 June and their eggs hatched from 31 May through 27 July. The terns laid eggs from 24 May through 12 July and their eggs hatched from 22 June through 2 August. Based on the number of plover and tern chicks we observed, we estimate that the fledge ratio for our plovers was 1.57 fledglings per nest and for our terns the fledge ratio was 0.45 fledglings per nest. Our fledge ratio for plovers was above that recommended by their species recovery plan (1.13 fledglings per nest) but our fledge ratio for terns was below that recommended by their species recovery plan (0.70 fledglings per nest). Our best explanation for these fledge ratios is the timing of the birds' nesting. The plovers nested well before the June storms so their eggs had hatched and their chicks could take shelter from the storms. Most of the terns were still incubating eggs or tending very small chicks during the storms and the sheeting rain washed the eggs and chicks away.

As bad as the storms and high water were for the birds, there

is a silver lining. The high water levels in 2010 means excellent sandbar habitat in 2011. The high water scours the vegetation that has grown on the sandbars, "cleaning" the sandbars and creating fresh nesting habitat. The sediment



in the water settles on the emergent sandbars, increasing their height and surface area. Higher sandbars may be less likely to be inundated by heavy rain events, keeping the nests and chicks safely above water. In the Spring 2010 newsletter we reported that we were teaming up with US Fish and Wildlife Service and the Girl Scouts-Spirit of Nebraska to renovate a sandbar that over time had become overgrown with trees and could not support nesting terns and plovers. After the flood waters receded, we found that Mother Nature had worked her wonders, eroding the sandbar and carrying the sand downstream, maybe forming new sandbars along the way and beaches in the Gulf of Mexico.

Outreach and Education

We continue to share our knowledge about Interior Least Terns and Piping Plovers to a variety of people, sometimes using interesting methods to get our message out. This fall it meant using a nifty little craft project called "Beach

Bracelets" (see side note for instructions to make your own). While the kids (and adults) made bracelets, we told them about terns and plovers—specifically their nesting habitat (open sandy areas, like beaches). It was also a very good time to talk

about what perils these birds face and why they are endangered and threatened. We are available to give presentations throughout the state. Give us a call at 402-472-8741 and we'll be happy to set up a presentation for you!

Look What We've Been Doing!

How to make a beach bracelet:

Materials:

- 1-1/2 inch wide masking tape
- pictures of terns and plovers
- small seashells
- small pebbles
- sand

Place a strip of masking tape **sticky side up** around your wrist. Stick shells, pebbles and pictures on the tape. Sprinkle sand over entire tape, filling in areas not covered by shells, pebbles and pictures.

Voila! Beach on the wrist!



Natural Resources District. Students and their families are invited to participate in many activities that are all about natural resources and our environment.



Dave Brakenhoff (left) from Western Sand and Gravel chats with Kiwanis Club members.

What's pebbly and shelly, and sandy all over? It's a beach bracelet, and they've been quite a hit at this fall's Family Nature Nights. We made stops at several Lincoln elementary schools



Cool beach bracelets!



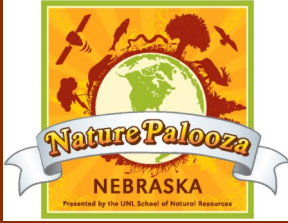
(Hartley, Everett, and Holmes); Ashland Elementary; and Conestoga Elementary in Murray, NE. Family Nature Nights are sponsored by area schools and Lower Platte South



Pebbles the giant Piping Plover spent the summer as an ambassador at the Nebraska Nature and Visitor Center near Alda, NE. The location of the Center (right off Interstate 80) was perfect for introducing travelers and local folks to plovers. She's back at home now, after a successful open house at the Center in September.

We had a great time in September with the Ag and Environment Committee of the Lincoln Kiwanis Club when we took them to one of our cooperating sand and gravel mines near Ashland (picture above). Attendees met mine personnel who explained how they work together with the Tern and Plover Conservation Partnership to protect terns and plovers. The Kiwanis Club made a nice poster about their visit which they displayed at their annual pancake feed fundraiser (picture below).





NATUREPALOOZA!

October 2, 2010 marked the first UNL School of Natural Resources Nature-Palooza. SNR teamed up with the Nebraska State Museum to offer a fun-filled, interactive play day for kids of all ages to enjoy. There was even a busload of people from Illinois that got in on the fun!

There were many stares and whispers when Pebbles, our giant Piping Plover, met Archie, the Museum's mammoth mascot. Archie made his public debut at NaturePalooza (photo at left). They made quite the pair!

Scientists and natural resource experts from

many groups within SNR provided interactive stations that explained the science behind Nebraska's water, weather, and wildlife. Topics covered included birds, fish, plants, geography, conservation, climate change, and more.

Visitors made birding journals to record spe-

cies found in nature, took photos with Pebbles, identified different kinds of fish, as well as algae and insects that live in water. Live reptiles and amphibians were on display. Attendees learned about "alien invaders" in Nebraska -- the invasive species that threaten natives-- and how we can prevent their spread. They planted a soybean to observe its lifecycle, investigated ground and surface water movements through demonstrations with "The WATER Machine," played games us-

ing a real-time weather station, tested their knowledge about drought and explored how geographers use mapping technology to understand Nebraska's climate. Scavenger hunts, giveaways, and more rounded out the event.

Two of our volunteers, Diane Pratt and Bruce Mellberg, along with a couple of students from SNR, helped visitors make



"Beach Bracelets" (see how to make your own Beach Bracelet on page 3.) Over 300 people attended Nature-Palooza, and we hope to make it an annual event.

Above right: Bruce Mellberg assists a visitor making a Beach Bracelet.

Below: Diane Pratt strikes a pose with Pebbles.

2010 Field Season

What a busy nesting season we had! The waters were flowing high in the rivers, and nesting on midstream sandbars came to an end in mid June. Many terns and plovers had already established nests, and many were washed away by our big rains. Luckily these little birds are resilient! Only days after the rains washed nests away, new nests were being established at our friendly neighboring sand and gravel mines. In one week, our nest count at one sand and gravel mine went from 40 to over 140 nests! We're grate-

ful to mine personnel for making us aware of this, and for watching over the little guys until we could map the nests and put up our Keep Out! signs.

Banding Program

We continued our color-banding and re-sighting program in 2010. We were excited to find an adult tern we banded in 2008 on a nest near North Bend. We observed 13 plovers wearing green leg flags and 25 wearing light blue leg flags. The green flagged birds were

originally banded along the Missouri River between Nebraska and South Dakota. The light blue flagged birds were originally banded by us along the Lower Platte River in 2008 and 2009. Several of these birds were old friends and nested at the same places where they had in previous years. We enlarged our set of color-banded birds by marking 9 adult plovers, 49 plover chicks, and 120 tern chicks. The Tern and Plover Conservation Partnership has color-banded a total of 458 Least Terns and 129 Piping Plovers.



Above: Piping Plover chick being weighed.

2010 Field season pictures L to R: Field biologists monitoring terns and plovers; Piping Plover nest with chicks; Least Tern nest with chicks.



Big Red Summer Camp

From June 13-18, 2010 the School of Natural Resources hosted its first ever Big Red Summer Camp. Faculty and staff from SNR developed a week-long itinerary exploring Nebraska's water resources, geology, mapping technology, species conservation, environmental restoration, climate and drought and many of the days were spent outdoors alongside SNR scientists – taking water samples from a stream bed, studying rock formations, or seeing a tern and plover nesting area. Students participated in classroom discussions and laboratory ex-

periments. At the end of the week, the group presented their own "Capstone" projects to friends and family.

The event was sponsored by the University of Nebraska-Lincoln Extension and 4-H Youth Development. Over the course of the week, students stayed on campus and had the opportunity to explore possible careers within the field of natural resources.

While the students spent time with the Tern and Plover Conservation Partnership, they got up close and personal with our rare terns and plovers, learned about how the Partnership

helps protect them, conducts research, and manages their nesting areas. There were plenty of birds for them to see, and they learned a lot about how people can work together to help endangered species. There were some pretty sleepy students on the ride home—and they went home with great stories about their adventures.



Our Plovers on the Gulf

Remember the BP-Deepwater Horizon oil spill in the Gulf of Mexico? It may be off the television and out of the headlines, but it is still a concern for our terns and plovers and other wildlife.

Alabama and Florida. The wildlife found in the oiled areas includes 8,332 different species including 1,200 fish, 1,400 mollusks, 1,500 crustaceans, 4 sea turtles, 29 marine mammals and 200 birds—including Interior

will be seeing the consequences of the oil spill here in Nebraska.

What does the oil do to birds? If oil penetrates a bird's plumage it reduces the feathers insulating ability

making the bird vulnerable to fluctuating temperatures and hypo- or hyperthermia. It makes swimming and diving birds less buoyant in the water and impairs all birds' ability to fly. If a bird ingests oil this can result in kidney damage, impaired liver function, irritation of the digestive tract, dehydration and imbalanced metabolic or hormonal function.

What can we do to help? We can give the terns and plovers safe places to nest so the species can recover

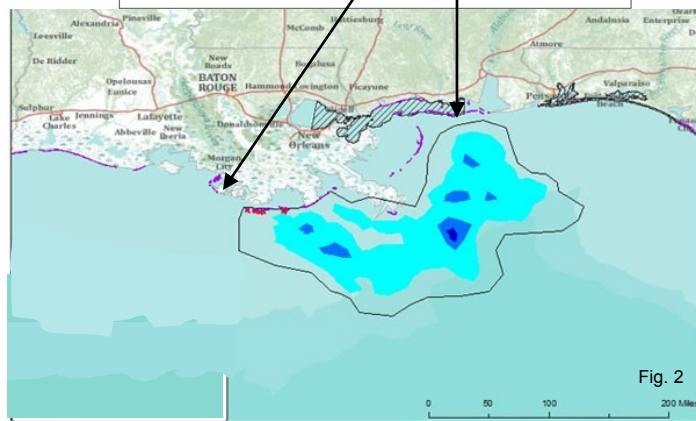
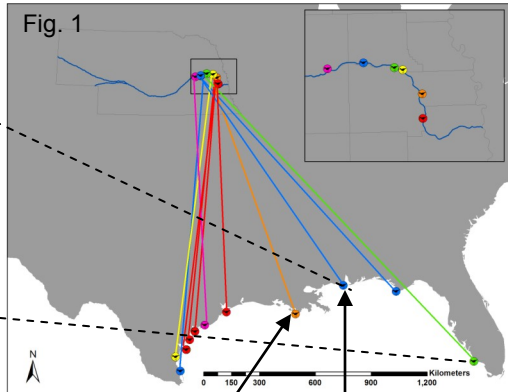
from the deaths caused by the spill. We are uniquely qualified here in Nebraska to do just that. The Tern and Plover Conservation Partnership is poised to do everything we can to help the birds nest successfully, while protecting the interests of the businesses, people and property owners impacted by their presence.

Let's give the birds some safe places to nest; because of the oil spill they need our help more than ever.

In three months time, an estimated 4,900,000 barrels (205,800,000 gallons) of oil spewed into the waters of the Gulf. That is about **19 times** more oil than was spilled by the 1989 Exxon Valdez in Alaska. According to Popular Mechanics Magazine the amount of gasoline that would have been refined from that oil could have fueled 184,181 trips around the earth on the equator if you were driving a Toyota Prius automobile. The Defenders of Wildlife suggest

that as much as 75% of the oil may still be in the Gulf environment and may remain toxic for decades. Scientists from recently commented that the peak impact of the spill may not be seen for several months and likely will last for years. About 1,800,000 gallons of chemical dispersants were sprayed into the Gulf to try to control the oil, again with unknown short and long term effects on wildlife.

Oil began washing ashore on beaches and barrier islands in early June, eventually reaching Louisiana, Mississippi,



Bill Summerour

Above: Spotted at Dauphin Island, AL in September; banded near North Bend, NE.



Beverly Anderson

Above: Spotted at Marco Island, FL in August; banded on the Central Platte River, NE.

Figure 1. Legend

- Near Schuyler
- Near North Bend
- Near Fremont
- Near Waterloo
- Near Ashland

Figure 2 Legend

- British Petroleum Oil Spill Disaster Surface Spill Plume Trajectory
 - Uncertainty
 - Light
 - Medium
 - Heavy
 - Oil on Beach
 - Gulf Sturgeon Habitat
 - Piping Plover Critical Habitat
- Source: NOAA

Check out these still pictures taken from our live TernCam!

Visit us at ternandplover.unl.edu for future TernCam information.



All pictures were taken from our office computers in Ord and Lincoln, NE, using AXIS Media Control software.

Loup River Tern and Plover Surveys

by Ben Wheeler

In July, airboat surveys for Interior Least Terns and Piping Plovers were conducted on the Loup River and the Middle Loup River. The sur-

vey, a total of six Piping Plover adults and 51 Least Tern adults were recorded. In addition, one Piping Plover nest with one egg and seven

Least Tern nests with a total of 15 eggs were also documented. Participants representing the US Fish and Wildlife Service, Nebraska Tern and Plover Conservation Partnership, Nebraska Game and Parks Commission, landowners and local bird-watchers assisted with this survey.



US Fish and Wildlife Service biologist Jeanine Lackey searches for Least Terns and Piping Plovers along the Loup River from an airboat

Least Tern nests with a total of 15 eggs were also documented.

Throughout the 2010 nesting season, Tern and Plover Watch, a weekly bridge site survey along the Loup River was com-

pleted. This survey was performed to document Least Tern and Piping Plover presence, nesting activity, sandbar habitat conditions and recreational activity which could potentially disturb nesting activity.

Bridge sites were surveyed near Arcadia, Elyria,



Tern and Plover Watch volunteer searches for birds at a Loup River bridge survey site.

vey began at the Loup River/Platte River confluence, extended up to the North Loup River/Middle Loup River and continued down the Middle Loup River to Dannebrog. Airboat surveys on the river had been scheduled for June but were postponed due to high water. This survey was conducted in partnership with the U.S. Fish and Wildlife Service.

Between two days of survey-

pleted. This survey was performed to document Least Tern and Piping Plover presence, nesting activity, sandbar habitat conditions and recreational activity which could potentially disturb nesting activity.

Bridge sites were surveyed near Arcadia, Elyria,

Congratulations!



Courtney McCusker (field biologist, 2009) and her husband Reed Johnson welcomed Graham Arthur Johnson on 10/6/10 at 10:52am. He registered in at 9lbs 0oz and was 22 3/4 inches long.

Ornithological Meetings to be held in Nebraska



AFO/COS/WOS Joint Meeting, Kearney, 9-13 March 2011

The Association of Field Ornithologists, Cooper Ornithological Society, and Wilson Ornithological Society are holding a joint annual meeting and the Tern and Plover Conservation Partnership is serving as the local host for the event. The conference will be held in Kearney, Nebraska, from **Wednesday, 9 March through Sunday, 13 March 2011**. The meeting will feature contributed scientific papers, posters, invited speakers, symposia (including one on terns and plovers), and special activities. **Abstracts must be submitted by 15 January 2011 at <http://snr.unl.edu/kearney2011>**. Field trips are planned to take advantage of the spring migration of Sandhill Cranes, geese and ducks in the Platte River and Rainwater Basin. All conference activities, including the opening reception, symposia, workshops, paper and poster sessions, council and business meetings, student events, and banquet will take place at the Younes Conference Center. A special evening event will be held at the Great Platte River Road Archway.

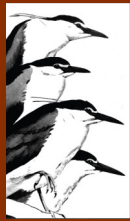
Waterbird Society/North American Crane Working Group Joint Meeting, Grand Island, 13-16 March, 2011

The 34th annual meeting of the Waterbird Society will be held with the North American Crane Working Group in Grand Island, Nebraska, from **13 – 16 Mar 2011 (Sunday to Wednesday)**.

The theme of the meeting is *Migration and Migratory Landscapes*. This meeting will include presentations of research papers, symposia, workshops, social events and area field trips.

Abstracts may be submitted between **25 October 2010 and 15 January 2011**. Further information about the meeting is posted at (http://www.waterbirds.org/annual_meeting) and (<http://www.nacwg.org/>).

North
American
Crane Working Group



Rivers and Wildlife Celebration, Kearney, 17-20 March 2011

Join wildlife enthusiasts from around the world to celebrate the annual migration of 500,000 Sandhill Cranes and millions of waterfowl through central Nebraska. The 41st annual conference is open to anyone interested in experiencing one of the greatest wildlife spectacles on Earth and learning more about the natural world in a friendly and informal atmosphere.

Conference activities are held in the convention center at the Holiday Inn Convention Center in Kearney, Nebraska, (308) 237-5971. Discount room rates are available for conference registrants. Information on local accommodations and sites of interest can be found at www.visitkearney.org and at www.kearneycoc.org.

Celebration Highlights

- Sunrise and sunset visits to crane viewing blinds along the Platte River — not to be missed!
- Day-long and half-day excursions to local wetlands and lakes to view migrating waterfowl and native Nebraska wildlife.
- Wild Experience Room — Live animal demonstrations and nature-related activities for the whole family.

Featured Speakers

David Yarnold: President & CEO, National Audubon Society
Dr. Richard Beilfuss: President & CEO, International Crane Foundation
Rick Wright: Managing Director of WINGS Birding Tours

For more information, write, phone, or email Audubon Nebraska, P.O. Box 117, Denton, NE 68339; (402) 797-2301. www.audubon.nebraska.org





About the Partnership

The Tern and Plover Conservation Partnership (Partnership) studies and protects endangered Least Terns, threatened Piping Plovers and other birds within the Platte River system, Nebraska, in a manner that minimizes conflicts with private industry, and educates and involves local communities in this effort.

- Prevent and mitigate conflicts between nesting birds, business interests, and property owners.
- Increase awareness and appreciation of conservation issues through education and outreach.
- Mentor students through our “Job Shadowing” program.

History: The Partnership was founded in 1999 to prevent and resolve conflicts between nesting birds and sand and gravel mining industry operations. Jeanine Lackey and Ron Johnson from the University of Nebraska-Lincoln Extension, and John Dinan of the Nebraska Game and Parks Commission initiated the program. The approach of the Partnership is to work with all interested parties to find sensible, proactive solutions to protecting terns, plovers, and other components of the Platte River ecosystem, while ensuring that business, industry, and private interests are free to continue to operate with minimal interference.

Staff

Mary Bomberger Brown
 Program Coordinator
 3310 Holdrege Street
 153C Hardin Hall
 Lincoln, NE 68583-0931
 Office: (402) 472-8878
 Fax: (402) 472-2946
 Email: mbrown9 AT unl.edu

Chris Thody
 Outreach Coordinator
 3310 Holdrege Street
 153D Hardin Hall
 Lincoln, NE 68583-0931
 Office: (402) 472-8741
 Fax: (402) 472-2946
 E mail: cthody2 AT unl.edu

Partnership Activities

- Monitor and protect Interior Least Tern and Piping Plovers from human disturbance and predation.
- Create strong working relationships between sand and gravel mining companies, homeowner’s associations, local governments, conservation organizations, and the public.

Tern and Plover Conservation Partnership

153 Hardin Hall
 3310 Holdrege Street
 Lincoln, NE 68583-0931

Phone: 402-472-8878
 Fax: 402-472-2976

E-mail: ternsandplovers AT unl.edu

Partners

Arps Gravel and Concrete, Central Sand and Gravel, Girl Scouts—Spirit of America, Hallett Materials, Harwest Corporation, Lake Socorro Homeowner’s Association, Legacy Resources, Loup Power District, Lower Platte South NRD, Lyman-Richey Corporation, National Fish and Wildlife Foundation, Nebraska Bird Partnership, Nebraska Environmental Trust, Nebraska Game and Parks Commission, Nebraska Nongame Conservation Fund, Oldcastle Materials, Overland Sand and Gravel, Papio-Missouri NRD, Pilger Sand and Gravel, Preferred Rocks of Genoa, Stalp Sand and Gravel, Western Sand and Gravel, US Fish and Wildlife Service.



Consider Donating to the Tern and Plover Conservation Excellence Fund

Tern & Plover Conservation Excellence Fund #10234



- Enclosed is my check for \$ _____ payable to the University of Nebraska Foundation.
- Please charge \$ _____ to my: VISA MasterCard Discover American Express

Card Number _____

Exp. Date _____

- I/we pledge \$ _____ payable over _____ years, beginning _____ (month/year).

Signature (for credit card payment or to establish a pledge) _____

Date _____

- Give online at www.nufoundation.org

Name _____

Address _____

City _____ State _____ Zip Code _____

Email _____ Phone _____

My matching gift form is enclosed. (If your employer or your spouse's employer has a matching gift program, your gift could be increased! To learn more, contact your employer's personnel office or use the matching gift company search under "About Giving" on our website, www.nufoundation.org.)

I have already included the Foundation in my estate plans through my will, trust or life insurance.

Please send information about making a planned gift. You may call 1-402-458-1100 to speak with a planned giving professional.

Campaign: LAGTPEX07

Since 1936, the University of Nebraska Foundation has played a significant role in the success of the University of Nebraska. A nonprofit, independent corporation, the University of Nebraska Board of Regents designated the Foundation as the primary fundraiser and manager of private gifts to the university. The Foundation exists to raise and manage gifts to further advance all campuses of the University of Nebraska.

University of Nebraska Foundation
1010 Lincoln Mall, Suite 300
Lincoln, NE 68508

For more information, call 402-458-1100 or
1-800-432-3216 or visit our website
<http://www.nufoundation.org>

The University of Nebraska Foundation is a 501(c)(3) tax-exempt organization soliciting tax number deductible private contributions for the benefit of the University of Nebraska. The Foundation is registered to solicit charitable contributions with the appropriate governing authorities in all states requiring registration. A copy of the current financial statement is available by writing to P.O. Box 82555, Lincoln, NE 68501-2555, by calling (402) 458-1100 or if you are a resident of the following states, you may obtain registration and financial information directly by contacting:

CALIFORNIA: Attorney General's web site at <http://caag.state.ca.us/charities/>

MARYLAND: For the cost of postage and copies from the Maryland Secretary of State, State House, Annapolis, MD 21401, (410) 974-5534, 1-800-825-4510.

NEW JERSEY: Information filed with the Attorney General concerning this charitable solicitation and the percentage of contributions received by the charity during the last reporting period that were dedicated to this charitable purpose may be obtained from the attorney general of the state of New Jersey by calling (973) 504-6215 and is available on the internet at <http://www.state.nj.us/lps/ca/ocp/charities.htm>.

NEW YORK: Office of the Attorney General, Department of Law, Charities Bureau, 120 Broadway, New York, NY 10271.

WASHINGTON: Secretary of State at 1-800-332-GIVE.

REGISTRATION WITH A STATE AGENCY DOES NOT CONSTITUTE OR IMPLY ENDORSEMENT, APPROVAL OR RECOMMENDATION BY THAT STATE.

The Terns and Plovers thank you for your support!