# Platte River Nebraska Trip – Client Reflections The Diary of Marjorie Bribitzer March 18-24, 2012 A Special Departure for the TNC Legacy Club

#### **Sunday, March 18, 2012**

The three-legged trip from Wilmington to Lincoln turned out to be pretty uneventful. The ticket agent in Wilmington noticed a tight connection in Philadelphia and suggested she had space to re-route us through Charlotte with less flying time, getting us to Chicago in time to take the same plane to Lincoln on which we were already booked. We had plenty of time to have lunch in Chicago, and were early into Lincoln.

We were met by one of our guides, Sil Pembleton, a charming lady who, with her husband Ed, also a biologist, does educational programs. We met most of the rest of the group at a place called Spring Creek Prairie Reserve. It's a neat place where the Audubon Society has protected an area of tallgrass prairie, an endangered ecosystem. It includes trails, old ruts and discarded relics of the pioneers who came this way crowing the country in their Conestoga wagons in the 19<sup>th</sup> century.

It was interesting to see and pretty in a wide-open spaces kind of way. It was very windy but warm, and we are told spring is coming early here. I was surprised, since it felt so spring-like, that we saw no birds. Ed explained that the weather has turned suddenly warm but it is early for the insects to come out, and the birds don't show up until there are insects to eat.

I should mention that this is a "Legacy Club" trip organized by the Nature Conservancy (TNC) limited to their members who have included TNC in their estate planning. It makes for an interesting group of people!

## Tuesday, March 20

This afternoon is the first time in two days that I have had time to catch up on sleep and then on this journal. I want to write about the sandhill cranes while all the information and experience we've acquired in the last two days is fresh in my mind.

We are in Kearney, Nebraska, which is right in the bottleneck of the Central Flyway, an area where a great many bird species pass back and forth between their northern nesting areas and their southern winter habitats. It's very important to the sandhill cranes, which winter in the Southwestern US, Mexico, and the Gulf Coast and nest in central and Northern Canada, Alaska, and Siberia.

The fall migration south occurs in smaller groups that don't have to time their journeys as carefully as they do in spring. They move south through warming temperatures and usually abundant food. However, going north in the spring, they have to eat heartily in preparation for a long flight into the arctic where little or no food is available.

Cranes are a very ancient species. Fossils have been found from as long ago as 9 million years of birds that appear to be the same genus (*Grus*). Thus these birds have adapted over eons to changing geographic conditions. Their historic diet was seeds and small animals like crustaceans, snails, lizards, and worms, which they swallow whole for minerals as well as protein.

The Platte River, which flows west to east from Central Wyoming across Southern Nebraska to the Missouri River, is not nearly as old as the genus, and in its early version, it was a very wide, flat "braided" river consisting of many shallow, intertwisted streams. The small islands in the braided river and its shores were a habitat called "wet meadow" which provided food for the cranes, and they roosted in the river.

Cranes prefer to sleep in a stream about 6-8" deep. They are among the bird species (like flamingoes) that sleep standing up. If they're standing in water, they feel the water rippling against their legs and are warned if a predator such as a coyote enters the water. When I saw them do this, one of my first thoughts was, "You can tell they don't have alligators here."

When settlers came to the Midwest in the 19<sup>th</sup> century and began to plant crops and manage the land to suit the needs of humans, the ecosystem changed. The wet meadows began to disappear, and the river was channeled, making it narrower and deeper. Of course, this put stress on many species, the sandhill cranes just being a large and obvious example. The bottleneck of the Central Flyway narrowed, and is currently only about 70 miles along the Platte River in Southern Nebraska. We are told that about 80,000 sandhill cranes are here this week. They are not endangered, but the ecosystem changes have led to endangerment of other species including piping plovers, whooping cranes and least terns.

Now a number of conservation groups, including The Nature Conservancy, Audubon Society, and something called the Crane Foundation, as well as local governments, are working together to preserve this area for the migrating birds. They use bulldozing equipment to move the sand around and recreate shallow braided river and wet meadow on one channel of the Platte. They replant native species of grasses and other things to restore the habitat. We were told that something like 230 species of plants are used to restore the diversity of a few hundred years ago. The flow of water is controlled by many dams which, of course, were built and are maintained for flood control and irrigation. However, agreements with the government agencies that control the dams help to allow river flow that's good for the migrating birds except in rare years like last year when there was so much flooding that they couldn't keep the channel shallow enough for crane roosting. The cranes obviously managed, and this year sandhill cranes are migrating in the tens of thousands.

## Other interesting crane facts we learned:

- (1) Many people think one reason cranes are so fascinating to humans is that they have much in common with humans. They live in family groups, mate for life but sometimes cheat on their mates by engaging in sexual activity with others. They have an unusually complex communication system involving vocalizations and body language. They appear to play and dance. Sil told us a story about watching a pair of cranes on their nesting ground. One parent was sitting on the egg, and the other came to take its turn. As the first crane got off the egg, it gently rolled it around, a typical nesting bird behavior. What was unusual about the crane was that as it rolled the egg it made crooning noises as if singing to the unborn bird.
- (2) Cranes have very keen hearing, and will come to their mate's rescue from as far as a mile away if the partner makes an alarm call in response to a threat.
- (3) Unlike some bird species which seem to learn their migration routes by instinct, cranes have to be taught by their parents.
- (4) There are five subspecies of sandhill cranes. The ones that use the Central Flyway are the most numerous, and are called lesser and greater sandhill cranes. They can sometimes be distinguished by size, though the size ranges of large lessers and small greaters overlap. The birds, however, can apparently tell themselves apart, and the lessers mate and breed farther north than the greaters. This could eventually lead to evolutionary changes that would split them into two distinct species. We didn't learn as much about the other subspecies, which use the Pacific and Atlantic Flyways for migration.
- (5) As more electric and telephone wires have been strung across the Platte and other rivers crossing flyways, there has been increased mortality from migrating birds flying into wires. We actually saw a redhead (a type of duck) dead in a parking lot, having apparently broken its neck flying into a wire. Many of the wires across the Platte now have "diverters," small shiny dangles that help the birds see the wire. Often conservation groups raise funds to buy the diverters and convince the electric company installs them. Researchers estimate that the mortality of sandhill cranes flying into power lines has decreased 60-70% as diverters have become more prevalent.

All this is background for telling you what we've been doing in the last few days.

### Thursday, March 22

As we drove out from Lincoln into farming country, we gradually began to see more and more sandhill cranes feeding in the stubble of the cornfields. I might mention that theses farms are irrigated by a system called "central pivot irrigation." It's the country you are seeing from a plane when you look down and see land divided into circular fields. We saw the central pivot machines everywhere, though they were not in use as spring planting has not begun.

Now that a large part of the wet meadowland has been turned into farmland, the cranes get about 90% of their migration calories from the corn they find in the fields. The farmers don't mind at all, as what's in the fields is last year's corn scattered in the planting and harvesting. They will plow the fields under in a few weeks and start over. Meanwhile, the huge flocks of birds, especially cranes, are fertilizing the fields.

The cranes also need the protein they get from feeding in the wet meadows, but foraging there is much more time—consuming. A TNC naturalist told us last night that they spend half their time in the wet meadows for 10% of their nutrition. He also told us a couple of other things I hadn't picked up before: (1) The sandhill cranes don't eat at all when they are on their breeding grounds in the northern tundra where the ground is too frozen to forage, and (2) they do their mate selection (or mate replacement if they have lost a mate) here during the 3-6 weeks they are here carbo-loading for their long flight.

On the way from Lincoln to Kearney, where we spent three nights, we stopped at a pond where we saw a good many waterfowl, and walked into an area where we spotted some woodland and grassland birds including, for me, two "lifer" sparrow species. The trip organizer, a delightful lady, is Peg Abbott, who runs a travel agency and is leading this trip for TNC. She is an excellent birder, whereas Sil and Ed are more focused on some specific species and habitats including the sandhill cranes and the geological history and plant life of this area. She impressed me on the first day by asking me for a list of the birds I would especially like to see. So far, I've seen 11 not counting the sandhill crane, prairie chicken, and sharp-tailed grouse that the trip is organized around.

### Friday, March 23

We stayed in a Holiday Inn in Kearney for three nights, getting the staff to fall all over themselves to serve us well because they were renovating and the renovation wasn't finished when they expected. The second night we were there, the owner actually gave us wine and hors d'oeuvres and treated us to dinner at a very nice restaurant called Legacy 272, connected to another Holiday Inn he owns. He was embarrassed that Peg had been promised the work would be done, and we were having to step over and around people laying tile in the lobby.

On the first evening in Kearney, we had dinner at a restaurant run by a couple who had given up on their family farm and had converted it into a restaurant and small motel. It was quite charming; the cooking was sort of country hearty, and included a salad with a dressing called Dorothy Lynch. Theirs was home-made from a secret recipe, but we later found that it is typical in Nebraska and can be found bottled in the super market. It is also one of the choices in many restaurants. It is a kind of sweet French dressing, not special, just a little different.

After an early dinner, we went to the Rowe Sanctuary, a project of the Audubon Society. One of the things they do is maintain blinds along the Platte for bird viewing, especially the sandhill cranes during migration. We listened to their presentation, then walked accompanied by volunteers to one of the blinds.

The Rowe Sanctuary is mostly staffed by volunteers, and during the crane migration there are many experienced volunteers who come from other places to supplement the local volunteer staff during this spectacle which attracts so many tourists.

It really is an amazing experience. We walked to the blind well before sunset because if people were to be walking around during the time when the birds are coming in, the birds could be disturbed and go elsewhere or get agitated and use precious energy they need for migration. We were also warned to talk in whispers, keep our hands, cameras, binocs, etc., inside the openings in the blind, and not use flashlights or camera flashes. I didn't even try to take pictures, as I knew my camera couldn't handle the poor light without a flash.

As the sun got low in the sky, flock after flock of cranes started flying into the area, at first not settling in the river but gathering in nearby fields, which the guides referred to as "staging areas." It was amazing to look at the horizon and see a kind of gray smudge gradually materialize into a flock of birds as they got closer. Using binoculars, you could observe that the gray smudge was a flock of birds, but there would be another gray smudge, invisible to the naked eye, beyond that one.

After awhile, a few birds flew in and landed in the river, walking around in the shallows apparently seeking a water depth that was to their liking. Then a few more joined them. They moved around, partly just trying to find a comfortable personal space and water depth, but partly "dancing," their courting and greeting behavior. (Picture 9) It seemed that the birds on the outer edges of the group kept walking outward as the group formed, partly serving the function of allowing incoming birds to judge the water depth. As an area of river of appropriate depth became filled, a few birds would start another roosting area in another part of the river.

Though we couldn't really interpret the behavior, they did elaborate dances involving jumping, bowing, wing-spreading, and passing bits of vegetation back and forth. You also see some of this behavior in the fields in the daytime. However, in the blind many birds were close enough that it was possible to observe the intricacies of behavior and make some guesses as to which ones were courting pairs, rival pairs of males, young ones practicing "dancing" with their parents, and so on. I also thought I could in some cases guess which ones were "lesser" and "greater" sandhill cranes. In this flyway, they are mostly "lesser," but some "greater" families were mixed in. I also noticed that some pairs during flight seemed to be so coordinated and fly so near that their flying reminded me of ice dancing.

The area of river in front of us filled up until I would not have been surprised to hear that we were looking at 10,000 birds. They make a great deal of noise, appearing to communicate with each other vocally as well as in body language. The adults have a call that to me sounds like they have castanets in their throats so the sound is like a mixture of bird call and castanet clapping. The young ones have a high-pitched sort of "whee," but you can hear the adolescents trying to sound like the adults, and their voices cracking in mid-call.

As it got quite dark, there were no more flying in. They don't like to fly at night, and seek a spot to roost before the sun goes completely down. However, the social behavior continues long into the night. We left after it got too dark to see much, but we were asked to be quiet and only use flashlights that had a red setting so as not to "spook" them. The guides say the noise and "dancing" go on till something like 1 AM.

The first two days in Kearney were pretty exhausting. We tumbled into bed as soon as we got back from the Rowe Sanctuary, slept very well but not long enough, and got up very early to bundle into our warmest clothes and get back there in order to be in the blind before sunup. This time we were in a different blind with a slightly different view of the river, but peering into the darkness we saw thousands of cranes standing quietly in the water, presumably sleeping. Unlike flamingoes, which sleep on one leg, cranes sleep standing on two legs.

As the sky got lighter, the birds became gradually more restless and noisy. After awhile, they began to fly away in small groups to start feeding again. Peg spotted a juvenile bald eagle sitting quietly in a tree across the river and whispered that, if the eagle flew, it would cause a mass exodus. That eagle sat still the whole time,

but at one point another one flew up the river, and a large group of cranes took to the air at once. We are told that the most spectacular scene is the day they all decide that they've had enough to eat, the wind and weather are favorable, and it's time to fly north. It would be great to plan to see this, except that no one knows when it will happen. The cranes hang around in the water until midmorning, a few flying up now and then to test the temperature and wind, then, rather suddenly, tens of thousands of birds fly up, spiraling into the sky until they reach a much greater height than it takes to fly to a cornfield, and off they go. The next day there won't be any around.

We did a couple of other crane-watching things, one evening standing on a bridge to watch the birds fly directly overhead – really beautiful –and one evening going to a different blind owned by TNC, where you can't see as many birds altogether, but the birds are closer. Watching the flocks fly overhead was lovely, partly because of the constantly changing patterns the lines of birds make in the sky. Someone said it was a little like watching the clouds form and reform into creatures. I tried to incorporate all of our experiences into the above descriptions.

Everywhere we go on this trip, we seem to get special presentations from TNC personnel telling us about the local ecosystems and wildlife and preservation efforts. I guess that's both the price and the perk of a TNC Legacy Club trip, as some of them are better and more interesting lecturers than others. We heard from people at the Rowe Sanctuary, from Chris Helzer and John Heaston from Derr House the local TNC office which we also used for a picnic lunch and a picnic supper on two days when we were not close enough to a good restaurant, and on one occasion Jim Luchsinger from the TNC office in northwestern Nebraska who talked to us about the sandhills and efforts to conserve tracts of land in that ecosystem.

#### Saturday, March 24

We are now ensconced back in Cornhuskers Hotel in Lincoln with a little time to describe the adventures of the last few days.

As we drove around the Kearney area as well as on Thursday on the way to our next destination, we stopped to bird at a number of places, and I learned a few things I didn't know before. One is that there are lots of birds that we think of as coastal birds that breed in the Northern US and Canada and migrate using the Central Flyway right through the Great Plains. One, to my surprise, is the white pelican. You have all seen these birds in the Gulf Coast and the Caribbean, feeding themselves by fishing. This week in Nebraska, though, while they stop in lakes and rives to fish, they are also flying in large flocks, and their flights are absolutely beautiful to watch.

While I'm talking about the Central Flyway, I want to add that, according to John Heaston of TNC, 12-14 million birds use this path to access their northern breeding grounds every year – all kinds of birds. So aside from the spectacle of the sandhill cranes, Central Nebraska in the spring is a good place to bird!

Another thing I never thought about is that vultures do not hang around in cold climates in winter. During the time I've been paying attention to birds, I've lived in a place where vultures are year-round residents, and, of course, are needed to keep us from having to deal with rotting animal corpses all over the place. We had been watching for whatever birds we could find for a couple of days, and I expressed surprise to Peg that we had seen no vultures. She said it would be surprising to see them this early in spring. Then on Thursday when I spotted a lone turkey vulture and pointed it out, she was surprised. It is our good fortune that spring has come early here, and the temperatures have been unusually warm. Had this not been so, we would have frozen on some of the evenings and early morning in the blinds although we had brought what we though were plenty of layers of clothing.

On Wednesday when we were still staying in Kearney, we made a stop in Minden, Nebraska, for lunch. The main tourist attraction in Minden, population 2700, (Picture 12) is the Opera House, in its former glory

known as Hostetler's Opera House. (Picture 13) We walked around the town square to it partly just to stretch our legs after lunch, but it turned out to be a highlight of the trip. We were told by the charming local woman who gives tours that a few years ago it was in terrible disrepair. It was built as a theater in 1881, but had not been used for that in a long time. It was a convenient place for meeting and social gatherings, but the upstairs, including the original theater, was being used only for storage. Eventually it had got to a state where it was unsafe to use even for that.

A group of citizens decided that it was too historic and valuable to be torn down, and they formed a foundation to raise the money to renovate it. I have the impression that just about everyone in this small town and surrounding area contributed to this effort. Because the space was needed for so many activities, they arranged for a redesign that made it a modern, multifunctional building, rather than trying to restore it to its original state. They did, however, preserve the 19<sup>th</sup> century feel of elaborate ceilings, a curved staircase, and an old-fashioned bar in the theater lobby. The first floor has an office and a gift shop, plus a spacious area that can be used for parties, expositions, or just about anything. The most interesting renovation is to the theater space. It is a small theater with what appears to be a versatile stage. They have a rather full schedule of plays and concerts. The seats are not normal theater seats, but comfortable-looking folding chairs which obviously are easily removed to use the space for a more stand-up event. The most remarkable thing about it is the ceiling, which is a large canvas mural with pictures depicting the history of the town. With the lights on, it looks like an ordinary ceiling mural, but by flicking a few switches, the mural disappears as lights behind the canvas create the night sky on the first day of spring. There is also another display in which the part of the mural depicting the town hall, decorated as it is every Christmas in the form of a huge Christmas tree, appears.

I bought souvenir earrings, little origami cranes sprayed to hold their shape, in the gift shop here. Others also bought some souvenirs and we were kind of milling around in the lobby when a local person came in and started chatting. He had noticed our clothing and binoculars, guessed we were birders, and proceeded to tell Peg where to go to see a whooping crane that was in the area. Sure enough, after a little driving around, we saw a lone whooping crane in the midst of a group of sandhill cranes. This is a spectacular and endangered bird. The few hundred remaining in the wild do migrate through here every year, but it is a little early for them, and the only way to find them except by sheer luck is to use the birding grapevine. Peg's sources had told her that they were not here yet, and she was thrilled to be able to show us this early arrival.

John Heaston of TNC talked about the "whoopers," as they are affectionately known. He told us that the current wild population in the world is about 280 birds who use the Central Flyway. Their population is slowly increasing due to conservation efforts, but he thinks to be sustainable it would have to be at least 1000 birds, and it would require doubling the current Gulf Coast habitat where they live in winter. There is also a group of 150 whooping cranes in a breeding preserve in Florida. He also told us that, apparently because of this mild winter, a group of the migrating birds wintered in a nature preserve in Kansas. If this behavior change continues over time, it could be one of many animal behavior changes that have or may occur as a result of climate change.

On Thursday we left Kearney and started to drive north toward Burwell on the edge of the sandhills. What used to be tallgrass prairie in Southern and Central Nebraska is now called "dissected prairie." Much of it is farmed, using lots of water and changing the ecosystem and landscape. When you get into North Central Nebraska, there is a gradual change. Instead of flat vistas as far as you can see, there are rolling hills, fewer farms, and you realize that the land is not fertile enough to support much agriculture. It does support grazing, and in the last 100-150 years has gone from feeding huge herds of wild bison to feeding cattle for ranchers. These days, ranchers are also raising bison, and it is not uncommon to see bison burger on a restaurant menu. The sandhills are actually a large sand dune shallowly covered in prairie grasses and other plants.

On the way to Burwell, we stopped at Fort Hartsuff, a historic site where, in the late 19<sup>th</sup> century, the US Army built a fort to protect both the settlers and the Pawnee, who were their allies, from the Sioux. It is a neat, square complex of sturdy buildings sitting in the middle of a flat plain and not looking at all easy to defend.

We reached Burwell at lunch time and stopped at the Sandstone Grill. I mention the name because it is a favorite restaurant of Peg's and was voted the best food on the trip by our whole group. Burwell is not a large town, and it is remarkable that it supports a restaurant of this quality and sophistication. They are known for their delicious desserts, which I didn't have room for after a substantial and very good roasted veggie sandwich. We came back for lunch the next day, and I purposely ordered just a salad (Thai spinach with homemade sesame ginger dressing) so I could have a piece of strawberry rhubarb pie. Clem had sour cream raisin pie, something I'd never heard of which he thought was delicious. I guess sour cream raisin pie is traditional in the plains states. Ed, who is now from St. Paul but has lived and traveled a lot in this region, bragged about his own special recipe, including raisins soaked in rum.

#### More of the trip, from notes written Sunday, March 25

Our destination beyond Burwell was Calamus Outfitters and the Switzer (pronounced SWITE-zer) family ranch. This turned out to be a remarkable experience, unlike anything I expected. Sue Ann Switzer inherited a ranch and homestead on the Calamus River. She and her husband Bruce, a colorful guy who looks the picture of an old-fashioned cowboy, continued to ranch while rearing their son and daughter, Adam and Sarah, both now married and each with two young children of their own.

It is becoming more and more difficult to make a living in this arid land simply by raising beef cattle. Bruce Switzer has become increasingly aware of the need to care for the land in more complicated ways than previous generations knew. He is careful about grazing different sections of his land at different times and about conducting controlled burns, because many of the prairie grasses rely on occasional fires for their health and ability to reseed. A phenomenon that occurs frequently on this land is called a "blow-out." The grasses become so sparse that they can't hold the soil in rain or high wind, so that it erodes exposing what is essentially a sand dune. There are some native plants that are not great for feeding cattle but that establish themselves quickly on a blow-out, so ranchers have learned to encourage these plants. One of them, related to the penstemon we plant for flowers in the garden, is actually called blow-out penstemon. On his carefully managed land, Bruce has gradually switched from grazing his own cattle to leasing his pastures to graze others' cattle to fatten them for market. He was also one of the first in this area to buy old, pregnant cows destined for the ground beef market. These cows are inexpensive to buy, can be cared for through weaning their calves, and then sold again, so the rancher has a healthy new calf for his investment. Bruce expects this aspect of his business to become less profitable as more ranchers catch on to the idea.

Another threat to the prairie is the spread of the red cedar. This is a natural phenomenon that would occur on its own, possibly being curbed by lightening fires but possibly changing the ecology of the sandhills without man's intervention. The cedars use so much water that they tend to crowd out the grasses and smaller plants. They also create shade under which grasses don't grow. The ranchers in the area have essentially declared war on cedars, cutting down the larger ones and burning the smaller ones.

When we arrived at the Switzer ranch on Thursday afternoon, we were taken for a tour on two jeeps driven by Bruce and Sarah. It was absolutely fascinating. We saw grazing areas, a recently burned area, areas where the Switzers have recently restored the prairie, and on place where the blow-out penstemon was just beginning to grow on a blow-out. On the way back, Ed demonstrated his ability to capture a pocket gopher.

There is another part of this story, though. It involves Sarah's college education and her interest in native species as well as training she received in the business side of running a ranch. She was not interested in taking her new expertise somewhere else. Her goal was to help her family keep their property together in a way that made a living and kept the family together.

Sarah realized that her family owns property on which native birds breed, and that the whole ranch is of interest to tourists. She talked her parents into creating an additional business called Calamus Outfitters. They have crated a small hotel, not fancy and formal, but clean and reasonably comfortable, where people pay to tour the ranch and watch the breeding rituals of the prairie chickens and the sharp-tailed grouse. Sarah describes their division of labor as "We all do a little of everything, but Dad runs the ranch, Adam is the business manager of Calamus Outfitters, Mom does the cooking and I help out wherever I can." My impression, though, is that although it's true they all do ranch work and hotel work, it is Sarah who is the creative brain behind the whole thing. They seem to be doing quite well, though the whole enterprise is a whole lot of work!

The Switzers buy old school busses which they use for two purposes. They use them to transport groups of tourists, but they have also parked busses at the locations of the "leks," the gathering-places of the birds, and redone the insides so the busses can be used as blinds. The bus seats are much more comfortable than standing or sitting on wooden benches as we did when we watched the cranes. The windows are open for better viewing and photography.

Adam explained that he places the busses in their location well before the leks begin so the birds get used to them and just think of them as part of the landscape. On Friday morning, we got up before dawn to get to the prairie chicken lek before dawn when the birds start to arrive. They parked the bus we were riding on some distance away, and we were expected to walk as quietly as possible (in the dark; there was just enough light in the sky to make out where to step) and get into the bus serving as a blind. This morning was the only time I got cold and wished I had had one more layer. Our guides keep telling us how lucky we are to be here in this unseasonably warm spring. Sometimes they do this when it's snowing, the wind is blowing, and the temperatures well below freezing. I do feel lucky, since I would have been pretty miserable on these pre-dawn birdwatching days.

Saturday morning we repeated the routine but drove to the lek of the sharp-tailed grouse. Several people, either because they were very tired (Clem's reason) or because they had an early plane to catch, decided to skip the sharp-tailed grouse lek, but I am always up for an opportunity to see interesting bird behavior, and I was not disappointed.

The prairie chicken and the sharp-tailed grouse are both grouse in the genus *Tympanuchus*, and fairly closely related, but the difference in appearance in breeding plumage in the lek is startling. This time of year, the males are ready to mate when they can find a willing female. The females, on the other hand, seem to take a great deal of care in selecting a mate, and they know (Who knows how?) when their eggs are ready to be fertilized. They seem to come to the lek just to observe. Though there may have been more sitting quietly camouflaged, I only actually saw one at each lek. The female prairie chicken arrived later that the males, and when she showed up, the dancing became much more excited as they all tried to show off for her. She just watched, and appeared to snap angrily if a male came too close. The sharp-tailed lek took place on a hill where we were in a position to see the birds on the top and our side, but where, just judging by the noise, we could imagine that more was going on on the other side. At one point, males on the other side were jumping so high that we could see them above the hilltop. Peg whispered that a female must have appeared. Later a female ran over the hilltop and away from the area of the lek with two males chasing her. I was surprised she didn't take off, but I guess sharp-tailed grouse use flight to go somewhere or escape a predator, and it would not be *de rigueur* in a lek.

It's hard to describe the display and dancing of the males. I didn't try to take pictures with my little point-and-shoot camera because (as with the cranes) flashes of light frighten these birds, and are not allowed. I don't get good pictures in the dark. Cranes and grouse are hunted, and they associate camera flashes with gunshots. I'm hoping one of the people who had fancy cameras and more expertise will email some pictures I can use to show you. (This wish came true when Ed Pembleton emailed me a bunch of his pictures with permission to use them any way I chose.)

Both species are striped brown, well-camouflaged in the brown grasses when not displaying. The male prairie chicken has huge air sacs below his eyes which inflate showing a bright orange color. He also has two sets of very long feathers on either side of the neck which normally blend in with the rest of him. In display they stick straight up behind his head making him look like he has black horns. When gathering in the lek, the birds make a low sort of coo that sounds like someone is blowing into a Coke bottle. As they get more excited, the sound gets louder and rises and falls slightly in pitch. Clem said they were singing the "Dites-moi pourquoi" song from South Pacific. Another noise they make is a loud chicken-like cackling which may be what earned them the name prairie chicken. A male prairie chicken in display looks like an American Indian in full war paint. If you look him straight in the face, he has a black stripe between the eyes, puffed out bright orange cheeks, and black horns. He dances by pounding his feet on the ground and raising his wings, sometimes jumping up and down.

The male sharp-tailed grouse is not as flamboyant in his display. He has smaller air sacs which he puffs out a bright pink, but which he apparently is not able to keep out for long. They seem to appear and disappear as he dances, and he has no "horns." However, when dancing he hunches under his outspread wings so that his posture is similar to an American Indian dancer portraying a bird. The calls he makes are more like soft chattering, but he pounds his little feet so rapidly and hard on the ground that you actually hear a kind of "click-click-click" sound, and he jumps up and down using his wings to enhance the height of the jump. In other words, it seems that the Indians of the Great Plains got the idea of painting their faces from the prairie chickens and learned to dance from the sharp-tailed grouse!

In both species, the point of this elaborate display is both to impress the females and to establish and maintain a hierarchy among the males. When we were first watching the prairie chickens, we would occasionally think we were watching a courting pair, only to see both birds, after staring at each other for awhile, suddenly display their bright orange faces and black "horns." Sometimes they would dance around, sometimes lunging at each other in mock battles. At other times, one would seem to just give up and walk away as if convinced that the other was a dominant bird and there was nothing he could do about it.

On Friday, we went back to Burwell for lunch stopping on the way back and forth for birding opportunities. At one point, we stopped and watched the activity at a prairie dog town. I guess we scared the prairie dogs by stopping the van and getting out, as most of them went underground when they did so. In looking for them, we were able to distinguish some ground squirrels running around between the prairie dog mounds. The highlight of this stop, though, was a burrowing-owl, one of nature's real cuties in my opinion. It came out of one of the burrows and watched us from afar. I learned that prairie dogs and burrowing-owls are often found together, the owls nesting in abandoned prairie dog burrows. Prairie dogs don't seem to be afraid, as they are too large to be prey for the tiny burrowing-owl.

Also on this day, we had another serendipitous encounter with a local person who was delighted to show us a bird. This time, it was a man in Burwell who wanted to show us a bald eagle nest. We had seen one earlier from a distance, but he led us down a dirt road to a place where even I could take pictures (not very good ones, as it turned out, but it was my good fortune that Ed was also taking pictures.) There was an adult on the nest in such a posture that we assumed there were young ones in the nest, though we couldn't see them. The man obviously had been watching the birds in this area for years. He told us that this is the third year this pair of eagles has used this nest, and that great blue herons had used the same tree for some time before that. We could see three rather bedraggled empty nests in the tree. He said that the first year the eagles nested, the herons came back, too. The eagles took advantage of the easy opportunity to snatch baby herons, and the herons did not return.

The man and Peg exchanged names and numbers, and he assured her that she could bring tour groups back to the site. He seemed to have quite a bit of knowledge about birds but, to my amusement, he referred to the herons as "blue herrings."

After returning from the sharp-tailed grouse lek, eating a hearty if not gourmet Sue Ann Switzer breakfast, and packing, we and the rest of our group (those who had not had to take an early flight) rode with Ed for the approximately 3-hour drive to Lincoln.

Ed Pembleton is one of those people who talks a lot, always has a story to tell, and is very knowledgeable about a great many things. I won't say he "talks your ear off" because I wasn't annoyed at all and found him very entertaining. One of the things he said on this particular ride came up in a conversation about building airports near nature preserves and the danger to birds and people of birds flying into airplane engines. Ed remarked that the danger is different depending on the birds that hang around in the area. Gulls and geese are not smart enough to get out of the way of planes, but it is not a problem for crows at all. I forget where he said he saw it, but he told a story of an airport runway where crows liked to sun themselves when the concrete got warm. Whenever a plane started down the runway, the crows would simply move to the side, allow the plane to pass, then take up their former positions.

Because I had had a mental slip and made our return reservations for the day after the organized trip was over, we spent Saturday night in Lincoln, again at the Cornhusker. We were on our own, but Ed suggested that something we might enjoy is Morrill Hall, a small museum on the campus of the University of Nebraska. It turned out to be very well done, designed to be educational for kids and interesting to adults. They have a lot of fossils and reconstructed skeletons of both prehistoric animals and their modern descendants (including, in the modern display case, a human skeleton.) Nebraska has several important archaeological digs which have contributed to current knowledge of a lot of species from the past that I had never hear of – dinosaurs, camels, rhinos, horses, dogs, and rodent-like animals that lived in what we now call the Great Plains in prehistoric times. They had a nice display on evolution, and another on changes in the way of life of plains Indian tribes from before European settlement to the present.

I can see how people might like living in Lincoln. It is a pleasant, clean-looking town with wide streets, attractive plantings, and decorative sculptures. People are very friendly and helpful. There seem to be numerous museums, cultural events, and other activities for a city this size, possibly because of the presence of the university.

Of course, we were probably here on one of the nicest days of the year. The weather is balmy, and redbuds, fruit trees and bulbs are in flower all over. It is early, and people are worried that a lot of plants are budding prematurely and will be killed when the weather turns cold again, as they seem to think it almost surely will.

We are now on a flight from Chicago to Charlotte, watching the sunset and expecting an uneventful trip home.