

4th Annual Sand Hills Experience Conference, July 13, 2005
“All Things Great and Small”

The Conference was once again held at the Ainsworth Community Schools with presentation of featured speakers in the Ainsworth School’s Learning Center. Feature presenters were Steve Spomer, noted expert on butterflies from the University of Nebraska at Lincoln; Dr. Robert Emry, curator of Paleontology at the Smithsonian Institute in Washington, D.C.; Dr. William Korth, Paleontologist from the Rochester Institute of Paleontology in New York; Jim Luchsinger, naturalist with The Nature Conservancy located north of Johnstown, NE; and Joel Klammer, biologist and specialist on fish with the Nebraska Game and Parks Commission from Bassett, NE. Short presentations were also given by Alan Bartel, state expert on Turtles from Farewell, NE; Bruce Bailey, highway salvage paleontology with UNL; Shane Tucker, paleontologist and preparator with the highway salvage paleontology with UNL; a video on controlling burning from the Nature Conservancy; and Ainsworth Middle School student science fair projects.

An array of tables of vendors and exhibitors rounded out the day’s activities. The evening banquet was held at the Ainsworth Elks Lodge and the featured entertainer was classical guitarist, Diego Ayala from Neligh, NE.

The field trips included the the Rick Irwin Fossil Quarry north of Bassett conducted by Bruce Bailey, Shane Tucker, Mike & Jane Voorhies; the Barta Brother’s Ressearch Ranch and the research assistants under the direction of Dr. David Wedin near Rose, NE; The lake Wobig site on the Niobrara River south of Cody, NE with UNL Dept of Conservation and Survey scientist, Jim Swinehart; and the option of visiting the Nature Conservancy north of Johnstown.

A glimpse at the “Experience” is best seen through the words of one of the participants. The journal below was done as an college credit assignment.

Prepared as an Assignment for Wayne State College Course EDU – 0568-92 by
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Conference Schedule: (This is the schedule Mrs. Borysenko chose from the list of options available at the conference. Her daily journal follows)

Wed. July 13th Fossil Dig 8:45 to 5:30

Thurs. July 14th Conference 9:00 to 4:30

Friday July 15th Fossil Dig 8:45 to 6:00

Sat. July 16th Fossil Dig 8:45 to 2:00

Day 1, July 13th The Fossil Dig:

We load up, greet each other and then the stories start. This is the fondest time as I remember those days with my uncle and all the rock hounds. They all had a special story to tell as we neared the Fossil Dig, now and then.

As we drove closer to the site we crossed the Niobrara River, its cool murky smell danced across my memories of finding petrified wood and camel teeth in small rocky washes while we wandered up and down the sandbars. After we pull into the site we are instructed to spray for chiggers, we waft doses of repellent across our backs and ankles. Bruce Bailey and Shane Tucker greet us warmly and begin to tell us how Rick Irwin, a State Department Roads worker, found this site years earlier, notifying them where he had found bones when they graded away the sand for a new road. Cathy, my oldest daughter had been working with Ricky that day they were discovered, she would come home with stories of fossils each day. Now, here I am, entering what they saw so many years ago.

We are introduced to Mike and Jane Voorhies who are quietly going about sorting gravel. Bruce tells us about digging. Take a trowel and scoop away small amounts of sand very carefully. He was then interrupted by a small clink on the trowel. We all bend closer to see what he had hit. It was a small bone about seven inches long. He sweeps it with a paintbrush and points to another small protrusion next to it all while instructing us. Then he gets up and allows us to dig it out! It was an almost complete camel skull, hidden for 6 million years.

It has to be hard to explain the eager anticipation of finding fossils. You really have to like to do this. Or experience it first hand to have it become part of your life. When I was 16 years old and well into rock hunting I moved to Ainsworth to live with my aunt and uncle. My uncle would wake me up around five o'clock in the morning, push a cinnamon bun wrapped in cellophane at me and a cup of hot chocolate, while we loaded our rock hammers, bags, notebooks, and lunchboxes into Morris Skinners truck, Maudi. I wish now, as I waited patiently outside the north side of Ainsworth Conference Center for our ride to the fossil dig just north of Bassett, that I would have taken these adventures little more serious. Appreciating who I was with, Earl Brown, Wiley Lentz, Morris Skinner, they are all still names 40 years later for the finds they made and donated. We are greeted by our leader; she takes our names down and makes sure we are all present. Already I can feel that old excitement welling up inside me as I am greeted by people who like to do this. Jerry Adler sets down an army green bag slung with paint brushes to sweep away dust, a trowel to scrape the dirt away in small minute scoops and other tools a fossil hunter uses. He stands quietly in his beige shirt, kaki shorts and high top-hiking boots that meet his golden brown skin from being in the sun so much. You have to like the sun, its radiant heat baking you as you settle into a spot to search and find snake vertebrae, rabbit femurs, turtle shell pieces, and a tooth from a small rodent with two horns on its nose. Shane answered all my questions and even showed me a picture of the horned rodent. Later I moved to the shade of a large Pine tree, carrying my five gallon buckets of gravel with me like sacks of treasure. I had to scoop out a small hand full, lay it on a paper plate slide all the pieces around, picking out bone fragments, teeth and anything that was once living. Except we could not put in any of those white concretions. They told us, they were not living they were roots holes filled with minerals. But some were very interesting shapes and I dropped a few in the paper sack they had given us to save things in, anyhow. Mike Voorhies said it gives them something different to look at when they sort it all out while giving me this little grin.

Bruce jointed me in the shade of the tree, for a while, while someone found a new bone then he was off to look. Shane stood bent over large screens sifting endless shovels of sand through it with a wish broom, while answering our bone questions. I stayed for the entire day not returning with the rest, baking in that hot sun, against that small sandy dugout, sorting gravel for them. I found a Gar (fish) scale, a canine from a small fox, fish vertebrae and other bones. At 5:30 I hitched a ride home with Linn Baxter and Jerry Adler's wife, Ora. I wanted a pop to drink and call everyone I know to explain what a wonderful day they had missed.

Day 2, July 15th The Conference:

After we signed in there was a few minutes to visit the vendors. I headed to the Valentine Book Store; they always have reference books that are just what I am looking for. Then I moved to the Niobrara Council table, had an informative talk with the representative and registered for a handsome hardback book on weeds they were drawing for later.

The first lecture was on butterflies. There are some 220 species of these winged delights in Nebraska. Steve Spomer, Entomologist from U.N.L. captivated my attention for 50 minutes on all sorts of species, Skippers, Luna Moths, Fritillaries, Checker Spots and many more. The most interesting is that the Viceroy butterfly mimicked the Monarch's colors because of their bad taste. Masking its delicious taste to our winged friends it hid in a protective camouflage of looking like the Monarch. Not true, Steve told us. They fed them to birds who threw them up. This action I found unusually interesting, not just that Viceroy's were poisonous but that birds threw up.

It was also intriguing about the tiny Cedar Butterfly. If you disturb the cedar tree, out they fly. This was an undiscovered butterfly in Nebraska up until recently. Now with all the cedar growths it is being found everywhere. I will be out shaking those cedar trees for my first glances of it. It impressed me to know that Nebraska has one of the smallest butterflies in the world, the Pygmy Blue.

A quick break then on to Dr. Robert J. Emry who gave us a quick look at the rock formation layers under the Sand Hills. I wanted more information from him, handouts. I needed them. I could not write, draw or just absorb all his information fast enough. I heard those old familiar names of Morris, Earl and others I trotted these Nebraska lands with looking for fossils. He showed us drawings of all the fantastic finds in layers that I tried to quickly jot down. Shane and Bruce had mentioned these same layers that first day. He took us on a voyage of millions of years in valleys and streams of our beautiful States past. I could visualize thunderstorms moving in, washing sands down hillsides to other parts of the riverbeds. A variety of animals dying in the washed water and their preserved bodies discovered 6 million years later by a group of fossil diggers.

Dr. Korth took over and it was clear to see the Great and Small as he spoke of rodents. It was unusual when he told us about a corkscrew shaped hole rodents dug millions of years

ago and that they could only guess why. Sediments pored into them, from those thunderstorms or changed channels in rivers, dried and left cast of these holes.

Now I remembered Mike Voorhies saying not to keep the little concretions; they were casts of root holes. Dr. Korth's spiral hole made these concretions even more interesting. I learned a lot on the skulls and their muscle attachments, how by looking at the nasal area one could tell how an animal chewed. That the teeth pattern of 1-2-3 on top and 1-0-3 could tell whether they gnawed or chewed. Rodents long extinct could be studied in a new and different way, by watching animals on earth with similar patterns. The audience participated in the chewing test. He handed out skulls of recent rodents and we were to decide if they were front gnawers, both, or back teeth chewers. I think this got us ready for lunch.

This had to be the only lunch that you could discuss bugs as well as rodents and everyone listened.

A closer look at the Bison with Jim Luchsinger was dessert after lunch. He explained how the bison are adapted for our Sand Hills, their grazing habits, along with how they bunch up during mating season in July. Long being a fan of our buffalo and taken time for the Conservancy tours I've seen the Bison up close and personal. It is always interesting to hear new things, such as how the males do not hang with the female and babies all year until July in mating season. They build deep wallows by rolling in open dust and dirt. Later these wallows capture water and create small open water holes.

When it came to the mini sessions it was the fossil group or learning about turtles from Alan Bartels to choose from. It was the turtles. I have lived in Nebraska, off and on, for fifty-five years and ask myself, how I could have missed the Blandice turtle? It was so different from all the rest, the Box, Leather Backs and Snapper; even the Painted turtle were so common in my memories. I prided myself on knowing Nebraska's wildlife, naming duck species, rodent deer, grouse compared to pheasant in flight, any fish from being a fisherman, and the turtles. If I had not taken this mini session I may have never realized I had missed completely a species of turtle.

Did I know box turtles stay underground for a period of time when they first hatch, that's why we do not see little hatched ones? No, I did not. Alan explained that Snappers are mainly vegetation eaters and will help maintain the growth in ponds. His 75 year old, 40 lb. Snapper was a showstopper and amazing to see up close. I have always believed that our wildlife needs to remain in Nebraska and was glad he spoke of the limit of Box turtles in possession. It just does not feel right to think they end up on e-bay for sale by someone not aware that they are taking generations away because they can no longer reproduce in these great grasslands of Nebraska.

At last we came to Joel Klammer who told us about the fish in our streams, rivers and lakes. He even shared some of my feelings about Carp stirring up the bottom sediments until all the game fish die. I am proud of our waters in this area and the large diversity of fish, both game and otherwise, we have. Joel's talk on the fish made me think about our

Game and Parks and the good job they do in protecting and serving Nebraska. The section on Walleye was amazing. I did not know that they do not reproduce in the waters such as Merritt Dam. They are stocked. In fact only one lake in Nebraska has been successful in having the right conditions for them to reproduce.

At the closing session my name was drawn and I won the hardback Weed book form the Niobrara Council, a fitting close to an informative day.

Day 3, July 15th The Fossil Dig

Today I packed a lunch, plenty of water, and headed out to meet at the Conference building; we loaded up and were off to the fossil site. It was hard for me to decide between Lake Wobig tour and the fossil dig. Earlier I heard Shane and Bruce conferring about how many bags of gravel they would have to haul back if it did not get sorted. A five gallon bucket could be full and reveal only a few slivers of bone and just a few small treasures, it seemed senseless to carry it back, so I volunteered to sort all day. They felt I was doing them a favor, I felt it an honor just to listen in on all the conversations of million year old fossils. It was heart sickening to learn about the University closing their departments and so many going into the world beyond their finds. Our society craves for information just like they are coming up with and this wonderful program of including the public in on these digs was unique. I picked up my paper sack, little black container for small pieces and found my spot by the corner of a blue tarp spread out like a lake on the hot sand. Fast cars and ice cream on the highway created cool breezes that made the entire group stop for a moment, lift their faces in that direction and say A-a-a-a.

Two older men pulled up beside us on the road in a newer model car and took two old weathered wooden boxes from the trunk. They had seen their prime on the Nebraska prairies, one stood bent with bowed knees while the other sported a long unkempt beard that matched his hair now pushed under the hat also aged and brown from seat and dust. Shane and Bruce went to them looking at all the fossils they had found over decades of working the land, answered their questions and they drove off as quietly as they came. By this time Linn Baxter and Lynne Sobotka and me, Lynn, were making it very interesting to call out our name. We agreed that this way the Paleontologist did not have to memorize a lot of different names.

About; one o'clock I slipped over to my red Jeep Wrangler, retrieved my lunch of a peanut butter and jelly sandwich, and then escaped under the shade of a cedar tree to eat. Walking over I had found a small piece of petrified wood. I gazed at its dark brown and beige linear sections that shined slippery smooth from years of sand blowing across the surface. Ticks dropped from the tree looking for that smell of protein, while flies bit at my ankles. Yes, you really have to like what you do in this field of work.

Day 4, July 17th Last Day

Today most of our group is gone, returning to far corners of the state with visions of fossils in their minds. The paleontologist Bruce and Shane are closing up the dig for

another year. Jerry Adler, Ora, and Linn are sifting through the remaining sand. I introduce my husband, Henry, to them and show him around the dig. Shane and Henry know each other; they both work for the Nebraska Department of Roads. Henry comments that he can take bigger scoops with the motor grader than we can with the trowels. What a small world we live in. Cathy, our daughter was working with Ricky when he found this sport. Shane and Henry both work with the Department of Roads and I am here to pull out of the sand what was found. It just does not get any better than this, when a group of strangers converge on a six million year old site and locate such close common interests. Our lives have come full circle in the past and present. I sat down to a bucket of gravel, grab a handful, splash it across the white paper plate, start sorting and feel very proud of my Nebraska land heritage.

(This article was included here by permission from Lynn Borysenko of Ainsworth, Nebraska)