
WHERE THE WILD THINGS ARE: RECOLLECTIONS FROM THE FIELD

By Ed Murphy

Thirty years ago, in June 1977, I began working for the North Dakota Geological Survey, hired as a temporary geologist for several summers before becoming a full-time employee. Over the years, I have held a number of titles with various responsibilities, but the one constant has been fieldwork. The majority of my fieldwork has been conducted in the western part of the state and most of the time I worked alone. One of the main reasons I chose geology was to work outdoors. For much of my career, I was typically in the field for seven months of the year and have done fieldwork in all twelve. I have had a number of memorable experiences and been subjected to the entire gamut of weather conditions, from temperatures well below zero to well above 100 degrees Fahrenheit, thunderstorms, hailstorms, tornadoes, strong winds, and blizzards. A handful of times I found myself running back to the field vehicle after being caught in shelterless areas of the badlands or prairie during a hailstorm. Although the bad weather days are the ones that stick out in my mind, there have been countless field days when the weather was perfect. In addition to the weather, a few incidents with the local fauna stick out in my mind.



This old log cabin is located adjacent to the Little Missouri River southwest of Medora.



Horses having a well-deserved drink of water in the Little Missouri River Badlands near Bullion Butte.

I learned early on that you cannot carry too much water when doing fieldwork in western North Dakota. When the air temperature is 100 degrees Fahrenheit, the radiant temperature coming off the rocks can be well over 120 degrees. To remedy that, I would fill a 20-gallon ice chest with water and use it to replenish my canteen throughout the

day. One day, as I was traveling down West River Road north of Bullion Butte, I slowed down for a half dozen horses that were grazing near the road. As I passed them, they began running after the truck. They appeared playful and I assumed they were either amusing themselves or had mistaken me for the rancher. I let them chase me for some distance and then stopped the truck to take their picture. In the few moments that it took me to grab the camera and get out of the cab, the horses had popped the lid off the ice chest with their muzzles and were eagerly consuming my water. I snapped the adjacent photo just as one of the horses consumed the last of the water.

While tracing the Paleocene coals in the Little Missouri River Badlands in the early 1980s, I buried the rear axle of my truck in loose sand along the Little Missouri River near an old log cabin south of Medora. To get the pickup unstuck, I jacked up the back end and propped up the back tires with timbers that I had pulled from a nearby wood pile. I chopped several of the timbers with a hatchet to get them to manageable lengths. After numerous attempts over a period of several hours, I managed to free the truck and continue my fieldwork. I awoke the next morning to find my left arm slightly swollen from the elbow to the wrist and assumed I had wrenched it chopping wood the previous day. The swelling continued



The underside of a Black Widow spider at Bullion Butte in southwestern North Dakota. These spiders are characterized by their jet black color and red hour glass on their abdomen.

Continuing with the creepy crawly theme, people are generally surprised to learn that we have scorpions in North Dakota. I have encountered them while digging into coals in the southwestern part of the state. The scorpions are white to gray, two to three inches from head to tail, and have a stinger that is up to 1/4 inch in length. They live in the cracks of coal and mudstones and apparently come out only at night to hunt. In my discussions with many of the ranchers, they have never seen these scorpions, and unless you dug into the coal or had the misfortune to place your sleeping bag at the base of a coal outcrop, you likely would never encounter them. On several occasions I have pulled a chunk of coal from an outcrop and turned the piece over only to find a scorpion clinging to the underside of it.

In 1987, I conducted an environmental study of six municipal landfills in North Dakota. At one of these sites, the Harvey Landfill, the city had stopped accepting putrescible waste, but were still taking tree limbs, leaves, lumber, etc. and

throughout that day to the point that my left arm was roughly twice its normal size. The following day I drove to the emergency room at a Bismarck hospital. After a brief examination, the physician obtained a mirror and showed me fang marks just above my elbow where I had been bitten by a Black Widow spider. I had most likely encountered the spider in the woodpile near the old log cabin and had not felt its bite. The physician said it was too late to give me any medicine because the venom was throughout my system. The swelling subsided after two weeks, but since that time I've developed an allergy to bee stings. Prior to that encounter, I had been unaware that Black Widow spiders existed in western North Dakota, but since then have seen several along with their nonsymmetrical webs under flat rocks and in the entrances of abandoned prairie dog holes.



A scorpion in southwestern North Dakota.



Wild cats in a pile of wood and lawn clippings at the Harvey landfill in 1987

had created a large burn pile that was roughly 15 feet high, 20 feet wide, and 75 feet long. Whenever sampling the monitoring wells at the site, we would inspect the burn pile for illegally dumped items. I was inspecting the pile in December of 1987, when a half dozen cats suddenly ran out of a large cardboard box. I turned the box upright and, even though it was half-filled with packing material, could see there were a number of partially eaten frozen perch at the bottom. As I bent over to rummage through the box, a cat that had been hidden under the loose cardboard jumped up at me. I realize now that it was only trying to get out of the box and, left alone, would have likely jumped past me. But I instinctively grabbed it with my left hand to

keep it away from my face. Immediately, the cat bit my gloved hand. I was wearing two layers, an inner cloth liner and a thick rubber-coated glove. As I grabbed the cat by the scruff of the neck with my right hand and pulled the gloves off of my left hand with my teeth, I could see that its fangs had punctured the rubber glove, but did not appear to have punctured my skin. Relieved, I let the cat drop to the ground. I had no sooner done so when I felt the blood begin to run down my hand. I immediately chased after the cat, which disappeared into the burn pile.

I informed the Wells County Sheriff about the incident and was told that Wells County was a hotbed for rabies. Skunks are the major carriers of rabies in the area and they had been seen around the woodpile, so they were in close contact with these feral cats. We could not find any large live traps so he lent me his .22 caliber rifle and I purchased a half dozen cans of tuna fish as bait. After placing the opened cans of tuna in a clearing adjacent to where the cat had run into the burn pile, I got behind some brush and waited. I did not have to wait long. At least 30 cats of all different colors, shapes, and sizes came running out of the woodpile to feast on the supper that I had provided, but I never saw the calico cat that had bitten me. Because I was unable to provide brain tissue of the cat for rabies testing, I ended up undergoing the series of rabies shots.

Once, while taking photographs standing next to some tall brush in the Little Missouri River Badlands, the rattle of a rattlesnake suddenly struck the toe of my right boot. Unbeknownst to me, I had been standing just a few inches from the snake. The snake did not begin rattling until after its rattle hit my boot. It could just have easily struck me, but instead it turned and went the other way, typical of the behavior that I have witnessed from prairie rattlesnakes. Aside from that incident, I have encountered relatively few rattlesnakes over the years. Certainly not as many as people think when I tell them I have spent a fair amount of time working in the badlands and buttes of western North Dakota – areas viewed as prime rattlesnake country. For years I carried a snake bite kit. The first kit I carried contained a razor blade, rubber tubing for a tourniquet, and a suction cup. Then it was announced that cutting might do more harm than good and an ice pack should immediately be applied to the bite. So for several years after that I carried instant ice packs in a pouch on an army canteen belt. I typically went through several of these packs in a field season because a sudden jolt caused by stumbling or falling in steep terrain would often activate the chemical pack. Then it was determined that applying cold to the site could cause tissue damage. The current medical advice is to remain calm and immediately seek medical help. If you had told me when I started working for the Geological Survey that I would have more to fear from spiders and cats than I did from rattlesnakes, I would not have believed it.



A rattlesnake is well camouflaged amidst a sandstone outcrop in western North Dakota.