

Medicine Creek Reservoir

by Rocky Hoffman for *NebraskaLand Magazine* May 2007

Located in southwestern Nebraska's Frontier County, the Medicine Creek Reservoir area provides an interesting mix of hunting, camping, fishing and birding opportunities, with a bit of history tossed in for good measure.

In the late-1940s, the Bureau of Reclamation began working on an irrigation and flood control project on Medicine Creek north of Cambridge. The excavation required to construct the earth-filled, mile-long dam uncovered the largest lower jaw of any known land animal ever recorded. In fact, the "four tusk" *Amebelodon's* six-foot-long lower jaw is larger than any dinosaur's jaw, even that of *T. rex*. Excavations at the Cambridge quarry also uncovered thousands of other fossils, including the amazingly intact and perfectly preserved skull of a previously unknown saber-toothed carnivore tagged the Barbour's cat. Remnants of the Hemphillian Age that began 8.5 million years ago, the fossils at Cambridge included the remains of two kinds of rhinos and a variety of other hoofed animals, including predecessors of modern horses.

It is likely that the soils surrounding Medicine Creek hide other yet to be discovered riches in paleontology and archaeology. Buried beneath the yards of loess soils deposited during the ice ages are the missing pieces to many puzzles, possibly even the defining answer to the controversial arrival date of the region's first human being. **The gross quantity of artifacts already discovered is evidence of the region's attractiveness to prehistoric man and beast alike, and although millions of years of modifications have occurred, the area still beckons today.**

Medicine Creek Reservoir, the 1,850-acre lake formed by the dam when it was closed, is a long, narrow impoundment with nearly 30 miles of irregular shoreline. One of the state's older reservoirs, it is draped by large and mature trees that are underscored by rich, dense shrubbery. Many visitors to Medicine Creek Reservoir have rated the area as one of Nebraska's loveliest recreation spots.

Medicine Creek State Recreation Area (SRA) and Wildlife Management Area (WMA) encompass 8,500 acres of public land and water in southeastern Frontier County. Fed by Medicine Creek, whose headwaters begin in Lincoln County, Medicine Creek Reservoir is the second of two impoundments along the creek, the first being Wellfleet Community Lake, located near the stream's origin. Because of its placement in the region's agricultural mosaic, Medicine Creek's flows appear to be less affected by groundwater development than those of other southwestern Nebraska streams, so this annually irrigation-depleted reservoir recovers to full pool by fall in most years.

Medicine Creek Reservoir's fishery has traditionally been productive for everything from big channel catfish in the spring to wipers and white bass in the summer and fall. From early spring through Memorial Day and a bit later, channel catfish lurk in shallow places along the reservoir's rugged shoreline and far up the headwaters of the creek. Both channel and flathead catfish are present in the reservoir, but the mainstays are the abundant channel catfish that go on the bite early. Crappie, other panfish and walleye are also a part of the early bite in the spring when most game fish come shallow seeking a spot to feed and spawn. By June, walleye have moved out to traditional lake spots and are caught by anglers employing bottom bouncers, nightcrawlers and leeches. White bass and wipers hunt deep water in the early summer, but when the shad hatch develops in July, anglers can expect the bass attack to move to the surface, providing real excitement for the anglers who chase them. In addition, the reservoir's long, narrow bays lined with brush as well as other structural

elements provide largemouth bass anglers plenty of targets for “flippin or pitchin” tantalizing offerings of plastics and skirts. John Kilpatrick, a fisheries biologist with the Nebraska Game and Parks Commission in North Platte, maneuvered one of the agency’s large barges around Medicine Creek Reservoir in April 2006, stocking approximately a million and a half walleye fry from a 350-gallon circular tank strapped to the deck of the boat. “Fry stocking is being done to improve the catch rate of walleye in Medicine Creek Reservoir,” he said. “Although fry stocking may not have the recruitment consistency of fingerling stocking, it has the potential of creating strong year-classes of walleye while still maintaining the fishery.” Walleye fishing at Medicine Creek has not been outstanding, but it has been consistent over the years. “Last year, there was a good catch of 14-inch walleye at Medicine Creek. This spring, during the spawn we sampled males along the face of the dam. We found that most of the sampled males measured between 15 and 18 inches in length. That’s a marked improvement,” he said. Last fall the reservoir sampled well for wipers and white bass, Kilpatrick said. “Medicine Creek Reservoir sampled among the better lakes in the state for both species, and it had the highest catch rate for wipers of any of the southwestern reservoirs. There were excellent numbers of fish 17 to 18 inches long, and the future looks good as well, with good numbers of 13- to 14-inch fish sampled. Right now the wipers are consistently running from 18 to 20 inches.” In an effort to improve the catch rate of crappie, Commission personnel created huge crappie beds of 15- to 20-foot-tall cedars. More than 50 of the trees were anchored near the low water boat ramp off Trail No. 1 and a bed of 170 large cedars was submerged in the bay near the swimming beach on Trail No. 4.

Many of the lake’s camping visitors come with boat in tow to fish and enjoy other forms of water-based recreation. Three boat ramps are located in the southeastern portion of the lake at trails 1, 3 and 4. Trail No. 4 accesses Shady Bay Campground, which provides the most modern conveniences. Park Superintendent Mike Hoskovec, along with lead groundskeeper Ken Cobb, manages the recreational facilities of the area. “We have something for everybody at Medicine Creek, from tucked away, secluded areas where people can get next to the water, to our showpiece campground at Shady Bay, where there are 76 hard-surfaced camping pads – 24 which have 50 amp service, 44 that have 30 amp service, and eight pads without electricity.” Mature trees shade most of the campsites, and each site is supplied with a permanent barbecue grill. In addition, drinking water can be obtained from hydrants scattered throughout the area. Hoskovec said a large swimming beach is available in a protected bay and after swimming or a day of volleyball, visitors can enjoy the modern shower facility located nearby. A sanitary dumping station is located at Trail No. 4, and anglers appreciate the convenience of a lighted fish-cleaning station at the lake. Another designated camping area is located on Trail No. 1 and features modern restrooms, picnic shelters, drinking water, parking and a fishcleaning station. Picnic shelters offer a scenic overview of the lake and are arranged in such a manner that they can be utilized by groups for special events. For visitors not into camping, Hoskovec said, modern, air-conditioned cabins are available at Medicine Creek Lodge, a private concession located on the south side of the dam. The lodge also offers a restaurant, grocery store, live bait, fishing tackle and boat rentals.

The area is not only a great place to camp and fish: Bird watchers from across the country rate the Medicine Creek Reservoir complex high on the list of places to go birding. According to Commission wildlife biologist T. J. Walker, “The potential for recording 100 species in a day of birding certainly exists at Medicine Creek Reservoir.” Walker attributes the large bird variety to the diversity of habitat found here, including grasslands, deciduous forests, a large body of water, marshy wetlands, cut banks and heavy understory. “There are neotropical migrants such as orioles, grosbeaks and warblers, and there are waterfowl and shorebirds, raptors and vultures. In fact, an impressive concentration of turkey vultures stage in the area every fall,” said Walker, who added that Medicine Creek SRA and its accompanying WMA also provide

great opportunities to see both eastern and western bird species such as rose-breasted and black-headed grosbeaks, and Baltimore and Bullock's orioles.

Also present on the wildlife lands are four species of upland game birds: Medicine Creek has the brushy and woody habitat that quail like, its timber and creekbottoms provide suitable haunts for wild turkeys, and its upland grass areas satisfy the needs of ringnecked pheasants and a small prairie chicken population. In all, nearly 6,000 acres of habitat are extensively managed for wildlife, and hunters find that Medicine Creek WMA is one of the finest public hunting areas in the state. Undoubtedly more pheasants, turkey and deer are harvested on Medicine Creek Reservoir WMA than at any other public wildlife lands in the southwest.

White-tailed and mule deer are also found on Medicine Creek WMA, as well as waterfowl, cottontail rabbit and fox squirrel. Over the years wildlife management styles and philosophies have switched from strictly game species management to more of an ecosystem management approach. Three decades ago, trees and shrub plantings were the benchmark for wildlife land value and more than 50,000 trees and shrubs were planted on Medicine Creek WMA by state and federal agencies to providing edge habitat and protection from the area's harsh prairie environment. Food plots were tended as well, and grasslands were left unmanaged.

Today, cooperating tenants sharecrop about 850 acres of alfalfa, winter wheat, corn, soybeans, forage cane and milo that are scattered in a nice mosaic at various trail ends across the WMA, pesticide use is restricted, alfalfa may not be cut before July 1 or after September 30, and a significant parcel of each row crop is left in the field for wildlife each year. Management's foremost attention has now shifted to the 4,000 acres of mixed-grass prairie that make up most of the WMA. Chad Taylor, the Commission wildlife biologist who manages Medicine Creek's wildlife assets along with biologist Brian Perks, said, "The area is being aggressively managed for native biodiversity, not just for game animals but for all native wildlife. It is being managed strictly as native grasslands with a goal to restore its historic function and composition as a prairie ecosystem. "Historically, three factors heavily influenced the evolution of prairie ecosystems, those being climate, herbivory (animals that feed on plants—primarily bison and prairie dogs) and fire. We can control two of those three factors. We plan on using grazing and fire as our primary management tools, while keeping an eye on drought conditions to assist us in the timing and intensity of our primary tools." It is important to note that prairies are dynamic rather than static, Taylor said. Without disturbance, prairies are constantly undergoing a natural progression toward later seral stages that involve woody plant species. Euroamerican settlers were the first to interrupt the natural influences of the prairie ecosystem that land managers are now trying to replicate. As part of those efforts, Taylor said, the Commission conducted a 240-acre prescribed burn in mid-April on an area at Medicine Creek WMA that was laden with more than a foot of dead plant litter. "The area had not been grazed since the late-1970s and had only been burned once, 15 years ago," said Taylor. "It had very low plant diversity, containing few species of grasses and an abundance of shrubs, deciduous trees and cedars. Forbs were essentially nonexistent. The area was in the late seral stage of succession." Taylor hopes to maintain 25 percent of his managed land in early seral stage succession, 50 percent in mid-seral stage succession and 25 percent in late-seral stage succession. Early and mid-seral stage succession creates the greatest biodiversity in both flora and fauna, he said. "We plan on coming back on this burn and future burns with moderate duration, high-intensity grazing, probably utilizing a cow-calf pair for every two acres. Then we will keep a watchful eye on precipitation and range conditions to determine the longevity of the grazing. We want to dramatically set back woody vegetation, including young and mature cedars." Specifically, Taylor hopes that the burn will suppress the invasion of eastern red cedars in the uplands and create open woodland or savannah-like conditions in the canyon bottoms near the reservoir. The bottoms will then

provide thermal cover for mule deer, as well as improve roost sites for wild turkeys. "We also want to set back the monoculture of warmseason grasses and encourage the onset of early succession plants such as common sunflower and western ragweed, as well as a plethora of other lesser known but equally important forbs," Taylor said. Initially the burned site looks rather dismal, but from a biological perspective the future looks bright. "Only hours after a spring burn wild turkey will almost certainly be found foraging through the ash. Within weeks of the burn, the landscape begins to transform color from black to green. The area will be teeming with wildlife taking advantage of the lush growth. Mule deer will benefit from the increase in forbs and improved nutritional quality of the rejuvenated browse. Several species of small mammals and birds prefer or even require grasslands of early seral stages to satisfy their breeding requirements," Taylor said. He hopes that eventually the ecosystem will begin to function more naturally for the benefit of not only the resource, but for wildlife observers and hunters alike.

The land around present-day Medicine Creek has been satisfying the needs of hunters since prehistory. It has been well documented that people of the Clovis culture were hunting mammoth in southwestern Nebraska about 11,000 years ago, and it is widely believed by archaeologists that probably the first humans occupied this area relative to that period. In the 1980s, a potential archaeological site was discovered along an eroding high bank of the reservoir. The site contained a mammoth skeleton that offered a wealth of forensic evidence that humans had processed the animal for nutritional purposes. Carbon dating of the skeleton and soil at the site level places the animal's remains at between 18,000 and 19,000 years old. If that is correct, then hunters visited present day Medicine Creek more than 7,000 years earlier than popular academic belief. ■