
Erwin Hinckley Barbour *(Nebraska)***Charles A. Flowerday**

*(Editor, Conservation and Survey Division/
School of Natural Resources, University of Nebraska–Lincoln)*

Erwin Hinckley Barbour, the first director of the Nebraska Geological Survey, was born in 1856 near Oxford, Ohio, and was educated at Miami University (Ohio). He received his Ph.D. from Yale University, where he worked under noted geologists O.C. Marsh and J.D. Dana, graduating in 1882. He was assistant paleontologist with the U.S. Geological Survey from 1882 to 1888.



He then taught at Grinnell College in Iowa before coming to the University of Nebraska as a professor of geology and paleontology in 1891, as well as being named acting state geologist. In 1893, the legislature made him head professor of geology and geologist for the state. And from those humble beginnings, a state geological survey began to take shape. Barbour's principal interest was paleontology. He organized the University of Nebraska State Museum and became its first curator. But he also recognized that bone-hunting wasn't something the boosters of a young state would think full of commercial potential. He also understood the need to explore for economic minerals. And against conventional wisdom, he recognized that in a coal-poor, drought-prone region lacking in precious metals, mineral resources would and should include water.

His prescience about the state's groundwater resources was only slowly recognized, but his early studies laid the foundation for an agriculture that now stands second in the nation in irrigated acres only to California and makes use of more than 100,000 registered irrigation wells. A conservationist, Barbour's interest in groundwater led him in 1897–98 to investigate and report on homemade windmills along the Platte River. He published a pamphlet that encouraged the building of windmills, and in 1904 received a silver medal from the U.S. Department of Agriculture for the best-designed homemade windmill.

Barbour also saw the sparse materials available at the university with which to teach geology, so he soon took an assistant into the field to look for fossils and mineral samples. Soon enough, renting a covered wagon, he and a group of graduate assistants ventured to the farthest corner of the state, northwestern Nebraska's Sioux County and its Badlands and Pine Ridge, to look for fossils. On their first day out, they found large corkscrew fossils he called the "devil's corkscrew" (*Daemonelix*), later determined to be the burrows, or trace fossils, of a large ancient rodent. It was the first of many fossil discoveries Barbour would make. Most of these went to the university's State Museum, making it one of the most notable in vertebrate paleontology in the world.

Barbour taught, fossil-hunted, and did rudimentary geological survey on a meager budget, eventually supplemented by private money from boosters such as Regent Charles Morrill, whose name graces the building housing all the displays and some of the offices of the state museum.

The university finally gave the Survey \$500 in 1899, then only \$250 a year for 1900–02. This may have been because it received \$1,200 from the state in the last two of those years. The appropriations for the state survey increased incrementally until it was given \$10,000 in 1911, along with an authorization to enter into cooperative agreements with the U.S. Geological Survey to build efficiency.

After 20 years of work, it seemed the geological survey had at last achieved a reliable funding base. But that same year, the legislature passed two other bills that would begin to undermine Barbour's hold on the Survey: the head professor of geology was no longer the state geologist, instead being chosen from the teaching staff by the regents; and a new entity, the Conservation and Soil Survey, was born and given a \$6,000 budget. It was headed by George E. Condra, a large, garrulous, Teddy Roosevelt–like figure with a passion for both conservation and economic development who immediately set about documenting Nebraska's people, landscapes, and natural resources. Condra and Barbour could not have been more dissimilar: Condra was a geographer, Barbour a geologist; Condra was a tall, stocky former athlete who spoke loudly and plainly and was not afraid to step on toes; Barbour was also tall but slender, soft-spoken and gentle, well-liked by almost everyone.

Condra joined the faculty in 1902 and a year later his dissertation was published by Barbour's survey. Eventually, Condra's greater political savvy would give him control of earth-science survey in Nebraska while Barbour would be given charge of his first love, the state's fossil resources via its natural history museum.

In 1913, funding for the Conservation and Soil Survey was doubled to \$12,000, even as Barbour's survey received \$10,000. Then, in 1915, Condra's survey was given that same amount, but funding for Barbour's survey was cut to \$7,500. Condra by this time was also serving on the Conservation and Public Welfare Commission with the governor, the chancellor of the university, and two other state officials, with the charge, in part, of advising himself and Barbour as directors of the state surveys.

In the next legislative session, 1917, Condra's soil survey received \$25,000 and Barbour's nothing. He was still state geologist, but his version of the state geological survey was done. In 1919, during the next biennial session of the legislature, Condra's survey was given some geological duties, while Barbour remained head of the state museum—not entirely left out in the cold, still tending to his main passion, paleontology.

