

NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018

MAZON CREEK FOSSIL BEDS

Page 1

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1. NAME OF PROPERTY

Historic Name: MAZON CREEK FOSSIL BEDS

Other Name/Site Number: MAZON RIVER; BENSON FARM; FOSSIL BED FARM

2. LOCATION

Street & Number: Benson Road, 3 miles southeast of Morris

Not for publication: N/A

City/Town: Morris

Vicinity: X

State: IL

County: Grundy

Code: 063

Zip Code: 60450

3. CLASSIFICATION

Ownership of Property

Private: X

Public-Local: ___

Public-State: ___

Public-Federal: ___

Category of Property

Building(s): ___

District: ___

Site: X

Structure: ___

Object: ___

Number of Resources within Property

Contributing

1

1

Noncontributing

___ buildings

___ sites

___ structures

___ objects

0 Total

Number of Contributing Resources Previously Listed in the National Register: 0

Name of Related Multiple Property Listing: N/A

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ___ meets ___ does not meet the National Register Criteria.

Signature of Certifying Official

Date

State or Federal Agency and Bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of Commenting or Other Official

Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

- ___ Entered in the National Register
- ___ Determined eligible for the National Register
- ___ Determined not eligible for the National Register
- ___ Removed from the National Register
- ___ Other (explain): _____

Signature of Keeper

Date of Action

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

6. FUNCTION OR USE

Historic: Landscape Sub: natural feature

Current: Landscape Sub: natural feature

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: N/A

MATERIALS: N/A

Foundation:

Walls:

Roof:

Other:

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

Page 4

National Register of Historic Places Registration Form

Describe Present and Historic Physical Appearance.

Fossil-bearing ironstone nodules, or concretions, weather out of the exposures of Pennsylvanian-age Francis Creek Shale in the banks and stream bed along the Mazon River (Mazon Creek). These exposures run for several hundred feet along the river in NE1/4, E1/2, NE1/4, Section 24, T. 33 N., R. 7 E., Wauponsee Township, Coal City 7.5' quadrangle, at the Mazon Creek Fossil Bed on the old Benson farm property. In 1912, Roy L. Moodie noted that the "west bank of the creek is higher and almost perpendicular, and the east bank is low and flat, the bluff being a quarter of a mile away, so that the chances for collecting from the shales are fewer. The bed of the creek, however, is wider and there are more nodules washed out." According to Fielding Meek and Amos Worthen, who described the locality in 1865, approximately "twenty feet of strata are exposed, consisting of sandy shale, passing downward into a more argillaceous shale, forming the bed of a small stream." A thin coal seam crops out at a lower horizon a little farther downstream. Although these descriptions were made many years ago, the setting remains virtually unchanged. The site is accessible by foot from Benson Road.

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

Page 6

National Register of Historic Places Registration Form

State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.**Summary**

The Mazon Creek Fossil Beds site in Grundy County, Illinois, meets Criteria 1, 2, and 6 for designation as a National Historic Landmark. It is important in the history of geology in the United States for several reasons. It is the site of a famous and important fossil locality noted for its Pennsylvanian-age land plants and terrestrial animals like spiders, insects and amphibians, which are preserved in distinctive ironstone nodules. Sites like Mazon Creek, where such fragile fossils are both common and well-preserved, are exceedingly rare in the geologic record. Mazon Creek Fossil Beds is probably one of the five best known and most important of these sites in the world. Roy Moodie¹ stated that, “without doubt, the fossil-bearing nodules from [Mazon Creek] are more widely scattered in the museums of the world than are organic remains from any other one bed.” This site was especially important because it provided the best and earliest representation of what were then some of the oldest land plants and animals known in the geologic record. Much of what is known about terrestrial and nearshore marine life during the Pennsylvanian Period has been derived from Mazon Creek fossils. Although older land plants and animals have since been discovered in other parts of the world, the Mazon Creek Fossil Beds continues to be the best and most prolific source of these fossil organisms. In addition, the Mazon Creek Fossil Beds played an important role in establishing the discipline of paleobotany in the United States largely through the efforts of Leo Lesquereux. Since its discovery by Joseph Even, a professional photographer, in 1857, the Mazon Creek site has been collected largely by amateur fossil collectors, making it rather unique among fossil sites. Such amateur collectors like Even and banker Joseph Carr worked closely with the eminent paleontologists of the day, including Amos Worthen and James Dana. The site is virtually unchanged and many fossiliferous nodules remain. Because of their overall abundance and the long history of productive collecting at the site, Mazon Creek fossils can be found in nearly every museum throughout the world, and the Mazon Creek Fossil Beds still attract amateur collectors and professional paleontologists. The period of significance for this site was determined to begin with Even’s discovery of the site and to end in 1947, the fifty-year cut-off.

History

During the Pennsylvanian Period (285-320 million years ago, commonly known as the Coal Age) of earth’s history, extensive coastal swamps developed. As plants died and accumulated over time in the swamps, they gradually became compressed and altered into coal. Coal deposits dating from the Pennsylvanian Period are numerous in Grundy County, Illinois, and in places crop out at or near the ground surface such as along Mazon Creek, near Morris. Along the banks of Mazon Creek, the coal is overlain by sandy shale belonging to the Francis Creek Shale (a rock unit) that contains numerous ironstone nodules, or concretions, which are composed of siderite, an iron carbonate. The reddish- to grayish-brown nodules range from one-half inch to more than one foot in length,² and commonly

¹Roy L. Moodie. 1912. The Mazon Creek, Illinois, shales and their amphibian fauna. *American Journal of Science*, series 4, volume 34, no. 201, pp. 277-285.

²Anonymous. 1882. *History of Grundy County, Illinois*. O. L. Baskin & Co. Historical Publishers, Chicago; Moodie. 1912. The Mazon Creek, Illinois, shales and their amphibian fauna, p. 277-285.

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

Page 7

National Register of Historic Places Registration Form

contain well-preserved plant and animal fossils that lived in swamps. Fielding Meek and Amos Worthen³ first described the soon-to-be-famous Mazon Creek locality in 1865, noting:

The bed from which all these interesting fossils were obtained, holds a position near the base of the Illinois Coal Measures, somewhat above the horizon of the second seam of coal. At the out-crop where these specimens were collected, a thickness of about twenty feet of strata is exposed, consisting of sandy shale, passing downwards into a more argillaceous shale, forming the bed of a small stream; while a short distance further down this little stream, and at a lower horizon, a thin seam of coal crops out...The fossils at this locality are immediately enveloped in biscuit-shaped iron-stone nodules. These nodules are not generally composed of concentric layers, but show, on weathered surface, a tendency to laminated structure, the planes of lamination being flat, parallel to the greater diameter of the concretions, and probably also coincident with the shale, as they lie in the bed. On breaking open these concretions, the laminated structure is generally found not to extend within; the interior having a homogeneous, rather compact structure, and a grey or brownish grey color (the iron usually being in the condition of a carbonate), while more or less argillaceous matters also enter their composition. Some of the concretions seem to contain no organic remains, but often in breaking open others, a fossil is found to have formed the nucleus around which the concretionary action took place. (p. 41-42)

Leo Lesquereux⁴ further described the nodules, noting that they occur:

. . . in the form of oval, more or less elongated, generally slightly flattened concretions. They appear to have formed by superposition of concentric layers of slowly deposited carbonate of iron or ferruginous clay around central nuclei, which are most commonly parts of plants, bones of fishes or the remains of insects or crustacea. Their size and form vary according to that of the body around which the deposit has been made . . . (p. 481-482).

The nodules formed around organisms immediately after they were buried in the mud and sand, and unlike in the coal, the remains of fossil plants and, more rarely, terrestrial animals such as spiders and insects, are well-preserved. In 1870, Bradley⁵ noted that “besides the many species of ferns . . .the nodules also contain fossil insects [9 species], . . . myriapods [3 species], . . . arachnids [2 species], . . . crustaceans [8 species], . . . the worm *Palaeocampa anthrax*; the salamander *Amphibanus grandiceps*, with three or four undescribed fish and

³ F. B. Meek and A. H. Worthen. 1865. Notice of some new types of organic remains, from the Coal Measures of Illinois. Proceedings of the Academy of Natural Sciences of Philadelphia, March, 1865, p. 41-53.

⁴ Leo Lesquereux. 1870. Report on the Fossil Plants of Illinois. *Geological Survey of Illinois, Volume IV, Geology and Palaeontology*, p. 376-508.

⁵ Frank H. Bradley. 1870. Geology of Grundy County. *Geological Survey of Illinois, Volume IV, Geology and Palaeontology*, p. 190-209.

MAZON CREEK FOSSIL BEDS**Page 8**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

ostracod crustaceans. It is thus evident that this is one of the richest deposits of Carboniferous Articulates ever discovered, if not *the* richest.” These types of fragile organisms, which generally lack hard-parts like shells and bones, are seldom preserved in the fossil record. As a result, a locality like Mazon Creek, where such fossils are common, is rare and holds important clues to the history of life on earth.

Lesquereux⁶ remarked:

With small animals like crustaceans, scorpions, insects of fleshy and very delicate texture, the preservation of form is still more remarkable. They are found entombed in the middle of the nodules as if they were in life, or as if they had been transformed into stone while still living (p. 482).

The exceptional preservation of these unusual fossils brought the Mazon Creek Fossil Beds to the forefront of paleontological study of early life on land. These were the oldest land-dwelling plants and animals known in the geologic record at that time, and these fossils helped answer fundamental scientific questions about terrestrialization. This deposit yielded the earliest fossil insects, amphibian, horseshoe crab, and ferns, which were described in the scientific literature by the most prominent paleontologists of the day, including world-renown vertebrate paleontologist and biologist Edward Drinker Cope, J. S. Newberry of fossil fish fame, Illinois' first State Geologist Amos Worthen, and pioneering North American paleobotanist Leo Lesquereux. Because of their excellent preservation, abundance and diversity, the Mazon Creek fossil plants figured prominently in establishing the field of paleobotany in this country through the efforts of Lesquereux.

It was the amateur collectors, however, who discovered the Mazon Creek Fossil Beds and collected most of the fossils from there, up to the present, making this fossil deposit rather unique. It would have been nearly impossible for professional paleontologists, especially the few there were in the mid-1800s, to collect the large number of fossil specimens that the amateurs were able to assemble. The amateur collectors generously loaned or gave specimens to the professionals. Rollin Chamberlin, a professor at the University of Chicago in the early part of the twentieth century, summarized the efforts of an amateur fossil collector, Ralph LaCoe, from Pennsylvania, which applies to other Mazon Creek collectors as well:⁷

⁶ Ibid.

⁷ Eugene S. Richardson, The amateur fossil-hunters, paleontology's unsung heroes. *Field Museum of Natural History Bulletin*, March, 1975, p. 12-17.

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

Page 9

National Register of Historic Places Registration Form

Realizing the very great handicap to the progress of paleontology due to the enormous labor and expense of discovering, exhuming, and intelligently preparing the fundamental materials from which the paleontologist must work out his results, [Lacoe] chose for his first service to science the task of securing this material and properly placing it in the hands of paleontologists.

Unfortunately, the activities of these early Mazon Creek collectors, including local farmers, coal miners and bank presidents, are poorly documented, and their major contribution has been largely forgotten. As a result of their diligence and generosity, however, the Mazon Creek fossil biota was studied by some of the most famous paleontologists of the nineteenth and twentieth century.

The earliest-collected Mazon Creek locality is situated in NE1/4, E1/2, NE1/4, Section 24, T. 33 N., R. 7 E., Wauponsee Township, on the farm southeast of Morris first settled by Seneca Benson in 1830. The Benson farm site was probably first explored for fossils in 1857 by Joseph Even, an amateur collector typical of the nineteenth-century gentleman naturalists.⁸ Even, who was born August 18, 1825, in Luxembourg, emigrated to the United States in 1854.⁹ Settling in Morris, Grundy County, Illinois, he became a professional photographer. There, he married Emma Malcomb on August 1, 1866,¹⁰ who bore three children before her death in 1878.¹¹ Joseph remained in Morris seven more years, where he operated a series of fine art galleries, specializing in ambrotypes, opalotypes, "modern improved sun-light pictures," and photographs;¹² for a time in the mid-1860s he was in partnership with B. Clow.¹³ In 1871, Even relocated his successful photographic gallery to Peru, LaSalle County, Illinois, where, in 1883, he married his second wife, Rose Hankart.¹⁴

Fossiliferous nodules were abundant at the Benson farm site along Mazon Creek. Lesquereux¹⁵ noted that "At Mazon Creek, the meanders of the stream have dug a broad bed through the bank of shale, and the water, washing for centuries, has uncovered great numbers of concretions and scattered them for miles from their point of origin" (p. 470). In 1912, Moodie remarked that the "pebbly banks are covered with nodules and the stream bed is filled with them. They are easily collected by wading."¹⁶ The deposit at the Benson farm

⁸ D. G. Mikulic. 1983. Milwaukee's gentlemen paleontologists. Wisconsin Academy of Sciences, Arts and Letters Transactions 71(1): 5-20; Donald G Mikulic. The collectors of Mazon Creek. unpublished manuscript.

⁹ Anonymous. 1886. *History of LaSalle County, Illinois*, Volume I. Inter-State Publishing Co., Chicago, p.873-874.

¹⁰ *Grundy County Herald*, volume 3, o. s. 11, no. 17, August 8, 1866.

¹¹ Anonymous, *History of LaSalle County, Illinois*.

¹² *The Morris Herald & Advertiser*, January 4, 1868; *Grundy County Herald*, volume 9, no. 27, March 2, 1864.

¹³ *Grundy County Herald*, volume I, o. s. X, no. 31, November 9, 1864; volume II, o. s. X, no. 23, September 13, 1865.

¹⁴ Anonymous, *History of LaSalle County*, pp. 873-874.

¹⁵ Lesquereux. 1870. Report on the Fossil Plants of Illinois.

¹⁶ Moodie. 1912. The Mazon Creek, Illinois, shales and their amphibian fauna, pp. 277-285.

MAZON CREEK FOSSIL BEDS**Page 10**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

is referred to as the “lower beds” where the most abundant fossil is the fern leaf *Neuropteris*, and arthropod fossils may be more common than elsewhere as well.¹⁷ Even sent the first fossiliferous nodules he found to Berlin, Germany, where they were met with great enthusiasm by paleontologists. Within a short time, Even discovered most of the different kind of animals and plants that occur in the Mazon Creek Fossil Beds, including the first amphibian (*Amphibanus grandiceps*)¹⁸ which was described by the Cope in 1866. Even worked with many other scientists in North America, generously loaning and donating fossils to scientists, museums and other institutions,¹⁹ as illustrated by a story in *The Morris Herald & Advertiser*.²⁰

Joseph Even, of this city, has presented to the museum of the State Geological Survey, one of the finest specimens of a plant fossil ever found. It was found on the Mazon Creek. It is a beautiful single frond, or compound leaf of a fern, covering a slab about one and a-half feet by two and a-half in size. The leaf is black, and the rock upon which it is impressed is light gray, so that the contrast brings out all of the most minute details of structure and outline as clearly and distinctly as in the most delicate botanical drawing. Indeed, it looks more like a well preserved and carefully pressed specimen of a recent fern in a botanical herbarium, than a fossil plant that has remained for countless ages in the solid strata of the earth.

Even’s fossil collection was undoubtedly the largest from Mazon Creek at the time.²¹ The first professional paleontologists to examine it were Amos Worthen and Fielding Meek, who described the invertebrate animals, and Leo Lesquereux, who studied the many fossil plants. Even loaned many specimens “for the use of the Illinois Geological Survey,”²² which published the work of these three paleontologists. In fact, an illustration of one of the Mazon Creek fossils, *Euproöps*, an early horseshoe crab, from Even’s collection adorns the binding of the first eight volumes of *Geology of Illinois* published by that organization. Mazon Creek fossils were featured in Volume II of this series, in which Worthen described a fish with Newberry and crustaceans with Meek, Cope described an amphibian, and Lesquereux described eleven new plant species. Despite this early work on Even’s collection, the first scientific description of Mazon Creek fossils, two insects, was published by the eminent

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Mikulic, The collectors of Mazon Creek.

²⁰ *The Morris Herald & Advertiser*, Volume IV, December 12, 1868.

²¹ Mikulic, The collectors of Mazon Creek.

²² F. B. Meek and A. H. Worthen. 1868. Preliminary notice of a scorpion, a Eurypterus? and other fossils, from the Coal-measures of Illinois. *American Journal of Science*, ser. 2, volume 46, no. 136, pp.19-28.

MAZON CREEK FOSSIL BEDS**Page 11**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

American geologist James Dwight Dana in 1864, using specimens collected by amateur John G. Bronson.²³ Although Lesquereux's 1866 paper had been completed by then, its publication had been delayed by its inclusion in the *Geology of Illinois* volumes.

Even's assistance was acknowledged in many of these early paleontological works, and, in some cases, new fossil species were named after him. For example, in 1866, Lesquereux named the fossil leaf *Neuropteris evenii* in his honor, noting that Even had found the type specimen and had "greatly enriched the fossil flora of Illinois by his researches."²⁴ Even's collection was destroyed in a fire between 1866 and 1868—a great misfortune because his collection was described by Lesquereux (p. 468)²⁵ as "remarkable indeed for the number and beauty of the specimens." Furthermore, the type specimens of *Amphibanus grandiceps* and *Palaeocampa anthrax* "was unfortunately destroyed by fire at Morris, along with many other valuable fossils belonging to Mr. Even, from the Mazon Creek locality"(p. 565).²⁶ In 1870, however, Lesquereux²⁷ noted (p. 378) that Even ". . . after the loss of his valuable cabinet by fire, [had] begun again his researches with renewed zeal and great success . . ."

Other important early collectors at Mazon Creek, mentioned by Worthen, Meek and Lesquereux, were Samuel S. Strong, Michael Prendel, and John Collins, all from Morris, the largest city near the fossil beds. Lesquereux²⁸ (1870, p. 476) called Strong and Even "ardent and clever investigators" (1870, p. 378), and noted that Strong had ". . . most liberally presented the State Cabinet and myself with a large number of rare and new species" of fossil plants. Strong's collection was eventually purchased by Othniel Marsh, the nineteenth-century vertebrate paleontologist of dinosaur fame, for the Peabody Museum at Yale University. It is interesting to note that, although Strong's collection was apparently rich in Mazon Creek vertebrate fossils, Marsh never described any, whereas his arch rival, Cope, the equally famous vertebrate paleontologist, described the first amphibian from that locality, which had been collected by Even. The size of Strong's collection can be appreciated from the fact that it contained nearly 1200 specimens of *Acanthotelson stimpsoni*, which was more than all other Mazon Creek fossil crustaceans known in other museums.²⁹

By the late nineteenth century, Mazon Creek fossils attracted numerous other serious amateur collectors, including C. D. Young and Homer Hill of Morris, W. J. Knoblock of Quincy, W. Oswald of Braidwood, and George Condie of Spring Valley.³⁰ Some of these

²³ James D. Dana. 1864. *American Journal of Science*, ser. 2, volume 36, p. 34.

²⁴ Lesquereux, Leo. 1866. An enumeration of the fossil plants found in the Coal Measures of Illinois, with descriptions of the new species. *Geological Survey of Illinois*, Volume II, Palaeontology, pp. 425-470.

²⁵ Ibid.

²⁶ Meek and Worthen. 1868. Preliminary notice of a scorpion . . .

²⁷ Lesquereux. 1870. Report of the Fossil Plants of Illinois.

²⁸ Ibid.

²⁹ Eugene S. Richardson, Jr. Speech to the Grundy County Historical Society Banquet, October 28, 1980.

³⁰ Ibid.

MAZON CREEK FOSSIL BEDS**Page 12**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

collectors were prominent citizens of Morris, including Grundy County National Bank president Joseph C. Carr and attorney Perry A. Armstrong.³¹ Interest in the Mazon Creek fossils was so great that, in 1880, the Morris Academy of Sciences was founded with Armstrong as president, Carr as treasurer, Frank Bliss, also of Grundy County National Bank as secretary, and Professor Kern as corresponding secretary.³² The Academy maintained a fine collection of fossils in a room on the second floor of the courthouse in Morris, which was open to the public at all times; many of these fossils came from the collections of Carr, George Bedford and Dr. W. E. Walsh. Scientists, students, collectors, and fossil dealers in ever-increasing numbers descended upon the Mazon Creek Fossil Beds on the Benson, or "Fossil Bed" farm, as it was commonly called.³³ It is reported that "on a Sunday or holiday, the Benson family would see a line of carriages coming down the road, all headed for the same place." (p. 282)³⁴ The State of Illinois offered to purchase the farm for its geologic significance from the Benson family, but they refused.³⁵

Perry A. Armstrong, one of the more noteworthy Mazon Creek collectors during the late 1800s, was a prominent educator, businessman, attorney, and politician, having held several political offices including postmaster, township trustee, county court clerk and state legislator. Because of his prominence, Armstrong received considerable coverage in the Grundy County history books, but only passing mention is made of his interest in local geology. Armstrong, who was born in Licking County, Ohio, in 1823, arrived in Illinois in 1831.³⁶ In 1845, he settled in Morris, where he married Mary Borbridge; she died in 1862 after bearing four sons. The following year, Armstrong married Malina Eldredge, with whom he had three more sons. Exactly when Armstrong started collecting Mazon Creek fossils is unknown, but it has been remarked that "he was always an admirer of nature and an enthusiastic geologist."²⁰ It is known that Armstrong exhibited four large cases of fossil plants, valued at \$6000-\$8000, at the Great Inter-State Exposition of 1873 in Chicago.³⁷ An avid fossil collector, Armstrong amassed a large collection of which "a carload of fossil trees, or their compression upon shale" was deposited in the State House in Springfield around 1876.³⁸ Eventually "tiring of the hard labor required in collecting geological specimens," Armstrong directed his attention toward archaeology and poetry after 1880. In

³¹ Mikulic. The collectors of Mazon Creek.

³² Helen Stine Ulrich. 1968. *This is Grundy County, Its history from beginning to 1968*. Grundy County Board of Supervisors, Rogers Printing Company, Dixon, Illinois, p.231.

³³ Newton Bateman & Paul Selby (eds.) 1914. *Historical Encyclopedia of Illinois and History of Grundy County*, Volume II., Munsell Publishing Co., Chicago, p. 669.

³⁴ Ibid.

³⁵ Ulrich. 1968. *This is Grundy County*.

³⁶ Anonymous. 1900. *Biographical and genealogical record of La Salle and Grundy Counties, Illinois*, Volume II. Lewis Publishing Co., Chicago, p.448-451.

³⁷ Anonymous. 1873. *The Inter-State Exhibition Souvenir, containing a historical sketch of Chicago, also a record of the Great Inter-State Exhibition of 1873*. Van Arsedale & Massie, Chicago, p. 172.

³⁸ Anonymous. 1882. *History of Grundy County, Illinois*. O. L. Baskin & Co., Chicago.

MAZON CREEK FOSSIL BEDS**Page 13**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1899, Armstrong shipped his fossil collection, comprising 26 boxes and weighing in at three tons,³⁹ to the Smithsonian Institution, for whom it was purchased by R. D. Lcoe.

One of the main collectors around the turn-of-the-century was Joseph C. Carr. Born in Pennsylvania in 1836, Carr moved to Iowa in 1853.⁴⁰ After serving in the Civil War, he moved to Morris, Illinois, where he became cashier of the Grundy County National Bank in 1871, eventually becoming its president and director in 1903. Carr married Rebecca Wynn in Bellevue, Iowa, in 1861, and together they had three children. Carr collected from the Mazon Creek deposits for more than 30 years, and escorted many professional paleontologists to the area. In 1912, Moodie⁴¹ remarked that “it is fitting to express, in this place, to Mr. J. C. Carr of Morris, Illinois, my appreciation of the favors shown me while collecting at Mazon Creek...Mr. Carr has collected on Mazon Creek for more than thirty years, and knows more of the conditions of fossilization and the location of the various beds than anyone else...He has presented many collections to schools and individuals, as well as furnishing material for many paleontologists.” In 1920, Carr’s collection was also donated to the Museum of Natural History at the University of Illinois where L. E. Daniels’ collection had been donated in 1918⁴² because his wife and daughter “desired his collection to be in the same place as the two men were life-long friends and co-workers.”⁴³

One of the most prominent collectors of the early twentieth century was George Langford, Sr., an engineer with 75 patents to his credit. He pursued the study of fossil plants from Mazon Creek with great enthusiasm, collecting a quarter of a million specimens according to his own estimates.⁴⁴ In 1941, at the age of 71, Langford joined the staff of the Field Museum of Natural History in Chicago, where he provided the basis for their fine fossil plant collection. Complementing his scientific interests, Langford wrote two popular books on the plants and animals of Mazon Creek before he retired at the age of 86.

³⁹ Anonymous. 1900. *Biographical and genealogical record of La Salle and Grundy Counties, Illinois*.

⁴⁰ Ibid.

⁴¹ Moodie. The Mazon Creek, Illinois, shales and their amphibian fauna.

⁴² Richardson. Speech to the Grundy County Historical Society Banquet.

⁴³ Letter from Museum Curator Frank Baker, Museum of Natural History, University of Illinois, to University President David Kinley, April 29, 1920.

⁴⁴ Matthew H. Nitecki. 1978. Mazon Creek studies—the first 120 years. *Field Museum of Natural History Bulletin*, September, p. 22-26.

MAZON CREEK FOSSIL BEDS**Page 14**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Among the paleontologists who benefited considerably from their association with amateur collectors of Mazon Creek fossils was Amos Worthen, the first State Geologist of Illinois. Worthen was probably the first to recognize the scientific importance of the Mazon Creek Fossil Beds in the mid-1800s. Leo Lesquereux, the pioneering paleobotanist, also relied on amateur collectors. Lesquereux made the earliest scientific studies of the Mazon Creek plants between 1866 and 1884.⁴⁵ He was born in Switzerland in 1806 and emigrated to the United States in 1848 with his wife and five children, settling in Boston.⁴⁶ There, Lesquereux was a colleague of the famous naturalist Louis Agassiz, who eventually arranged a position for him at Harvard University. In that position, Lesquereux described hundreds of species of fossil plants and developed the type American paleobotany collection, which became the basis for studying all American fossil plants. The significant accomplishments Lesquereux made in science are all the more amazing in that he was totally deaf and suffering a progressive loss of sight at the time. Amateur collectors of Mazon Creek fossils have remained important to paleontological progress. Eugene S. Richardson, curator of invertebrate paleontology at the Field Museum of Natural History for nearly 40 years until his death in 1983, worked closely with numerous amateur collectors, who discovered new organisms, like the tully monster, Illinois' state fossil, and donated significant collections of Mazon Creek fossils to the museum. In the later twentieth century, most amateurs collected the fossiliferous ironstone nodules from new sites uncovered by coal-mining in the area surrounding the original Mazon Creek Fossil Beds. The Mazon Creek Fossil Beds, however, still remain productive—an amazing 140 years after its discovery.

⁴⁵ Mary S. Bryant and Peter R. Crane. 1984. Fossil plant collections at the Field Museum. *Field Museum of Natural History Bulletin*, volume 55, no. 4, p. 5-10.

⁴⁶ William C. Darrah. 1934. Leo Lesquereux. *Harvard University Botanical Museum Leaflets*, volume 2, no. 10, p. 113-119.

MAZON CREEK FOSSIL BEDS**Page 15**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

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MAZON CREEK FOSSIL BEDS**Page 16**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

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MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Previous documentation on file (NPS):

- Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
- Previously Listed in the National Register.
- Previously Determined Eligible by the National Register.
- Designated a National Historic Landmark.
- Recorded by Historic American Buildings Survey: #
- Recorded by Historic American Engineering Record: #

Primary Location of Additional Data:

- State Historic Preservation Office
- Other State Agency
- Federal Agency
- Local Government
- University
- Other (Specify Repository):

10. GEOGRAPHICAL DATA

Acreage of Property: 10 acres

UTM References:	Zone	Easting	Northing
A	16	385640	4576040
B	16	385740	4576040
C	16	385960	4575700
D	16	385900	4575640

Verbal Boundary Description:

West bank and stream bed of the Mazon River (Mazon Creek) located on the old Benson farm property in NE1/4, E1/2, NE1/4, Section 24, T. 33 N., R 7 E., Wauponsee Township, Grundy County, Illinois as shown on the accompanying USGS map.

Boundary Justification:

Boundaries encompass the fossiliferous outcrop along the Mazon Creek on the Benson farm where the fossil-bearing nodules were first discovered.

MAZON CREEK FOSSIL BEDS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

11. FORM PREPARED BY

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