

## Proposal for a Fossil Park at the former Lone Star Quarry Site

The recent acquisition by the IDNR of the former Lone Star Quarry site near Oglesby provides a unique opportunity. In particular, a portion of the site should be set aside as a “fossil park,” a location open to fossil collecting by all. This would be of great educational and recreational benefit to citizens of Illinois, as well as attracting visitors from out of state.

There are currently very limited opportunities for individuals in Northern Illinois to collect fossils and to learn of the geologic history of the state. Most exposures of bedrock are in commercial quarries, which are generally off limit to members of the public, including groups from schools and universities. There are only a few small roadcuts.

Fossil parks are sites where members of the public can observe, collect, and usually keep the fossils they find. There are currently about ten fossil parks in the United States (<https://www.myfossil.org/fossil-parks/>). They are run by a variety of local and state agencies, as well as private land owners. The parks run by government agencies, such as the those in Ohio (<http://geosurvey.ohiodnr.gov/major-topics/fossils-in-ohio>) and Iowa (<http://www.fossilcenter.com/Fossil.html>) provide models for how such a park can be managed. Within the IDNR system, the Mazonia-Braidwood State Fish and Wildlife Area provides limited opportunities for collecting (<https://www.dnr.illinois.gov/Parks/Activity/Pages/Mazonia-Braidwood.aspx>) under a day permit system.

The suggested site is fossil rich, easily accessible and safe; it will encompass only a limited portion of the acquired land and should require only a small investment in resources. The proposed fossil park can also be integrated with Starved Rock, Buffalo Rock, and Matthiessen State Parks to provide IDNR opportunities for outreach concerning the fascinating geology of this part of the state.



*Fossils are very abundant at the site.*

*Nature of the Lone Star Quarry Site:*

The Lone Star (Buzzi Unicem) quarry mined the La Salle Limestone member of the Bond Formation (Pennsylvanian, about 300 million years old) for the production of cement. Also exposed at the quarry are red and gray shales above the limestone, and gray and black shale layers below it. These layers are about the same age as the upper level rocks at Matthiessen State Park. The proposed fossil park would be in the northern part of the quarry, just south of Route 71, northeast of the Vermilion River (see map).

The rocks in the quarry are extremely fossiliferous. The limestone contains numerous and diverse crinoids, snails, corals, brachiopods and rare trilobites; shark teeth and other vertebrate remains are not uncommon. These fossils weather out and are easy to collect on the quarry floor, a safe distance from the highwall. The black shale contains orbiculoid brachiopods, shark teeth and fish scales, and sometimes a complete fish. An amphibian bone has also been recovered.



**Lone Star Quarry site. Suggested fossil park site is indicated.**

*Potential users:*

Prior to 2008, the site was open to university and college geology classes for field trips and to local fossil clubs. It would be expected that the fossil park would be again be used for geology classes by institutions such as the University of Illinois at Chicago, the University of Illinois at Urbana-Champaign, Northern Illinois University, Illinois State University, and Illinois Valley Community College. Such field trips could include stops at Matthiessen, Buffalo Rock, and Starved Rock State Parks in order to describe the geologic history and structures of the area, such as the LaSalle Anticline. The Lone Star quarry preserves key evidence for this structure.

There would also be a great deal of interest from the public, especially members of local clubs such as the Earth Science Club of Northern Illinois (ESCONI; Chicago region), the Lincoln Orbit Earth Science Society (LOESS; Springfield area) and the Peoria Academy of Sciences Geology Section. ESCONI has previously organized collecting trips to the site. Burpee

Museum also leads local field trips which attract great public interest. Members of the clubs and museum staff should be consulted in the development of rules governing collecting at the site.

We would also expect a great deal of interest from school groups. Geology and paleontology are integral parts of STEM education and are emphasized in the Next Generation Science Standards. Children are very excited about fossils and would welcome the opportunity to collect their own fossils. Appropriate educational materials would enhance the experience.

#### *What will be needed*

The suggested fossil park should not interfere with other potential uses for the site. Some clearing of the site may be necessary. A map will have to be developed showing safe collecting areas, along with appropriate signage at the site itself. Days and hours of collecting will have to be established, along with rules governing safe collecting and banning collection for commercial purposes. If a permit is necessary, mechanisms will need to be in place for obtaining one. Working with interested staff of the Illinois State Geological Survey, existing guidebooks to the area should be updated to include the new fossil park. Local college faculty and ISGS staff members could also develop detailed signage pointing out areas of particular geologic interest. The supporters of this proposal (below) will work with IDNR to develop the site. We will also investigate potential outside funding sources, such as the National Science Foundation, to enhance the educational and outreach mission, such as the development of educational materials.

#### *Supporters:*

Prof. Mike Phillips, Illinois Valley Community College  
Prof. Roy Plotnick, University of Illinois at Chicago  
David Carlson and John Catalani, Earth Science Club of Northern Illinois  
Joseph Devera, Illinois State Geological Survey  
Sam Heads, Illinois State Natural History Survey  
Prof. Reed Scherer, Northern Illinois University  
Prof. Max Christie and Prof. Stephen Marshak, University of Illinois at Champaign  
Paul Mayer, Field Museum  
Prof. Steve Brusatte, University of Edinburgh (Scotland)  
Prof. James E. Day and Prof. David Malone, Illinois State University  
Bruce Lauer, Lauer Foundation  
Joshua Mathews, Burpee Museum  
Joe Jakupcak, Guide, Starved Rock Lodge Activities Dept.

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David Carlson: [fossil54@att.net](mailto:fossil54@att.net)

**Representative Fossils:**



Brachiopods



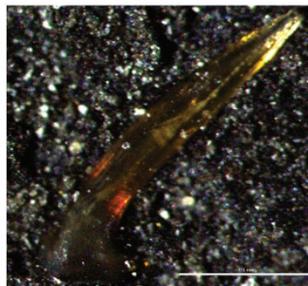
Gastropods



Coral



Trilobite



Conodont



Shark denticle



Shark tooth