



Date: December 2013

To: AASHE STARS

From: Dr. Mark Kleffner, Professor, School of Earth Science, Division of Earth History
The Ohio State University at Lima

Re: Ohio State Lima. Earth Sciences Week and National Fossil Day, 2013

The Ohio State University at Lima (Ohio State Lima) is situated on 565 acres in west-central Ohio. The co-located institutions Ohio State Lima and Rhodes State College comprise the Lima Campus. Founded in 1960, the campus has an expansive nature area and extensive natural trails. Science and the environment are a key component to the campus experience. In 2013, Ohio State Lima played a major role in Earth Science Week and National Fossil Day and bringing environmental awareness to the local community and relating these events to understanding the concept of past, current and future life-cycle sustainability.

The School of Earth Sciences at The Ohio State University at Lima began celebrating National Fossil Day three years ago, as one of just two university geology/earth sciences departments that participated in the inaugural National Fossil Day held during Earth Sciences Week in 2010. In 2013, Ohio State Lima heightened its involvement in this annual event. Although there are many museums affiliated with universities that participated in the 4th Annual National Fossil Day (October 16, 2013), Ohio State Lima is one of just nine universities and colleges in the United States that participated.

Ohio State Lima's celebration of National Fossil Day is unique to west-central and northwest Ohio. No other museums or universities in that part of Ohio have taken part in any National Fossil Day. The only other Ohio universities/colleges that participated in 2013 were Kent State and Wooster. Each of the National Fossil Day celebrations held on the Lima campus since 2010 has emphasized fossils of plants and animals that previously existed in Ohio.

Each Lima Campus celebration has included a geology museum open house, during which Ohio State and Rhodes State students and anyone from the surrounding region may tour the geology museum at Ohio State Lima. The open house provides the opportunity for the public to visit the geology museum. Many additional displays are typically only viewed by students enrolled in earth sciences classes at Ohio State Lima because they are located in a classroom.

Public engagement and community involvement are encouraged at this event. Community awareness is important for any lasting commitment to a sustainable life style.

National Fossil Day serves to raise the awareness of the environment and the organisms that depend upon it. Fossils of extinct Ohio plants and animals help to show how much the environment can change over time. Many of the fossils of animals featured in National Fossil Day celebrations on the Lima campus are of organisms that lived in an ocean, since most of the bedrock of western Ohio was originally sediment or precipitated soluble deposited in an ocean covering at least that part of Ohio during the Paleozoic Era. The majority of people who visit during National Fossil Day have no idea that Ohio was ever covered by an ocean, or that it would ever be possible for the location of a tropical ocean to



eventually be the same location of a temperate hardwood forest or prairie. Some of the fossils featured have been of organisms that lived in Ohio during the most recent Ice Age, like woolly mammoths and mastodons.

Although some visitors may know that glaciers used to cover part of Ohio, most don't know that the Ice Age isn't over, that we are currently in an interglacial period (according to the Milankovitch Theory). Featuring extinct Ice Age animals shows how much the environment in Ohio (or almost anywhere) can change in a reasonably short time, and the effect such a change has on organisms. Fossils provide evidence that sustainability may well apply to many natural resources, but certain environmental aspects and climate are controlled by Earth-based cycles that are not likely possible to greatly modify. Awareness of how those Earth-based cycles work does make it possible to figure out how to adapt/adjust to the resultant changes. National Fossil Day plays a small role in raising that awareness. National Fossil Day also helps to point out the importance of fossils as a finite natural resource. Not only do they provide the only direct evidence of what kind of life existed on the Earth in the past, but they also can provide important information or clues about past environments. Although fossils are not renewable, National Fossil Day is an opportunity to relate to all that fossils can and should be "recycled." What that means is that any fossils found by anyone other than a paleontologist should be shared with/shown to a paleontologist, before they become part of a private collection and perhaps their existence never known.

Sustainability takes on many faces: including environmental, social, economic, and community awareness. Appreciating the earth sciences and geologic history are key to understanding that sustainability is not a short-term issue. Ohio State Lima's role in Earth Sciences Week 2013 and National Fossil Day 2013 was a noteworthy contribution to Lima area community awareness and to grasping the big-picture aspects of sustainability.

Sincerely,

Mark Kleffner, PhD

Professor of Earth Sciences