

# 2014 Year in Science

Each issue of *The Ohio Journal of Science*, the editors will highlight several of the most important stories impacting Ohio over the past year.

## **Ohio Improves Rank in the State Tech and Science Index**

Compiled by the Milken Institute, a nonpartisan, nonprofit economic think tank, the State Tech and Science Index evaluates states based on 5 categories: research and development inputs, risk capital and entrepreneurial infrastructure, human capital investment, technology and science workforce, technology concentration and dynamism. Each state receives a score for all 5 composites, based on numerous indicators and then earns an average score which is the index that is used to rank the states. In 2014 Ohio ranked 26th which was up two spots from 28th in 2012. For the full report visit: <http://statetechandscience.org/stateTech.html>

## **Ohio Legislation Related to Science Education Passes House Committee**

While Ohio House Bill 597 was proposed to repeal the Common Core learning standards, it included the phrase that would require the state's science standards to "prohibit political or religious interpretation of scientific facts in favor of another." This language would open the door to allow teaching of creationism in science classes. The Ohio House Rules and Reference Committee passed the bill on November 5. As of this issue, the bill has not made it to the floor of the House for general vote. For the status of the bill visit: [http://www.legislature.state.oh.us/bills.cfm?ID=130\\_HB\\_597](http://www.legislature.state.oh.us/bills.cfm?ID=130_HB_597)

## **Mastodon Tooth Found in Morrow County**

A farmer in Morrow County contacted scientists when he found something unusual in his soybean field. It turned out to be a prehistoric tooth and researchers from Ashland University began an excavation of the site and are piecing together the remains of a mastodon. The excavation of the site could take several years and is likely to draw attention to archaeology in Ohio. <http://news.ashland.edu/sunday-columbus-dispatch-science-section-featured-article-and-video>

## **Toxic Algae Affects Toledo's Drinking Water**

Residents of the City of Toledo and surrounding communities were warned not to drink their water when it was discovered that the source was contaminated with toxic algae. The algae could be seen from NASA's Landsat 8: <http://www.livescience.com/47199-toledo-algae-bloom-space-photo.html>

## **Fracking Research in Ohio**

An article published in the November/December issue of *Seismological Research Letters* links hydraulic fracturing activity in Harrison County Ohio to numerous earthquakes in the vicinity. See: Friberg, P.A., Besana-Ostman, G.M., & Dricker, I. (2014). Characterization of an Earthquake Sequence Triggered by Hydraulic Fracturing in Harrison County, Ohio. doi:10.1785/0220140127.

## **Mumps Outbreak Hits Central Ohio**

More than 480 cases of mumps were identified in Ohio, with the majority of cases found in Franklin County associated with an outbreak at The Ohio State University. Mumps is a vaccine-preventable illness caused by a virus, and most of the people confirmed with mumps in the state recovered without being hospitalized. See: <http://www.odh.ohio.gov/en/features/odhfeatures/Mumps.aspx>

## **Ohio Technology Allows Quadriplegic to Move Fingers**

Technology called "Neurobridge" developed by Battelle allowed a quadriplegic to move his fingers for the first time since a diving accident left him paralyzed. Surgeons at The Ohio State University implanted the Neurobridge chip in the patient's brain and the result mimicked voluntary movement. See: <http://battelle.org/our-work/pharmaceutical-medical-devices/medical-devices/neurotechnology/neurorehab-neurobridge>

**Public Health Preparedness in Ohio**

The Robert Wood Johnson Foundation released a report evaluating states' infectious disease prevention and control measures. Using multiple indicators, including vaccination rates, climate change adaptation planning, public health funding, food safety, and healthcare-associated infection control, Ohio did not rate very well. Using a scale 1-10, with one being least prepared, Ohio was rated a "3." The full report is available at: <http://healthyamericans.org/>

**Birdwatching in Ohio**

Readers of USA Today identified Magee Marsh in Ottawa County as the best birdwatching site in the country. Voting took place over a 4 week time period and additional information can be found at: <http://www.10best.com/awards/travel/best-birdwatching/>

If you have ideas for future stories that could be highlighted in the Year of Science section, please email them to [ojs@obiosci.org](mailto:ojs@obiosci.org)