

**NIE** **Connect with your environment**  
 Learn about environmental issues, in your community and how you can get involved.

## Workshop offers free native plants

You can get 10 free native plants if you are one of 250 people who own property along Elk Creek in the Lake Erie Watershed and you attend the Feb. 21 Lake Erie Watershed Cooperative Weed Management Area, LEW-CWMA workshop. By attending the workshop you and your property can benefit from education and funding programs for controlling invasive species and you will receive the native plants. Snacks and beverages will be served. Please RSVP by Friday to Marti Martz at 217-9011, Ext. 104, or mam60@psu.edu.



ANNA McCARTNEY/Contributed photo

**Property owners along Elk Creek can get 10 free, one-gallon native plants.**

**BEFORE YOU GO**

**What:** Free native plants  
**Where:** Tom Ridge Environmental Center  
**When:** Feb. 21 from 9 a.m. to noon.

— Anna McCartney



ANNA McCARTNEY/Contributed photo

Thanks to an Intermediate Unit 5 program, the Regional Science Consortium and PA Sea Grant, these Iroquois School District students are launching a weather balloon that will lift their learning to new heights. Because the district is an RSC member, students received classroom support and funding from an IBM grant and from the Presque Isle Partnership for building and launching the balloons.



ANNA McCARTNEY/Contributed photo

While this hawk that flew into this window was able to fly away, many birds are injured and need help.

## Classes teach how to tend to wildlife

A hawk is hit by a car or flies into a window. Ducklings are stranded from their mother. Baby owls fall out of a tree. If you have ever wished you'd known how to handle wildlife emergencies like these, Tamarack Wildlife Rehabilitation and Education Center is offering a Wildlife First Responders Course for adults to help you identify wildlife in need of assistance, when to intervene, and how to capture, stabilize and transport injured wildlife. A \$25 fee for resource materials includes a year's

**BEFORE YOU GO**

**What:** Wildlife First Responders Course  
**Where:** Borough Building at 124 Meadville St., Edinboro  
**When:** Tuesday nights 6:30-8:30 p.m., Feb. 10, 17, and 24 with a snow date of March 3.

membership. Preregistration is requested at [www.tamarackwildlife.org](http://www.tamarackwildlife.org) or call (814) 763-2574 and leave a message with your name, address and phone number.

— Anna McCartney

## How to respond if you find balloon

Every day, the National Oceanic and Atmospheric Administration's National Weather Service launches weather balloons from 102 sites to help with weather forecasting.

The attached radiosondes land in trees, on bridges and in backyards — sometimes more than 200 miles away from where balloons were launched. While they can make some disconcerting noises and give off a sulfuric (egg-like) smell, a radiosonde and its attached flight equipment are perfectly safe. The unit includes a latex weather balloon that at launch is six feet wide, a radiosonde and twine, a chemical light and an orange parachute.

Even though each one has an addressed, postage-paid return mailbag, the National Weather Service recovers fewer than 20 percent of the 75,000 radiosondes released yearly. The NWS hopes that with education and awareness of the value and importance of upper-air radiosondes, more people will



NOAA

**If you find a NOAA weather balloon and its radiosonde, return it in the postage-paid return mailbag.**

be eager to return them. Returning radiosondes benefits the environment and saves taxpayer dollars by recycling the units for reuse. If you find a weather balloon and its radiosonde package in your neck of the woods, there's no need to fear; please return it to NOAA's National Weather Service.

For more information about NWS weather balloons, visit [www.weather.gov/okx/Tour\\_Weather\\_Balloon](http://www.weather.gov/okx/Tour_Weather_Balloon)

— Anna McCartney

# Air apparent

Young science students launch weather balloons

By ANNA McCARTNEY  
 Contributing writer

The sky is not the limit for students fortunate enough to use it as their classroom.

Learning is reaching new heights for area students who have launched weather balloons like the ones sent up daily by the National Oceanic and Atmospheric Administration's National Weather Service to collect data.

Led by Drew Mortensen and Jill Linton from the Northwest Tri-County Intermediate Unit, these students are discovering firsthand how different the world looks miles above the Earth's surface. "It's imperative that learners of all ages have opportunities like this to experiment with ideas and discover how they can expand their personal horizons," said Mortensen.

Marissa Schnars, a fourth-grade student at Iroquois Elementary, was one of the lucky students. "Doing an experiment like this makes learning about science and math fun," she said. The Iroquois School District participated in two launches in the fall of 2014 for elementary and secondary students with the help of the Regional Science Consortium and Pennsylvania Sea Grant.

On launch day, the student balloons are filled with helium and the finished projects are released into the wide-open sky. The balloons, which rise quickly, can reach altitudes up to 100,000 feet (19 miles) while the instruments on board take video; record barometric pressure, temperature and humidity; measure speed; and report location.

As the atmospheric pressure falls, it causes the helium to expand and when the balloons get high



CAMERA ABOARD THE PAYLOAD

A camera in the payload allows students to get a bird's-eye view of their school, sports fields, neighborhood and Presque Isle State Park and Lake Erie.



CAMERA ABOARD THE PAYLOAD

More than 13 miles above the earth, this balloon popped and the payload started making its return trip with the video and other important data the students will use to track its journey.



DAVID BOUGHTON PA SEA GRANT

Zoe Spencer helped to retrieve the payload from an Oct. 8 Iroquois Elementary School launch that reached an altitude of 73,670 feet and landed on her family's property 178 miles away near Addison, N.Y.

enough, the expanding gas makes them pop. Aided by parachutes, the science payloads then fall back to Earth and the sensors send data on their location so search parties can

retrieve them. It's also not every day that meaningful learning opportunities fall out of the sky and land in your backyard. The payload launched on Oct. 8 by the

elementary students came down 178 miles away near Addison, N.Y. just north of the Pennsylvania line. It landed in a cornfield owned by Zoe Spencer's family. Once David Boughton, PA Sea Grant educator, contacted the family, Zoe, a third-grader, couldn't wait to help retrieve it. "The landing was a perfect learning opportunity for a new group of young people," said Boughton. "Zoe was so excited about sharing the project with the students at her school."

While there have been advances in satellite and computer technology, weather balloons remain a very significant and integral part of the world's weather observation network. Data on winds, temperatures and humidity help NOAA forecasters predict clouds, rain and the paths of major storms, including severe weather events like tornadoes, damaging thunderstorms or high winds.

But as you can see, weather balloons can also play an astronomical role in getting young people excited about learning. "Project-based activities such as this exposes students to new encounters, introduces them to real-life situations and keeps them interested in science, technology, engineering and math — skill sets that are highly sought after in today's competitive world," said Litton.

For more information, schools, camps and individuals can contact Mortensen at [drew\\_mortensen@iu5.org](mailto:drew_mortensen@iu5.org) or Linton [jill\\_linton@iu5.org](mailto:jill_linton@iu5.org) at IU5.

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Check out these websites to learn more:

- [www.noaa.gov/features/O2\\_monitoring/balloon.html](http://www.noaa.gov/features/O2_monitoring/balloon.html)
- [www.weather.gov/okx/Tour\\_Weather\\_Balloon](http://www.weather.gov/okx/Tour_Weather_Balloon)
- [www.paseagrants.org/](http://www.paseagrants.org/)

Use the daily weather page in your local paper to learn more about weather conditions near and far. Find the following cities listed there: Miami, San Francisco, Houston, Honolulu, Boston, Atlanta, London, Tokyo and Cairo. Compare their highs and lows. How different are they from the highs and lows where you live? Find them on a map to see how close or how far they are from your location.

