

## 2013 ACCOMPLISHMENTS



### NEW EXHIBITS FOR SANCTUARY VISITOR CENTER

Visitors to the sanctuary's Great Lakes Maritime Heritage Center enjoyed new feature exhibits this year, including NOAA's Science on a Sphere® theater. This global display system is an educational tool that helps illustrate Earth system science to people of all ages and promotes the sanctuary's connection to NOAA education. A new, green roof demonstration area was also installed to show the environmental benefits of green roofs and to provide outdoor classroom space for educational programs. The green roof adds another feature to the Gold LEED facility, which showcases environmental responsibility.



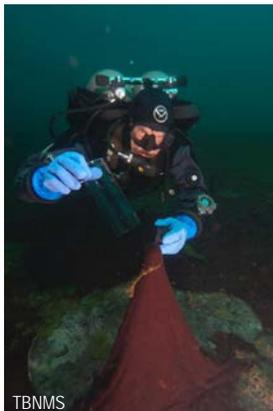
### SANCTUARY PARTNERS TO PREPARE STUDENTS FOR CAREERS IN MARINE TECHNOLOGY

Since 2012, the sanctuary has worked in partnership with Alpena Community College (ACC) to train students for careers in marine technology. ACC's Marine Technology program offers a wide range of interactive experiences in order to provide students with skills in operating underwater robots, as well as working aboard research vessels. In 2014, the first batch of graduates will complete the hands-on program, instilled with the skills and knowledge to enter today's "blue economy."



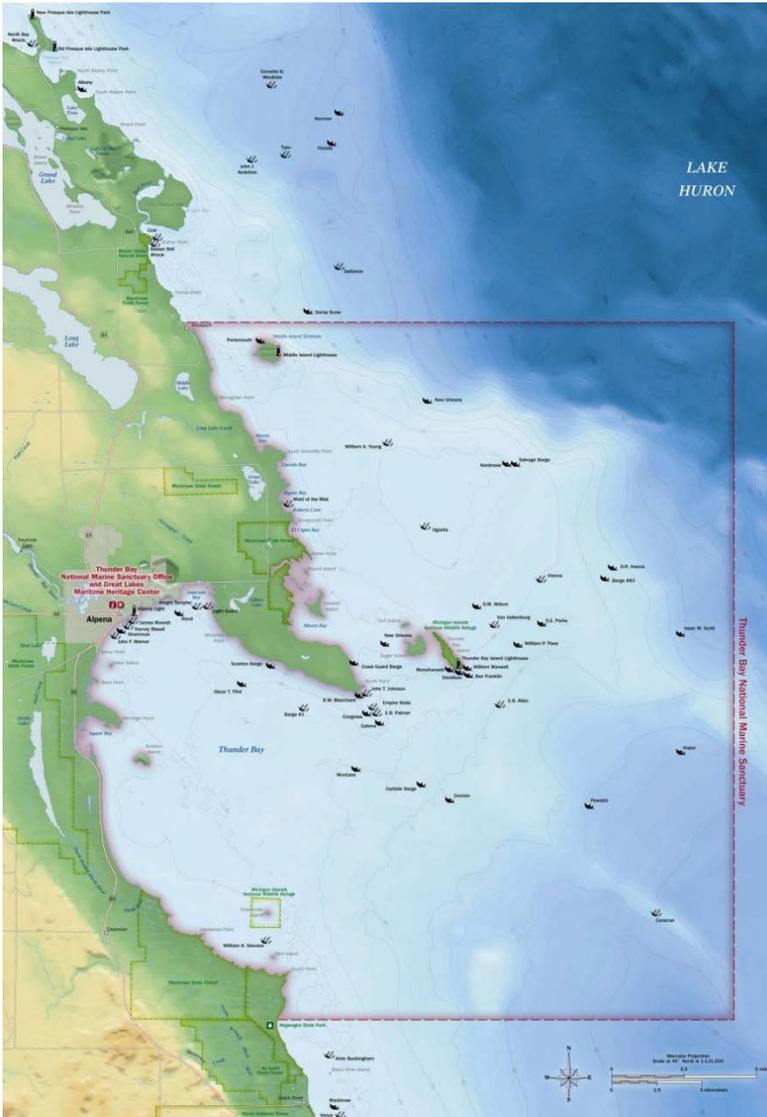
### ALPENA: SANCTUARY OF THE GREAT LAKES

Community leaders from Alpena worked with an international marketing consultant to develop a community brand and action plan to better promote the region. "Alpena: Sanctuary of the Great Lakes" is the new branding slogan being used to endorse the area's historic and natural resources. The branding effort highlights Alpena as an outstanding destination for local residents and visitors, a place that creates business opportunities, and a community that creates lasting opportunities for its youth. NOAA staff played an integral role in the development of the branding plan.



### THUNDER BAY - IT'S NOT JUST SHIPWRECKS!

Through diving, sample collection and vessel operations, the sanctuary continues to support multidisciplinary projects that help scientists better understand Lake Huron's complex ecosystem. These projects include: the NOAA Great Lakes Environmental Research Lab's long-term ecological research program in Thunder Bay; the Michigan Department of Environmental Quality and University of Vermont's experimental reef restoration project; and Grand Valley State University and University of Michigan's microbial research at the Middle Island submerged sinkhole - an "extreme" and specialized ecosystem akin to the hydrothermal vents in the ocean.



## LOOKING AHEAD

- In 2014, Thunder Bay will continue working with community partners to create place-based stewardship projects for students throughout northeast Michigan, and work to extend student engagement to even more of the population.
- The sanctuary is looking forward to hosting the 2014 International Marine Advanced Technology Education ROV Competition in June. Student teams from all over the world will compete with underwater robots of their own design.
- Working with the local communities and the state of Michigan, Thunder Bay National Marine Sanctuary will continue its efforts to expand the sanctuary's boundary to include the waters off Presque Isle, Alpena and Alcona to the international border.

**Thunder Bay National Marine Sanctuary** boasts nearly 100 shipwrecks preserved by the cold, fresh waters of Lake Huron within its 448- square-mile boundary. Thunder Bay's unpredictable weather and treacherous shoals have earned it the nickname "Shipwreck Alley," and its collection of wrecks represents a cross-section of the diverse vessels that have traveled the Great Lakes since the 19th century. From wooden schooners to modern freighters, these cultural treasures provide a window into the region's rich maritime history. Established Oct. 7, 2000.

*NOAA's Office of National Marine Sanctuaries is committed to supporting lives and livelihoods across the nation and in sanctuary communities through socioeconomic research and monitoring to understand the economic and social drivers of sanctuary resources and improve management practices.*

## NATIONAL MARINE SANCTUARY SYSTEM

Olympic Coast  
Cordell Bank  
Gulf of the Farallones  
Papahānaumokuākea  
Hawaiian Islands Humpback Whale  
Monterey Bay  
Channel Islands  
American Samoa (U.S.)



Thunder Bay  
Stellwagen Bank  
Monitor  
Gray's Reef  
Florida Keys  
Flower Garden Banks

○ National Marine Sanctuary  
△ Marine National Monument

Scale varies in this perspective. Adapted from National Geographic Maps.

The Office of National Marine Sanctuaries serves as the trustee for a system of 14 marine protected areas encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington state to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. For more information on the National Marine Sanctuary System, visit: <http://sanctuaries.noaa.gov>