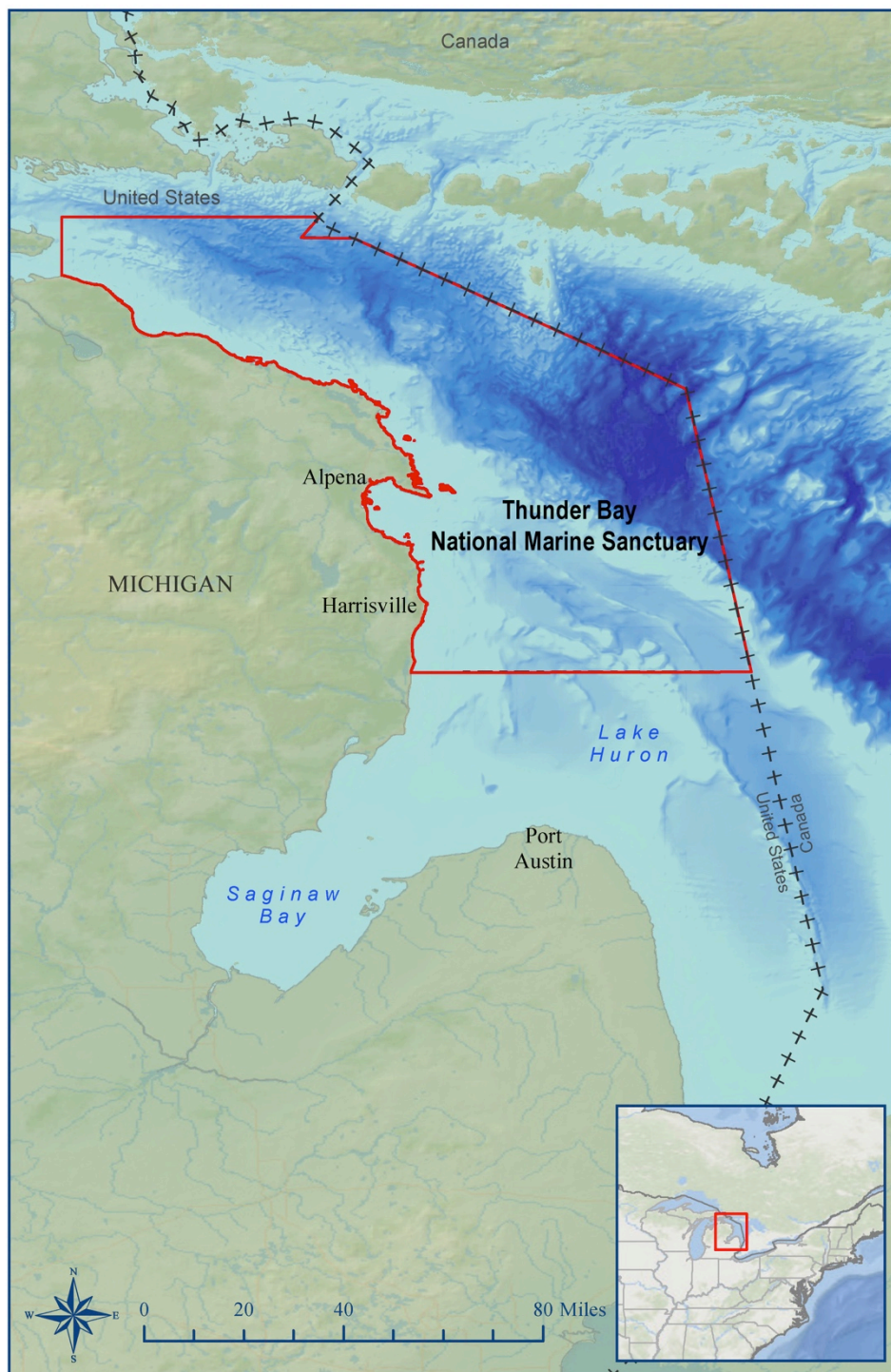


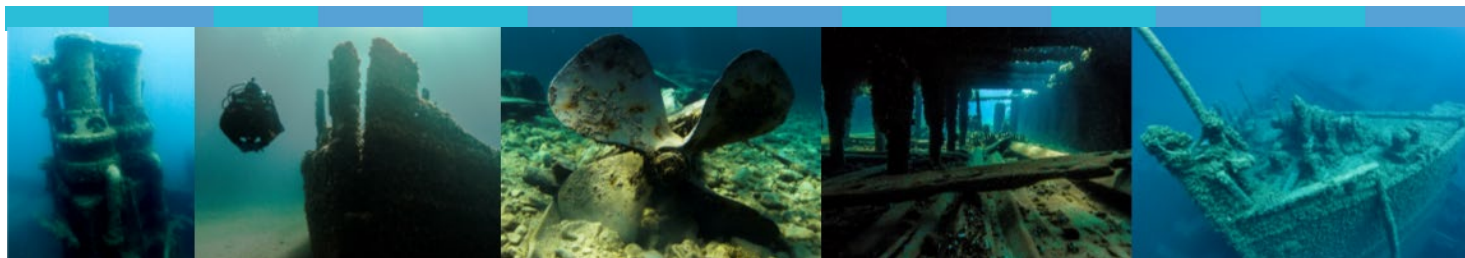
## FY19 Accomplishments



### BACKGROUND

Thunder Bay National Marine Sanctuary was established in 2000 to protect one of America's best-preserved and nationally significant collections of shipwrecks. Unpredictable weather, murky fog banks, sudden gales and rocky shoals earned the area the name "Shipwreck Alley." Fire, ice, collisions and storms have claimed over 200 vessels in and around Thunder Bay.

Thunder Bay National Marine Sanctuary is part of the National Marine Sanctuary System, which is a network of underwater parks encompassing more than 600,000 square miles of marine and Great Lakes waters from Washington state to the Florida Keys, and from Lake Huron to American Samoa. National marine sanctuaries are managed for the conservation of their natural and cultural resources, while supporting sustainable recreation, tourism and compatible commercial activities. The network includes a system of 14 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments.



## Thunder Bay National Marine Sanctuary



Photo: Friends of Thunder Bay NMS

Students from Alpena, Hillman, Onaway, Rogers City, and Stockbridge high schools received awards for their films themed "Exploration Is" at the Thunder Bay International Film Festival.

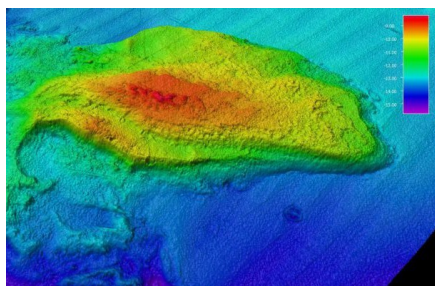


Photo: NOAA

NCCOS spatial ecologists made multibeam bathymetry images of Mischley Reef in the sanctuary this year.



Photo: NOAA

Students learned about the University of New Hampshire's ASV BEN as part of education efforts about sanctuary maritime heritage.

### Students embrace "Get into Your Sanctuary" with exploration-themed films

Entries in the sanctuary's annual student film competition nearly tripled this year with the theme "Exploration Is." The public were invited to see the top student films during the 7th annual Thunder Bay International Film Festival. Hundreds of area students in grades 6 to 12 also experienced the latest in ocean and Great Lakes filmmaking, addressing important issues facing marine protected areas, through screenings at their schools.

### "One NOAA" works together in the Great Lakes to map areas

Working with partners such as the Great Lakes Environmental Research Laboratory, spatial ecologists from NOAA's National Centers for Coastal Ocean Science (NCCOS) collected high-resolution bathymetry and imagery of lakebed within the sanctuary, prioritizing areas to map based on the potential for cultural and physical resources and ecologically significant lake floor habitat. This project will generate new maps and videos of sanctuary resources and inform future mapping work. This is the first NCCOS spatial ecology project in TBNMS, and will add significantly to the 16% of bottomlands mapped within the sanctuary.

### Sanctuary partners to share real-time research

Alongside the 2019 E/V *Nautilus* expedition season, Ocean Exploration Trust collaborated with the sanctuary to map sanctuary waters in northern Lake Huron. The mission's goal was to locate previously unidentified shipwreck sites to support the ongoing exploration and management of the sanctuary's cultural resources. Target areas were mapped with a multibeam sonar system aboard autonomous surface vehicle ASV BEN from University of New Hampshire's Center for Coastal and Ocean Mapping. The expedition was shared with diverse public audiences, including classrooms, through livestream telepresence opportunities.

### Looking Ahead to FY20

- For the sanctuary's 20th anniversary, Sanctuary Friends are leveraging a \$4 million state grant to the city of Alpena for a Great Lakes Maritime Heritage Waterfront Park. Enhancements will make NOAA's campus a water recreation destination supporting "Get Into Your Sanctuary."
- The sanctuary will help 4th graders access the sanctuary through classroom cruises that visit the sanctuary's historic shipwrecks, fulfilling the Every Kid Outdoors Program initiative for our national public lands and waterways.
- The sanctuary looks forward to a continued partnership with Ocean Exploration Trust on mapping efforts to scout the lakebed for lost shipwrecks with the aid of an autonomous surface vessel. This real-time research will continue to be shared via telepresence.