



# ALL ABOARD

Shipboard Science Workshop July 8-14, 2017

Complete applications due February 27

Notification of acceptance by March 24

Questions? Contact:

Justin Selden

Michigan State University Extension

[seldenju@anr.edu](mailto:seldenju@anr.edu)

or

Kristin TePas

Illinois-Indiana Sea Grant at

[ktepas@illinois.edu](mailto:ktepas@illinois.edu)



## Top Ten Reasons to ship out on the U.S. EPA's R/V *Lake Guardian*

1. Experience a once-in-a-lifetime professional development opportunity as you travel across Lake Huron
2. Live and work alongside Great Lakes scientists on the Great Lakes largest research vessel.
3. Use state of the art equipment to monitor phytoplankton, zooplankton, benthic organisms and water quality.
4. Explore Lake Huron's biology, geology, chemistry, and human impacts.
5. Examine curricula and resources and explore Great Lakes and ocean literacy classroom activities
6. Build professional networks with Great Lakes educators and scientists
7. Work and learn with 14 other 4-12<sup>th</sup> grade teachers and informal educators from throughout the Great Lakes basin
8. Begin and end at Detroit with stops in Port Huron and Alpena, MI
9. Visit the NOAA Marine Sanctuary
10. Earn a stipend, and graduate credit if needed



## Tentative Schedule

Mid-May Pre-workshop webinars  
July 8 Depart from Detroit, MI  
July 9-10 En route to Alpena, MI  
July 11 Alpena, MI  
July 12-13 En route to Detroit, MI  
July 14 Detroit, MI



For application go to <https://www.surveymonkey.com/r/LakeGuardian2017>

# DETAILS/APPLICATION INFORMATION

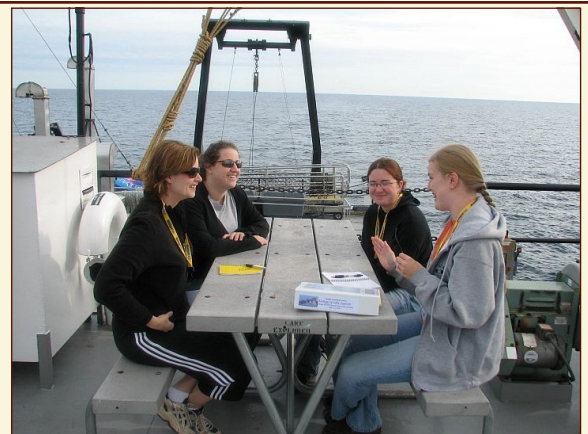
The Center for Great Lakes Literacy, Great Lakes Sea Grant Network and U.S. Environmental Protection Agency invite 4th-12th grade teachers and non-formal educators who:

- Are willing to incorporate Great Lakes science into their teaching
- Work at educational institutions that have Great Lakes exhibits or conduct Great Lakes programming

## Application materials required:

- Completed application form by February 27 – online submission via SurveyMonkey: <https://www.surveymonkey.com/r/LakeGuardian2017>
- Signed letter of reference from principal or supervisor documenting the applicant's professional qualifications and indicating that the administrator will support the teacher's efforts to integrate Great Lakes/ocean science into the curriculum as they apply to state science standards
- Graduate credit tuition and fees must be paid by requesting teachers

**The Center for Great Lakes Literacy will not discriminate on the basis of race, gender, religion, national origin, age, disability, sexual orientation, or marital status in selecting participants or in the administration of this workshop. Participants will be selected to provide regional geographic and ethnic diversity. Native Americans or member of groups underrepresented in science and/or who teach significant numbers of students in these groups are encouraged to apply.**



## Fifteen participants will receive:

- Housing and meals onboard the R/V *Lake Guardian* - crew's quarters include bunks, desks, lockers, and computer LAN connections. Showers and bathrooms are shared between rooms. Onboard recreation and exercise are available. Space for gear is limited.
- Exemplary Great Lakes curricula and resources
- Long-term support and communication with Great Lakes Sea Grant educators
- A \$500 stipend



The R/V Lake Guardian operated by the U.S. EPA's Chicago-based Great Lakes National Program Office (GLNPO), conducts monitoring to assess the health of the Great Lakes ecosystem by using state-of-the-art data collection techniques and instruments. Read more at [www.epa.gov/great-lakes-monitoring](http://www.epa.gov/great-lakes-monitoring)

## Participants will be expected to:

- Take part in both pre- and post- program teleconferences and/or webinars. Dates will be determined.
- Develop a reflective journal based on activities.
- Participate in research protocol development and implementation.
- Complete a plan for continuation of course ideas and scientist interaction.
- Participate in all aspects of program evaluation.
- Contribute to the shipboard science social media activity.

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## ALL ABOARD THE U.S. EPA'S R/V LAKE GUARDIAN

### Get ready for a cruise you won't soon forget!

Educators will work beside scientists, participating in Great Lakes research. Stops in ports will include additional science experiences. The workshop will offer first-hand explorations of Lake Huron ecology, geology, geography, weather and biogeochemical processes (see above), with particular emphasis on human impacts. Participants will collect planktonic and benthic organisms as well as conduct water quality data collection and analysis.

### Workshop Objectives

The cruise is designed to promote Great Lakes sciences in formal and informal education, as well as forge lasting relationships between science researchers and educators.

Participants will:

- Interact with scientists conducting research during the cruise; collect and analyze data and present findings onboard.
- Synthesize information and provide examples of how the Great Lakes interact with land, life, weather, and human activities.
- Infuse Great Lakes information into existing curriculum or informal educational programming.
- Examine Great Lakes systems with regard to issues of human impacts and natural changes over time.



*We prefer to receive your application electronically. If all else fails, contact Justin Selden and he will assist you.*

Justin Selden  
Extension Educator  
Michigan State University Extension  
55389 Dunham Rd,  
Suite 12  
Clinton Twp, MI 48036  
seldenju@anr.msu.edu  
(586) 469-7139



*You can't beat this once-in-a-lifetime professional development experience!*

### CGLL staff will:

- Introduce teachers to regional Great Lakes science research topics and high quality curricular and educational resources.
- Facilitate interactions between teachers and Great Lakes science researchers.
- Promote inquiry learning through existing curricular and educational resources, aligning with Next Generation Science Standards and Great Lakes Literacy Principles.
- Facilitate the development, exchange and implementation of curricula and lessons for participant's classrooms.
- Provide for long-term support, evaluation and communication between the Center for Great Lakes Literacy and workshop participants.

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