Service to Society: GLERL Outreach & Education

NOAA Great Lakes Environmental Research Laboratory staff are addressing the NOAA 2015-2035 NOAA Education Strategic Plan in a number of ways including working to address:

NOAA Education Goal 1: Science-Informed Society
An informed society has access to, interest in, and understanding of NOAA-related sciences and their implications for current and future events.

NOAA’s Education Mission:
To educate and inspire the Nation to use science toward improving ocean and coastal stewardship, increasing safety and resilience to environmental hazards, and preparing a future workforce to support NOAA’s mission.

Virtual Engagement

Overview
- GLERL produces a variety of science translation products – such as newsletters, blog posts, factsheets, infographics, and webpages – and disseminates them via our robust social media program. These are linked from the education pages of the GLERL website.
- The GLERL social media program expands our reach, allowing us to connect directly with the public and stakeholders through Twitter, Facebook, Flickr, YouTube, Wordpress, and Instagram. On these platforms, we run interactive campaigns to communicate GLERL’s work, such as live Twitter threads following current research and Facebook watch parties for new video releases.

GLERL’s Social Media by the Numbers
GLERL’s combined social media audience totals nearly 23,000 followers, one of the largest social media audiences in the Great Lakes science community (Figure 1). This audience has grown substantially during the past five years, with nearly triple the number of Facebook and Twitter followers in 2020 as in 2016 (Figure 2). Two new social media accounts were also started during this time period – a new Instagram account in 2020 and a new WordPress blog in 2016. Cumulatively, GLERL’s photos, videos, and web articles have reached nearly 6 million viewers.
<table>
<thead>
<tr>
<th>Account Type</th>
<th>Number of Followers or Views (as of September 2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter</td>
<td>12,656 followers</td>
</tr>
<tr>
<td>Facebook</td>
<td>9,100 followers</td>
</tr>
<tr>
<td>Instagram</td>
<td>921 followers</td>
</tr>
<tr>
<td>Flickr</td>
<td>5.9 million views</td>
</tr>
<tr>
<td>YouTube</td>
<td>19,265 views</td>
</tr>
<tr>
<td>WordPress Blog</td>
<td>2,292 views</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>22,677 followers, 5,921,557 views</td>
</tr>
</tbody>
</table>

Table 1: GLERL’s number of followers or views by social media account, as of September 2020.

Figure 1: Social media reach of NOAA GLERL compared to partner organizations around the Great Lakes region as well as comparable NOAA OAR research laboratories, as of September 2020.
In-Person Engagement

**Overview**

- GLERL participates in educational events and initiatives that help to cultivate a science-informed society, such as: community tabling and speaking events, hosting college classes for tours and presentations, K-12 school visits.
- GLERL subject matter expertise is regularly sought for news articles by international, national and regional outlets, resulting in hundreds of online, print, video, and radio news items every year. We average well over hundred stories per year.

**Science Communications IAGLR Conference Session - 2019**

In 2019, NOAA GLERL organized and hosted a successful "Science Communications" session at the 2019 International Association for Great Lakes Research (IAGLR) Conference that brought together educators and the media for two days of activities. See writeup on NOAA GLERL's blog [here](#).
The NOAA Great Lakes Environmental Research Laboratory (GLERL), along with partners from the Cooperative Institute for Great Lakes Research (CIGLR), the Great Lakes Observing System (GLOS), and the Friends of Thunder Bay National Marine Sanctuary (TBNMS) participate in the U.S. Army Corps of Engineers (USACE) annual Soo Locks Engineers’ Day, in Sault Ste. Marie, Michigan. The day celebrates the engineers who built the Soo Locks along with the men and women of the past and present who maintain the Locks. Great Lakes users, and other guests attend the event to get up close and personal with freighters making their way through the Locks. The NOAA and partner exhibits highlight Great Lakes research, observing systems, historic preservation of shipwrecks and lighthouses, conservation of marine habitats, and more.

Ann Arbor Mayor’s Green Fair - Annual
GLERL participates yearly in the Ann Arbor Mayor’s Green Fair in downtown Ann Arbor, Michigan as a member of the “Environmental Leaders” area. The Environmental Leaders Area showcases environmental nonprofit organizations, government agencies and participating businesses that have earned the "WasteKnot" partners and/or Community Partners for Clean Streams designation from Washtenaw County. Many of the exhibit areas provide information and host hands-on activities for all ages, such as environmental information, crafts and live birds of prey demonstrations. The University of Michigan CIGLR Summer Fellows and NOAA GLERL Summer Interns, in addition to GLERL scientists, speak with folks who visit the booth about a variety of topics about the Great Lakes. It is a great opportunity to not only promote NOAA research to the community, but also educate the community on the programs and opportunities available through CIGLR.

Huron River Day - Annual
The Cooperative Institute for Great Lakes Research (CIGLR), the Great Lakes Observing System (GLOS), and NOAA GLERL summer fellows, interns, scientists, and staff celebrate Huron River Day together by sharing their knowledge on Great Lakes environmental research. More about Huron River Day: More than 30 years ago, the Huron River Day celebration began as a way to encourage partnerships among government, private and non-profit organizations and to educate citizens about the importance of water quality and Huron River preservation. Each year, this event draws approximately 2,500 people from the Ann Arbor community to celebrate the Huron River.

Take Your Kids to Work Day - Bi-Annual
NOAA GLERL hosts Take Your Kids to Work day on April 26th. Kids who join us for the day learn about the lakes and aquatic food webs and invasives, tie knots, and pretend to be macroinvertebrates. They make wearables by painting replica Great Lakes fish species and pressing them onto t-shirts. A very popular activity of the day—attended by the kids and “grown-ups” alike—is a special encounter with three raptors. Everyone who volunteers for the event does an extraordinary job of hitting the right note of science and active engagement. Our guests range from three to twelve in age, and everyone can enjoy events at their level.

University class visits/lectures/lab tours (most happen annually)
- Wayne State University
- Eastern Michigan University
- State University of New York (SUNY) Oswego
- University of Michigan Climate and Space Sciences and Engineering (CLASP)
- University of Michigan School for Environmental and Sustainability (SEAS)

K-12 School Events (most happen yearly, with a focus on underserved communities)
- Michigan State University (MSU) Science Day, Lansing Michigan
- Huron Intermediate School District STEAM Showcase, Bad Axe, Michigan
- Muskegon Third Grade Water Festival, Muskegon, Michigan
- National Ocean Science Bowl

Laboratory tours
- Lab tours - Many VIP visits include Congressional Representatives, industry and university partners, federal partners, and college-level science classes.