STORYTELLING IN THE FIELD
WITH SEA GRANT'S SCIENCE COMMUNICATORS

By Samantha Larson, Bonnie Willison, and Marie Zhuikov

ABSTRACT. Communicating science is a core component of the Sea Grant model. Telling compelling stories that convey accurate and balanced information in an interesting manner is key to these communications efforts and to achieving the organization's overall goal of an engaged public and decision-makers. This article outlines and highlights best practices for some of the most commonly used storytelling mediums: narrative writing, photography and video, and podcasts. The importance of conducting first-hand reporting, placing a narrative focus on people, and taking time to formulate a thoughtful and strategic communications approach are key takeaways.

A core part of the Sea Grant vision is an engaged public and informed decision-makers. Sea Grant communicators play an essential role in this vision by using their storytelling expertise to extend the reach of scientific and technical knowledge far beyond academic settings.

Why does story matter in communicating science? "Narratives offer increased comprehension, interest, and engagement" according to Michael F. Dahlstrom (2014) of Iowa State University School of Journalism and Communication, "and can effectively and appropriately help [science writers] communicate to non-experts about science." Taking time to present information through a thoughtful portrayal of the people behind the production of knowledge, or those who will be most impacted by it, can go a long way in terms of building empathy, community, and trust.

Whether these stories are told through the written word, photography, video, or podcasts, crafting narratives that convey accurate and balanced information in an interesting manner is key to Sea Grant communications and to achieving the organization's overall goals. High-quality storytelling has made many Sea Grant digital and print materials exemplary in the field of science communication at large.

Strong and effective communication won't happen as an afterthought: it requires care, attention, and time. For example, communicators may need to take the time to get out from behind their laptops and into the field so that their audiences can see stories through their eyes—and in-person reporting can lead to stronger relationships with sources.

With backgrounds in video, print, and digital mediums over a combined 60 years in communications, the authors bring a range of experience in producing content that effectively reaches audiences. Here, we highlight a few of the various mediums that communicators use to tell Sea Grant stories and provide tips to improve end results. While this is not intended as a comprehensive list, we hope it helps shed light on why all of these mediums are worthwhile—and perhaps it will inspire you to use them in your own science communications.

NARRATIVE WRITING

Nearly all marine science professionals use the written word to engage their audiences. Whether it is done in the form of detailing research findings, documenting a meeting, or simply responding to emails, the ability to write clearly is an important skill that most of us have been honing since grade school. Sea Grant communicators often write with an additional goal in mind: we want to tell a good story. When this is done well, in addition to connecting with our audiences, it extends stories' reach through external media outlets.

This is why many Sea Grant programs prioritize producing print and digital written stories—often as magazines, blog posts, and even books. For example, Washington Sea Grant (WSG) publishes the biannual *Sea Star* magazine, which provides the space needed for longer articles that delve into the stories behind the program's research and outreach initiatives. An article in the most recent issue featured the Swinomish Indian Tribal Community building a new clam garden, an Indigenous mariculture practice honed over 4,000 years. Thanks to the trust that Melissa Poe, WSG assistant director for outreach, has built over a decade of collaborating with the community, author Larson was invited to attend a clam garden-building event in person. In doing so, she witnessed the importance of place and culture in the project and then highlighted both in the

article, describing scenes and incorporating quotes from those present. Indigenous storytelling is seldom done in the written word—rather, many Indigenous cultures more commonly communicate via oral storytelling, song, dance, and ceremony. Larson's position as WSG science writer, however, enabled her to highlight Indigenous knowledge for other audiences.

What elevates a piece of writing into a narrative? Here are a few essential elements.

Think structure. Narrative science writing relies heavily on teachings from the craft of journalism. A narrative science article typically follows what's known as feature structure, beginning with an engaging lead to draw readers into the article, a billboard paragraph that guides readers to the main point of the article, and body paragraphs that convey important details of the project or findings with sentences that provide a sense of time and place interspersed throughout.

Focus on people. Humans are usually more at ease connecting with other humans than with abstract concepts or technical information. Incorporating a few well-chosen details about a person into the story will go a long way toward retaining the reader's attention. Often this can be done simply through including direct quotes from the people at the heart of the project. Or, the writer could frame the article as a profile, providing scientific information by telling that person's story.

FIGURE 1. Attending important community events, such as the 2022 building of the Swinomish Indian Tribal Community's clam garden shown here, can help writers understand and portray the importance of place and culture within a project. This is a drone-captured image of Swinomish community members and invited guests passing large rocks hand to hand from the upper beach to the lower tide line to build the rock wall that forms a clam garden terrace. This Indigenous aquaculture technique is an ancestral practice to increase clam abundance and biological diversity. Clam gardens are being revitalized in the Pacific Northwest Coast as climate solutions to food security and to restore Indigenous management in coastal areas. *Courtesy of the Northwest Indian Fisheries Commission*

Know when to stay out of the weeds—and when to dive into them. One key difference between narrative science writing and academic science writing is that the former does not attempt to capture every element of a research project. Science communication requires the ability to focus on the main thrust of the research and why it matters. It is not the same as "dumbing down" the material; writing that respects the reader's ability to understand complicated topics through clear, nontechnical prose often results in the reader having greater respect for the author, building trust and openness for future communications.

PHOTOGRAPHY AND VIDEO

Visuals are another important way to communicate scientific information. Our brains are specially attuned to process visual imagery, and science communication should take advantage of photography and video to show the dynamic environments we protect and the people working to make an impact.

Photography and video are all around us—in entertainment TV, news broadcasts, ads, magazines, and social media. This means that science information must compete with nearly omnipresent attention-grabbing media. Social media has become important to sharing science information, and imagery is essential to gaining an audience on social media. Fortunately, smartphone cameras make it easier to have all the photo and video production tools in our back pockets on a daily basis. Here are a few tips for capturing science in action.

Get out that phone. You can never have too many images of behind-the-scenes science. Remember to get out your phone or camera and document the people, places, and processes behind the research and outreach. Images of fieldwork or lab work help to demystify science and connect everyday people to your story.

Keep videos brief and visually interesting. Delaware Sea Grant's 15 Second Science video series (https://www.deseagrant.org/projectvideo) illustrates how videos don't have to be long to be effective. Covering topics like aquaponics, oxygen titration, and oyster farming, these 15-second videos provide an entrance into marine science.

Get into the field. Illinois-Indiana Sea Grant took viewers onto Lake Michigan in "Chuoy the Buoy provides 'data for the people'" (https://www.youtube.com/watch?v=-Porgf5xYbI). With visuals of the Chicago skyline in the background, viewers can see the crew at work and hear from experts.

Focus on people (again). Focus your visuals on the people behind the science to humanize your message and increase your chances of connecting with your audience. During interviews with fish producers, Wisconsin Sea Grant allowed extra time for the staff videographer to capture the fish producers' stories as well as visuals of them at work. The resulting personal profile videos humanize local fish production and double as promotional material for the small businesses themselves, strengthening Sea Grant's relationship with the community (https://eatwisconsinfish.org/q-a/).

Plan from the very beginning. Ready to move past smartphone content? Working with professional videographers and photographers can take your communications to the next level. Thinking about this from the beginning of a project can help you write this into grants and secure funds for professional storytellers; even a few thousand dollars as part of a large communications project can do a lot.

PODCASTING

Podcasts are on-demand audio stories that can be framed as interviews, documentaries, narrative storytelling, game shows, and more. Whether short-form or long-form, a podcast offers an opportunity to immerse listeners in a science-based story.

FIGURE 2. Podcasts created by Wisconsin Sea Grant include *The Water We Swim In*, which focuses on the Great Lakes, water, and equity; *The Fish Dish*, which introduces listeners to Wisconsin's fishing and aquaculture industries and includes a cooking section; and *Wisconsin Water News*, offering short-form news highlights from the state's Sea Grant program. *Image credit: Wisconsin Sea Grant*

Recent work suggests that Generation Z (those born after 1997), prefer internet-based forms of communication that can be accessed using a mobile device. They frequently listen to podcasts featuring interviews, news, and science information. This audience is especially desirable to reach due to their interest in STEM career fields, potential for high levels of education, and audience diversity compared to other generations (Opat et al., 2022).

Using audio storytelling techniques to convey science can increase listeners' interest and engagement in scientific topics. Stories told in first person (narrator's point of view) are twice as likely to affect the decisions of audience members as stories told using other points of view. (Opat et al., 2022). Audio field reporting is one technique for accomplishing this. Bringing the audience along on a visit to a fish farm, on a research trip to sample maple sap, or into the kitchen to cook a seafood recipe can be captivating and help audiences retain what they've learned. It can also create relationships between the content producer and the interviewees.

Wisconsin Sea Grant (WISG) staff brought audio recorders into the field to cover "Nimaawanji'idimin Giiwitaashkodeng," an Ojibwe-led research project funded by WISG. The project explores how Anishinaabe people used fire throughout history to encourage blueberry growth and red pine reproduction on a natural sandbar in Lake Superior. Author Willison attended an opening drum ceremony, and author Zhuikov accompanied the research team as they collected tree ring samples. These first-hand experiences were then used to create a 46-minute episode called "Fire, Blueberries, and Treaty Rights" for *The Water We Swim In* podcast (https://www.seagrant.wisc.edu/audio/the-water-we-swim-in/fire-blueberries-and-treaty-rights/) and a 16-minute episode titled "The Stories Trees Tell" for *Wisconsin Water News* (https://www.seagrant.wisc.edu/audio/wisconsin-water-news/the-stories-trees-tell/). Audio stories like these offer space for those featured to describe the background and significance of their work in their own words. The stories bring listeners along on unique field experiences and have engaged almost 1,000 listeners thus far and will be used as evergreen content.

By working with communicators to create podcasts, scientists can engage new and younger audiences, tell narrative stories that facilitate scientific learning, and have nuanced conversations.

AT THE END OF THE YARN

Having so many options when deciding how to share and package information can feel overwhelming. At the same time, every person processes material in unique ways—so the wider the range of communications mediums you use, the broader the audience you will reach.

To choose the best medium, it's important to understand your audience—its demographics, how its members prefer to receive content, and their attention challenges. For example, if listeners are busy multitasking, a podcast could be the best way to reach them while they are doing other things. Or, if your audience is curious and wants to learn, a print story or video could provide the details it craves.

Many of the communications mediums we've discussed throughout this article share common threads. For example, placing a focus on people and story—whether that's done in a written article, photo, video or podcast—will help audiences feel more connected to the content. Getting out into the field will provide audiences with details and visuals that make the piece more compelling. More than anything, taking the time to be thoughtful and strategic in your communications approach, including how to make use of the tools and connections that are available to you, will further your reach—and ultimately help engage and inform the public.

REFERENCES

Dahlstrom, M.F. 2014. Using narratives and storytelling to communicate science with non-expert audiences. *Proceedings of the National Academy of Sciences of the United States of America* 111(suppl_4):13,614–13,620, https://doi.org/10.1073/pnas.1320645111.

Opat, K., E. Irlbeck, R.G. Cummings, N. Li, and A.E. Boren-Alpizar. 2022. Get the story straight: Comparing narrative and logical-scientific communication to capture Gen Z's interest in science podcasts. *Journal of Radio & Audio Media*, https://doi.org/10.1080/19376529.2022.2145481.

ACKNOWLEDGMENTS

The authors would like to thank Tim Campbell, Moira Harrington, Titus Seilheimer (Wisconsin Sea Grant), Hope Charters (Illinois-Indiana Sea Grant), MaryAnn Wagner, and Melissa Poe (Washington Sea Grant), for their contributions to this article.

AUTHORS

Samantha Larson (larsonsa@uw.edu), Washington Sea Grant, Seattle, WA, USA. **Bonnie Willison**, Wisconsin Sea Grant, Madison, WI, USA. **Marie Zhuikov**, Wisconsin Sea Grant, Superior, WI, USA.

ARTICLE CITATION

Larson, S., B. Willison, and M. Zhuikov. 2024. Storytelling in the field with Sea Grant's science communicators. *Oceanography* 37(1):44–47, https://doi.org/10.5670/oceanog.2024.216.

COPYRIGHT & USAGE