Coastal Resilience Goes Social

How a National Park Service intern uses social media to fuel conversation about coastal resilience

Marianna Falso. NPS photo.

Marianna Falso landed in New York City just two weeks shy of the two-year anniversary of Hurricane Sandy. Her arrival also coincided with the National Park Service's (NPS) shift from recovery work to mitigation, from setting things right that had been upturned or destroyed during Hurricane Sandy to a forward-looking gaze that rallies whole communities to change. That's where Marianna comes in. Her mission is to get people learning about and talking about climate change: how it's affecting our coasts, what it means for the future of coastal communities, how NPS is responding, and what everyone can do to make a difference.

Until now a lifelong resident of Italy, Marianna has set goals for herself that are as lofty as her journey was long. During her eight-month stint as the social media specialist on Gateway National Recreation Area's (Gateway) public relations team, she is using social media platforms like Facebook and Twitter to cultivate public interest in and awareness of climate change: one of the most globally urgent and one of the most hotly debated issues of our era.

"Little by little, I have been trying to develop a debate, an argument," she says. "Even if we have skeptics, people that don't believe in climate change, I just want to have a debate. Then we can talk about what is wrong, what is right."

Her Facebook posts have garnered the most attention. Marianna chooses links to infographics, articles, reports, and photo galleries that are sure to incite online conversations about climate change. Alongside these, she's created a series of #DidYouKnow posts that explain the value of natural resources found in Gateway, like salt marshes, oyster reefs, and piping plovers. She informs followers of how their own actions can impact the vitality of critical habitats and plant and animal communities. In other posts, Marianna introduces different online interactive tools that help people, for instance, see how future storm surge and flooding could impact coastal communities or gauge the greenhouse gas emissions of their households.

The social media specialist's role, Marianna says, is to tighten connections with the community. In this particular case, Marianna says, "I'm trying to make them feel the park is part of their daily life." Her overall message is, "this is what we are doing, and you can be part of it."

From the outset, Marianna observed that local perceptions were a barrier to making a connection. Gateway spans parts of Sandy Hook, New Jersey, and parts of Brooklyn, Queens, Long Island, and Staten Island, New York. But, Marianna says, the park's closest neighbors don't tend to recognize the park as one of their own.

Also, before Marianna arrived, discussions about climate change in Gateway's social media feeds were rare, and her first attempts to provoke such discussions were met with "a lot of negative comments." But "now, things are changing," Marianna says. The online conversation has shifted. There seems to be more understanding, she says, that "climate change is not about polar bears. It's about everything."

Since the fall, Marianna has watched Gateway's Facebook followers multiply from 7,000 in November to more than 8,300 in April. People are commenting. They're asking questions, volleying ideas with one another, and they're expressing gratitude and talking about getting involved to preserve the wetlands in and around Gateway. "You can be happy when somebody's saying that to you," Marianna says, "because it's just a thought, and it's just a few words, but it can change something."

When she returns to Italy in May, Marianna will leave behind a social media strategy that she developed and fine-tuned for Gateway. Besides its aim to stimulate discussion of climate change, the strategy includes recommendations about how to use social media to cultivate a lasting connection between local communities and this urban National Park.

Coastal resilience (and what science communication has to do with it)

Of all of the National Parks in the northeast coastal region, Gateway—which spans three distinct units in New York and New Jersey—suffered the heaviest, most costly damages. The storm flooded historic landmarks and park maintenance buildings, destroyed sewer and water systems in Sandy Hook, and unearthed unexploded ammunition on beaches near Fort Hancock, a former military base in the park.

In the months that followed, park managers at Gateway confronted a long process of "setting things right." But doing so didn't mean simply repairing park resources. It also meant communicating to park visitors and nearby communities why rebuilding the park exactly the same as it once was would be out of the question.

Climate science tells us that coastal communities can expect damaging storm surges like the one that Sandy delivered to occur more frequently. Indiscriminately returning park facilities and infrastructure to their former state would be a futile effort. So, instead of relying on old methods, park managers are taking a new approach.

Resilience has become the watchword guiding dozens of NPS research projects that the federal government funded following Hurricane Sandy. As a concept that guides research, decision-making, and planning, resilience influences approaches to the recovery of coastal communities' physical resources, plans for emergency response, designs for infrastructure development, and much more. Resilience is also directly linked with science communication, such as Marianna's work to create a social media strategy to build conversation around climate change issues.

Effective communication about the science behind natural disasters, sea level rise, and other impacts of climate change, matters to the resilience of coastal communities. More than ever before, effective science communication is critical for coastal communities that will struggle more frequently to recover from—or to adapt to—the often-devastating outcomes of an unstable natural environment.

Turning the conversation around

Conversation around climate change has been as challenging in local and regional contexts as it has been globally. It's a complicated public debate, Marianna says, in part because innumerable issues fall under the umbrella of climate science and climate change.

Marianna's work in environmental communication in Italy helped to catapult her into her role at Gateway. For her master's thesis at La Sapienza University of Rome, she studied how media coverage of the Fukushima nuclear disaster impacted an Italian vote on nuclear energy that took place three months after the disaster. Shortly

Construction of the Highland - Sea Bright Bridge seen from a salt marsh of Plum Island at Gateway's Sandy Hook Unit. Photo by Robin Baranowski.

after Marianna completed her research and earned her degree in media and communications studies, a European exchange program called Torno Subito, or "I'll Be Back Soon," awarded her a scholarship to work abroad on a science communication project at Gateway.

In return for the opportunity to live and work abroad and sharpen her skills in her field, Marianna will travel home to Italy in the spring and work in Rome for four months for Federparchi, the Italian Federation of Parks and Nature Reserves. There, too, she hopes to develop a similar communication strategy for Italy's parks and to generate public interest in and discussion around climate change.

In the meantime, Marianna has been busy doing her homework. She's attending a course at Yale University called "Climate Communications for Public Policy." Meanwhile, at Gateway, she is charged with communicating accurately and in a couple hundred characters or less what the scientific reports reveal about the future of treasured coastal resources. To do that, she immerses herself in up-to-date NPS inventory and monitoring reports, weeds through the details of ongoing resilience research projects, talks with park scientists, gathers data, images, and maps, and encapsulates what she learns in plain language without jargon.

"It's not so easy to talk about science," Marianna says, "but the debate is important. We can prepare people to receive and understand the value of the scientific data."

Most often, that means turning the conversation around. For many people, Marianna says, the impacts of climate change seem too big to comprehend. It's important to be aware of the big picture, but in order to draw people into the larger, global conversation about climate change, she needs to learn how specific communities can connect to the issues.

Through her in-depth conversations with NPS staff and researchers and through internet searches, Marianna has educated herself about local communities' economic resources and the meaningful connections between scientific research and local people's lives. With one recent post, she used this knowledge to clarify the relationship between NPS research to track ocean acidification and the future of a treasured local oyster market.

"There's a gap that we have to eliminate, and I'm trying to do that," Marianna says. "Because we have the opportunity to make things better, and there are a lot of things that we can do: adaptation, change our way of living. This is something that we can do, that everybody can do."

Manhattan skyline seen from Sandy Hook Unit's North Beach. NPS PHOTO by Park Ranger Konrad Wisniewski.

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