



# FELLOW NEWS

News for and about the NOAA Fellows

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## FOCUS ON FELLOWS

### KELLY EGAN



Florida Fellow Kelly Egan vividly recalls her childhood home and the wetlands that flourished right outside her front door in rural southeastern Florida. It's the setting where her love of the environment first began and, although she has lived in many places, Florida—now West Palm Beach—is the place she considers home.

That enthusiasm for the environment led Kelly to study ecology and biology at Florida Atlantic University. An elective course focused on coastal hazards piqued her interest in coastal zone management. She knew immediately she wanted a profession that helped address the coastal issues affecting her home in Palm Beach County. Furthering her education at Florida's Nova Southeastern University, Kelly earned a joint master's degree in marine biology and coastal zone management.

Finding out about the fellowship program through a friend, Kelly applied and was chosen to work at the Florida Department of Environmental Protection's Coral Reef Conservation Program. She works on coral reef management outreach and education efforts. She also supports local action strategies developed by the U.S. Coral Reef Task Force that foster communication and collaboration among federal, state, territory, and nongovernmental partners.

For instance, Kelly works on a local action strategy that aims to lessen impacts on corals by communicating with the marine and coastal construction industries. She has initiated numerous education and outreach campaigns that raise awareness of coral reef issues and ways to reduce harmful impacts.

Kelly developed a training for governmental agencies that clearly communicates the protocols to follow for coral reefs and hardbottom resources within southeastern Florida.

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Kelly snorkeling the Great Barrier Reef in Australia

She also produced an informational binder, *Southeast Florida Coastal Construction Recommendations: Ways to Protect Our Natural Coral Resources*, which targets construction project sponsors, contractors, and agency personnel. It describes this area’s coastal habitats, best-management practices for coastal construction, and methods for shoreline protection and erosion control.

One of Kelly’s final products will be a document, *Our Florida Reefs: The Community Planning Process and Recommended Management Actions*. This document will provide recommended management actions and legislation changes to better protect the coral reefs off southeastern Florida’s shores.

“Being able to participate in, facilitate, and coordinate stakeholder meetings for a process that is working from the bottom up is something that I will always look back on and be proud to be a part of,” says Kelly.

The most gratifying aspects of her work have been interactions with

various stakeholder groups and her “fantastic” coworkers. “I’ve been able to network with so many people, and I have learned a great deal about other organizations that protect our coastline and the resources we have in Southeast Florida,” says Kelly.

The dedication shown by both coworkers and stakeholder groups in protecting coral reefs has inspired Kelly. Other fellows have been inspirational, showing her how individuals can make a difference.

When not in the office, Kelly enjoys spending as much time as possible on the beach, photographing sunrises, kayaking the Loxahatchee River, snorkeling, running half marathons, attempting CrossFit training, traveling, and spending time with loved ones.

Kelly already knows her next step following the fellowship—she is staying in Florida and has accepted a biologist position with the Army Corps of Engineers in Palm Beach Gardens. We wish her the best of luck in her new position and in all that follows! 



## FOCUS ON FELLOWS EVAN SHERER

Fellow Evan Sherer became fascinated by the ocean at a young age, an interest he can trace to the many beachside vacations taken by his Rockville, Maryland, family. Poring over his childhood picture books, Evan would study illustrations of sharks, whales, and other sea creatures. Later snorkeling and diving fed his fascination with the ocean and all its creatures.

Evan’s interests led him to the University of Miami to study biology, and then on to the College of Charleston to earn his master’s degree in environmental studies, where he researched the effects of estuarine acidification on oysters.

A friend from graduate school had been a fellow and encouraged Evan to apply, which led to his fellowship with the Office of Coastal and Land Use Planning in the New Jersey Department of Environmental Protection.

Evan's project, Shore Assess, is a GIS-based shoreline assessment that is being conducted at a study area in Barnegat Bay, New Jersey. Shore Assess consists of three parts: a shoreline inventory, a shoreline change analysis, and a wave exposure analysis. For the shoreline inventory, Evan uses existing data from NOAA to identify types of shorelines in the study area. "This way, I know which types of manmade and natural shorelines are present," he says.

Evan's shoreline change analysis consists of several steps. First, he georeferences aerial photography from 1932 to 2012 in a GIS and digitizes historical shorelines. Next he uses the Digital Shoreline Analysis System, a program from the U.S. Geological Survey, to calculate shoreline change rates.

Data about shoreline types are integrated into the analysis, allowing Evan to determine whether different shoreline types show specific changes such as erosion or accretion.

"I am also looking to see if natural shorelines adjacent to armored shorelines are eroding more than natural shorelines farther away from development," says Evan. He is comparing short-term and long-term shoreline change rates to see whether these rates have been constant over the 80-year period.

NOAA's Wave Exposure Model, which Evan is using for wave-exposure analysis, calculates the average wave energy along the shoreline at intervals that the user defines. The model uses wind velocity data collected from a nearby airport,



*Evan hiking in Acadia National Park, Maine*

topographic and bathymetric data, and a shoreline vector of the study area and surrounding areas. These components help Evan to estimate the forces that hit the shoreline.

"With the model, it's possible to answer questions that can help determine which areas are suitable for living shorelines or other types of coastal restoration," says Evan. Do different shoreline types experience different wave energy? How well does wave energy account for shoreline change? Do different shoreline types experience different rates of shoreline change? The wave exposure model can also identify areas that are erosion hotspots and areas that accrete land.

Evan's report on the methods used in Shore Assess will help guide future studies. He hopes these methods will benefit shoreline assessments in other parts of the state, especially where coastal restoration work is being considered. New Jersey is currently developing a coastal atlas, which is where the GIS files from Evan's project will reside.

The fellowship has helped Evan

expand his professional network, not only in the coastal management community of New Jersey but also to others across the country working on similar projects. His fellowship has been incredibly flexible, allowing him to get involved in other New Jersey projects such as living shorelines, aquaculture, and ocean acidification.

"My fellowship has served as a launchpad for a career in the environmental field and given me confidence that I can have a successful career and make real contributions," says Evan.

In the future, Evan is open to other locations and would like to continue designing and conducting marine science and coastal management projects for shoreline assessments.

But for now, Evan enjoys spending his downtime exploring downtown Princeton. New York City and Philadelphia are about an hour away, so he spends spare time traveling there to meet up with friends and explore. "Also," says Evan, "you can't live in New Jersey and not go to the shore!" 

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## FOCUS ON THE COASTAL FELLOWSHIP: SEA GRANT ENDORSEMENTS

The NOAA Office for Coastal Management has received the 2016-2018 Coastal Management Fellowship endorsements from Sea Grant. The office received 52 applications from 25 Sea Grant programs across the country.

Four criteria will determine the selection of twelve finalists: academic performance and the diversity of educational background; endorsement by the applicant's Sea Grant director; support from two letters of recommendation; and the content of the applicant's goal statement.

A workshop to match states with fellows will take place in Charleston, South Carolina, from April 25 to 29, 2016. Of the finalists selected, six will be placed with a host state. Each host state will send its fellow mentor to the placement workshop, and the finalists will be brought to the workshop at the expense of NOAA.

The workshop consists of an orientation, project proposal presentations, finalist presentations, finalist and host state interviews, and fellow matching. If a state does not find a suitable candidate during the workshop, it will be given the option to defer fellow placement for one year. States will only be allowed one deferment before they have to reapply.

This year, the hosts are the California Coastal Commission, San Francisco Bay Conservation and Development Commission, and coastal management programs in New York, North Carolina, Washington, and Wisconsin.

For more information on the 2016 state projects, please visit the fellowship website at [coast.noaa.gov/fellowship/stateprojects.html](http://coast.noaa.gov/fellowship/stateprojects.html) or contact the fellowship coordinator at [ocm.fellowships@noaa.gov](mailto:ocm.fellowships@noaa.gov). 

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## NEWS ABOUT FORMER FELLOWS: DOUG MARCY – FELLOW, 1997 TO 1999

When Doug Marcy began his fellowship with the South Carolina Office of Ocean and Coastal Resource Management, he brought GIS skills to an agency that—like many at the time—was still relying heavily on paper maps and photos.

“For months after 1989’s Hurricane Hugo, the beachfront was unrecognizable from that in older photos,” says Marcy. “I added GIS points to the office’s inventory of coastal structures, so my co-workers could orient themselves better in the field and address the impacts of the leftover damage. Working on that project really taught me the ins and outs of the Global Positioning System and GIS.”

Now a coastal hazards specialist at NOAA’s Office for Coastal Management, Marcy is still riding a wave of GIS and web technologies

that help coastal communities survive and thrive despite the worsening impacts of climate change.

The NOAA Sea Level Rise Viewer tool, which a team developed under Marcy’s leadership, is one of the most popular tools on the Digital Coast, in 2015 averaging 267 visits per day from people wanting to know more about their local flood hazard risks.



Marcy has talked about the tool and sea level rise issues to the Los Angeles Times, Miami Herald, Union of Concerned Scientists, and many other organizations, and he consults with the Federal Emergency Management Agency as it investigates incorporating sea level rise data into flood maps.

The Sea Level Rise Tool for Sandy Recovery, a product spin-off developed with

other federal partners, garnered NOAA the 2013 “Climate Champion” GreenGov Presidential Award for helping city planners identify and prepare for future flood risks.

“In looking back at all these things,” notes Marcy, “the starting point for me was the technical and management experience I gained as a fellow, and that experience has played a big role in my career.” 

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## NEWS ABOUT FORMER FELLOWS: MATT NIXON – FELLOW, 2008 TO 2010

In just four years, Matt Nixon climbed the career ladder from fellow at the Maine Coastal Program to the program’s assistant director in 2012. He also became president of The Coastal Society in 2016. But he hasn’t forgotten his roots and is currently mentoring a coastal fellow working on the state’s coastal mapping initiative.

“That project is my baby, and I’m entrusting it to a fellow,” says Nixon, “which tells you something about my confidence in the fellowship program!”

Nixon went into his fellowship tasked with developing an ecosystem-based management framework—only to have to switch focus immediately when the state’s governor decided to make a new ocean-energy task force the number-one priority.

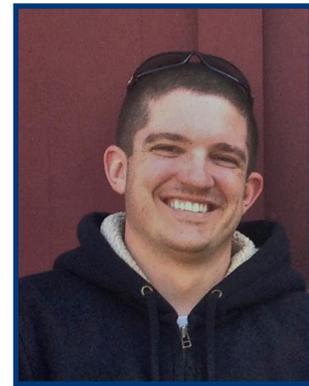
“Suddenly I was put in a whole new role—trying to figure out criteria for ocean-energy test sites, developing a public curriculum and survey, being ‘questioned’ by fishermen, and sometimes coming home from meetings at 3:00 a.m.,” says Nixon.

The upside of this rough transition was that Nixon got noticed for his “get-it-done” drive,

and he was hired as a permanent employee even before the fellowship ended. In fact, he won the agency’s Employee of the Year award during his first year as a permanent employee.

Nixon is still working at a furious pace and having some peak experiences along the way. Recently he and his colleagues discovered a never-before-charted deep-sea canyon, previously a river, that might eventually reveal evidence of a prehistoric settlement far beyond what was previously recognized. “We’re using the state’s oceanographic vessel to learn more,” he adds.

Nixon sees his stint in the fellowship as a lucky break. “Being on the ocean energy task force gave me high-level exposure to people who have been extremely important in my career. Without the fellowship I wouldn’t be where I am today; it’s as simple as that.” 



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## UPCOMING CONFERENCES AND EVENTS

### APRIL

**12 to 13: South Atlantic Living Shorelines Summit**

Jacksonville, Florida

[southatlanticalliance.org/?page\\_id=1498](http://southatlanticalliance.org/?page_id=1498)

**13 to 14: Golden State Waters Action Summit**

San Francisco, California

[thebayinstitute.org/golden-state-waters](http://thebayinstitute.org/golden-state-waters)

**18 to 22: Biodiversity without Boundaries Conference 2016**

San Juan, Puerto Rico

[natureserve.org/news-events/events/biodiversity-without-boundaries/biodiversity-without-boundaries/biodiversity](http://natureserve.org/news-events/events/biodiversity-without-boundaries/biodiversity-without-boundaries/biodiversity)

**20 to 21: Nonpoint Source Pollution Conference**

Hartford, Connecticut

[neiwpc.org/npsconference](http://neiwpc.org/npsconference)

### JUNE

**14 to 17: Gulf of Mexico Alliance All Hands Meeting**

Baton Rouge, Louisiana

[gulfofmexicoalliance.org/announcements/events/2016-all-hands-meeting](http://gulfofmexicoalliance.org/announcements/events/2016-all-hands-meeting)

**19 to 24: Association of State Floodplain Managers 2016 National Conference**

Grand Rapids, Michigan

[asfpmconference.org](http://asfpmconference.org)

### JULY

**18 to 20: Climate Strategies Forum: East Coast**

Arlington, Virginia

[east.climatestrategiesforum.org](http://east.climatestrategiesforum.org)

### DECEMBER

**10 to 15: 8th National Summit on Coastal and Estuarine Restoration and 25th Biennial Meeting of The Coastal Society**

New Orleans, Louisiana

[estuaries.org/summit](http://estuaries.org/summit)

## NOAA OFFICE FOR COASTAL MANAGEMENT

### APRIL

**20 to 21: Project Design and Evaluation**  
Huron, Ohio

### MAY

**11 to 12: Planning and Facilitating Collaborative Meetings**  
Naples, Florida

**18: OpenNSPECT**  
Online

### JUNE

**7 to 8: Coastal Restoration Project Design and Evaluation**  
Gloucester Point, Virginia

**7 to 8: Planning and Facilitating Collaborative Meetings**  
Dover, Delaware

### JULY

**11 to 12: Planning for Meaningful Evaluation**  
Portsmouth, New Hampshire

For more information on virtual and site-specific trainings, visit [coast.noaa.gov/digitalcoast/training/list](http://coast.noaa.gov/digitalcoast/training/list).

## CREDITS AND INFORMATION

*Fellow News* is published by the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management to relay information about the fellowship program and provide a forum for information exchange among fellows, mentors, Sea Grant, and the office.

Please send your questions and suggestions for future editions to [ocm.fellowships@noaa.gov](mailto:ocm.fellowships@noaa.gov)

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