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Focus on Fellows
Anna Jane Jones

Fellow Anna Jane Jones grew up in Greenville, South Carolina, but has since lived in Los Angeles, northern Spain, Chicago, Ecuador, and North Carolina. While always one to choose the beach over the mountains, it was her interest in hazards and disasters that initially drew her to coastal issues.

As an art history major at Occidental College in Los Angeles, Anna Jane studied the relationship between people, the built environment, and the natural environment—which culminated in her senior thesis on architecture of post-Katrina New Orleans. This experience helped her decide to study city and regional planning in graduate school at the University of North Carolina (UNC)-Chapel Hill, where she focused on hazard mitigation and climate change adaptation.

Anna Jane learned about the fellowship through friends and professors in graduate school. UNC-Chapel Hill has a robust community invested in coastal resilience, and she knew the NOAA fellowships were a great opportunity to work directly on those issues.

As a Digital Coast fellow, Anna Jane is working with the Nature Conservancy on two projects in two regions, both recovering from hurricanes. Her work is helping communities use nature and nature-based solutions to plan for a more resilient future.

The first project, called Scaling Up Nature-based Solutions (SUNS), is a collaborative planning process in the Florida Panhandle with local governments, regional organizations, and state agencies. The project will create a portfolio of nature-based resilience projects across the Panhandle, an area that was particularly affected by Hurricane Michael in 2018. This portfolio will act as a regional resilience planning framework to guide investments in restoring, strengthening, and creating natural features that advance hazard mitigation, climate adaptation, and conservation.

The second project is a case study of regional planning barriers, needs, and forms in the Winyah Bay watershed in South Carolina. This watershed has been affected by Hurricanes Matthew, Michael, Dorian, and Florence, as well as

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numerous unnamed storms, over the last five years. The impact of these storms has emphasized the need for comprehensive resilience planning and flood mitigation.

However, planning at a regional scale presents numerous challenges, and limited capacity, funding streams, and incentives often impede cross-jurisdictional coordination. Many of the watershed’s rural communities lack critical capacity to forge a resilient recovery process. To address these challenges, this project will generate a needs assessment, recommendations, and a networking mechanism for communities as they work to improve their flood resilience across the watershed.

“The most gratifying aspect of my time as a fellow is the relationship and coalition building. Working directly with communities to understand and address their needs and desires has been truly energizing,” says Anna Jane.

The fellowship has given her incredible insight into how nonprofits engage with local, regional, state, and federal governments. She’s had the opportunity to develop planning processes alongside community partners, which has been enriching and challenging for her. “I’ve wrestled with equitable community engagement, have gotten invaluable insight from colleagues and partners on these topics, and had firsthand experience on how to meet some of these challenges,” says Anna Jane.

Although the pandemic has limited the time she has spent working in person, she has been happy with the level of connection and community that her team has been able to foster in a virtual environment—both with her internal teams at the Nature Conservancy and with their community partners. When not working, Anna Jane has made the most of working remotely by spending quality time with friends and family across the country, from Seattle to the Florida Keys. She has also used this time to explore new bodies of water, the odd sunrise, and a plethora of quality bakeries.

Moving forward, Anna Jane would like to continue to help communities mitigate hazard risk and adapt to climate change, and, if possible, work in either the southeastern United States or Southern California—two areas she has called home. 🌊

Anna Jane meeting with Mayor Hammond of Springfield, Florida, as part of the SUNS project to discuss where and how nature-based solutions might alleviate the city’s stormwater.

Focus on Fellows
Eleanor Rappolee

Fellow Eleanor Rappolee was raised on the eastern side of Michigan in a town called Grosse Pointe, and growing up she explored the waterways of the Great Lakes with her family. She’d always enjoyed the outdoors, but the Outdoors Club at Michigan State University, where she learned to rock climb, paddle, and backpack, solidified her love of nature.

A geology course and a science philosophy course that she took as a freshman introduced her to the serious impacts of climate change caused by the built environment. She began focusing her studies on the connection between built and natural environments with a degree in geological sciences, and a minor in geographic information systems.
She continued at Michigan State to earn her master’s in earth and environmental sciences, and by her second year of graduate school, she was ready to gain real-world experience working with stakeholders and helping communities build their resilience to flooding. She began her search for postgraduate opportunities and found the Digital Coast Fellowship on NOAA’s website.

Eleanor is working as a Digital Coast fellow with the Association of State Floodplain Managers and the Coastal States Organization. Her project is focused on mitigating repetitive loss properties to enhance community resilience toward flood hazards. Repetitive loss properties are residential or commercial buildings that have been damaged by floodwaters multiple times. Although they can be found in every state, these properties are primarily located along coasts and are growing in number due to sea level rise, higher precipitation, and more severe storms.

With help from Digital Coast partners and other subject matter experts, Eleanor led an effort to engage with local floodplain managers and outline common obstacles in flood mitigation work, establish relationships with a representative group of floodplain managers, and identify community needs for mitigating repetitive loss properties.

Due to privacy restrictions, the team did not have access to key information about communities with repetitive loss properties, so they reached out to as many state and local floodplain experts as they could for help and managed to receive information for over 3,000 communities. “It was really uplifting to see how responsive and willing stakeholders were to help and be a part of this effort,” says Eleanor.

Eleanor is analyzing the information gathered from floodplain managers and using it to develop trainings and compile resources to address community needs. The final materials will be available on an ArcGIS Hub site, Community Resilience Guide for Repetitive Flood Loss, which provides a repository of resources for reducing repetitive flood loss and enhancing flood resilience, including case studies, existing data and tools, and online training modules.

Eleanor is grateful for the amazing group of people she’s gotten to work with during her fellowship and the network of top-notch experts she’s met. “The work I do is different every day and has real-world implications. I have not only had the opportunity to lead a big project, but have been involved in many other projects that have tapped into my different skill sets and have focused my attention on other important issues within this field,” says Eleanor.

While the pandemic made it difficult for Eleanor to engage in her more social hobbies like playing ultimate frisbee and taking pottery classes, she was able to explore her new home state of Wisconsin. She, often accompanied by her partner Dave and her dog Kepler, went on numerous paddling, camping, and biking trips in the warmer months and cross-country skiing and ice skating during the colder months.

Eleanor truly enjoys the work she does in this fellowship and plans on staying in the field of floodplain management. She hopes to continue engaging with stakeholders to create resources and tools that will have a direct impact on a community’s resilience to flood hazards.

“In Outdoors Club, we emphasized the importance of ‘leave no trace’ in the wilderness and to strive to leave it better than you found it. That’s exactly what I plan to do with my life through my work in floodplain management—try to leave the world a better place than I found it.”
Focus on Fellows: Mary Schoell

Fellow Mary Schoell grew up in East Haddam, Connecticut, a small rural town along the Connecticut River. An outdoor enthusiast from the time she was young, she knew that environmental science was the career choice for her. She loved conducting science and research in environments that she cared about, and became passionate about protecting them.

She attended the University of Connecticut to study environmental science, and this is where she first worked in salt marshes as a research assistant. She loved salt water, chasing tides, and getting muddy. “I never looked back after that!” says Mary. She then attended Yale University’s School of the Environment, where she earned a master’s in environmental science. While at Yale, she studied how sea-level rise and storm surge interact to cause tree stress, forest dieback, and marsh migration into coastal forests along Long Island Sound.

Mary had been tracking opportunities with NOAA since the beginning of graduate school, and had the fellowship on her radar for a while. When she attended the Restore America’s Estuaries conference in graduate school, she got the chance to talk to current Knauss fellows, who told her more about the various NOAA fellowships. Those conversations helped her figure out that the coastal management fellowship best suited her career goals and gave her the confidence to apply for the program.

Mary’s fellowship is with the National Estuarine Research Reserve System and its key decision-maker partners (coastal managers, land trusts, land use planners, regulatory agencies, technical experts) to understand mapping, information, and communication needs related to protecting upland habitat for coastal wetlands to migrate as sea level rises.

Through this needs assessment, she is also identifying ways that the reserve system manages and protects wetland migration pathways within and beyond reserve boundaries, and she is providing key recommendations for advancement on this topic.

Her final fellowship products will be a series of needs assessment reports and accompanying communication products that highlight priorities and key needs. The results of her needs assessment can be used by both the reserve system and decision-maker partners to understand mapping, information, and communication gaps on the topic of coastal wetland migration. “My hope is that this needs assessment can supply reserves with information that is not only relevant and useful for their own needs, but can also support their engagement with decision-makers around this issue,” says Mary.

“Getting to work within and learn about the reserve system has been incredibly gratifying. I get to work with inspiring professionals who are motivated and passionate about tackling coastal challenges that are truly important to local communities.”

Mary has also enjoyed the professional development opportunities offered through the fellowship, including improving her communication, facilitation, and project management skills. She also has learned more about working with social science data, provided subject matter expertise to a variety of salt marsh-related workgroups and initiatives, convened and organized sessions at annual meetings and national conferences, developed an understanding of federal-state partnerships, and learned how to plan and implement collaborative projects.

When Mary is not behind a laptop screen, she loves to spend time outdoors, running, swimming in the ocean, hiking in the White Mountains, testing out her four-season backpacking gear, and growing flowers in her garden. This past year, she has started upcycling fabric to sew handmade clothing and household items.

For her next steps, Mary is excited and keeping an open mind. She plans to continue working in the coastal management realm, in a position where she can be involved in coastal resilience topics such as conservation, restoration, and sea-level rise adaptation. New England will always be home to her, but she would be happy to experience a new area.
Focus on the Fellowship: 2022 Projects Selected

This year, nine state coastal management agencies and three Digital Coast partner organizations were selected to host a fellow. Below is a summary of each of the projects for the coming year.

Host Agency: California Coastal Commission
Location: San Francisco, California
Project Title: Enhancing Meaningful Engagement with Affected Coastal Communities
Project Description: Create resources, training materials, and policy guidance critical for the California Coastal Commission’s long-term implementation of its environmental justice and tribal consultation policies.

Host Agency: California State Coastal Conservancy
Location: Oakland, California
Project Title: Implementing and Evaluating Efforts to Increase Coastal Wetland Resilience in Southern California
Project Description: Improve wetland health and coastal resilience in Southern California by developing a regional wetland monitoring program, funding and managing community-based restoration projects, and coordinating multiple state and federal agencies.

Host Agency: Coastal States Organization and Association of State Floodplain Managers
Location: Washington, D.C.
Project Title: Shifting Property Lines: Ecological, Policy, Legal, and Economic Implications of Acquired or Vacated Coastal Property and Infrastructure
Project Description: Develop technical guidance resources to support local communities in planning for and managing residential coastal properties acquired or vacated due to erosion, inundation, and flooding worsened by climate change.

Host Agency: Delaware Coastal Programs
Location: Dover, Delaware
Project Title: Building Resilience through Relationships: Collaborating with Local Organizations to Support Frontline Communities
Project Description: Support underserved communities in Delaware by providing resources and tools to adapt to climate change impacts.

Host Agency: Hawaii Coastal Management Program
Location: Honolulu, Hawaii
Project Title: Develop a Statewide Profile for Communities Most Vulnerable to Coastal Hazards
Project Description: Develop knowledge and resources for Hawaii to have a better understanding of who and where the vulnerable communities are that require the most support to adapt to coastal hazards.

Host Agency: Maryland Chesapeake and Coastal Service
Location: Annapolis, Maryland
Project Title: Climate Adaptation in Fishery Management and Natural Resources-Based Economies in Maryland
Project Description: Support Maryland’s Chesapeake and Coastal Service and Fishing and Boating Services units to advance work on climate adaptation priorities related to fisheries management and natural resources-based economies.

Host Agency: Massachusetts Office of Coastal Zone Management
Location: Boston, Massachusetts
Project Title: Investing in Shoreline Restoration for More Resilient Environmental Justice Communities
Project Description: Engage with three environmental justice communities in Massachusetts to increase awareness of shoreline restoration opportunities and support the application of at least one project for State Coastal Resilience Grant Program funding.

Host Agency: National States Geographic Information Council at Alaska Department of Natural Resources Division of Geological and Geophysical Surveys
Location: Anchorage, Alaska
Project Title: Harnessing Energy on Alaska Coastal Mapping Initiatives to Support Resilient Coastal Communities
Project Description: Bolster communication networks with Alaskan stakeholders to map 66,000 miles of rugged coastline, seeking engagement, inclusion, and equity among growing local, tribal, state, federal, and private partnerships which enhance data sharing and access.
Host Agency: New Hampshire Department of Environmental Services Coastal Program  
Location: Portsmouth, New Hampshire  
Project Title: The Resilient Collaborative Project: Advancing the New Hampshire Coastal Adaptation Workgroup  
Project Description: Build the capacity of the New Hampshire Coastal Adaptation Workgroup to advance emerging priorities, empower local climate adaptation champions and practitioners, and enhance engagement opportunities.

Host Agency: New York State Coastal Management Program  
Location: Albany, New York  
Project Title: Managed Retreat Roadmap: Y’all Ready for This?  
Project Description: Identify tangible approaches that are good examples of strategic managed retreat, and develop policies and implementation approaches that achieve a balance between coastal processes and climate change adaptation, with particular attention to socioeconomic sustainability and concerns at the municipal level.

Host Agency: Oregon Coastal Management Program  
Location: Salem or Newport, Oregon  
Project Title: Planning for Sea Change: Fostering Local Capacity for Sea Level Rise Adaptation Planning on the Oregon Coast  
Project Description: Provide capacity to advance sea level rise adaptation planning at the local level using existing and emerging data and resources on the northern Oregon coast.

Host Agency: The Nature Conservancy in partnership with Maryland Department of Natural Resources  
Location: Annapolis or Easton, Maryland  
Project Title: Facilitating Healthy, Just, and Community-Supported Marsh Migration in Maryland  
Project Description: Reform marsh protection activities and promote marsh migration and community resilience in Maryland.

For more information on the 2022 state projects, visit coast.noaa.gov/fellowship/coastalmanagement.html. For more information on the 2022 Digital Coast projects, visit coast.noaa.gov/fellowship/digitalcoast.html. Contact the fellowship coordinator at ocm.fellowships@noaa.gov.

**Upcoming Conferences and Events**

**FEBRUARY**
- Various dates: Social Coast Local Gatherings  
  [web.cvent.com/event/84932536-a570-4498-b4a9-496a228d8f65/summary]  
  12 to 16: National Association of Counties Legislative Conference  
  Washington, D.C. or Virtual  
  naco.org/events/2022-naco-legislative-conference  
  14 to 17: National States Geographic Information Council Midyear Meeting and Innovation Summit  
  Milwaukee, Wisconsin or Virtual  
  magic.mclms.net/en/2022mym

**MAY**
- 15 to 19: Association of State Floodplain Managers Annual Conference  
  Orlando, Florida  
  floods.org/conference/2022-asfpm-conference

**JUNE**
- 7 to 9: Capitol Hill Ocean Week  
  Washington, D.C. and Virtual  
  marinesanctuary.org/chow-2022

**APRIL**
- 25 to 28: Gulf of Mexico Conference  
  Baton Rouge, Louisiana  
  [web.cvent.com/event/6973e68c-31e0-415c-b600-626662666666/summary]  
  30 to May 3: 2022 National Planning Conference  
  San Diego, California  
  planning.org/conference

**2022 Fellowship Timeline**
- January 21: Applications due from candidates to their local Sea Grant  
- February 18: Endorsements due from Sea Grant  
- March 18: Finalists selected  
- April 18 to 22: Matching workshop presentations — virtual  
- April 25 to 28: Matching workshop interviews in Charleston  
- August 1: Fellowship begins

**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

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