



# Socio-Cultural Benefits of NNBF Virtual Forum III February 16th, 2024

Hosted by [New York Sea Grant](#) & [The Science & Resilience Institute at Jamaica Bay](#)

With funding through the [US Coastal Research Program](#), our team is convening this forum to bring together practitioners and stakeholders (researchers and policymakers) from New York State, with experts on natural and nature-based features (NNBF) to facilitate the exchange of experience, insights and innovative solutions that address identified knowledge gaps pertaining to the implementation and management of nature-based solutions in New York State.

To put us one step closer to addressing these gaps, we have invited experts in the field to present case studies from their own work, on how they've managed to tackle these problems.

## Speakers:

Dr. Scott Hemmerling, Dr. Don Nelson, Dr. Lindsay Campbell

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# Dr. Scott A. Hemmerling

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Dr. Scott A Hemmerling is a Senior Research Scientist at The Water Institute, focusing on research related to climate adaptation and community resilience. Dr. Hemmerling is a cultural geographer with more than twenty years of experience investigating the impacts of environmental change on coastal communities, his recent work is focused on developing approaches to incorporate local and traditional knowledge into assessments of community resilience. He is also working on several projects to develop methodological approaches for measuring socioeconomic change in coastal communities and quantifying the social value of ecosystem restoration projects.

Dr. Hemmerling's talk will focus on recent work in coastal Louisiana bringing residents, coastal scientists, and key stakeholders together to co-develop and evaluate a series of natural and nature-based solutions. This work takes advantage of several methodological advances that allow for the input of local and traditional knowledge into models and have provided tangible ways to evaluate potential shortcomings of ongoing and planned restoration and protection projects. Utilizing an environmental competency group approach, this work actively seeks to include local knowledge holders in all stages of research, including development and prioritization of potential restoration areas, identifying important physical and ecological parameters that should be modeled, evaluation of model results, and assessment of the social values expected to be generated by these solutions. Findings show that for coastal protection and restoration to proceed in a socially just manner, the coastal planning process will need to strike an effective balance between science-driven processes and meaningful engagement with residents and stakeholder groups who are especially vulnerable to risk and most likely to be affected by policy actions.



COMMUNITY IDENTIFIED THREATS AND CHALLENGES  
DULAC, LOUISIANA

#### Relevant Links

- [Dr. Hemmerling's WI Page](#)
- [Dr. Hemmerling's Google Scholar](#)
- Hemmerling et al. (2020) [Elevating local knowledge through participatory modeling: Active community engagement in restoration planning in coastal Louisiana](#). *J Geogr Syst*
- Hemmerling et al. (2022) [Building Resilience through Collaborative Management of Coastal Protection and Restoration Planning in Plaquemines Parish, Louisiana, USA](#). *Sustainability*
- Hemmerling et al (2023) [A Community-Informed Transdisciplinary Approach to Coastal Restoration Planning: Maximizing the Social and Ecological Co-Benefits of Wetland Creation in Port Fourchon, Louisiana, USA](#). *Front Environ Sci*



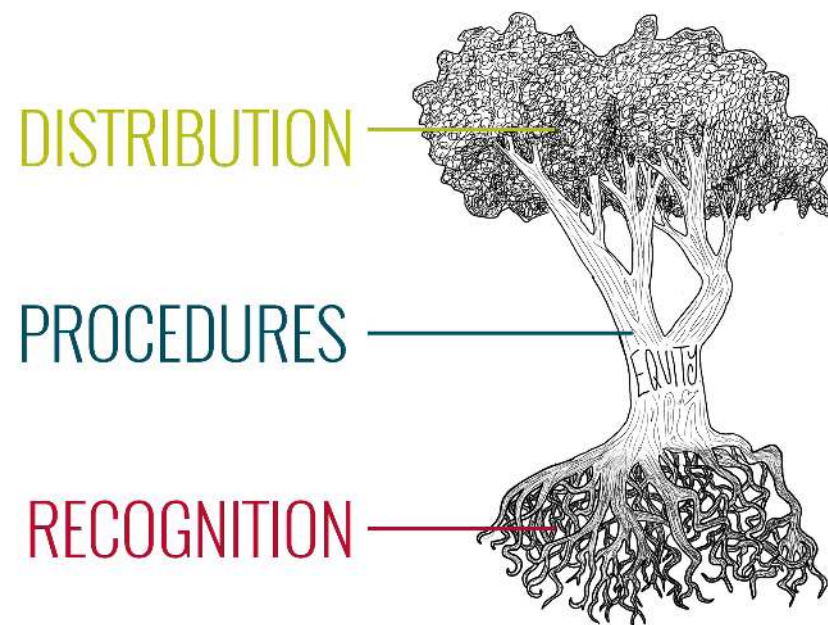
# Dr. Don Nelson

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Dr. Don Nelson is an ecological anthropologist who works at the intersection of social and environmental change and human well-being. Dr. Nelson holds a PhD from the University of Arizona, Department of Anthropology, with a minor in Remote Sensing and Spatial Analysis. He has been a UGA faculty member since 2009, following a post-doc at the Tyndall Centre for Climate Change Research at the University of East Anglia, UK. He has over 25 years of national and international experience in drought and flood risk management, social vulnerability, and community-based approaches to natural resource management and climate adaptation. His research focuses on the human dimensions of climate variability and impacts, disaster risk reduction, the role of scientific information in resource management, and how social and political relations shape decision-making and policy outcomes.

Cultivating Equitable Collaboration for Natural Infrastructure Planning - The provision of sustainable and reliable water services is under growing strain in the U.S. and elsewhere and is disproportionately failing many of the most vulnerable and underserved populations. NNBF are widely promoted as responses that can mitigate unreliable water services that result in part from increasing urbanization, aging infrastructure, and climate change. Simultaneous to the push for increased NNBF research and implementation is the recognition of the historical inequities in infrastructure service provision. Our ability to craft a sustainable future is intimately related with our ability to rectify existing inequities. The current window of opportunity created by the intersection of technological innovation and social ideologies provides space to think creatively about how equity can be cultivated within NNBF planning processes. To do so, we first need to rethink what is meant by equity.



#### Relevant Links

- [Dr. Nelson's Lab Website](#)
- [Dr. Nelson's UGA Page](#)
- [Dr. Nelson's Google Scholar](#)
- Seigerman et al. (2022) [Operationalizing equity for integrated water resources management](#). *J Am Water Resour Assoc*
- Feggin et al. (2021) [Infrastructure investment must incorporate Nature's lessons in a rapidly changing world](#). *One Earth*
- Nelson et al. (2020) [From hubris to humility: Transcending original sin in managing hydroclimatic risk](#). *Anthropocene*
- Nelson et al. (2020) [Challenges to realizing the potential of nature-based solutions](#). *Cur Op Environ Sustainability*



# Dr. Lindsay K. Campbell

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Dr. Lindsay K. Campbell is a Research Social Scientist with the USDA Forest Service. Dr. Campbell's research explores the dynamics of environmental governance, civic engagement, and natural resource stewardship, emphasizing issues of environmental and social justice. She is joint PI of the Stewardship Mapping and Assessment Project which maps environmental stewards' social networks and spatial territories in 15 locations globally. She aims to amplify the voices and experiences of stewards through exhibitions, essays, and convenings. She has co-led the Social and Site Assessment, a partnership with NYC Parks and the Natural Areas Conservancy to understand the use, value, and meaning of urban green space, natural areas, and waterfronts. She creates transdisciplinary spaces of collaboration between land managers, scientists, artists, and other practitioners and co-directs the Urban Field Station Collaborative Arts Program.

Dr. Campbell's talk will present a social assessment methodology that was developed by researchers at the USDA Forest Service in collaboration with NYC Parks and the Natural Areas Conservancy. They assessed 40 parks in 2013-2014, counting ~37,000 park users, and interviewing ~2,000 park users, leading to a more nuanced understanding of the social meaning of these spaces. These social data were collected and used in concert with ecological assessment data from biophysical plots citywide and results were used in the Forest Management Framework to better manage NYC forests and to inform the Natural Areas Conservancy (NAC)'s advocacy, outreach, and public education efforts.

The methodology was adapted and applied to waterfronts including: Coney Island Creek (collaboration with Anne Toomey-Pace University) and the Passaic River (collaboration with the NY/NJ Harbor & Estuary Program). This method can be used to detect cultural ecosystem services in parkland in support of more comprehensive park planning. They also revealed that signs/textual material found in parks can be coded to identify ways in which visitors adhere to, subtly resist, or reshape park rules. We identified the psycho, social, and spiritual meanings of urban green and blues spaces. In addition to these accomplishments, the method has been used to train students and professionals in how to read the landscape to manage urban green and blue spaces with people in mind (working with NYC Parks, NAC, and Guardians of Flushing Bay). Aspects of this social assessment method were adapted and incorporated into the NYS DOS NNBF monitoring toolkit, which enables monitoring social aspects of NNBF as they are created and managed.

#### Relevant Links

- [Dr. Campbell's U.S. Forest Service Page](#)
- [Dr. Campbell's CUNY GC Page](#)
- [Dr. Campbell's Google Scholar](#)
- Auyeung et al. (2016) [Reading the landscape: citywide social assessment of New York City parks and natural areas in 2013-2014](#). NY Department of Parks and Recreation
- Campbell et al. (2016) [A social assessment of urban parkland: Analyzing park use and meaning to inform management and resilience planning](#). Environmental Science Policy
- Toomey et al. (2023) [Blue spaces as social spaces: Measuring the uses and values of urban waterfronts](#). Cities and the Environment

