



Team EcoMod News

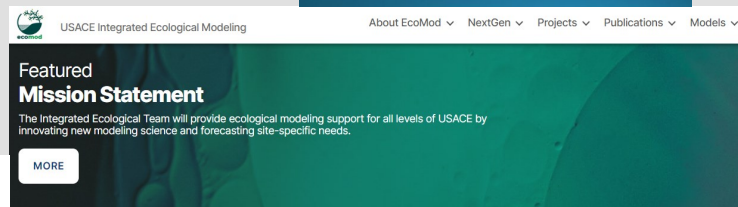
EcoMod Website

Come visit the EcoMod website! We are constantly adding new content, from conference presentations to new publications. We also have project summaries describing our research and how they relate to ERDC's strategic goals. We categorize our projects by subjects: Invasive Species, Nature-Based Structures, and Dredging. We also have recordings of all our NextGen Webinars from 2023, along with pdfs of the presentations.

Project Title	Natural Infrastructure (NI) Lifecycle: Function, Resilience, Maintenance, and Lifespans and Sediment Budgets
PIs	Candice Piercy
Project Description	The objective of this review is to provide an overview of aspects of life cycle management relevant to natural infrastructure (NI), how life cycle methods and tools are applied to conventional flood and storm water infrastructure, and assess the applicability of current methods and tools to NI.
USACE Research and Development Strategy	 
Collaborators	USACE Savannah District (SAS)

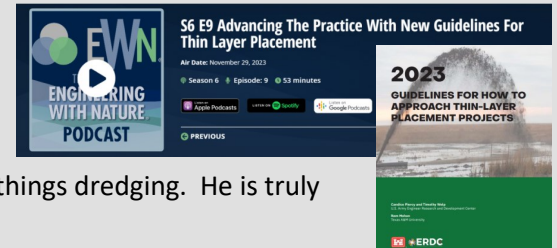
Next Gen Seminar Series

January 18th- Todd Swannack



EcoMod on the Air

Candice Piercy was featured on the Engineering With Nature Podcast, discussing general dredging practices and the new publication *Guidelines for How to Approach Thin-Layer Placement Projects*. She was joined by her co-author Ram Mohan, and collaborator Monica Chasten of the Philadelphia District. Listen [here](#). Candice would like to acknowledge the contributions of co-author Tim Welp, who passed away during the editing process. Tim was a brilliant engineer who had a passion for the ocean and all things dredging. He is truly



Representing EcoMod in Texas



Dr. Thomas Huff represented Team EcoMod at two different events in Galveston this past quarter. First, he presented a lecture on the costs and benefits of nature-based solutions during a short course at Texas A&M University-Galveston. In October, he was an invited panel member for the Restore America's Estuaries biennial Living Shorelines workshop where he provided his expertise on moving science from the lab to practical applications.

Model Spotlight: FQA (web application now available!)

Floristic Quality Assessment (FQA) provides a standardized way to rapidly assess the condition of a vegetated area based on the plant species that are present. FQA works by assigning each plant species a value from 0 to 10. This value is called a Coefficient of Conservatism, or C Value. Values of 0 indicate species that are highly tolerant of human activities and have general environmental needs, while higher values represent higher fidelity to a specific habitat and low tolerance to anthropogenic disturbances. There are numerous regional FQA databases of flora and their associated C Values covering various geographic areas.



Publication available at <https://fqacalc.erdcdren.mil/fqacalc/>
Email ecomodteam@usace.army.mil



December 2023

NextGen Webinar Dates

2024 SCHEDULE COMING SOON!

Emily Russ
Research
Biologist



Dr. Emily Russ came from a physical science background, specifically examining sediment dynamics, and spent much of her time in the field collecting quantitative data. But she recognized the need to make predictions about the future state of ecology, which is why she was drawn to modeling. Team EcoMod gave her the opportunity to bring her quantitative mindset into the modeling world. But it was not as big of a jump as you might think. The same data, quantitative and spatial analysis skills used in the field are crucial to modeling. She taught herself programming languages and understood coding from ecological perspective, which helped her transition from data science to process-based modeling. Now Emily leads workshops for other physical scientists and engineers to learn about the power of modeling.