



January 22, 2022

Wizards and Prophets of the Everglades: A Graduate Student's Conference Reflections

By: Samantha Hamilton

The Everglades Coalition Conference is an annual forum held to discuss the progress made and challenges remaining in Everglades restoration. It gathers stakeholders ranging from elected officials to students, including myself, who engage in meaningful conversations about this one-of-a-kind ecosystem. This year, federal Everglades policy was the focus of one such conversation taken up by experts like Colonel James Booth.

Booth is an Everglades champion through and through. As the Jacksonville District Commander of the Army Corps, he works to secure funding and implement essential projects to improve Everglades health and resiliency. While elaborating on recent successes, Booth broke off mid-sentence with an uncharacteristic chuckle. He admitted to being distracted by a floating thought about a podcast he had listened to days ago, a podcast "by a historian." Booth went on to share that from it, he learned that all Everglades stakeholders could be divided into two camps: wizards and prophets.

Wizards are those who believe that any environmental issue can be solved with technology. On the other hand, prophets think that conservation is key to saving the natural world. Booth spoke to the inherent tension between the two and saw an uncertain path forward for Everglades restoration. Sure, there is some collaboration between wizards and prophets, but their distinct outlooks are ultimately pulling restoration efforts in opposing directions.

Friction between the two groups has always existed when it comes to Everglades restoration. Wizards have consistently aimed to protect the ecosystem by relying on the power of technology and science. They are convinced that gray infrastructure is the most effective way to create a robust Everglades and are thus strong proponents of sea wall, flood gate, and canal construction.

Perhaps the best demonstration of wizards' preference for manmade structures is the 2021 Miami-Dade Back Bay Study. The Study was a \$4.6 billion federal proposal for improving coastal storm management in the County and included dozens of gray infrastructure options. One option was a six-mile, twenty feet-high concrete wall cutting across Brickell neighborhoods and Biscayne Bay. Another was a series of surge gates on commercially important waterways. These proposed solutions collectively reflect wizards' belief that humans can innovate our way out of sea level rise and other problems threatening America's Everglades.

But to no surprise, the federal government's pitch was strongly resisted by prophets. Prophets believe that there are natural limits we should abide by and that we should simply save what we have. This means conserving what remains of south Florida's wetlands, mangrove forests, and coral reefs by designating protected areas. Everglades National Park and Big Cypress National Preserve are a great start, but prophets think we should set aside more.

While listening to Booth's story, I was beginning to understand the dual visions stakeholders had for a restored Everglades, but a part of me questioned whether the two groups were all that different. Both wizards and prophets appreciate the unique beauty of the Everglades and care deeply about its ecosystem. Some secure funds to advance infrastructure projects, others petition to expand national parks, but at bottom, all work tirelessly with the shared goal of protecting this ecological treasure. These camps do not have to be mutually exclusive; they can and should be blended together. Some like the [National Parks Conservation Association](#) already see the value in this and have advocated for restoration projects that merge the two. But, it's time that *everyone* recognizes the importance of wizards and prophets working in tandem to build a better Everglades.



Federal Everglades Policy panel with some of the Everglades' brightest minds.

On stage (left to right): Julie Hill-Gabriel (VP of Water Conservation, National Audubon Society), Col. James Booth (U.S. Army Corps of Engineers), and Cara Capp (Senior Everglades Program Manager, National Parks Conservation Association)

On projector (top row, left to right): Stephenne Harding (Senior Director of Lands, White House CEO) and Shannon Estenoz (Assistant Secretary of Fish, Wildlife, and Parks, U.S. DOI) On projector (bottom row): U.S. Representative Debbie Wasserman-Schultz (FL-23)

There are numerous opportunities in south Florida to marry gray infrastructure with conservation. Take, for instance, coral reef restoration. Reef populations on the state's coast have been in decline for decades, with rapid temperature rise threatening further degradation (Pelandro et al., 2008; Manzello, 2015). In response, the Florida Keys National Marine Sanctuary was founded in 1990. This designation protects reef habitat by prohibiting harmful human activities like seafloor dredging and coral poaching. Prophets may believe conserving natural reefs is enough, but wizards have a role to play in reef restoration, too. Old building materials such as concrete slabs and bridge railings can be repurposed for artificial reef construction. Artificial reefs have been shown to provide ecological and economic benefits comparable to those of natural reefs and therefore, can enhance marine environments (Paxton et al., 2020). Overlooking them could mean missing an opportunity to maximize restoration success—a consequence neither prophets nor wizards want.

The wizard-prophet tension can be resolved if we collectively realize there is a place for both habitat protection and manmade structures in Everglades restoration. In the face of accelerated global warming and land use change, we can't afford to hold one approach back in favor of another. All reasonable strategies must be put into practice if we are serious about restoring this special place. The Greater Everglades deserves it.

References

- Manzello, D. P. (2015). Rapid recent warming of coral reefs in the Florida Keys. *Scientific Reports*, 5, 16762. <https://doi.org/10.1038/srep16762>
- Paxton, A. B., Shertzer, K. W., Bachele, N. M., Kellison, G. T., Riley, K. L., & Taylor, J. C. (2020). Meta-analysis reveals artificial reefs can be effective tools for fish community enhancement but are not one-size-fits all. *Frontiers in Marine Science*, 7, 282. <https://doi.org/10.3389/fmars.2020.00282>
- Pelandro, D. A., Andréfouët, S., Hu, C., Hallock, P., Müller-Karger, F. E., Dustan, P., Callahan, M. K., Kranenburg, C., & Beaver, C. R. (2008). Quantification of two decades of shallow-water coral reef habitat decline in the Florida Keys National Marine Sanctuary using Landsat data (1984-2002). *Remote Sensing of Environment*, 112(8), 3388-3399. <https://doi.org/10.1016/j.rse.2008.02.015>

Learn more about the



**EVERGLADES
COALITION**

<https://www.evergladescoalition.org/>