

Jim Doherty    Short Bio for GCA Coastal Botany Award

I grew up in the town of Horseheads, a small suburb in upstate New York. Unlike many ecologists, who connect strongly with nature as children, I cultivated an interest in nature primarily as I studied it. During my undergraduate studies, I immersed myself in ecology: filling the margins of my class-notes with research questions, hiking, conducting my own greenhouse experiments, and experiencing ecosystems like primary rainforests, floating bogs, and oligotrophic lakes firsthand. Paradoxically, I found that exposure to novel natural phenomena made me feel both awestruck and analytical. I realized over time that my inquisitive tendencies are quite useful in science, and that ecology is an ideal way for me to understand and connect with nature.

Working with Dr. John Titus at Binghamton University, I did a senior thesis testing population density effects in regard to the sediment chemistry and invasibility of aquatic macrophytes. I also tested effects of desiccation stress and fragmentation stress on the dispersal capability of an invasive bladderwort and leaf tissue chemistry on the health of yellow water lilies in an Adirondack lake.

Working with Dr. Joy Zedler at University of Wisconsin-Madison, I'm doing a master's thesis on the relationship between plant diversity and ecosystem functioning in ecological restorations. This research attempts to quantify the functional benefits of diversity in restorations and test biodiversity and ecosystem functioning models proposed for restorations.

In the future, I will continue to work in applied community plant ecology. I'd like to work in restoration ecology or agroecology because both fields offer opportunities for adaptive ecology, which would mean nesting experiments (perhaps varying diversity) within newly restored or cropped areas to simultaneously improve ecological understanding of the system, improve land management practices, and sustain ecosystem processes. I believe adaptive approaches are vital to integrating ecological ideas into meaningful landscape-scale processes.