

Beneath the Blades: COMMUNITY VOICES IN EELGRASS RESTORATION

A lobster takes refuge in an eelgrass bed off the Southwestern shore of Nova Scotia. PHOTO: Nick Hawkins

by **MADISON (MADDY) CAMERON, FRIDA KAEUBLER-DELONG, LAUREN WATT** /// EAC Volunteers

Lauren: Finding Kinship and Wonder Underwater

Eelgrass (*Zostera marina*) is just one of the many species of marine seagrasses, the only group of true plants to live and reproduce in the ocean. It benefits ecosystems through coastal erosion control, increasing water quality and mitigating climate change by absorbing and storing atmospheric carbon at higher rates than land plants. The threats these plants face include warming water, storms, invasive species, boating/anchoring, disease and pollution. But the Community Eelgrass Restoration Initiative (CERI), a partnership between the Future of Marine Ecosystems lab at Dalhousie University and the Confederacy of Mainland Mi'kmaq, is utilizing student volunteers, community volunteers and citizen scientists to protect the eelgrass habitats Mi'kma'ki has and restore the ones that have been lost.

Like many students, I first discovered CERI through a class when Dr. Kristina Boerder gave a guest lecture on the importance of eelgrass habitats. I was immediately drawn to volunteering for many reasons, one of which is right there in the name: community. Restoration is a much harder battle without the help of students, local volunteers and the guiding principle of Etuaptmumk (Two-Eyed Seeing). There's a real kinship that forms when people work together on something bigger than themselves.

Another reason I joined was my love of scuba diving. Volunteering with CERI has let me combine my passion for diving with marine science. I float weightlessly above lush green meadows as sunlight dances gold across the swaying blades. Fish schools drift by, crabs scuttle below, and a whole landscape of life is revealed – with only my bubbles breaking the silence. All the while I measure eelgrass bed coverage, density and biodiversity, as well as help a fellow student collect reproductive shoots for seed storage research.

While my connection to CERI began through diving, for other volunteers the experience has taken different forms – sometimes in the lab, sometimes in the field, and always alongside community members. Frida's story highlights the many ways students get involved beyond diving.

Frida: Learning, Replanting and Connecting with Community

Over the past year with CERI, I've been fortunate to assist with a wide range of projects. During the winter, when fieldwork paused, I was in the lab helping an honours student and a researcher with their eelgrass work, which included counting new reproductive and non-reproductive shoots of eelgrass plants. Once summer arrived, I joined eelgrass meadow surveys through snorkelling, participated in harvesting and replanting and even helped with blue carbon research through sediment coring, which was a highlight for me.

As a student of both sustainability and marine biology, this work has deepened my understanding of how marine and terrestrial systems are interconnected. Volunteering with CERI has given me space to reflect on what sustainability and conservation truly mean in practice. Some moments are unforgettable – like standing over a site once lush with eelgrass, now barren due to human impact. Just as unforgettable, though, was my first time replanting in one of those areas, helping bring new life back to the seafloor.

CERI has also given me lasting connections with community members, opportunities I wouldn't have had in the classroom. These experiences wouldn't be possible without the incredible team and volunteers behind the project, and I'm deeply grateful to be part of it. Like me, other students have found their own unique pathways through CERI. For Maddy, the work began with a close look at eelgrass biodiversity.



Maddy Cameron and Dr. Kristina Boerder at one of the CERI restoration sites. PHOTO: Maddy Cameron



Lauren Watt dives off the coast of Nova Scotia to conduct eelgrass surveys. PHOTO: Lauren Watt

Madison (Maddy): Discovering Biodiversity and Sharing the Story

Since joining CERI in September 2024, I've had the chance to contribute to a wide range of projects from fieldwork, honours research assistance and community outreach.

One of my first projects involved supporting a fellow student, Marin, with her honours research on eelgrass meadow biodiversity. Using baited remote underwater videos (BRUV), she tracked species living in different meadows. Reviewing over 100 clips, I saw more than 10 species. From American eels and Atlantic tomcod to shrimp, pollock and crabs – all dependant on these habitats. These short glimpses revealed just how much life thrives in eelgrass meadows, often unnoticed.

As I continued volunteering, I joined snorkel-based fieldwork, helped with harvesting and planting, and participated in outreach events to engage the public. My favourite was a day working with the University of Calgary and youth from Pictou Landing First Nation to name microbes off the coast of Mi'kma'ki – a reminder of how wide-ranging marine research and conservation can be.

TAKE ACTION

Visit ecologyaction.ca/eelgrass to learn more about eelgrass and the fight to protect and restore this vital seagrass.

Being part of CERI has taught me practical science skills, but it has also shown me the value of working with a passionate, collaborative team. Marine conservation has always been close to my heart, but CERI has deepened my sense of purpose and connection to protecting the environments that sustain us all.

Closing reflection

Though each of our experiences has been different, they are all rooted in the same meadow – eelgrass. Whether through diving, replanting, research or outreach, volunteering with CERI has connected us to one another, to communities across Mi'kma'ki and to the ecosystems we strive to protect. Together, we've learned that restoration is not only about planting shoots in the seafloor, but also about planting seeds of community, knowledge and hope for the future.

Madison (Maddy) Cameron (she/her) is a fourth-year Marine Biology major, **Lauren Watt** (she/her) is a fifth-year Marine Biology major, and **Frida Keebler-DeLong** (she/her) is a fourth-year student, with a double major in Marine Biology and Sustainability and a minor in Environmental Science. This article reflects their work experience with the Community Eelgrass Restoration Initiative (CERI) at Dalhousie University.