

JUNIOR SCIENTISTS SHOWCASE ENVIRONMENTAL RESEARCH AT THE 2026 INDIAN RIVER LAGOON SYMPOSIUM!



THE JUNIOR SCIENTIST FELLOWS

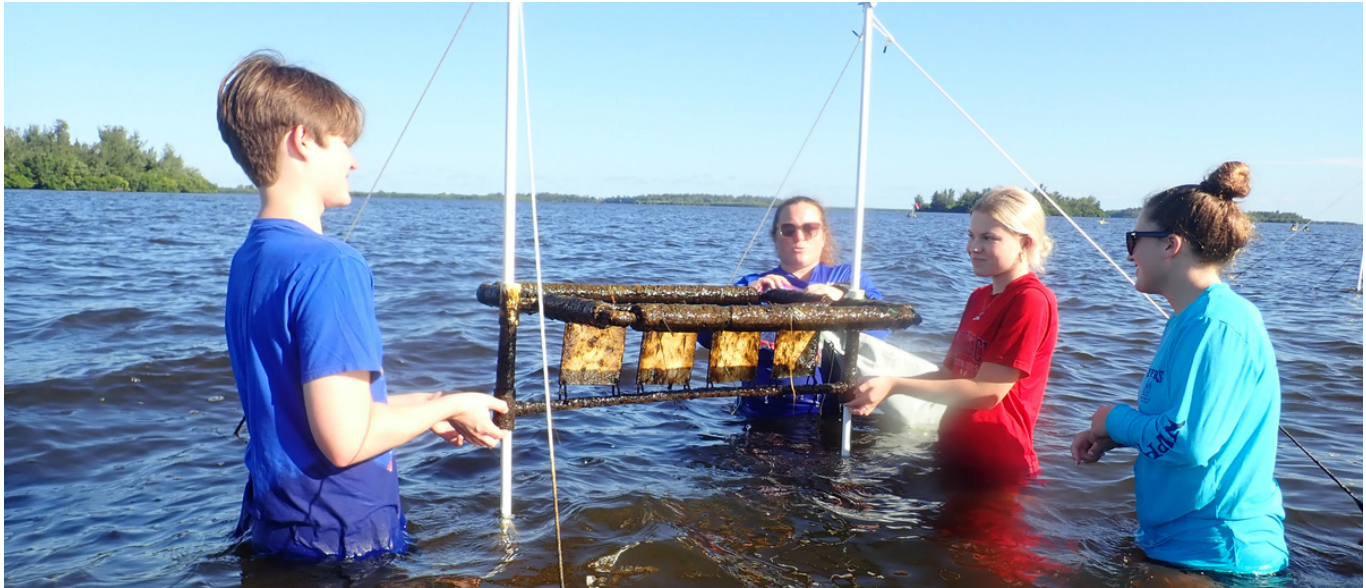
In 2026, 16 local high school students took part in the program, including 15 new juniors and seniors. The Fellows brought energy and curiosity to their work, collaborating in teams on three research projects focused on natural resource stewardship and the Land Trust's management of Coastal Oaks Preserve. Each group showcased their findings through scientific posters presented during the Indian River Lagoon Symposium at the FAU Harbor Branch Oceanographic Institute.

Now in its 12th year, the Fellows program continues to be a strong and impactful partnership for the Land Trust and plays a vital role in supporting the thoughtful management and restoration of our properties while inspiring the next generation of environmental leaders.

PROJECT ONE:

COMPARATIVE ANALYSIS OF LARVAL BARNACLE ABUNDANCE AND RECRUITMENT IN THE INDIAN RIVER LAGOON

Katie Chisholm, Dylan Erickson, Aniela Kelly, Lydia Roman, and Emma Waage



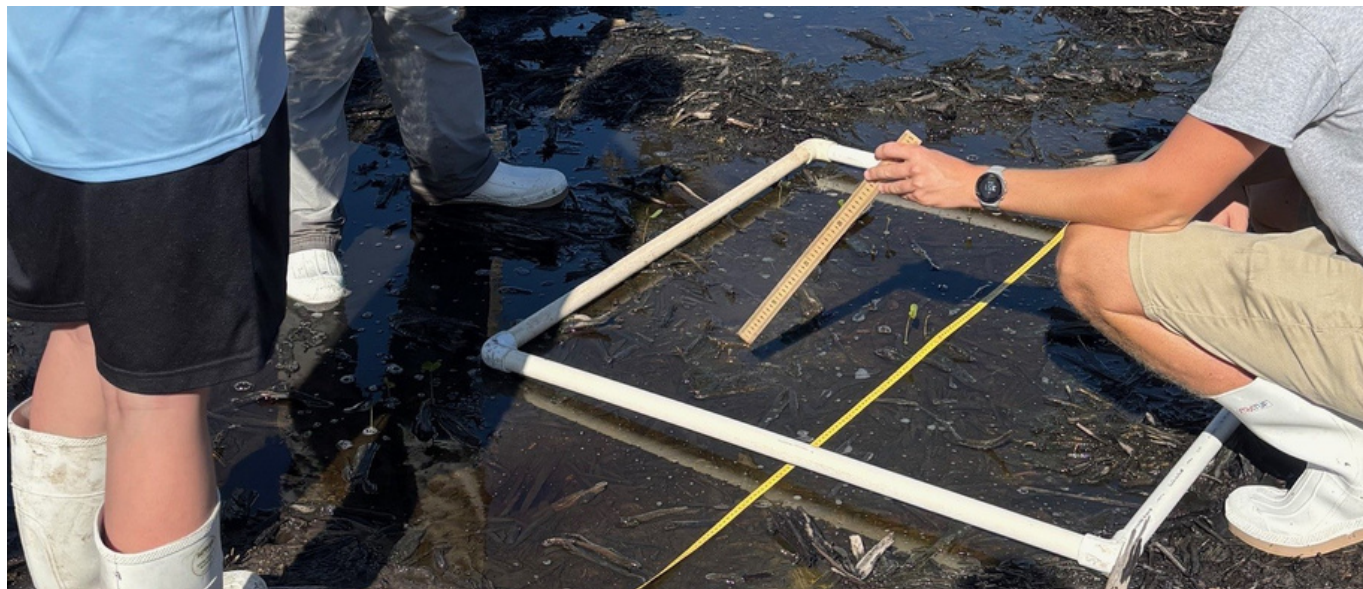
RESEARCH SUMMARY

Fellows compared barnacle concentrations on landward versus lagoon-facing settlement plates and examined the relationship between juvenile settlement and barnacle larvae in the water column. Barnacles are intertidal crustaceans that are vital to coastal ecosystems because they filter water, reduce harmful microorganisms, and serve as a food source for other species. As an indicator species, their presence reflects overall ecosystem health. Larval barnacles in the water column metamorphose into juveniles that permanently attach to hard surfaces. Preliminary study results show higher barnacle concentrations on landward-facing plates, but only a weak correlation between juvenile and larval presence. This project aims to quantify barnacle settlement at Coastal Oaks Preserve and identify factors influencing recruitment, supporting long-term lagoon health monitoring.

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PROJECT TWO: NATIVE VEGETATION REGROWTH FOLLOWING BRAZILIAN PEPPER REMOVAL AT THE COASTAL OAKS PRESERVE

Santiago Alto, Kendal Arnold, Tyler Hendricksen, Aaron Lopez-Martinez,
and Seraphina Steiner



RESEARCH SUMMARY

Salt marshes along Florida's coastline are essential for biodiversity, shoreline stability, and water quality. At Coastal Oaks Preserve, salt marshes have declined due to displacement by invasive Brazilian pepper trees. Land managers are restoring salt marshes by grinding down these invasive trees and monitoring site recovery and recolonization. Building on prior post-restoration survey efforts at the preserve, students surveyed a new restoration site north of the previous restoration area. Brazilian pepper trees were removed from the site in June 2025, and from September to December students measured native vegetation regrowth along ten transects with ten quadrats each. Preliminary observations show the site remains largely mulched, but early recovery signs include black and white mangrove propagules. These findings suggest Brazilian pepper removal promotes conditions for native species to reestablish.

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PROJECT THREE:

MONITORING THE DIVERSITY AND ABUNDANCE OF SEAGRASS IN THE CENTRAL INDIAN RIVER LAGOON

Giana Dykes, Isabela Freeman, Chenyi Ni, Kathy Phan, Kaja Sander, and Wyatt Satterly



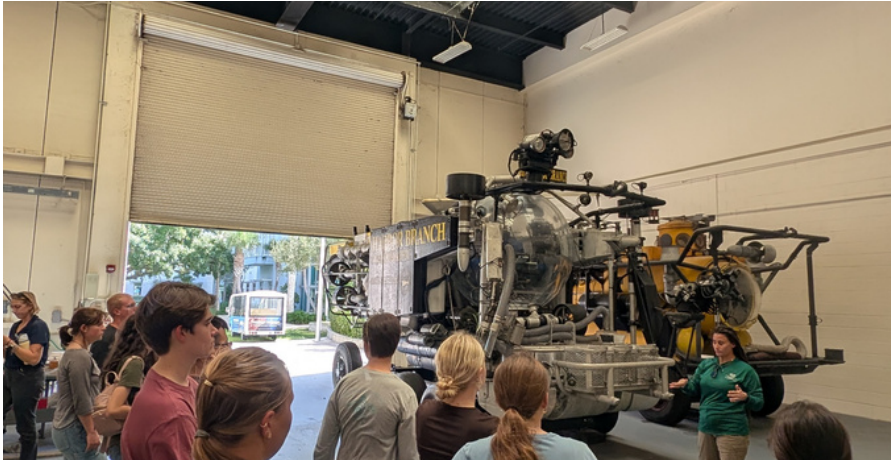
RESEARCH SUMMARY

Fellows investigated the density, abundance, and diversity of seagrass at Coastal Oaks Preserve. From September to November 2025, students surveyed eight 100-meter transects to sample percent cover, shoot density, and canopy height. Students also analyzed the composition of a sediment sample along each transect with the highest seagrass cover. The Indian River Lagoon is home to seven species of seagrass, creating crucial habitat that supports juvenile organisms, stabilizes sediments, and provides food for numerous species. Preliminary data suggests *Halodule wrightii* is the most abundant seagrass species at the preserve, with density peaking 40-80 meters from shore. This project aims to monitor long-term changes in the seagrass population adjacent to the preserve to better understand how it is impacted by new management and restoration projects.

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FIELD RESEARCH

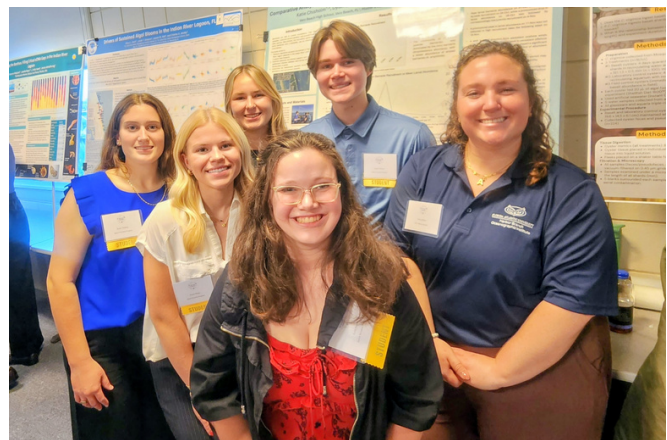
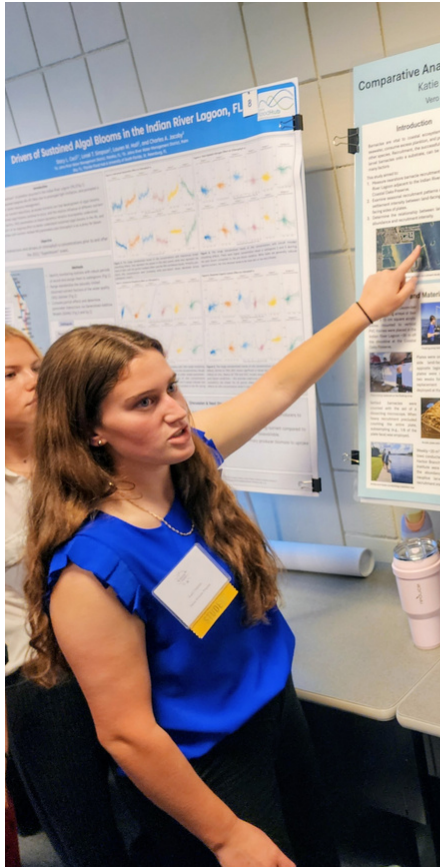
In the field, classroom learning comes to life. Guided by Harbor Branch Faculty and Land Trust conservation professionals, students conduct real-world environmental research that strengthens both their knowledge and our understanding of the habitats and ecosystems we work to protect.



THE INDIAN RIVER LAGOON SYMPOSIUM POSTER SESSION

February 19, 2026

FLORIDA ATLANTIC UNIVERSITY
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