

ADDRESSING THE ISSUES THAT MATTER

Coastal management is complex, very complex. There's the changing planet—and competing demands, and competing opinions, about what should be conserved and how. And let's not forget the people part of the equation.

The National Estuarine Research Reserve System respects this complexity and has built a program designed to address coastal challenges on a local AND national scale. To do this, each reserve directs research and programs that address local issues. At the same time, when combined with the other research reserves, these efforts provide the data and examples needed to help others within the reserve system and beyond. It's an approach that brings real dividends.

The Margaret A. Davidson Fellowship is an important part of this effort. Each reserve advertises its most pressing needs and is matched with the postgraduate student skilled in the area of emphasis. The result is satisfying work for the fellow, and big contributions being made for the betterment of the coastal environment.







National Estuarine Research Reserves Margaret A. Davidson Fellowship coast.noaa.gov/nerrs/research/davidson-fellowship.html



HABITAT RESTORATION Matthew Virden, Mississippi

Grand Bay National Estuarine Research Reserve

Coastal habitats are being restored throughout the northern Gulf of Mexico. Many of these projects have well-defined end points useful for determining success, but effectiveness monitoring is rarely conducted. Mathew studied different oyster reef designs for recruiting oysters and providing shoreline protection. The results of his research are being used to improve future restoration efforts.



DOCUMENTING SEDIMENT ACCRETION Clara Chang, New York

Hudson River National Estuarine Research Reserve

The Hudson River estuary is sediment rich, and tidal wetlands seem to be accreting to keep pace with sea level rise. But what is less certain is how accretion rates differ and why. Clara's project investigated basic sediment accumulation processes. Documenting the historic formation of tidal wetlands is helping scientists better manage marsh resilience.



AQUACULTURE PRODUCTIVITY Sarah Tucker, Hawaii

He'eia National Estuarine Research Reserve

Hawaiian aquaculture systems increase phytoplankton and macroalgae in estuaries, which in turn facilitates an increase in herbivorous fish. But information is lacking in regard to some specifics about how the food chain works in a traditional Hawaiian fishpond. Sarah's project focused on research regarding phytoplankton communities and how food-web dynamics influence and increase fish productivity.





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