Rhode Island (RI) Consortium for Coastal Ecology Assessment, Innovation, and Modeling (RI C-AIM)

Geoff Bothun (PI - URI)
Breea Govenar (Co-PI, RIC)
Jeff Morgan (Co-PI, Brown)
Lewis Rothstein (Co-PI, URI)
Neal Overstrom (Co-PI, RISD)

8 Collaborating RI Institutions of Higher Education: URI (lead institution), Brown Univ., Bryant Univ., Providence College, Rhode Island College, Rhode Island School of Design, Roger Williams Univ., and Salve Regina Univ.
Rhode Island (RI) Consortium for Coastal Ecology Assessment, Innovation, and Modeling (RI C-AIM)

5-Year (9/17 – 8/22) Funding

NSF: $19 million
RI STAC: $3.6 million
Research Program: Goal

• To understand how anthropogenic and natural stressors impact ecological interactions and responses within Narragansett Bay

• Achieved through the integration of:
  
  • **Observations**
    
    • **Augmenting historical** Narragansett Bay observatories with a new networked sensor array; altogether **The Bay Observatory**
    
    • **Developing new sensor technologies**: nano-sensors; living biosensors
  
  • **Predictive and Process Modeling**
    
    • Developing innovative multi-scale, coupled biogeochemical/ecological/circulation natural science models: “**Genes-to-Ecosystems**”
    
    • Coupling with social science (socio-economic) models
  
  • **Data Analyses, Visualization and Imaging**
    
    • Establishing the **RI Center for Data Discovery (RICDD)**
Q1. How do complex interactions between natural and anthropogenic stressors affect the responses of ecologically- and commercially-important organisms?

Q2. How can temporal and spatial detection of pollutants and stressors be enhanced, and data made accessible, to reveal ecological complexity and to improve coastal ecosystem models?

Q3. How does the environment affect humans and how can human behavior and responses be modified to improve coastal and economic sustainability?
C-AIM Education & Workforce Development Program

• Interdisciplinary Research and Mentoring Initiative (IRMI)
  • Train and mentor undergraduate (through our SURF programs) and graduate students (C-AIM research assistantships), and postdocs from diverse backgrounds to enter related careers;
  • support junior faculty to ensure effective mentoring, career advancement, and retention as researchers/educators; and
  • form industry and non-profit partnerships that will promote translational research, engage public stakeholders, and yield internship and employment opportunities (C-AIM’s Academic-Industry-Community Partnership – AICP)
C-AIM Partnerships and Collaborations

• RI Science and Technology Advisory Council (STAC)
• Statewide STEM Education Programs
  • RIC Center for Research and Creative Activity
  • URI Seeds for Success
• Other New England EPSCoR Programs (RI, ME, NH and VT)
• NIH IDeA Network of Biomedical Research Excellence (RI-INBRE)
  • Sharing research infrastructure
• Others (TBD)
Rhode Island (RI) Consortium for Coastal Ecology Assessment, Innovation, and Modeling (RI C-AIM)

Geoff Bothun (PI - URI)
Breea Govenar (Co-PI, RIC)
Jeff Morgan (Co-PI, Brown)
Lewis Rothstein (Co-PI, URI)
Neal Overstrom (Co-PI, RISD)

8 Collaborating RI Institutions of Higher Education: URI (lead institution), Brown Univ., Bryant Univ., Providence College, Rhode Island College, Rhode Island School of Design, Roger Williams Univ., and Salve Regina Univ.