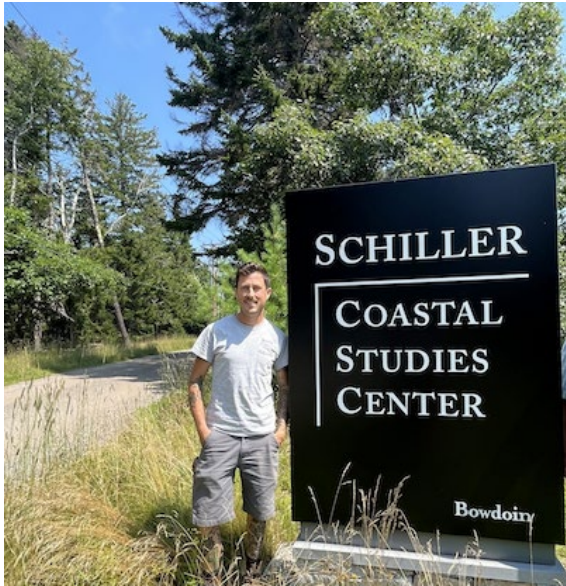


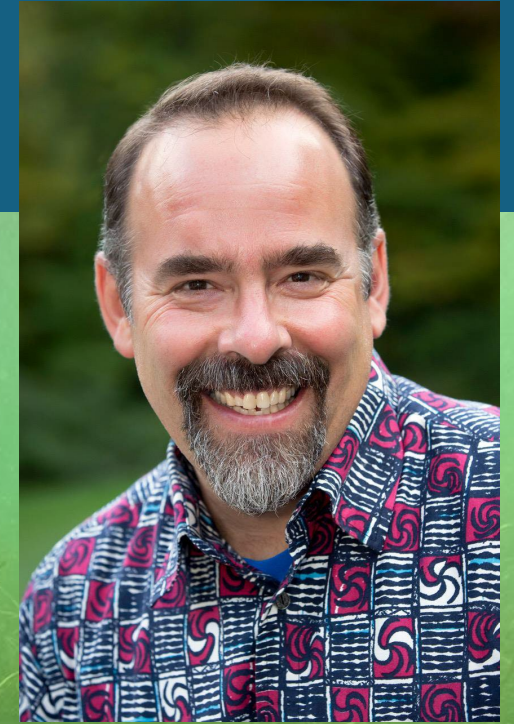
Eelgrass Seed Maturation and Storage v. 2.0

Jaret Reblin

**Associate Director for Science
Schiller Coastal Studies Center at Bowdoin**

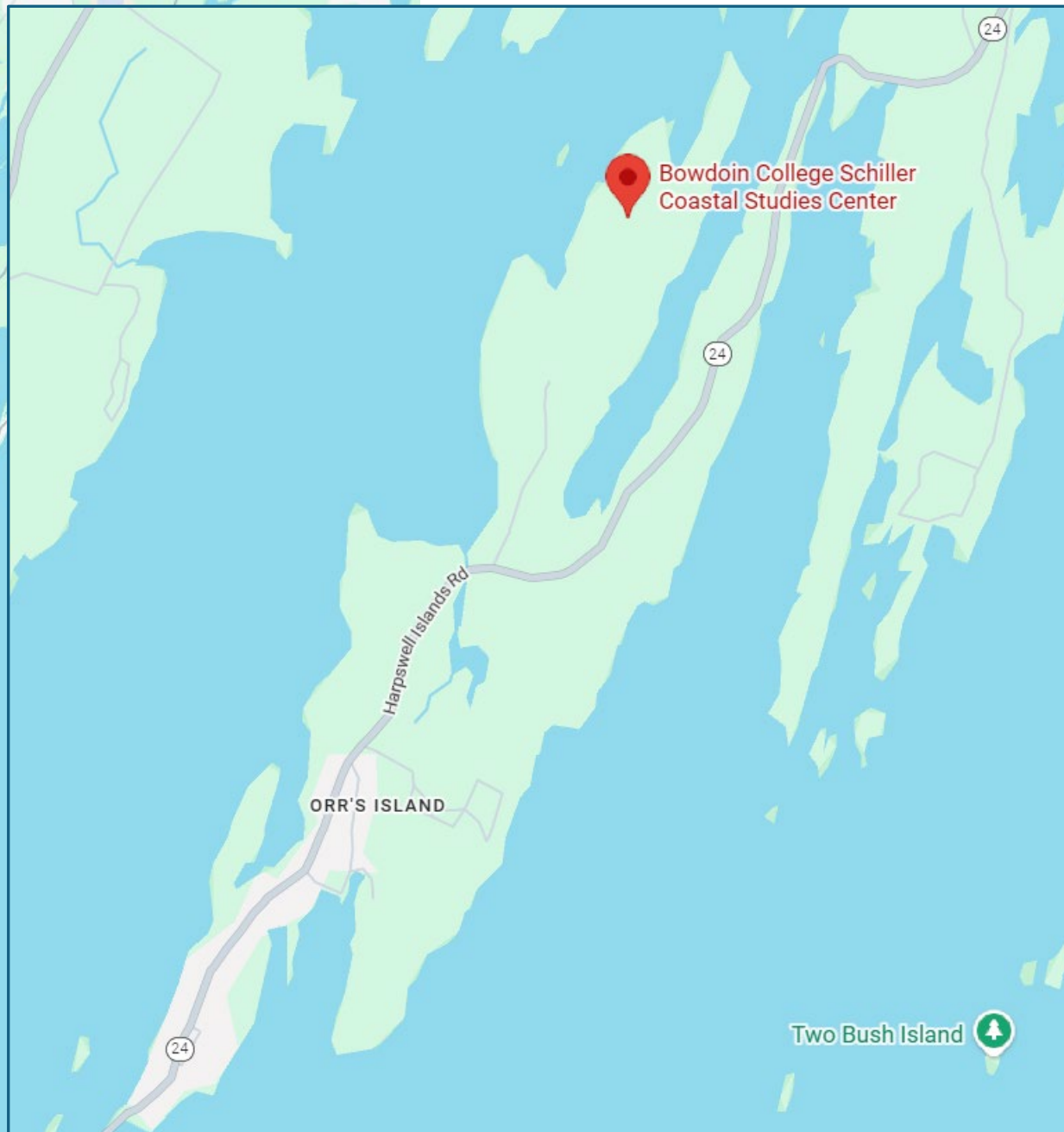
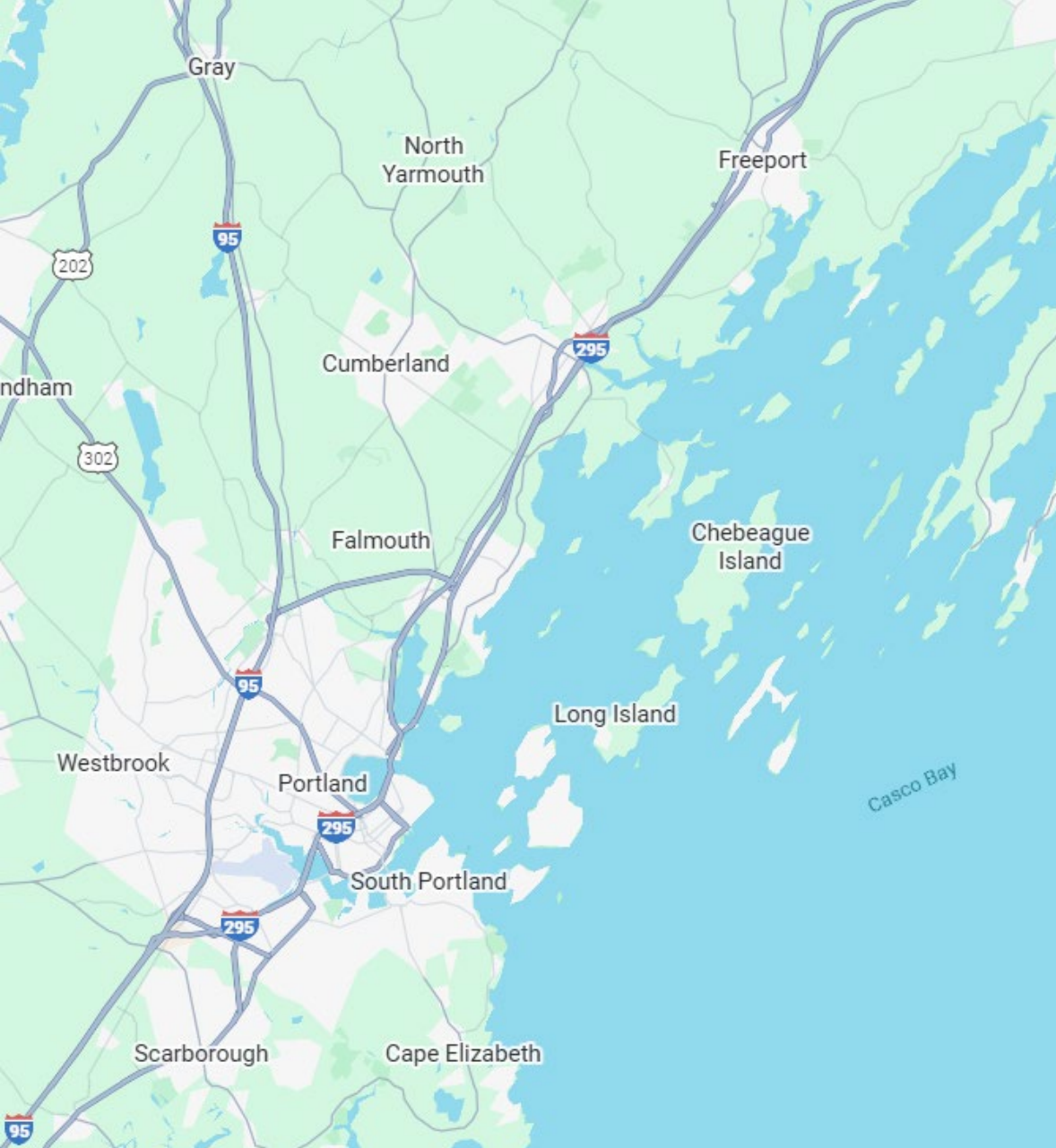






Glenn Page

Team ZOSTERA



Why are we interested in eelgrass at Schiller?



Dr. Katie DuBois



PRIFYSGOL
BANGOR
UNIVERSITY

Ecology, 101(12), 2020, e03169
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Previous exposure mediates the response of eelgrass to future warming via clonal transgenerational plasticity

KATHERINE DuBois ^{1,2,3} SUSAN L. WILLIAMS,^{1,2} AND JOHN J. STACHOWICZ ^{1,2}

Estuaries and Coasts (2021) 44:545–557
<https://doi.org/10.1007/s12237-020-00827-9>

SPECIAL ISSUE: SEAGRASSES TRIBUTE TO SUSAN WILLIAMS

Experimental Warming Enhances Effects of Eelgrass Genetic Diversity Via Temperature-Induced Niche Differentiation

Katherine DuBois ^{1,2}  • Susan L. Williams ^{1,2} • John J. Stachowicz ²



RESEARCH ARTICLE

Journal of Ecology



Shifting seagrass-oyster interactions alter species response to ocean warming and acidification

Katherine DuBois  | Justin H. Baumann  | Eban J. Charles | Fiona G. Ralph |
David B. Carlton 



Doherty Marine Biology
Postdoctoral Scholar



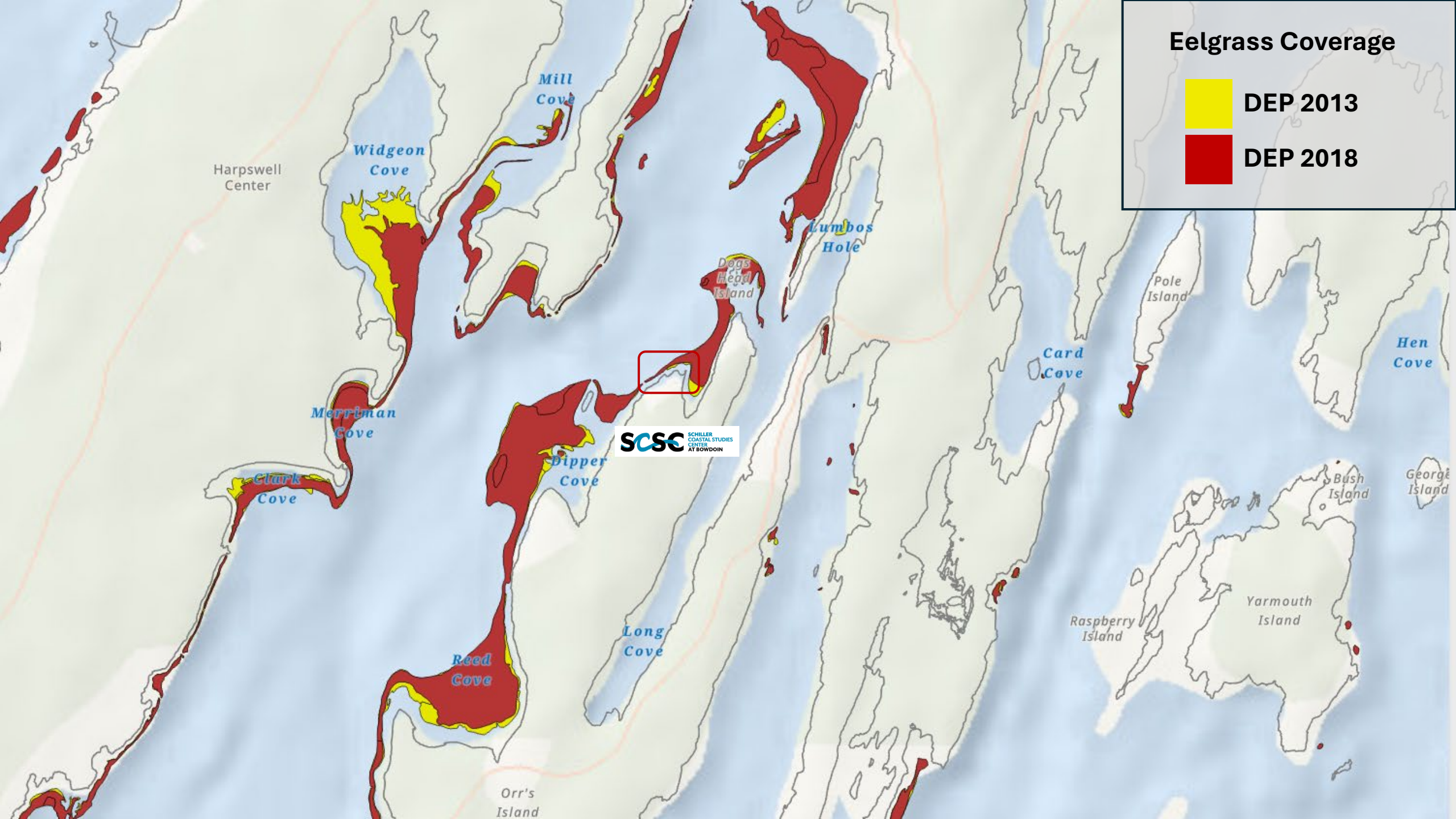
Eelgrass Coverage



DEP 2013



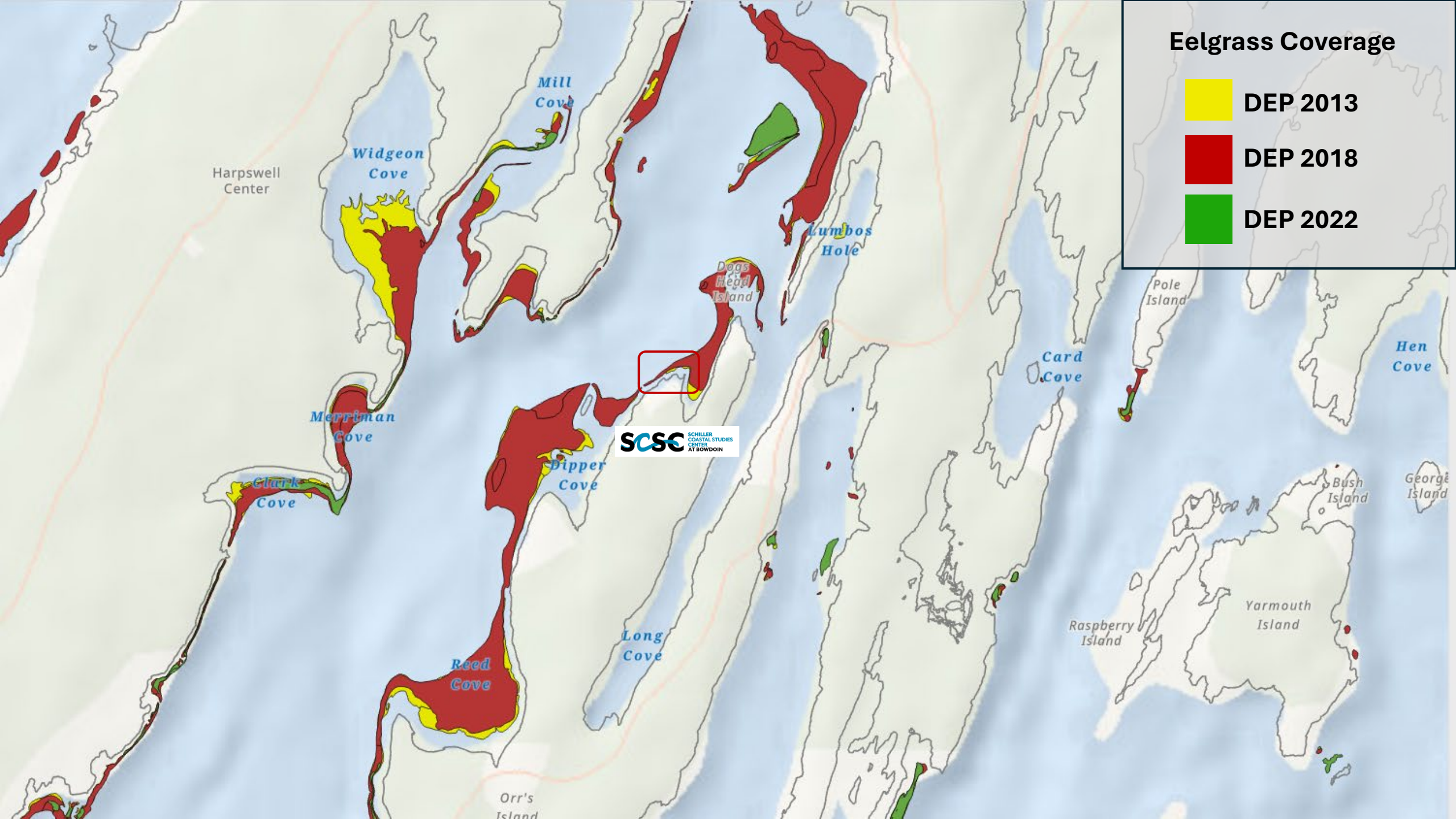
DEP 2018



September 2019

Photo Olaf Ellers





Plant Physiological Ecology



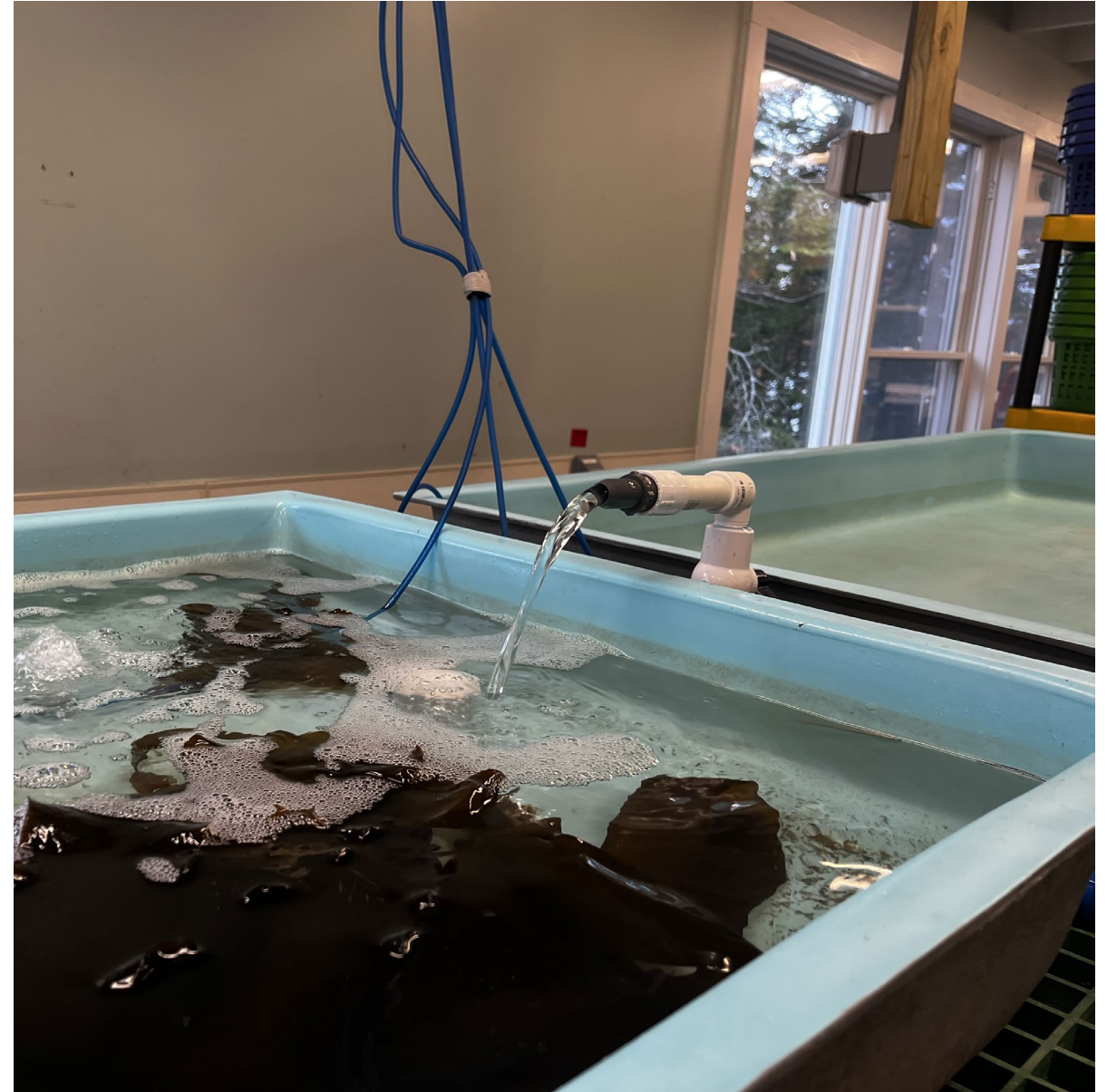
Dr. Barry Logan



“I really like plants” – Jaret Reblin

“I really like to build science stuff” – Jaret Reblin

Flowing Seawater Laboratory



A portrait of Lucy Dutton, a young woman with brown hair, smiling. She is wearing a black zip-up jacket with a white Nike swoosh and a "BOWDOIN" logo. The background shows laboratory equipment, including white PVC pipes and a black mesh filter.

Lucy Dutton

Version 1.0 - Summer 2024

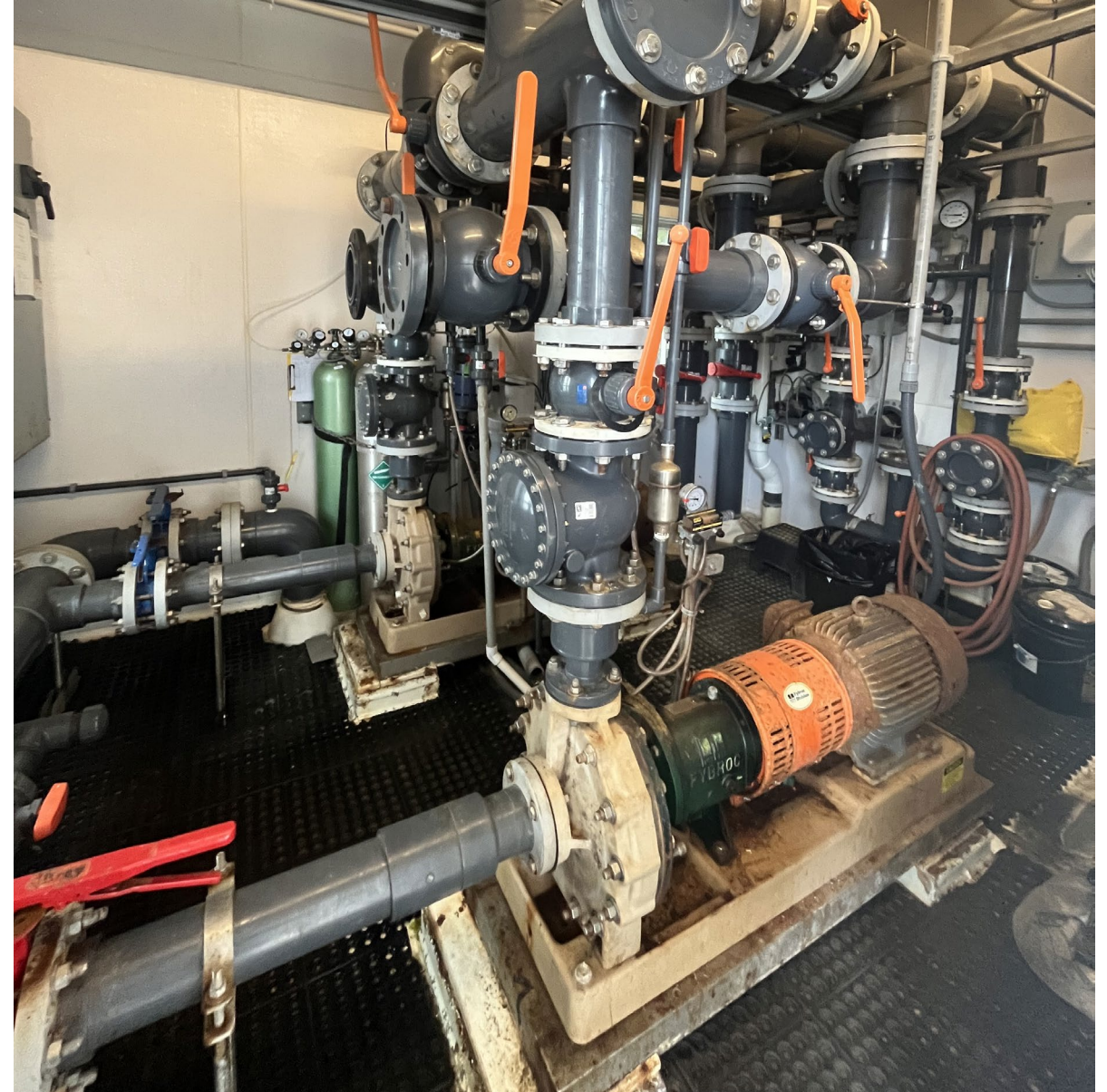
A portrait of Anne-Sophie Kagan, a young woman with glasses and brown hair, smiling. She is wearing a red life vest over a maroon shirt. She is holding a clear plastic container filled with water and several small fish. The background shows a body of water and green trees.

Anne-Sophie Kagan

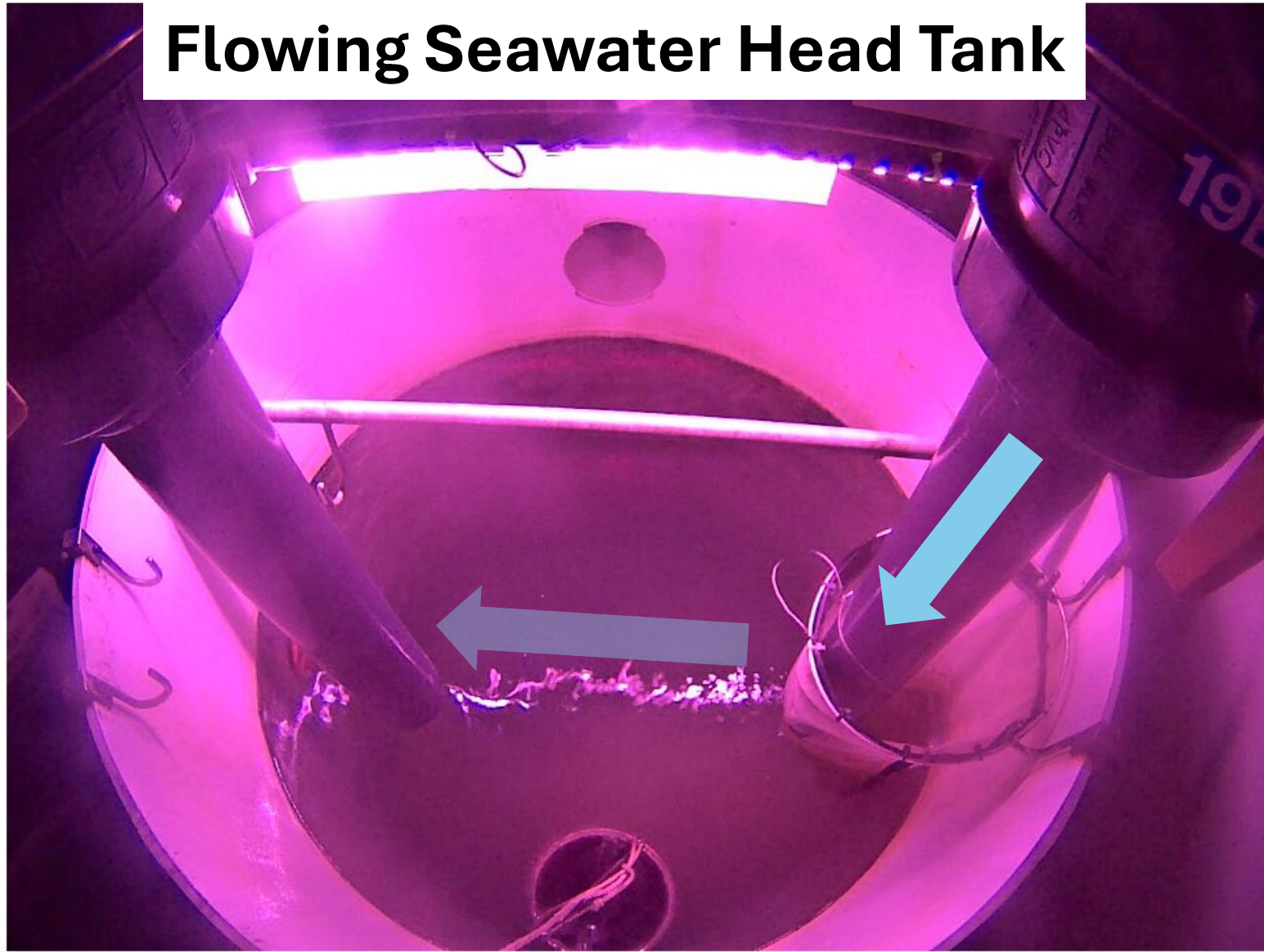
Version 2.0 - Summer 2025

“I am very frugal (cheap)” – Jaret Reblin

Follow the Water



Flowing Seawater Head Tank



**250 μm Bag
Filter**

10' Head ~ 5PSI

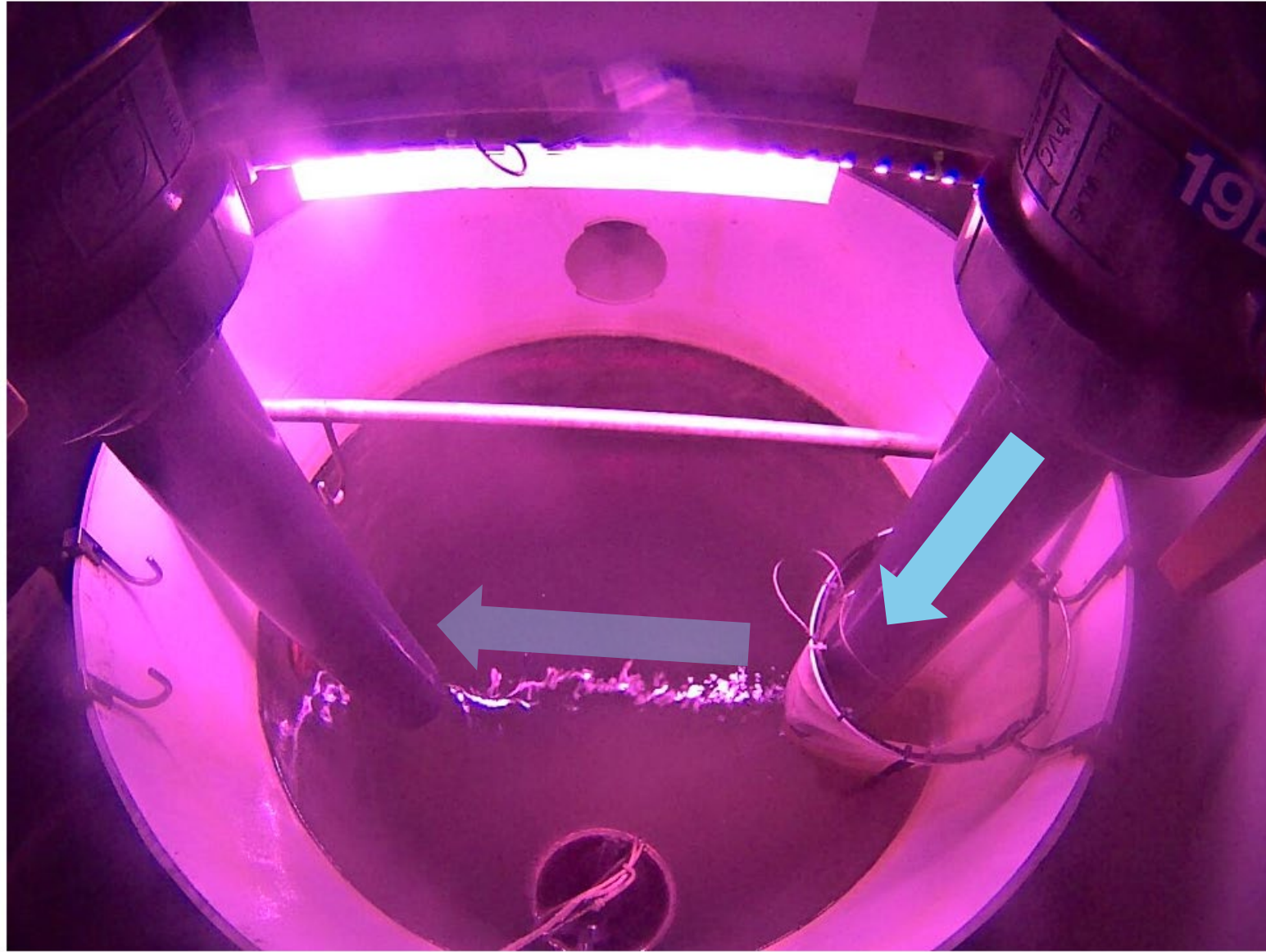


Fine Sediments and Fouling



“I really dislike tunicates” – Jaret Reblin

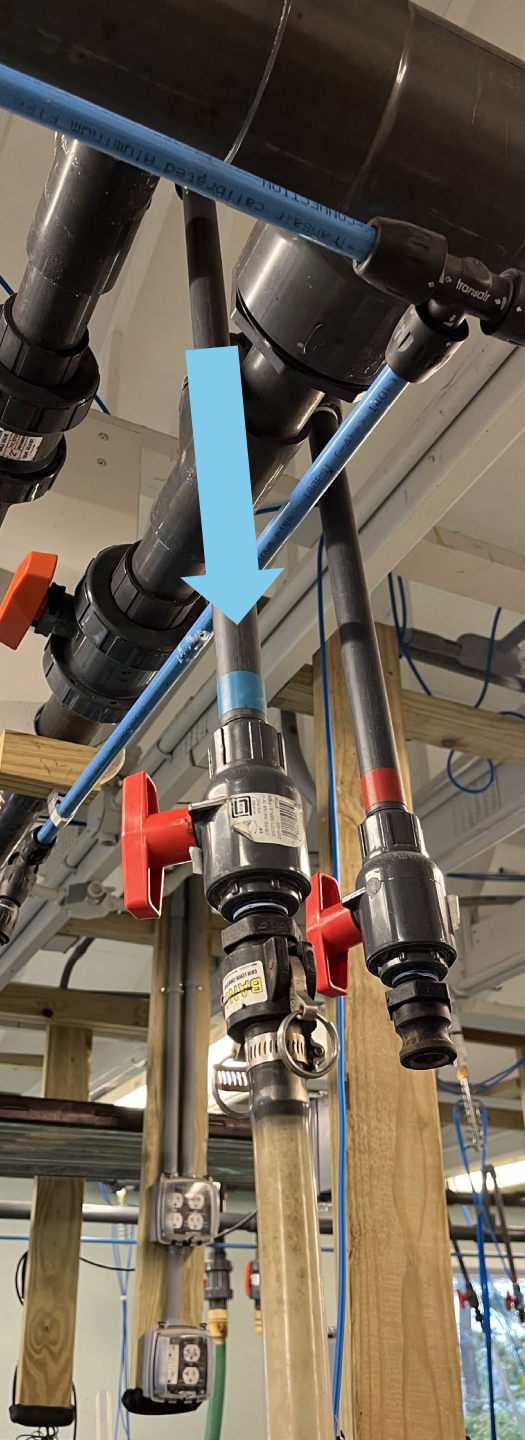
More Filtration Needed



**250 μm Bag
Filter**

10' Head ~ 5 PSI

1200 GPH Booster Pump

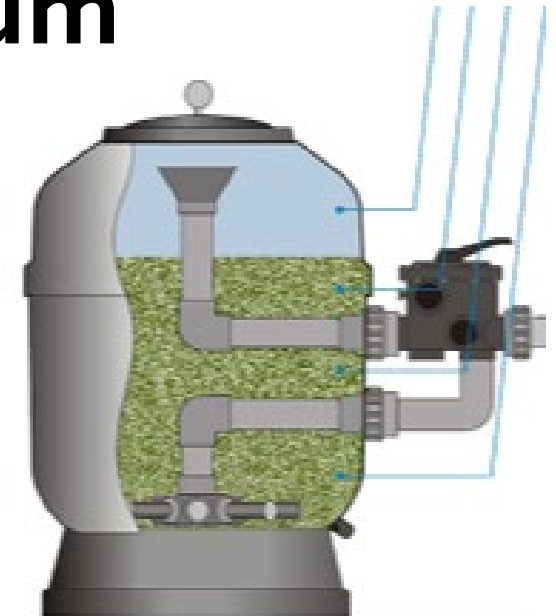




Recycled Glass Filter Media



5 µm



Chemical Composition
SiO₂: 73% Al₂O₃: < 2%

**“This stuff does not filter to 5 µm”
– Jaret Reblin**

Uniformity Coefficient: 1.69
Bulk Density: 80 lbs/ft³

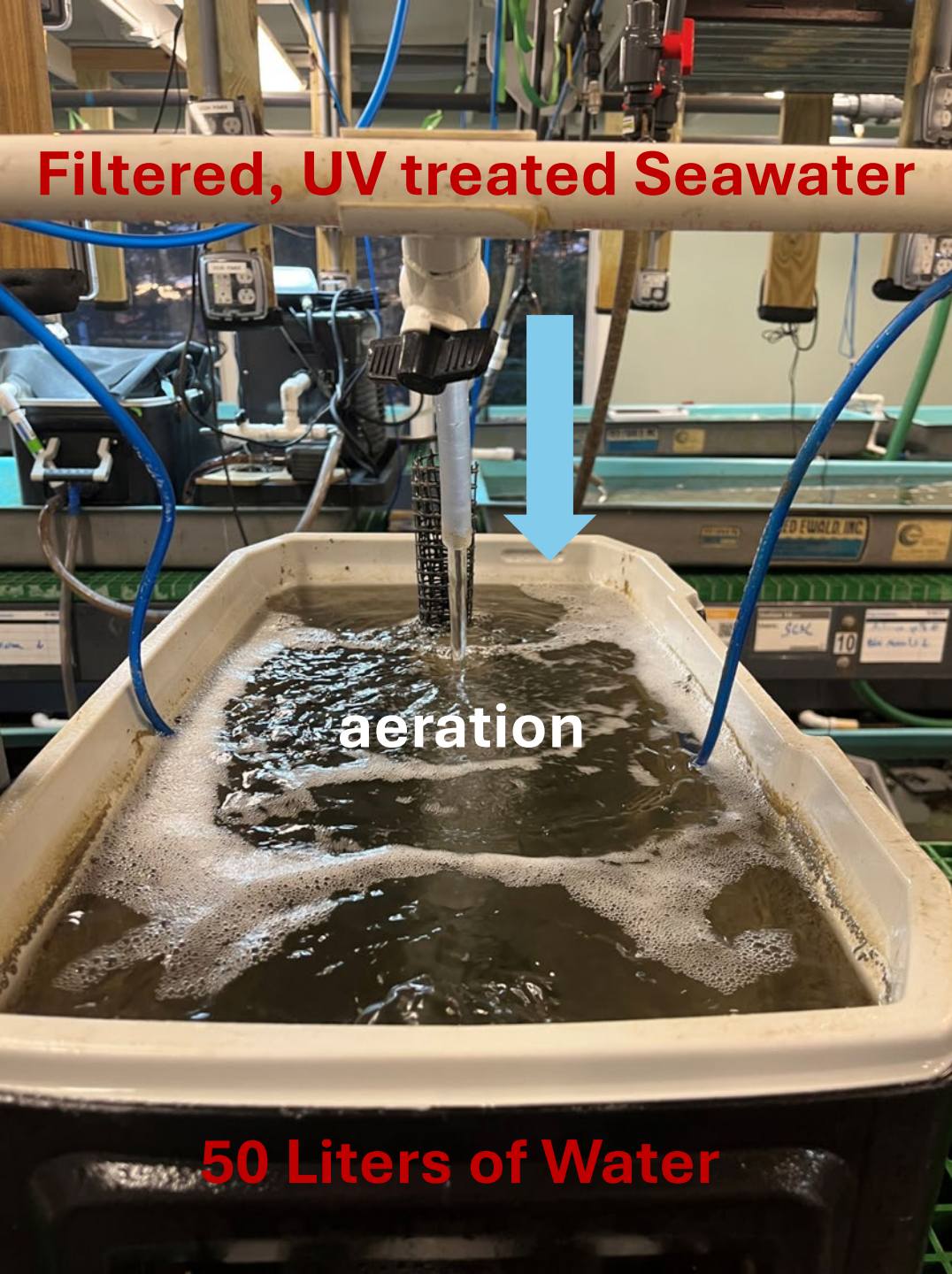


UV Light Treatment



“I dislike tunicates” – Jaret Reblin





~ 4,000 Reproductive Shoots



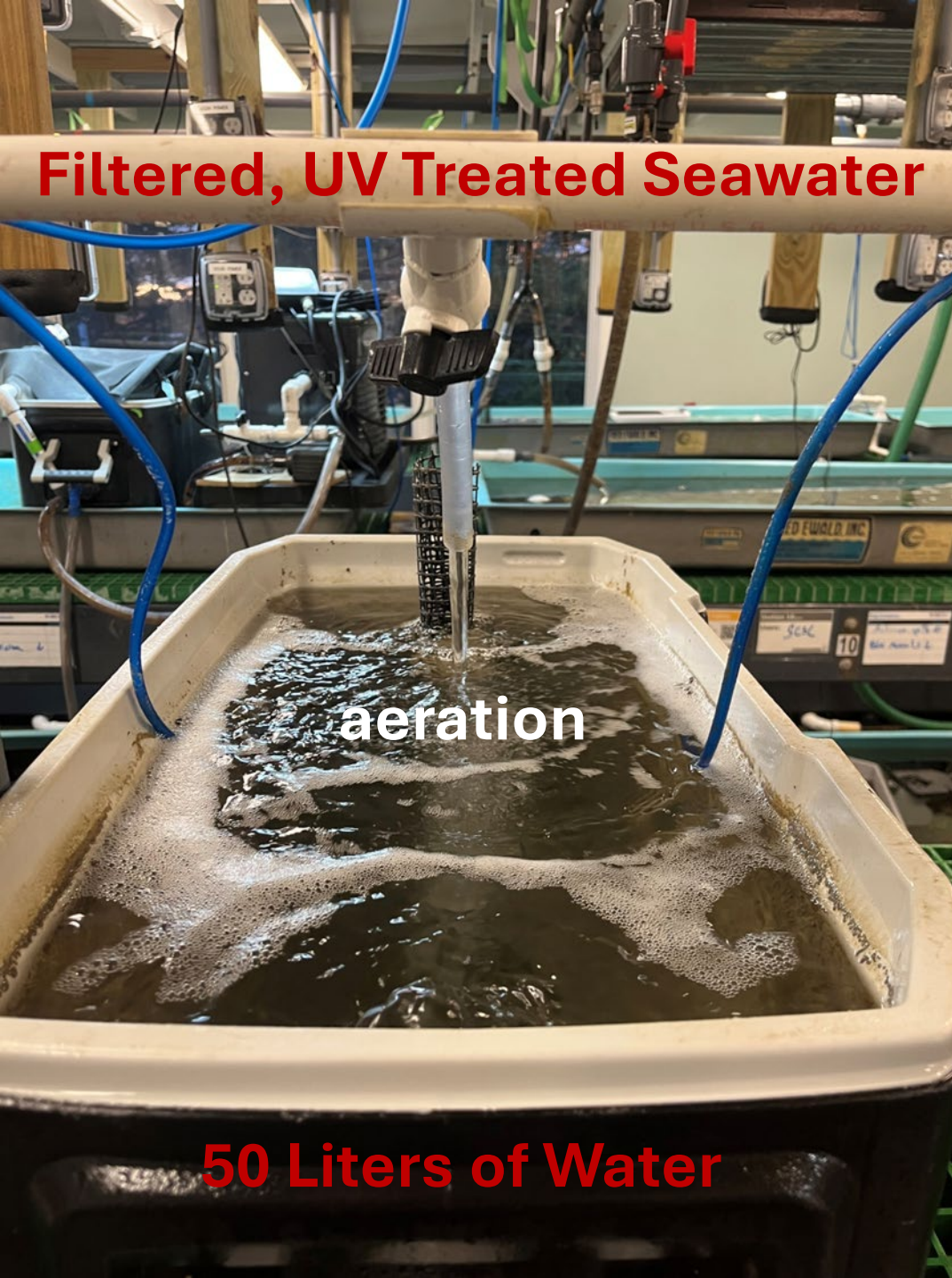
Glenn Page



Filled 8 Coolers

Team ZOSTera

Eelgrass Party I – The Spathes



Glenn Page

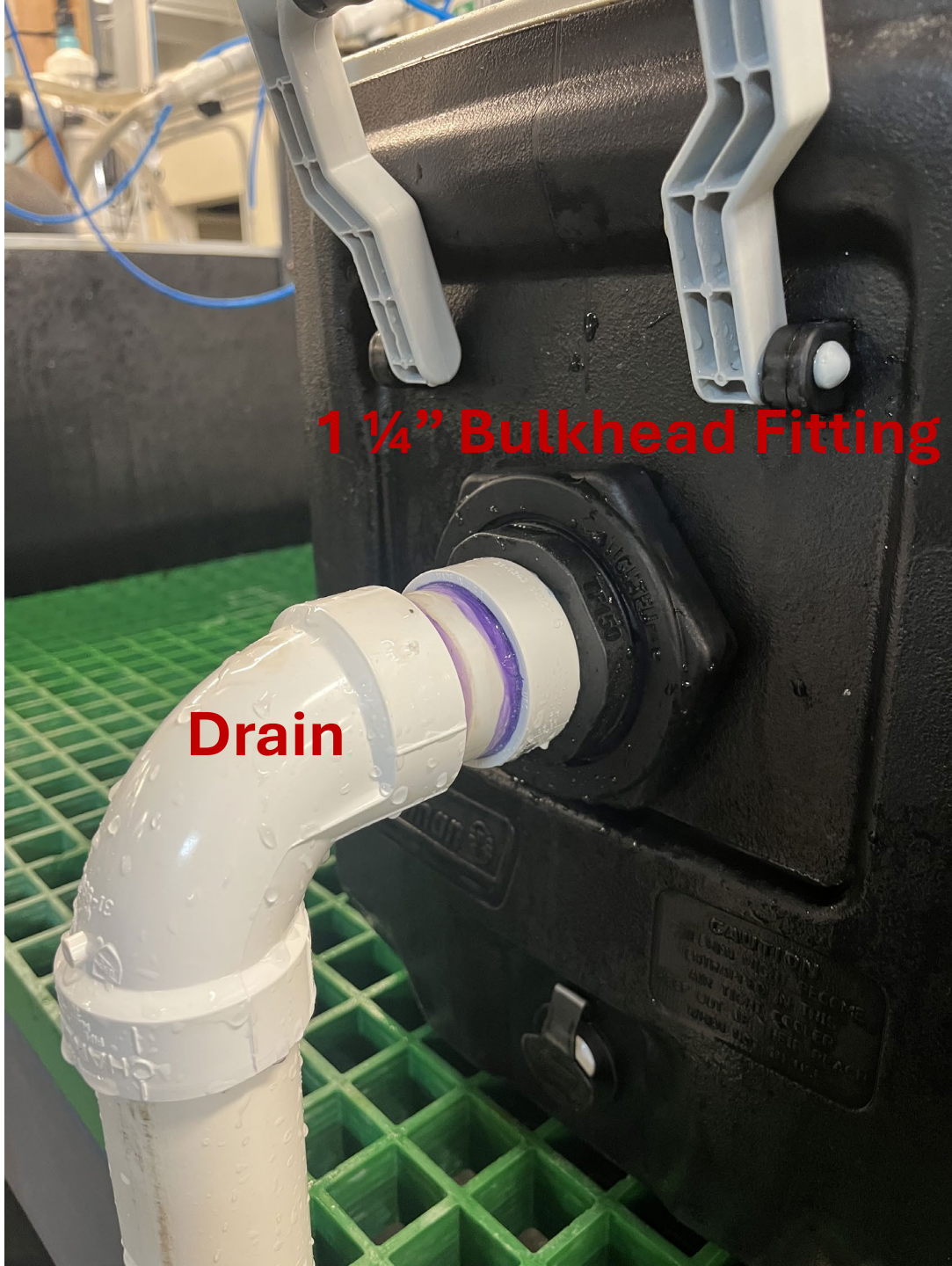


Glenn Page

8 Coolers

Team ZOSTera

Follow the Water





Follow the Water

**~ 200 Liter reservoir
supports 4 coolers**

**Seawater aerated as it
falls through drainpipe**

System overflow drain

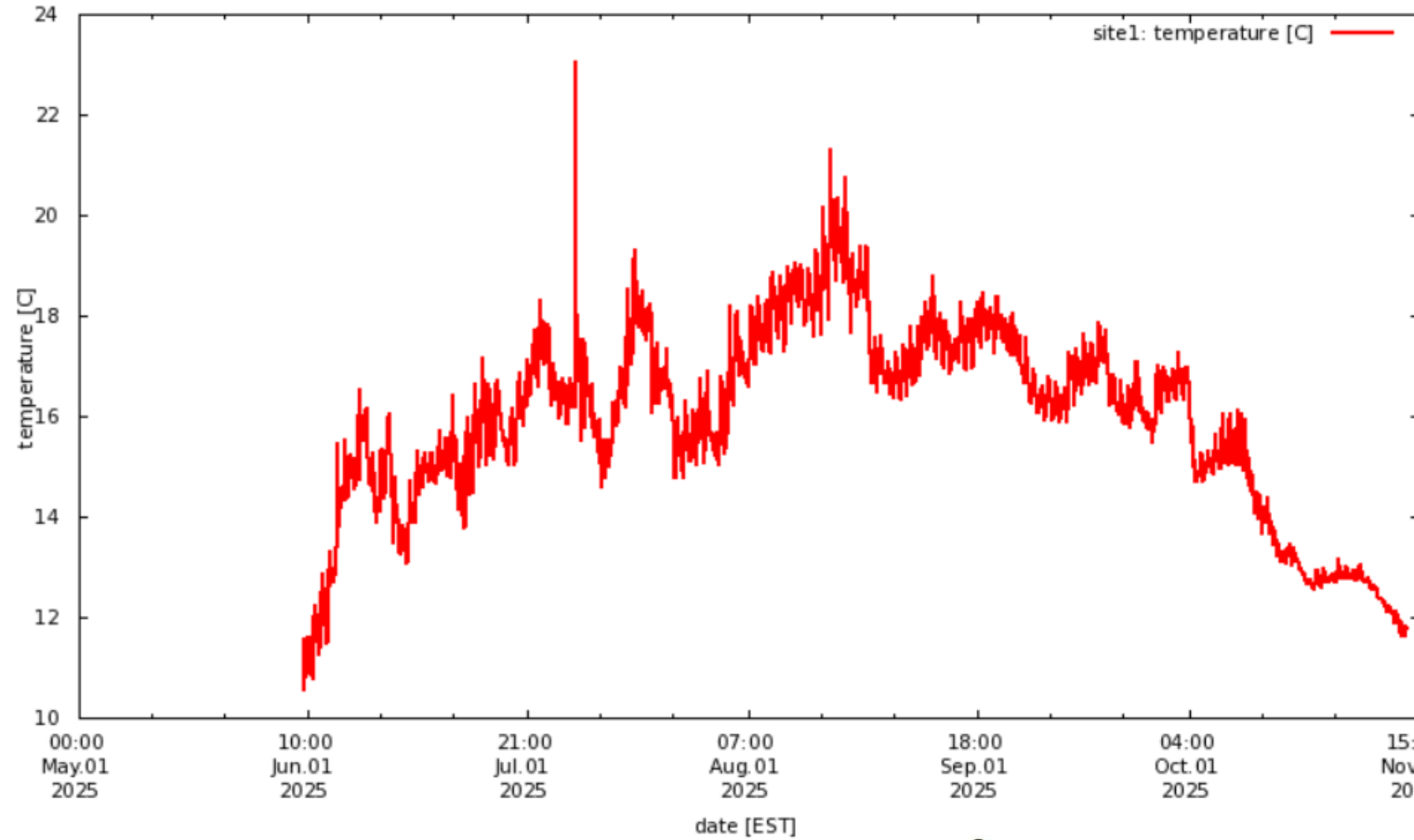
**Emergency backup
supply of water**



LOBO

Land/Ocean Biogeochemical Observatory

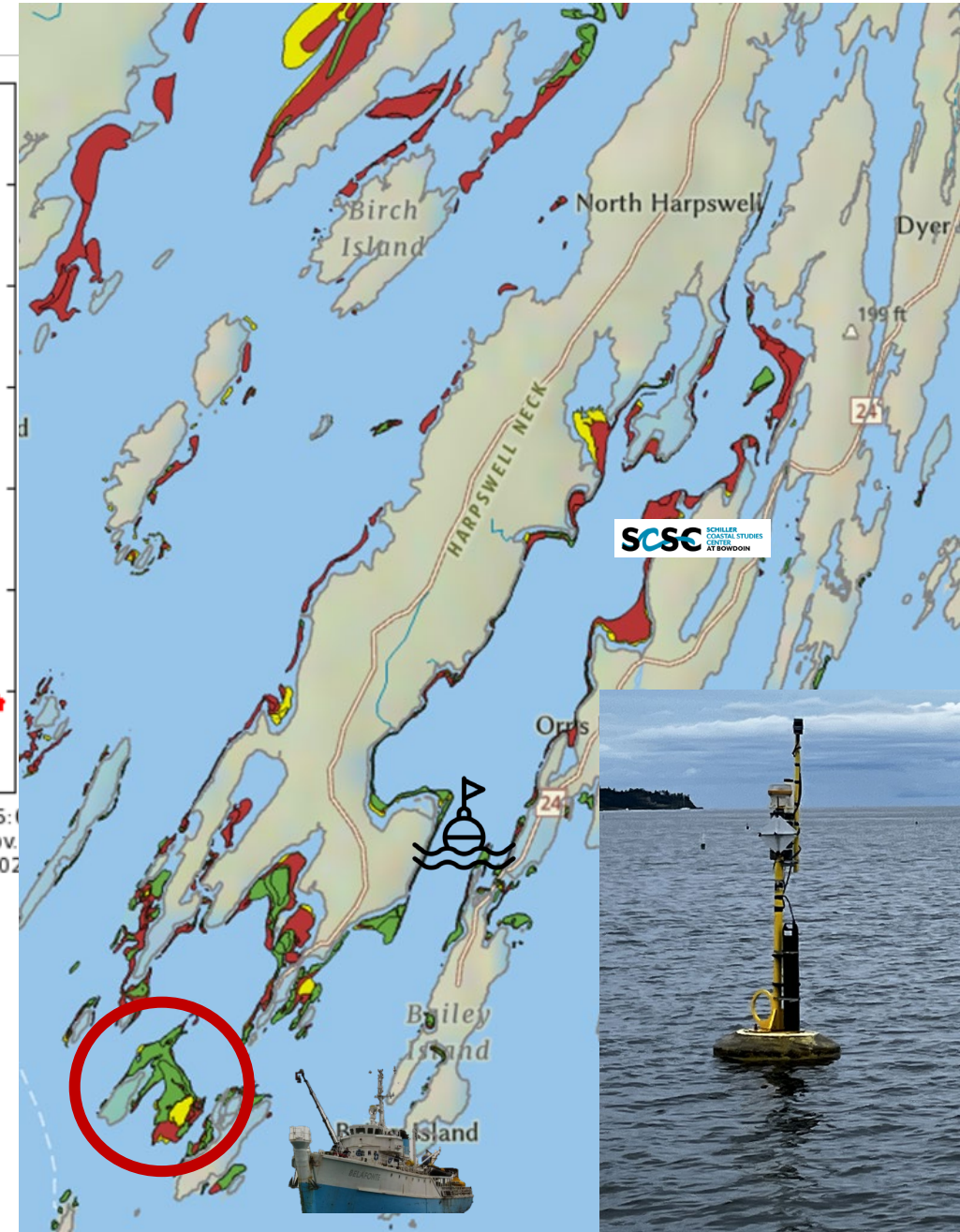
[HOME](#) [LOBOVIZ](#) [WIRELESS](#) [GE](#) [CGI](#) [ABOUT](#) [CONFIG](#) [CONTACT](#)

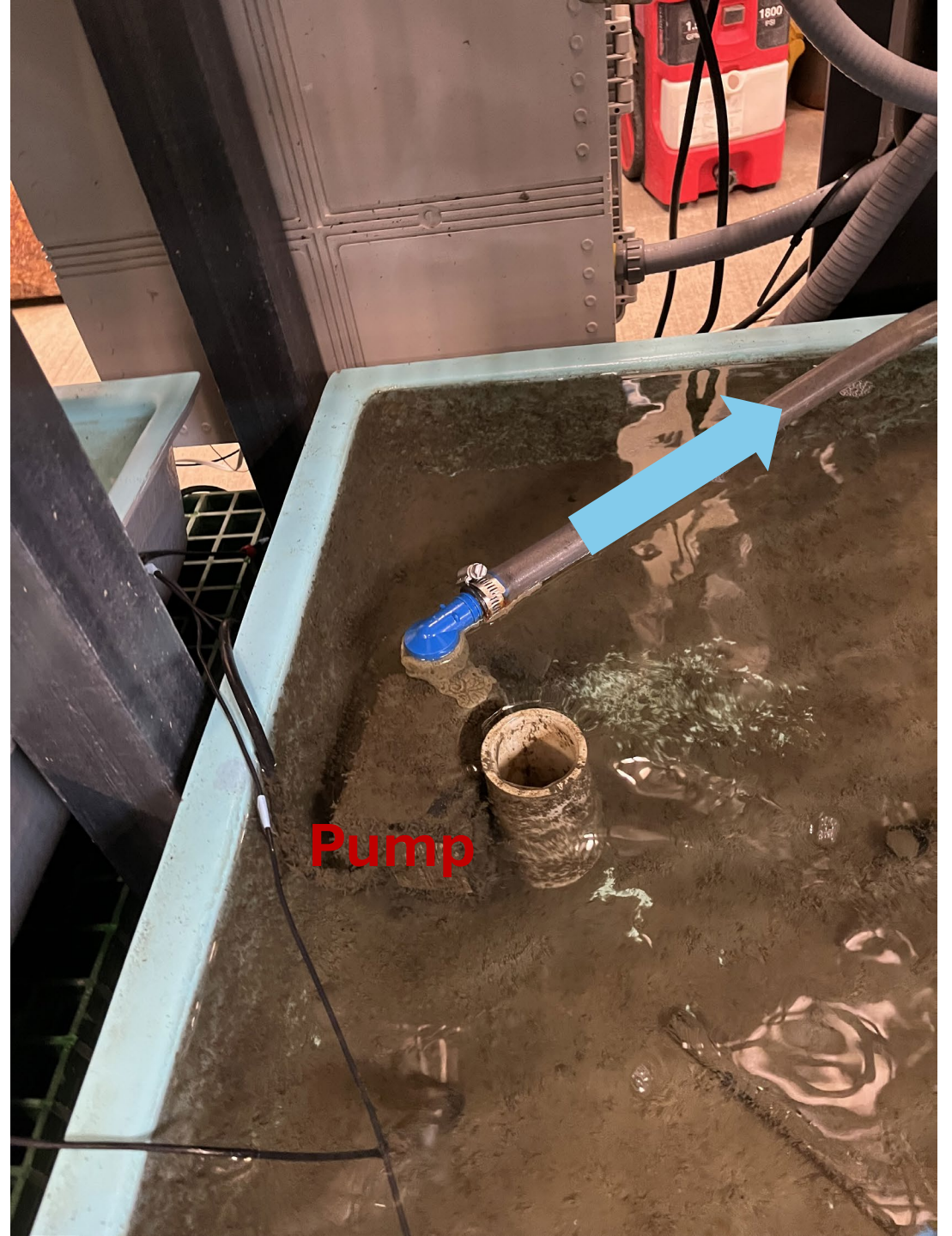


Late July ~17 °C



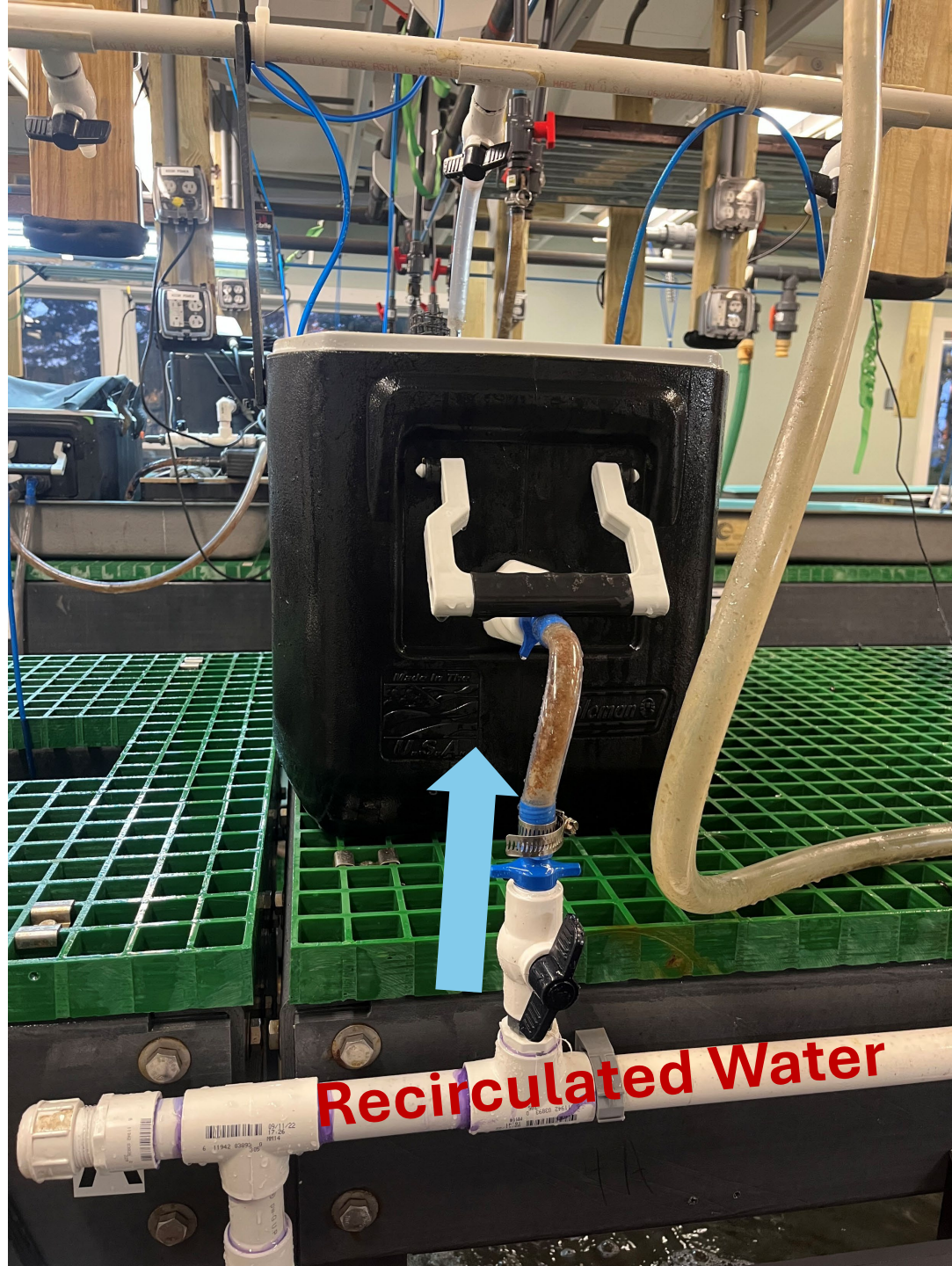
exo2





Temperature Regulation





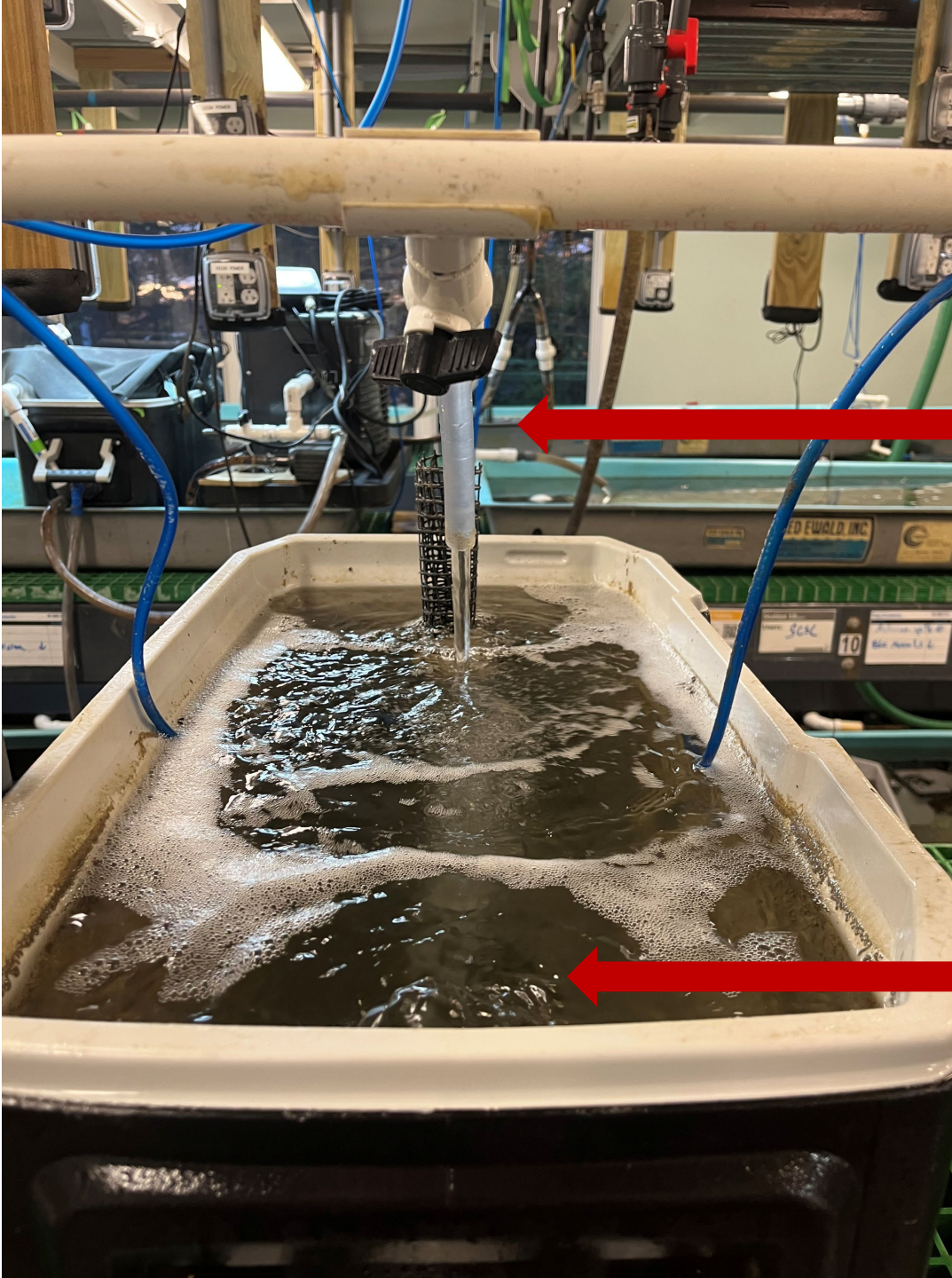
Recirculated Water



3/4" Bulkhead Fitting

**Recirculated Water
Inlet**

Follow the Water

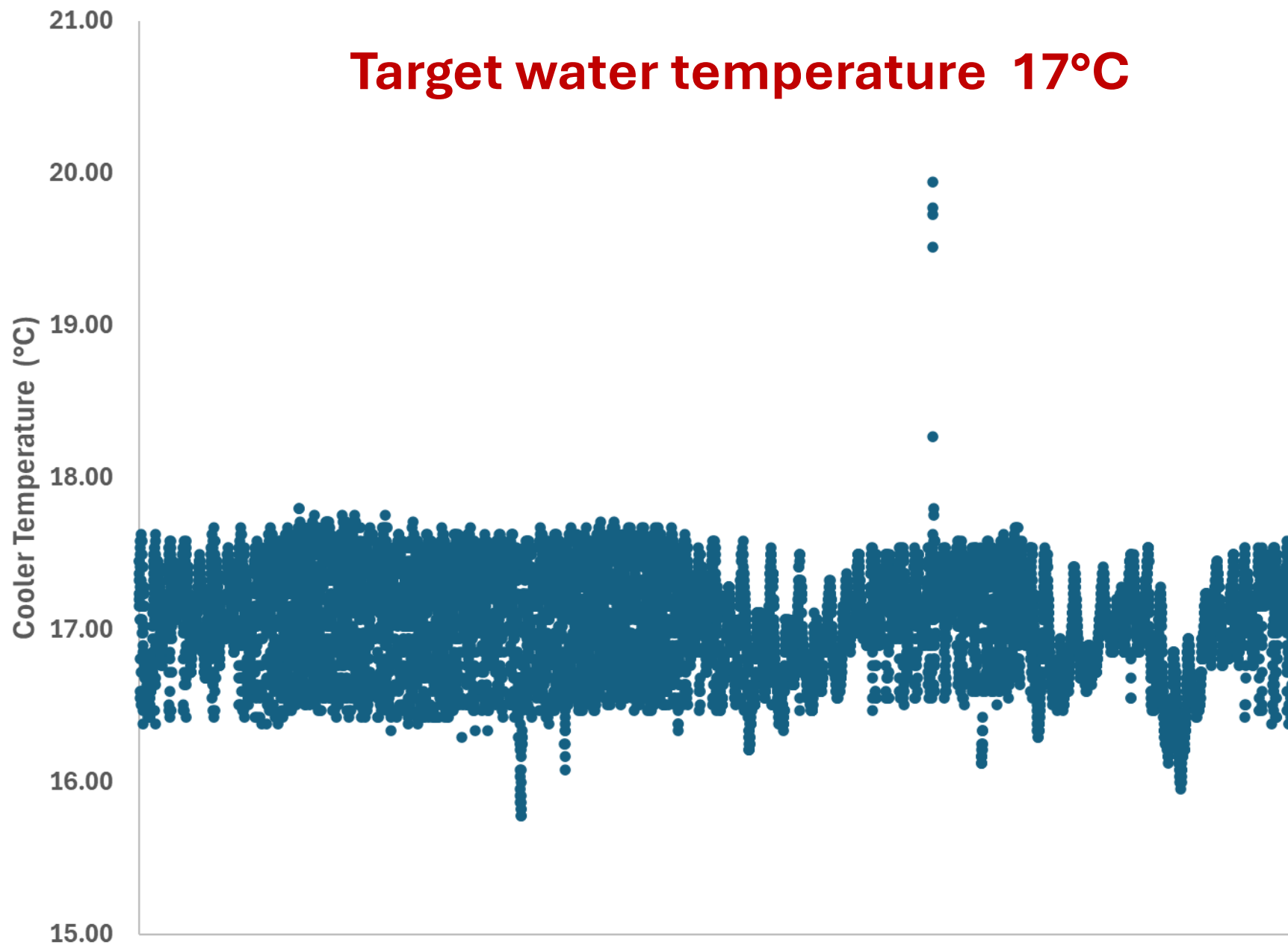


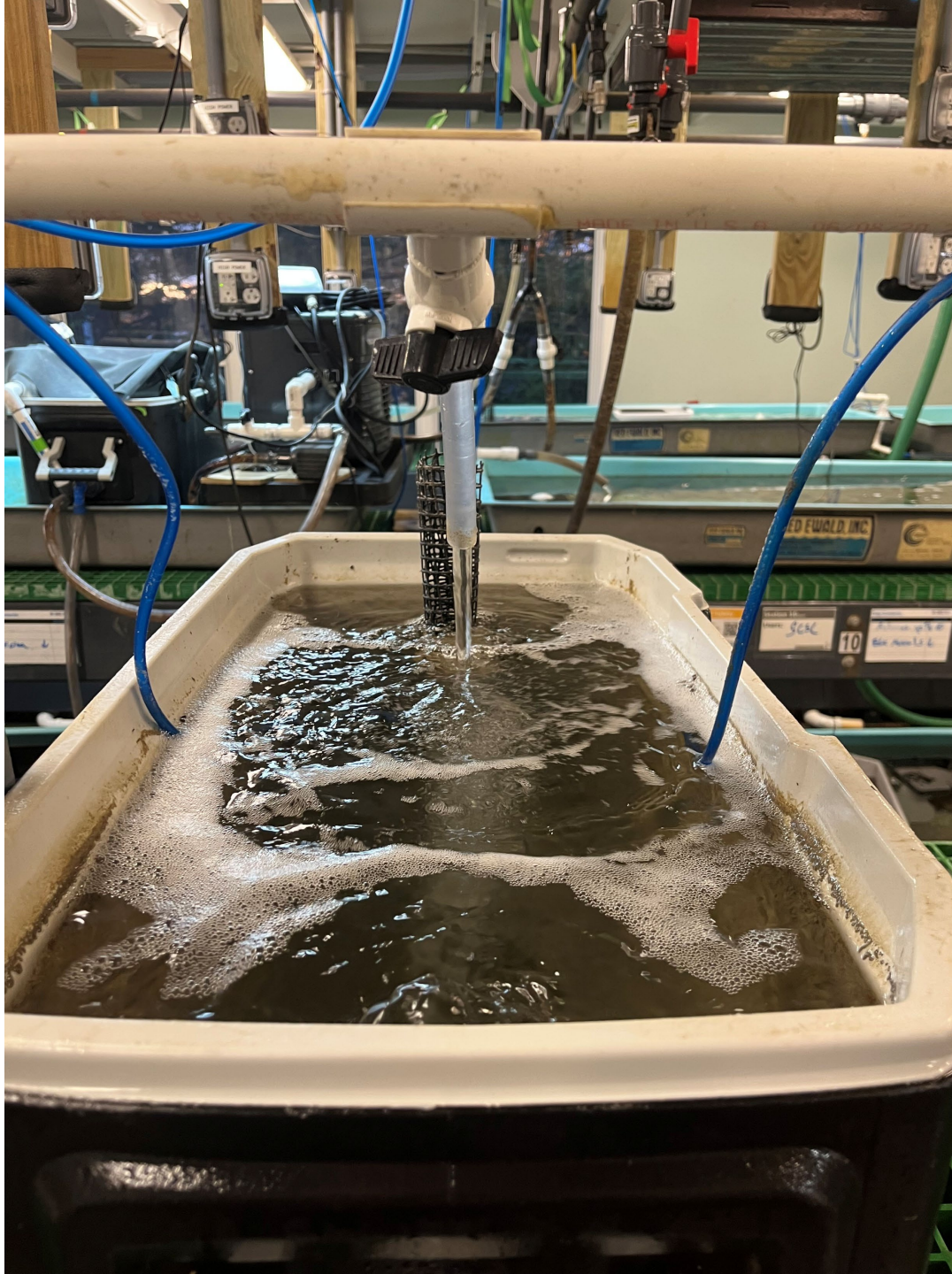
**New filtered, UV treated
seawater**

**Recirculated, chilled
seawater**



Target water temperature 17°C





Glenn Page

Eelgrass Party II – The Seeds



Glenn Page



Glenn Page



Team zosterA

Overwinter Seed Storage

**~70,000 Eelgrass seeds
stored at ~4°C in the dark**

**Spring seeding to reduce
predation?**



Questions, thoughts, or ideas?



“I really like plants” – Jaret Reblin

“I really dislike tunicates” – Jaret Reblin

“I am very frugal (cheap)” – Jaret Reblin