

## 2020 GMRI Research Experience for Undergraduates (REU) Annual Research Symposium

## Thursday August $6^{th}$ , 1:00 – 3:30

The GMRI REU Site, funded by the National Science Foundation, focuses on *'integrated studies in a rapidly warming fishery ecosystem*'. The REU class of 2020 has worked hard all summer on a range of topics related to the Gulf of Maine fishery ecosystem. At this year's annual symposium, you will hear about projects that range in scope from applying and validating environmental DNA (eDNA) as a means to sample components of the ecosystem, to using size-spectra data and modelling to understand changes in the structure and function of the ecosystem, to examining landings and trawl survey data to understand links between warming and fish distribution and abundance, and to applying economic theory to understand the relationship between price and demand of New England fish. We hope you can join us to hear more about this exciting research!

- 1:00 1:05 Intro and opening comments (G. Sherwood)
- 1:05 1:25 Kelly St. Pierre, Southern Maine Community College, ME: Determining optimum sampling depth to capture true abundance of *Pseudo-nitzschia* spp. in Casco Bay using environmental DNA techniques
- 1:25 1:45 Samantha Bengs, Southern Maine Community College, ME: Determining differential decay rates of environmental DNA fragments to provide clearer estimations of Atlantic herring biomass in the Gulf of Maine
- 1:45 2:05 Claire Wilson, Macalester College, MN: Comparison of changes in groundfish biomass versus ocean temperature on the Northeast Continental Shelf
- 2:05 2:10 Bio break
- 2:10 2:30 Jonathan Falciani, Temple University, PA: Using a size spectrum community model to simulate the carbon cost of different fishing strategies
- 2:30 2:50 Benjamin Resek, Clark University, MA: Fitting size spectra to the inshore Gulf of Maine groundfish community
- 2:50 3:10 Emily Andrade, University of San Diego, CA: Evaluating the dynamics in the commercial Atlantic bluefin tuna (*Thunnus thynnus*) fishery in the Gulf of Maine
- 3:10 3:30 Tom Gilburg, Eckerd College, FL: Elastic cod: estimating price elasticity of demand for Atlantic cod to determine sustainable yield in New England

3:30 – 3:35 Wrap up

\*\*Thank you for attending! And thank you to all who helped make our virtual program a success!\*\*