11-15-2022

Aquaculture Research Institute Newsletter, November 15, 2022

Aquaculture Research Institute

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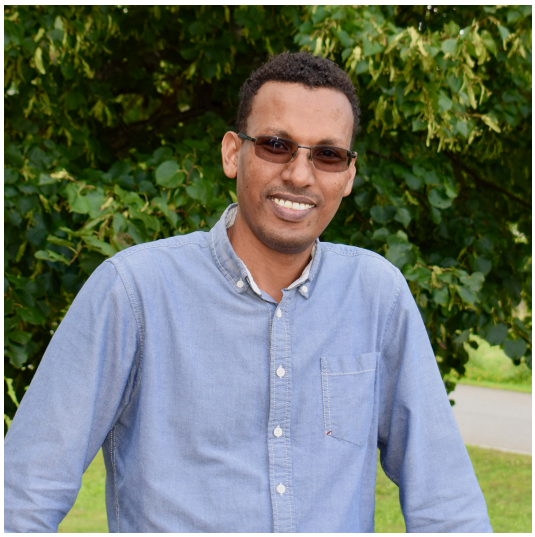
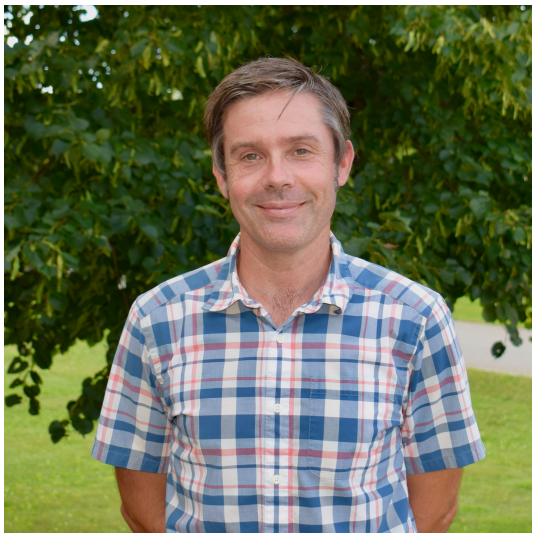
Welcome to the Aquaculture Research Institute's newsletter where we provide updates on ARI's research, education and outreach initiatives.

ARI Research Highlights



Dr. Michael Habte-Tsion



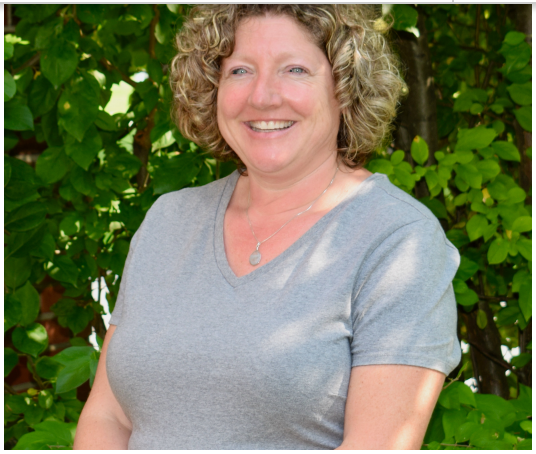
Dr. Matt Hawkyard

(USDA) has made it possible for us to add four new members to our expanding team. Their expertise in financial coordination, finfish nutrition and sustainability are already helping ARI expand into new research and education areas that complement the work of our interdisciplinary team. Please join us in welcoming:

Michael Habte-Tsion has joined ARI as a joint appointment through ARI and Cooperative Extension. In July he started as an Assistant Extension Professor and Finfish Nutrition Specialist based in Orono. Prior to the University of Maine, Michael was working at Florida Atlantic University - Harbor Branch as Postdoctoral Fellow in Fish Nutrition and Nutrigenomics. Michael has 18 years of experience in the industry in aquaculture research, extension, development, and education. Michael's research focuses on aquatic animal nutrition and nutrigenomics, including diet formulation, alternative ingredients evaluation, and nutrient requirements using production performance, physio-biochemical, immunological, and molecular approaches. He has relevant experience designing and implementing Recirculating Aquaculture System (RAS) finfish culture and the feed production industry. Michael's work is fundamental in developing nutritionally balanced, environment friendly, and cost-effective feeds for sustainable aquaculture of fish in the local and beyond.

Matt Hawkyard works in the area of fish nutrition and encapsulation. Matt's research is aimed at improving the growth and survival of fish and invertebrates through enhanced nutrition at all life stages. Matt's particularly interested in the challenges and solutions associated with feeding aquatic animals given that artificial feeds behave differently in water when compared to terrestrial systems. Specifically, Matt seeks to develop improved feeds and feeding strategies that lead to more efficient nutrient delivery to fish and invertebrates. His research also aims to better understand the nutrient requirements, feed formulations and the interaction between feeding and water-quality in aquaculture systems. In addition, Matt is using novel encapsulation techniques for the delivery of vaccines and other bioactive compounds to fish. Matt hopes that his research will lead to improved nutrition and health management tools that will ultimately improve the environmental and economical sustainability of aquaculture systems.

Adam St. Gelais



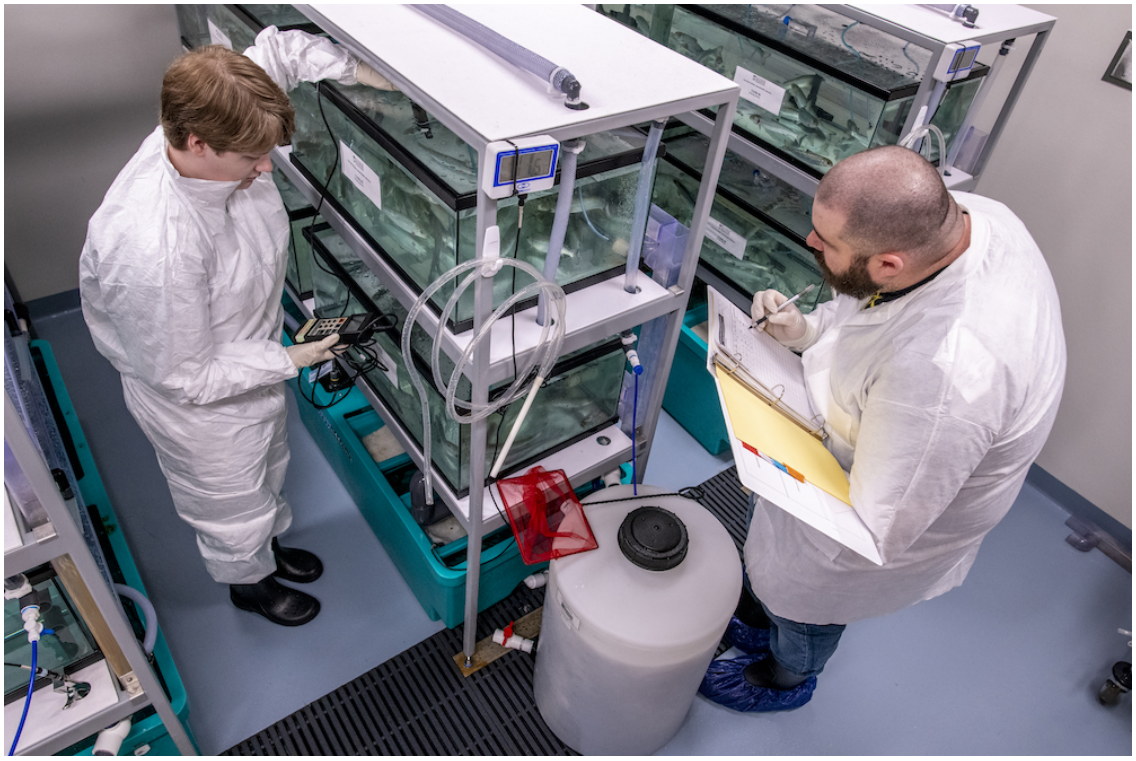
Julie Rutherford

Adam St. Gelais started at ARI in May and is based at the Darling Marine Center in Walpole managing the hatchery and field based research at the aquaculture experiment station farm on the Damariscotta River. He is interested in the intersection of ocean farming and marine ecology, framed by a changing climate, and the resulting social and environmental impacts of managing both for sustainability. Adam strives to work closely with ocean farmers, especially those focused on growing low-trophic level “extractive species” to assess the ecosystem services (and, where present, the trade-offs) of farming in the marine environment. Conversely, Adam is also interested in how the marine environment impacts the quality and nutrition of ocean-farm crops. Much of this work is focused on bivalves and macroalgae in temperate areas using field and laboratory methods. Adam also coordinated the Sustainable Ecological Aquaculture Network (SEANET) at the University of New England.

Julie Rutherford works as the financial manager for the Aquaculture Research Institute. She has worked at the University of Maine since 2016 in both the Engineering Department and Admissions. Her current position as financial coordinator encompasses the entire life cycle of a grant and she is involved in all aspects of grants management from pre-award proposals to post award closeout procedures. She helps to ensure that all principal investigators are in compliance with University of Maine policies and procedures. Julie enjoys seeing the undergraduate students work with their mentors to complete research projects and to obtain their goals.

If you want to stay current with ARI’s interdisciplinary research, please check out our Aquaculture Research Portal.

ARI in the News



UMaine researchers to develop enhanced fish vaccines with nanocellulose

In an effort to support Maine and the nation's growing finfish aquaculture industry, University of Maine scientists seek to develop more effective, safe, sustainable and affordable fish vaccines using nanocellulose produced from Maine's renewable wood pulp industry. Read more here.

New USDA grant builds on Aquaculture Research Institute partnerships to advance sustainability in land-based salmon aquaculture

The University of Maine Aquaculture Research Institute (ARI) in collaboration with the University of Maryland Baltimore County (UMBC) has been awarded a $10 million U.S.

Maine's Blue Economy

Thursday, November 18th at 12:30 pm EST

You are invited to this virtual event where leaders in the state define the Blue Economy in Maine and discuss how UMaine is involved. We welcome you to join the discussion.

Panelists include Commissioner Heather Johnson of the Maine Dept. of Economic and Community Development, Curt Brown of Ready Seafood, Alex de Koning of Hollander & DeKoning, and Kate Dempsey of The Nature Conservancy.

Registration is required.

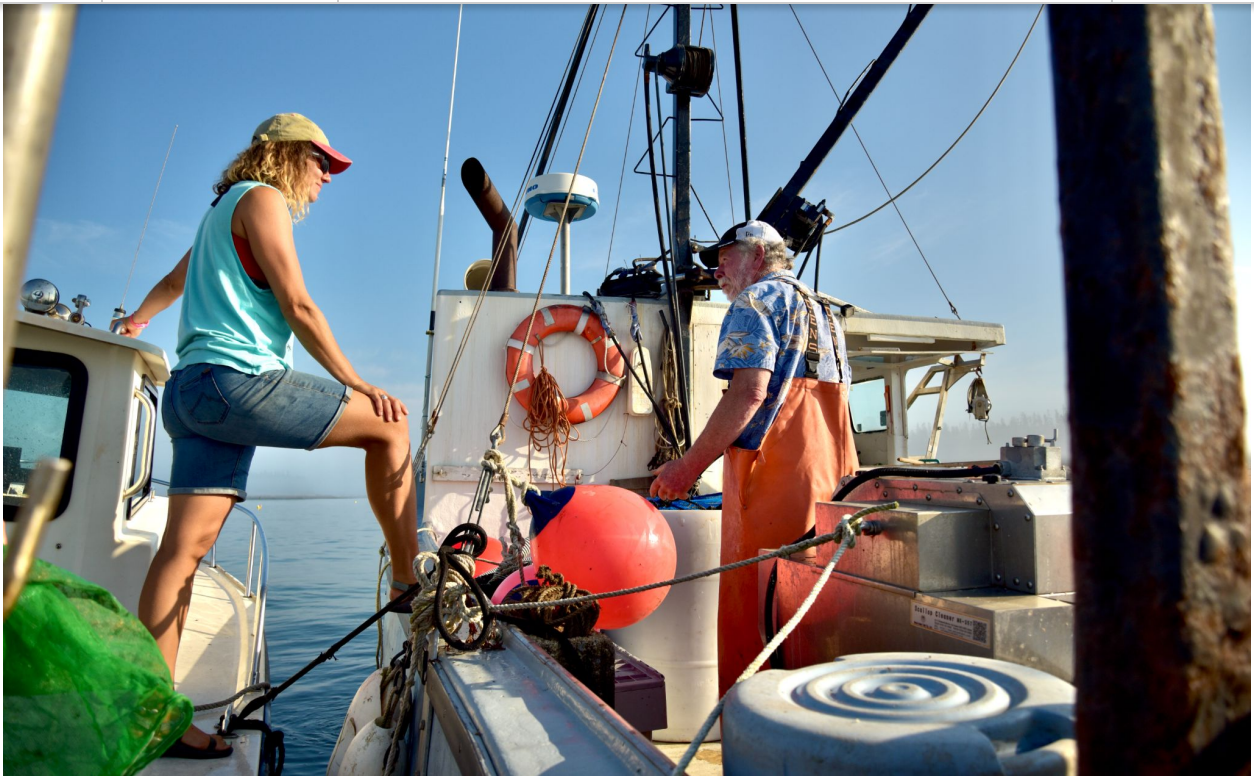
Evaluating Biological Responses of Scallops to Environmental Variability

Thursday, November 18th at 3:00 pm EST

Phoebe Jekielek and Tom Kiffney, both PhD students at the University of Maine, will talk about their monitoring projects in cultured and wild populations of sea scallops along the coast of Maine. They will share data from their projects which monitor spawning and growth rates, discuss environmental variability and site selection tools, and share directions for their future PhD work.

Please register in advance for this webinar:

After registering, you will receive a confirmation email containing information about joining the meeting.



Phoebe Jekielek and Marsden Brewer catching up on the Brewer farm.

ARI Industry/Non-profit Externships Information Session

Friday, December 3rd at 12:00 pm EST

Do you want to host a paid summer intern at your aquaculture related business or non-profit? ARI will be placing undergraduate and graduate students in 10-12 week externships around the state in the summer of 2022. Join us to hear more about this program and ask questions with Scarlett Tudor, ARI Education and Outreach Coordinator. Please register in advance for this meeting:

After registering, you will receive a confirmation email containing information about joining the meeting.

The Northeast Aquaculture Conference and Expo (NACE), Holiday Inn Portland, Maine

January 12-14, 2022

The Maine Aquaculture Innovation Center and NOAA's Milford Lab are holding the biennial Northeast Aquaculture Conference and Expo in Portland with the goal of bringing together producers, service providers, vendors, researchers, students and managers from across the northeast region to discuss pressing issues and relevant

researchers to attend the SRC meeting and the conference. Apply here to by November 15th.

Support ARI