

MIC May Meeting

Date: May 19, 2023

Facilitators: Roger Berle (Co-Chair, Cliff Island) and Kate Tagai (Island Institute)

Attendees: MIC: Donna Wiegler (Swans); Mark Greene, Ralph Sweet, and Lisa Kimball (Long); Ellen Mahoney New Co-Chair, Mary Anne Mitchell (Peaks); Cheryl Crowley (Cliff); Eva Murray (Matinicus), Ingrid Gaither (Great Cranberry), Katie Ford (Great Diamond)

GLIA: Michael Gora (Middle Bass)

Maine Seacoast Mission: Simone Babineaux

Hancock County Planning Commission: Averi Varney

Legislative: Kelly Cotiaux (Senator Collins)

Island Institute: Brenna Cohen and Alex Zipparo

Speaker: Jane Disney ([MDI Biological Laboratory](#))

Welcome (Roger): Former co-chair Donna and new co-chair Ellen from Peaks are here, current co-chair Kendra indisposed today. Thanks to Kate and staff and predecessors and current partners all these years, 20 years. Welcome Ellen, tell us about your hopes and who you are.

Ellen: Great honor to try to step into co-chair position, first a member of MIC 20+ years ago, moved to Peaks with my new husband in 1998 because it was the affordable place to live in Portland. Raised 4 children here, founding member of Home Start Housing, long time volunteer, help wherever I think my skill set is matched. Currently run concert series that brings world class musicians to Peaks year round. Mother of children who live on islands, 7th gen Maine and Portland person, honored to be in this role.

Kate: when we get together in person this fall we'll have some cake and recognition for Roger, he is the reason we're here today. We hope you'll continue to share your wisdom with us.

Roger: I will and I have Cheryl Crowley with me.

Updates:

Legislative:

- Kelly (Senator Collins):
 - Constituent services with Bangor office, anyone from Maine can contact me. kelly_cotiaux@collins.senate.gov
 - Senator Collins and Senator Murray trying to move forward with appropriations, markup is expected for July and Congress is expected to pass these bills in the fall. Senator Collins introduced the [Coastal Fellowships Act](#), a NOAA training program for coastal zone management for coastal and Great Lakes areas. The Senator also introduced the [Carbon Removal and Emissions Storage Technology Act](#) to advance research on carbon removal.
- Alex: (State) Senator Grohoski introduced [LD 1897](#), which directs DOT funding for road repairs to islands not served by Maine State Ferry service. At Tuesday's public hearing, Isle au Haut and Monhegan residents testified. The funding's not part of Governor's budget so the bill may not advance but DOT now understands more about island resilience and needs. DOT will hold an upcoming work session to focus attention on Maine islands, all of the 15 unbridged islands.

Maine Seacoast Mission (Simone): We're updating Covid booster shots, administered them on Little Cranberry last week. We're working with Jane Disney on arsenic and water supply.

GLIA (Mike): Postponing GLIA summit this year due to change of host island. Don't have enough time to get sponsorships and other support. Instead Steering Committee will hold Strategic Planning retreat.

Main Topic: Healthy Water and Healthy Aging

Speaker: Jane Disney, Ph.D. Associate Professor of Environmental Health, MDI Biological Laboratory.

I've been a scientist/teacher/scientist; The community environmental health lab has been a constant over the past 20 years where people who have concerns about natural world around them gain skills, ask questions, and get involved in research. This came out of my high school science classroom and student based work which has grown into wider community-based efforts on clean water, etc.

Arsenic and Aging project (<https://mdibl.org/une-mdibl-team-up-for-drinking-water-initiative/>) morphed into healthy water and healthy aging.

Maine is epicenter for the presence of arsenic but this heavy metal isn't part of the basic well test. Maine Tracking Network (<https://data.mainepublichealth.gov/tracking/home>) has graphs, tables, maps ...for example, 29% of wells on Matinicus show arsenic but the data is from 2017. It doesn't show manganese and uranium nor does it track iron. Gathering info on the number of wells, percentage with arsenic, etc. will be a good project for our new Island Fellow starting in September 2023.

Maine Tracking Network Data Portal:

[https://gateway.maine.gov/cognos/cgi-bin/cognosisapi.dll?b_action=cognosViewer&ui.action=run&ui.object=%2fcontent%2ffolder\[%40name%3d'CDC EOHP EPHT AVR'\]%2freportView\[%40name%3d'Maine Environmental Public Health Tracking \(EPHT\) Network - Public Data Porta](https://gateway.maine.gov/cognos/cgi-bin/cognosisapi.dll?b_action=cognosViewer&ui.action=run&ui.object=%2fcontent%2ffolder[%40name%3d'CDC EOHP EPHT AVR']%2freportView[%40name%3d'Maine Environmental Public Health Tracking (EPHT) Network - Public Data Porta)

We need better data for islands:

- GIS map shows machine learning's predictions for arsenic but they seem lower than the actual numbers. Matinicus doesn't light up on machine testing based on risk factors, this can help us inform potential risk on other islands and for other wells on the same island.
- Hard to get info on # of wells tested on Swans, only show %; data is too small
- We understand that children who drink manganese contaminated water may have memory and learning problems, EPA has discouraged people from making baby formula from well water with high manganese.
- USGS report has more data on populations and #'s of households with self-supplied drinking water/wells; Cranberry Island had 54 wells but only 12 were tested.
- Note low levels on Frenchboro, Cranberry Isles, and Swans but low testing rates, we need to increase testing rates to get full picture.

Eva: deep wells (several hundred feet) had a higher level of arsenic and iron than a shallow well, water is also plentiful and clean; high ratio of homeowners had wells tested at same time; machine learning data isn't as useful.

Jane: Geology data is incomplete, arsenic may come from granite and sedimentary rock – Ellsworth Schist.

Health effects: People don't know about arsenic because its tasteless and odorless but health effects occur over time and they look like aging – cataracts, high cholesterol. Are we exacerbating/accelerating the symptoms of aging? Brown rice from Southern US has arsenic because brown hull sequesters arsenic and baby foods can be high in arsenic if they contain rice (syrup or cereal) Bladder cancer is also related to arsenic.

New Hampshire lowered its standards from 10 ppb (parts per billion) to 5ppb due to Dartmouth College's research. 10 ppb is too high, the levels are arbitrary. These standards apply to public drinking water sources that are regulated, private wells aren't regulated.

EPA has goal of zero ppb but there's limited literature on arsenic and aging. People who self-report health declines are showing elevated levels of these metals.

Many people only test their wells when they sell their homes because banks require this, but they only require basic tests. Perhaps the legislature could take this up (Kelly).

- Donna: [Northeast Lab](#) has a water test for mortgage approval that includes arsenic. On Swans, we had Hep A outbreak due to well septic cross contamination, so more people tested their wells. We have a brand-new baby here with lactose intolerance and using home tap water, I will reach out to her mom.
- Mark: My son's well had very high levels of arsenic, treatment system is available and expensive.
- Cheryl: I had assumed that arsenic was part of the testing.
- Eva: Matinicus had a scare and everyone had their water tested. Some had significant quantities, deeper and more iron-y wells had more arsenic. 15 neighbors get their water from my well, informal public water supply. My well is tested every year for the bakery, put in a commercial grade filtering system. How many generations of people drank that water?

Jane: People competing for housing are buying them with cash and not getting the wells tested. Were there apple orchards/blueberries on Matinicus? Maine's history of using lead arsenate pesticide, Waterville area showed arsenic contamination because of the agriculture.

- Eva: Possibly, we haven't had farming in generations. Just appointed health officer, would like to stay in touch.
- Jane: Aroostook County testing soil on potato fields, might look into this for Matinicus.

Student science: Mobilizing students increases number of tests. We received 2nd year of grant and we're inviting island schools to partner with us and the Maine Seacoast. Our students testified in Augusta.

Filtration systems: People are confused about filtration systems. Some systems only filter for hard water or a specific thing and not others. Good to know that your system matches your water needs. More people are now verifying existing systems, use bottled water, looking at new filtration systems. We want to conduct follow up tests.

Expanding our reach: We replicated this with southern Maine through UNE's Legacy Scholars (Center for Excellence in Aging and Health). Legacy scholars are mainly white, well educated, live in Portland area and rely on public water. We want to reach more people on islands and throughout the state, which

Maine Seacoast and Island Fellow will help with. On islands we can do both healthy aging and school based program. 100 Mainers already enrolled in program. Toenails accumulate arsenic so testing them helps us associate well water quality with health.

I'm flexible and will go in the direction that communities want to go. We're working with [Maine Laboratories](#) to test for PFAS chemicals and we've received funding from Harvard School of Health. We want to help people feel that they know what's going on and can address it. We have lots of partners and lots of funding. This is my first foray into public health issues, I worked on red tide algae with Swan's Island and Frenchboro students.

- Kate: We can ask Jane back this fall to hear update on the project

Island fitness centers:

Lisa Kimball: On Long, we're in the beginning phases for island fitness center and an island owned building. I'd love to hear from anyone who has this on island. Lisakimball.maine@gmail.com

- Ellen: Peaks Island Strength and Wellness, micro gym, talk with founders
- Cheryl: Bird barn is now the gym on Cliff

Future MIC meetings: Last MIC meeting for summer. We'll meet again in September and in person in October. (Kate)