CHESAPEAKE BIOLOGICAL LABORATORY | SOLOMONS, MD

ISSUE 53

Lab Lines

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DIRECTOR'S VIEW

Happy New Year to all. I start 2021 with considerable optimism. There are multiple vaccines on the way that within a few short months should be widely available. We know far more about the biology of the virus that plagued us in 2020. Medical professionals have developed effective therapies that have reduced the case fatality rate in the US to 1.7% - far lower than in many other countries. But, we are all tired from having to maintain infection prevention measures, to teach and work from home and care for our families. How the University System will approach the new semester remains unclear. For the Autumn semester, everyone who wanted to be able to come to campus had to show evidence of a negative COVID tests in the months prior to the beginning of the semester. It is not clear whether the USM will mandate the same approach or something else. I commit to letting you know as soon as I am told. I do intend to continue with the current protocols and building capacities to provide some consistency for planning. If you plan on starting a new project, you will need to submit a protocol for approval before your start work. I also anticipate that the current travel restrictions will remain in place for the foreseeable future. I thank all of you for your continued vigilance to minimize the risk of transmitting infections.

REMINDER: There is an All CBL Meeting Scheduled for this upcoming Friday, January 22nd at noon. This meeting is simply a chance for Dr. Miller to update the CBL community on what has been happening around the lab. See you there!

Safety Corner: Cheryl Clark

LABORATORY CLEANLINESS

We all know that cleanliness and order are important in our homes, but it is an absolute necessity in the laboratory due to the numerous safety concerns that exist and also for quality control of your samples. The overall efficiency of the laboratory can improve significantly through cleanliness and orderly arrangement of laboratory chemicals and other items.

There are several reasons to keep the laboratory clean and orderly - 1) to avoid accidental contamination of yourself or other people in the lab, 2) avoid loss of samples and 3) prevent equipment malfunction. Cleanliness will also help to avoid cross contamination of samples and can save you the time and money involved from trying to determine why the sample blanks are not blank. It also helps to have a place for everything so you do not waste time trying to find something you need. A lack of organization and clutter can also lead to accidents and the easier start and spread of a fire.

Here are some ideas to help you keep your laboratory space clean:

-Clean the weighing balance pans and powder spills, if any, around the balance after weighing your samples or reagents.

-Properly dispose of chemicals and wastes. Old and unused chemicals should be disposed of promptly and properly.

-Provide a workplace that is free of physical hazards. Aisles and corridors should be free of tripping and slipping hazards. Sweep the floor and mop any spills.

-Attention should be paid to electrical safety, especially as it relates to the use of extension cords, proper grounding of equipment, and avoidance of overloaded electrical circuits and avoidance of the creation of electrical hazards in wet areas. Make sure all electrical cords are in good working order, not frayed or damaged.

-Clean up every day. Wipe down countertops and hood surfaces. Surfaces need to be free of clutter.

- Refrigerators and freezers should be cleaned regularly and free of clutter.

-Hoods are not to be used for storage and should be free of debris. Do not allow paper or other trash to get drawn up into the hood. Make sure any cords or tubing are under the airfoil.

- Make sure the sinks are clean and glassware has been washed and put away. If any glass is broken or chipped, please be sure to discard it in the broken glassware box.

-Discard of any sharps in a sharp box.

-All chemicals are properly stored away and in their appropriate cabinets, refrigerators or freezers.

-Make sure equipment is working properly. Inspect any lines or tubing to make sure they are not clogged, blocked or pinched.

This is a general list of things you could incorporate into your laboratory routine. I know that each laboratory is different, so be sure to determine what it is you need to do in your lab to keep it clean, organized and safe.

References:

http://www.sfasu.edu/safety/documents/house_keeping.pdf

http://www.uwyo.edu/safety/_files/docs/factsheets/uwlabhousekeepingguidelines.pdf

http://lab-training.com/2017/08/21/importance-cleanliness-laboratories/

https://extranet.who.int/lqsi/content/arrange-standardized-regular-cleaning-laboratory

https://www.chem.tamu.edu/rgroup/wooley/safety/20%20Checklist%20for%20Lab%20Clean%20Up.pdf

https://www.servicemasterbyzaba.com/blog/laboratory-maintenance-checklist/

Outreach

Visitor Center

Out of an abundance of concern related to the COVID-19 pandemic, the Chesapeake Biological Laboratory Visitor Center will remain closed.

Virtual Science Semester

The Chesapeake Biological Laboratory closed out 2020 by hosting a "Virtual Science Semester" with free, digital resources. You can learn about the career paths and influence a CBL education had on young alumni, and explore the thesis research and aspirations of our next generation of student scientists:

Young Alumni Interview: Alex Atkinson

Alex conducted research on the Atlantic menhaden as a master's student at CBL, then completed a Knauss Marine Policy Fellowship. Today, Alex is a Policy Analyst for the National Oceanic & Atmospheric Administration, where she supports fish habitat restoration and fish passages.

Young Alumni Interview: Suzan Shahrestani

As a doctoral candidate at CBL, Suzan combined her passions for science and technology with the business acumen she developed as a Ratcliffe Environmental Entrepreneurs Fellow. Today, she is the founder and CEO of Minnowtech, an aquaculture technology company.

Young Alumni Interview: Cara Simpson

After receiving her master's degree from CBL, Cara joined the Peace Corps to support coastal resource management in the Philippines. Today, she is pursuing her MBA at William & Mary while offering assistance to small businesses in response to COVID-19 through CrimDell Small Business Network, which she co-founded.

Next Generation Interview: Megan Munkacsy

Megan's thesis research investigates how stakeholder groups value shallow water ecosystems in Maryland's Chesapeake Bay. She hopes to develop a hierarchy of policy options that reflect stakeholder values related to conflicts between recovering bay grass beds and expanding oyster aquaculture.

In Case You Missed It!

Alum Caroline Wiernicki will begin her PhD at University of Delaware School of Marine Science and Policy, accepting a position from Dr. Aaron Carlisle to conduct work on juvenile white shark ecology.

Development Activity: Jeane Wharton

Unforeseen events and variables in 2020 upended any trends that had been predicted. One of the biggest impacts of the COVID-19 pandemic was the cancellation of events. Most fundraising blogs and articles predict that virtual events are here to stay.

Here at CBL, our Science for Citizens events are popular ten Tuesday nights a year. Thanks to Outreach Coordinator Sarah Brzezinski, Zoom webinar tutorials from Kurt Florez, and five terrific speakers, we made the pivot from in-person to virtual. The events were well-attended (hundreds from the region, the state, the US and a few from across the globe!) Donors, too, responded to - and supported - our message: Despite the difficult year, students, staff and faculty at CBL continue to find innovative answers to environmental questions.

We cannot meet for coffee or a meal, but we're meeting by phone and by Zoom or FaceTime, staying in touch with donors and CBL supporters. I'm a fan of handwritten notes, and those, too, have made a comeback!

In 2020, several Faculty Wish List items were fulfilled, such as $2,500 for a fisheries student, $2,500 for the establishment of "listening stations" for the fish "EZ Pass." $4,000 for equipment for the Chesapeake DolphinWatch program, and several thousand dollars for research on turtles and amphibians.

Contact Dr. Miller or Jeane Wharton jwharton@umces.edu for more information about how your tax-deductible, charitable donation to the University System of Maryland Foundation can be directed to Chesapeake Biological Lab, its students and its research programs. Or, give online at https://www.givecampus.com/campaigns/2969/donations/new

Publications

Redding, S.G., L.W. Cooper, M. Castonguay, C. Wiernicki, and D.H. Secor. 2020. Northwest Atlantic mackerel population structure evaluated using otolith 18O composition. ICES Journal of Marine Science. 77(7-8):2582-2589.

Hutchison, Z.L., D.H. Secor, and A.B Gill. 2020. The interaction between resource species and electromagnetic fields associated with electricity production by offshore wind farms. Oceanography 33(4):96-107.

Read, Daniel J., Bilal Habib, Jared Stabach, and Peter Leimgruber (2021) Human movement influenced by perceived risk of wildlife encounters at fine scales: Evidence from central India. Biological Conservation 254: 108945. doi:10.1016/j.biocon.2020.108945

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