

# Lab Lines

MAY 2020

IN THIS ISSUE:

DIRECTOR'S VIEW	1
NOTEWORTHY AWARDS & SUCCESSES/ IN CASE YOU MISSED IT/PUBLICATIONS	2
OUTREACH	3
SAFETY CORNER	4
DEVELOPMENT/ UPCOMING EVENTS	5

## DIRECTOR'S VIEW



I hope all CBLers and your loved ones are all well. Nothing can be more important than our own physical and mental health, and that of those we love. This must continue to be our highest priority.

We have been working in this new “normal” for about nine weeks now. Tough times do not make character, but they do reveal it. I want to take this opportunity to thank all of you who have found creative ways to remain productive – to complete courses, to teach courses, and to submit proposals, and reports. This has required a team effort and it has been amazing to see so many in the CBL community step up all the while balancing the challenges of becoming teachers, care givers, and IT support staff at home. I thank each and every one of you for all that you have done during this period of upheaval.

With the Governor’s announcement of the lifting of the stay at home order this afternoon at 5 pm, I am sure people’s minds are beginning to turn to a return to research. Please know that UMCES has prepared an overarching plan for how we will re-engage in research. CBL will use and adapt those plans to our specific campus buildings. I will let you know of those plans as soon as I can. Decisions on how we will start up teaching and outreach in the future are yet to be determined.

It should be evident to all that the COVID pandemic will have significant consequences on our operations going forward. It will affect state budgets, federal budgets, our educational programs and



## NOTEWORTHY AWARDS AND SUCCESSES

Hikaru Itakura was recognized by Wiley publishers for the most downloaded paper (2018-2019) in the journal *Aquatic Conservation: Marine and Freshwater Ecosystems* for a study using environmental DNA to uncover spatial distribution of Japanese eels in river catchments. Dr. Hikaru is a research scientist working with Dave Secor's laboratory modeling Chesapeake Bay striped habitat selection.

Ella Rothermel has accepted a staff scientist position with the Partnership for the Delaware Estuary starting mid-May.

Chelsea Wegner Koch's paper, Seasonal and latitudinal variation in sea ice algae deposition in the Northern Bering and Chukchi Seas determined by algal biomarkers, which was mentioned in last month's newsletter, has been downloaded more than 4000 times from the PLoS ONE website.

## IN CASE YOU MISSED IT

Ben Frey presented a virtual presentation at the National NOAA Living Marine Resources Cooperative Science Center Meeting entitled, "Novel Aging Approach: Microconstituent Analysis" on April 29.

Helen Bailey was an invited participant at the Scientist Workshop on Underwater Acoustics and Disturbance on 27 April 2020 held by Washington State Academy of Sciences (WSAS).

Helen Bailey gave a webinar to the Hunter Sailing Association Station 1 (HSA-1) on Chesapeake DolphinWatch on 7th May 2020.

The Wave of Plastic team has created a website that includes the curriculum that we have developed on plastic waste, pollution, and solutions: <https://www.umces.edu/waveofplastic>. There are also facts and activities on the UMCES Facebook page.

Nicole Barbour (PhD student in Bailey lab) gave a "Skype a Scientist" talk to the Boy Scout Troop 469 from Brooklyn, New York on 7 May 2020 on turtles and dolphins.

Carys Mitchelmore co-chaired a session and presented at SETAC SciCon the online conference for the SETAC Europe 30th Annual Meeting. The conference went ahead as planned from May 3-7th. Posters and recorded oral presentations were uploaded and viewed by the conference participants. At any time, and real-time, zoom calls moderated by the session chairs allowed for active discussion of the presentations in addition to written comments made to the authors at any time. Mitchelmore also presented a poster in session 4.18 entitled

"Environmental Risk Assessment of UV Filters" highlighting the thesis work of CBL's graduate student Annalise Conway concerning the toxicity of the sunscreen component oxybenzone on coral (in collaboration with the laboratories of Drs. Gonsior and Heyes).

Carys Mitchelmore will also be presenting a talk in the special session "Your Science or My Science" which is discussing how the way we frame our research can be impacted by value-judgements. A multi-perspective look at the impact organic UV filters in sunscreen products have on corals.



Beginnings of the floating pier repair!

## PUBLICATIONS

Slava Lyubchich recently received a certificate that this paper was in upper 10% of downloads among the recent papers - [Lyubchich V, Newlands NK, Ghahari A, Mahdi T, Gel YR \(2019\) Insurance risk assessment in the face of climate change: integrating data science and statistics. Wiley Interdisciplinary Reviews: Computational Statistics 11: e1462. \(Cont. No. 5570\)](#)

Su, J., W.-J. Cai, J. Brodeur, B. Chen, N. Hussain, Y. Yao, C. Ni, [J. Testa](#), M. Li, X. Xie, W. Ni, K. M. Scaboo, Y. Xu, J. Cornwell, C. Gurbisz, M. S. Owens, G.G. Waldbusser, M. Dai, W. M. Kemp. 2020. [A bay-wideself-regulated pH buffer mechanism in response to eutrophication and acidification in Chesapeake Bay. Nature Geoscience.](#) (Cont. No. 5821)

La Rosa, G.A., [Woodland, R.J.](#) & [Rowe, C.L.](#) [Carbon:nitrogen ratio as a proxy for tissue nonpolar lipid content and condition in black sea bass \*Centropristis striata\* along the Middle Atlantic Bight. Mar Biol](#) 167, 77 (2020). (Cont. No. 5842)

Ganju, N.K., [J.M. Testa](#), S.E. Suttles, A.L. Aretxabaleta. 2020. [Spatiotemporal variability of light attenuation and net ecosystem metabolism in a back-barrier estuary. Ocean Science.](#) (Cont. No. 5852)



# Outreach

## Creativity Challenges

During the telework period, Creativity Challenges are being hosted to try to keep a sense of community and to combat stress during this difficult time. These activities are intended to be family-friendly fun - You can get your kids involved, or any other family or friends who you are self-isolating with. Starting with the third challenge, we've opened this activity up to all UMCES. Congratulations to the winners of the third Creativity Challenge, the UMCES photography challenge:



Suzi Spitzer won Best UMCES



Stacy Hutchinson won the Most Creative Use of Materials



Veronic Del Bianco won Most Unique UMCES

Honorable mentions go to: Sam Mais, Maureen Strauss & family, Hailey & Trish Stebbing, Alex Carroll, and Christina Goethel. [View all the entries from this challenge.](#)

## Visitor Center

The Chesapeake Biological Laboratory Visitor Center will be closed through at least July 10th.

## Student Emails to Docents

With the Visitor Center closed through July 10th and out of care for our volunteers, a group of CBL students were kind enough to write emails to our docents who are retired. These emails aimed to provide a continued sense of community and appreciation for the volunteers who are an important part of our CBL family. Many of our students wrote about how they are continuing their studies during COVID-19, what they plan to do when we return to campus, and what they are researching. Several students even included photos from their field research. The docents who I have heard back from have all really appreciated these emails. Please join me in thanking the following students for their kindness in sending emails: Christina Goethel, Nichole Barbour, Nick Coleman, Hunter Hughes, Sarah Jones, Amber Fandel, and Alex Fireman!

## Events

All on and off campus CBL Outreach activities have been cancelled through July 10th due to continued concerns about the COVID-19 coronavirus. Regrettably, we have had to cancel our participation in several events, including the Green Living Festival at Annmarie Gardens and Bernie Fowler's Patuxent River Wade-In at Jefferson Patterson Park.

# Outreach Cont.

## IMET Virtual Open House

[IMET's Virtual Open House](#) was hosted from May 2nd through May 16th. The Chesapeake Biological Laboratory provided a reading and activity packet in support of our sister-lab's efforts. Test your knowledge of Chesapeake Biological Laboratory history and science with [this article and crossword puzzle](#), then [read about E-Z Pass for fish and try your hand at tracking fish movements](#).

## Supporting At-Home Learning

The Wave of Plastic team is working to develop [Wave of Plastic webpages](#) to make curricular materials more widely available. The curriculum unit is designed to help middle school students make sense of the core ideas related to issues of plastic pollution (particularly those relevant to the Chesapeake Bay watershed) by engaging in authentic interdisciplinary practice culminating in comprehensive, student-driven, informed action projects. The team is adapting lesson plans and activities to better meet the needs of at-home education.

Additionally, the Outreach Coordinator has contacted the Calvert and St. Mary's County public school Science Coordinators to assess their needs during this period of at-home education. Options for supporting our local school districts through online presentations are being explored. St. Mary's County public school are interested in having CBL scientists share their research with teachers through 15-20 minute Zoom presentations, followed by Q&A. If you are interested in speaking to St. Mary's County public school teachers, please contact Sarah Brzezinski at [brzezins@umces.edu](mailto:brzezins@umces.edu).

## Safety Corner: Cheryl Clark

### CHEMICAL STORAGE IN REFRIGERATOR/FREEZERS

Flammable materials should never be stored in a domestic refrigerator or freezer because explosions and injuries can occur by storing these chemicals in these units. I have included two links to laboratory accidents involving a domestic refrigerator. Please notice that in both instances the door was blown off the refrigerator which could have caused a very serious injury. Fortunately, no one was in the lab at the time of these accidents.

<https://www.coolingpost.com/world-news/lab-explosion-due-to-domestic-fridge/>

<https://ehs.msu.edu/news/2015-07-10-fridge-explosion.html>

Domestic refrigerators/freezers have a defrost timer, thermostat switch and/or interior lighting that can cause an electrical spark. If there are chemical vapors present, this can lead to an explosion. You must use a flammable or explosion proof unit to avoid these incidents.

Flammable units have a spark free interior and are designed to store flammable liquids (flash point < 100°F/38°C). All of the electrical components are outside the refrigerator/freezer. The unit must be labelled as a flammable materials refrigerator and UL listed as flammable material storage or hazardous storage.

Explosion proof units have a spark free interior and exterior. These units prevent the ignition of vapors inside and outside the refrigerator/freezer. All electrical components are housed in a sealed conduit outside the unit. There is no power cord, so the unit must be hard wired to the power source. These are generally used in rooms where there is a flammable atmosphere such as a solvent dispensing room.

Be sure to store the chemicals within these units in an orderly fashion. They should all be correctly labelled and contained within the refrigerator/freezer. They should not be falling out or on top of each other when the door is opened. If necessary, secure them in a secondary container or use Velcro to hold them in place if they are on the door. Do not store flammables with strong acids or oxidizers.

#### References

<https://www.freezerlink.com/flammable.html>

<https://www.ehs.washington.edu/system/files/resources/FS-freezers.pdf>

<https://www.labrepc.com/2016/04/19/flammable-material-storage-hazardous-location-refrigerators-and-freezers/>

<https://labfreezers.net/blogs/blog/similarities-and-differences-between-flammable-material-storage-and-explosion-proof-refrigerators-freezers>

## Development Activity

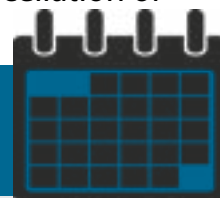
The second quarter of 2020 began with donations from two corporations and a gift to CBL Terrapin, Turtle and Amphibian Research. Donor support increased from this period in 2019. We are in an evolving situation with varied impacts. Many non-profit charities have been hard-hit as donors face lay-offs and business closures. Publications from MarketWatch to Philanthropy Today report there are concerns supporters will forgo charitable gifts as a way to trim expenses and preserve capital.

Wharton and other UMCES development staff meet frequently by phone and Zoom with Vice President for Strategic Initiatives, Stuart Clarke. Development staff has also had extensive online training with the Ellucian Advance database, the large database hosted by the University System of Maryland Foundation.

She continues to stay in contact with donors and prospective donors through emails, texts and phone calls. Several with whom she has spoken to have complimented the Science for Citizens presentations. They said they missed our spring series and hope we can hold the presentations in the autumn.

Wharton and Outreach Coordinator, Sarah Brzezinski, work closely with CBL Director Dr. Tom Miller and UMCES Communications Director, Amy Pelsinsky on messaging concerning the postponement and cancellation of events. At the present time, the Visitors Center is closed until July.

## UPCOMING EVENTS



Due to the Covid-19 Outbreak: All campus events, including sponsored on-campus and off-campus events, are cancelled through June 1, 2020, and no new events will be scheduled until further notice.

Brown bag seminars will continue to take place on Fridays over Zoom at 12 PM. Meeting ID: 700-221-530. Pwd: CBLBB. Visit CBL Events Page for [topics](#).

### Invitation to UMCES Weekly Mindfulness

Join Denise Yost and your colleagues as we continue to find small ways to practice mindfulness and find a bit more ease during our continued quarantine. Practice continues this week in the usual friendly format, no experience necessary. Practice in real time and engage with others in short discussion questions as you'd like.

Moving forward starting this week, there will be one offering per week for all at UMCES:

Thursdays @ 2:00pm, Staff/FRAs/Faculty/Graduate students

Join Zoom Meeting

<https://zoom.us/j/238254703?pwd=Y3Rwd2F2ak4xK0V6anRxak50ekxVZz09>

Dial +13017158592

Meeting ID: 238 254 703

Password: 466575

