

Lab Lines

OCTOBER 2018

IN THIS ISSUE:

COVER STORY/
RESEARCH AND
AWARDS 1

RESEARCH & AWARDS/
OUTREACH/HUMAN
RESOURCES/DID YOU
KNOW? 2

SAFETY CORNER 3

PUBLICATIONS/
WHO'S ON TRAVEL?/
UPCOMING EVENTS 4

2018 Open House

Open House was a great success, with at least 848 attendees and great press coverage for the event. Many thanks to faculty, staff, students and volunteers who made it a wonderful day!



After receiving over 100 wonderful suggestions, the Remotely Operated Vehicle (ROV) officially has a name..... DORY!! Thank you to all who participated!

RESEARCH & AWARDS

Dr. Jeremy Testa received an award from the Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), Maryland Seagrant (SG), September 1, 2018 through August 31, 2019. The title for this project is: *Cross System Comparison of Oxygen Effects on Nitrogen Cycling in Tidal Sub Estuaries of Patapsco River.*

Dr. Jeremy Testa , Lisa Wainger and Ming Li received an award from the Department of Commerce, National Oceanic and Atmospheric Administration, September 1, 2018 through August 31, 2021. The title for this project is: *Thresholds 2018: Identifying Thresholds in Coupled Biogeochemical-Biological-Economic Systems Under Multiple Stressors.*

Dr. Mario Tamburri received additional funds from the U.S. Department of Transportation, Maritime Administration, September 1 2015 through December 31, 2019. The title for this project is: *Phase V Evaluating the Efficacy of Ship and Platform in Water.*

Jerry Frank received an award from the Department of Natural Resources, September 1, 2018 to September 30, 2019. The title for this project is: *Coastal Bays Water Quality Analysis.*

Dr. Jackie Grebmeier received additional funds from the Department of Commerce, National Oceanic and Atmospheric Administration, April 1, 2017 through March 31, 2019. The title for this project is: *The Distributed Biological Observatory (DBO) - Northern Chukchi Integrated Study (NCIS), Hydrography, Sediment, and Macrofaunal Population Dynamics.*

Dr. Michael Gonsior received an award from the National Science Foundation (NSF), February 1, 2019 through January 31, 2022. The title for this project is: *The Fate of Lysis Products of Picocyanobacteria Contributes to Marine Humic-Like Chromophoric Dissolved Organic Matter.*

DID YOU KNOW?

We have found Dr. R.V. Truitt's original Survey of Maryland Oyster Bars book dated from 1906 - 1912. Dr. Truitt's hand written signature is located in the inside cover. This book is currently being conserved and restored by a book conservatory located in Washington, DC.

A few weeks later, we found one of Dr. Truitt's original notebooks. It is now on display in the case next to the Human Resource Office.

Visitor Center

In October, we will switch to the fall schedule of operating from 9:30am to 4:30pm on Fridays, Saturdays, and Sundays. Learn more at: <https://www.umces.edu/cbl/visitor-center>.

Upcoming Events

Volunteers will be needed to assist with a CBL Outreach booth at the following upcoming community events:

Saturday and Sunday, October 6 and 7 from 10:00am – 5:00pm -- Patuxent River Appreciation Days at the Calvert Marine Museum <https://www.calvertmarinemuseum.com/311/PRAD>

Saturday, October 20th from 10:00am to 6:00pm & Sunday, October 21st from 11:00am to 6:00pm -- U.S. Oyster Festival at St. Mary's County Fairgrounds <https://usoysterfest.com/>

On Saturday, October 27th from 10:00am to 2:00pm, the St Mary's County Public School System will be hosting a STEM Festival at the St. Mary's County Fairground in Leonardtown. CBL will have an outreach booth at this event hosted by the Bailey Lab.

The Chesapeake Bay Foundation will be hosting an Oyster Gardening spat return at the CBL Visitor Center on Sunday, October 21st from 10:00am to 12:00pm.

Science for Citizens

HUMAN RESOURCES

Welcome to CBL....

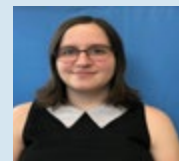
Dr. Yuanzi Huo, Post Doc with Dr. Hongsheng Bi



Dale Lacey, Laboratory Assistant with Jerry Frank



Erica Hobbs, Laboratory Assistant with Jerry Frank



Radiation Safety

Radiation is always present in our environment from the sun, stars, soil, rock and air. There are also man-made sources which are very helpful tools in the laboratory. However, exposure to these must be strictly controlled. No one may use, bring or remove any radioactive devices or materials without the approval of the radiation safety officer and the radiation safety committee at College Park.

Radiation can be ionizing or non-ionizing. Non-ionizing examples are heat, radar, microwaves and radio waves. This type of radiation deposits energy in the materials that it passes through. Ionizing particles deposit energy to break molecular bonds and create charged particles and is capable of damaging plant, animal and human cells.

There are four basic types of ionizing radiation:

1. Alpha particles – minimal health effect – large slow moving particles – cannot penetrate outer layers of skin or paper. Hazard only if inhaled, injected or ingested.
2. Beta particles – medium health hazard – higher levels of energy than alpha particles. Can harm living cells by breaking chemical bonds and forming ions. Acute and chronic effects occur when these particles lose energy by colliding with tissue inside the body, causing damage.
3. Gamma particles – high health hazard - travel at speed of light with enough energy to penetrate the body exposing all organs to damage.
4. X-rays – high health hazard – enough energy to penetrate tissue.

ALARA Policy

At all times the amount of radiation received by an individual is to be kept As Low As Reasonably Achievable. An employee's exposure can be minimized by shielding the source and themselves. Their exposure should be kept to a minimum amount of time and there should be emergency alarms and evacuation procedures in place. The distance between the person and the source should be maximized and if necessary, robotics or remote operations should be used.



Storage

Any radioactive material or radiation producing device are to be kept in a locked restricted area. These areas are designated by radiation symbols (shown above) which should be posted on the outside door of the laboratory.

Excerpted from: *Hazard Communication Right to Know* OSHA 29 CFR 1910.1200 COMAR 09.12.33
National Research Council. (2011) *Prudent Practices in the Laboratory*. Washington, D.C.: National Academies Press.

Goethel, C., Grebmeier, J.,
Cooper, L., Miller, T. 2018.
*Implications of Ocean Acidification
in the Pacific Arctic: Experimental
Responses of Three Arctic Bivalves to
Decreased pH and Food Availability.*
Deep-Sea Research Part II.

Glandon, H., Paynter, K., Rowe, C.,
and Miller, T. In press. *Resilience
of Juvenile Blue Crab, Callinectes
sapidus, Oxygen Consumption Rates
to Future Predicted Increases in
Environmental Temperature and
pCO₂ in the Mesohaline Chesapeake
Bay.* Journal of Shellfish Research.

Chen, Y., Gel, Y.R., Lyubchich, V.,
and Nezafati, K. In press. *Snowboot:
Bootstrap Methods for Network
Inference.* R. Journal.

Dr. Mario Tamburri traveled to Long Beach, CA
to present at the 2018 California State Lands
Commission (CSLC) Prevention First Symposium.

Dr. Laura Lapham traveled to Denver, CO to attend an
annual meeting for the Department of Energy project and
field work.

Dr. Laura Harris traveled to Chicago, IL to attend a National Science
Foundation sponsored workshop.

Dr. Hongsheng Bi traveled to Portland, OR to unload research equipment
for his research cruise in the Bering Sea.



UPCOMING EVENTS

Please see details on page two under our Outreach section for the following events:



October 6 and 7: Patuxent River Appreciation Days from 10:00am – 5:00pm

October 20th and 21st: U.S. Oyster Festival from 10:00am to 6:00pm

October 21st: Oyster Gardening spat return from 10:00am to 12:00pm.

October 27th: STEM Festival from 10:00am to 2:00pm