Mason SCIENCE

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Wednesday, April 27, 2022 **science.gmu.edu**

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Exciting STEM future as Mason's campuses expand

by Fernando Miralles-Wilhelm

I'll let you in on a secret…a huge transformation is underway on many of George Mason University's campuses. One that will significantly enhance the surrounding communities where we learn, live, work, and conduct research.

Some are surprised when I explain that our expanding and evolving footprint is occurring on most of the SIX significant and unique learning environments where our Mason scientists build their scientific curiosity. Here's the inside scoop on the growth to come.

Last week, as part of Mason's 50th anniversary, we broke ground on a gamechanger for Mason's SciTech campus in Manassas, VA. The scientific research elements of this campus are already anchored by the recently opened outdoor forensic research facility (one of only 8 U.S.) and Mason's Biomedical Research level 3 facilities (one of only about a dozen labs like it in the U.S.) where our highly regarded cancer, Lyme, COPD, COVID, antimicrobial, and other rare disease research can flourish.

The new $75 million Mason Life Sciences and Engineering Building scheduled to open August, 2024 will offer a 132,000 square-foot-facility with specialized instructional labs, classrooms, experiential learning collaboratories, and faculty and administrative offices to support our STEM-H students including those in materials science, forensic science, and those in bio- and mechanical engineering. The development also expands residential living options (with both student housing and off campus townhomes), offices, and retail offerings that will benefit students, faculty, and the surrounding community.

Mason continues to lay a strong infrastructure for a medical school, advance the region's innovation industries, and drive associated economic growth. Moreover, university and local officials envision the increasingly vibrant SciTech Campus will attract new research enterprises and positively impact existing businesses in Prince William County's Innovation Park.

But that's just the tip of the iceberg.

Read full message

MASON SCIENCE COMMUNITY

The night sky is in jeopardy, and it is up to us to fix it

by Peter Plavchan and Laura Powers



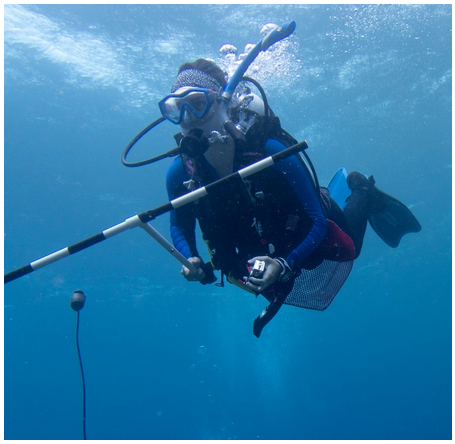
In honor of International Dark Skies week, April 22 through April 30, we highlight the dangers of light pollution, why it is happening, and what you can do to help. More than 80 percent of people on the planet experience the effects of light pollution—where the lights from our homes, offices, streets, and cars brighten the night sky and make it harder for us to see the natural beauty of space. *Photo by Andreas Kruck on Unsplash.*

Discover why light pollution hurts our planet

ESP student awarded NSF Graduate Research Fellowship

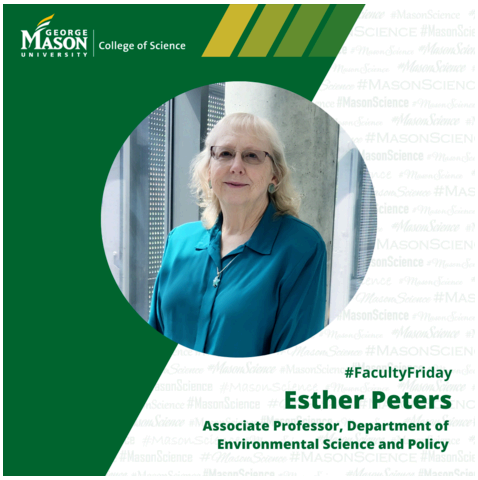
by Jordan Sims

Jordan Sims, Graduate Student, Environmental Science and Policy, recently received an NSF Graduate Research Fellowship for her ongoing project entitled "Understanding the Bacterial and Environmental Drivers of Stony Coral Settlement." Sims is a second year PhD student in Jennifer Salerno's lab studying microbial ecology of coral reef ecosystems. *Photo provided by Jordan Sims.*



Explore her research

#FacultyFriday highlights ESP associate professor



As we wrap up #EarthMonth, we feature Esther Peters, Associate Professor, Environmental Science and Policy. Peters specializes in the study of diseases in corals and other invertebrates by using histopathological techniques. She had a key role in researching the Stony Coral Tissue Loss disease in Florida's Coral Reef and continues to conduct research to fight disease outbreak amongst coral reef organisms. Peters not only feels inspired by her students, but also energized by their eagerness and passion to change the world.

Read Esther's bio

RESEARCH & DISCOVERY

Developing flood products for flood disaster service

by Elizabeth Grisham



Donglian Sun, Professor, Geography and Geoinformation Science, received funding for a project in which she aims to demonstrate the capability of Sentinel-3 Sea and Land Surface Temperature Radiometer (SLSTR) data in flood automation with an initial development of a 500-meter SLSTR floodwater fraction product.

More on this research



Seed funding promotes Mason sustainability projects

by Anna Stolley Persky

Learn more from Environmental Science and Policy's Dann Sklarew and Assistant Professor Amy Fowler about how they will leverage this seed funding to support their sustainabiility projects. Congratulations to all College of Science faculty members who have received this important funding.

More on seed funding

IN THE NEWS

Are outdoor cats a threat to our biodiversity?

by Daniel Herrera and Travis Gallo



In the *Earth Island Journal*, Environmental Science and Policy Assistant Professor Travis Gallo and PhD student Daniel Herrera reviewed camera traps around Washington, D.C. to analyze the true impact outdoor cats have on local wildlife.

Explore their findings



Inverse Occam's razor

by Igor Mazin

An article published in *Nature Physics* by Igor Mazin, Professor of Practice in Advanced Studies in Theoretical Physics, Physics and Astronomy expresses concern over whether there is a trend that more complicated, and perhaps intriquing, answers to scientific questions are getting attention over more simplistic, and possibly more accurate, findings.

Read his published article

Happening at Mason

Transforming the SciTech Campus



With partner Stanley Martin Homes and CastleRock Partners LLC, Mason recently unveiled plans for the new Life Sciences and Engineering Building and the much-anticipated Innovation Town Center and University Village at Innovation. *Photo by Evan Cantwell/Creative Services.*

Learn more about the project



Share your feedback: Mason Transportation Survey

Mason's 2022 Transportation Survey is open now through **Friday, May 6**. The survey will take about 10 minutes to complete and asks how you get to, from, and around campus. After completing the survey, you can opt-in to a raffle for ten prize packages valued at $40; ten participants will be randomly selected from those who opt-in. As background to the survey, 30 percent of Mason's greenhouse gas emissions are attributed to commuting. By participating in this survey, you will help us understand and improve how Mason commutes as well as add your feedback about key issues.

Complete the survey

Events

Mathematics Colloquium

April 29, 2022 | 3:30 to 4:30 p.m. | Virtual

Join David Lloyd, University of Surrey, for a lecture on "Snakes on the plane: From Alan Turing to modern theories of localised pattern formation".

Climate Dynamics Seminar: Barry Klinger, Current Climate Conversation
May 6, 2022 | Noon to 1 p.m. | Virtual
Quasi-monthly AOES discussions of recent climate and weather events. Come with an interesting news item. Come to add your two cents. Or just come to listen.

College Degree Celebration Staff Volunteer briefing
Monday, May 9 | 2:00 p.m. | Eagle Bank Arena
There's still time to volunteer -- we need your help. On Saturday, May 21 at 10am we will celebrate the accomplishment of over 800 graduates; your participation is important to them and their families as they commemorate this achievement. Join the celebration and RSVP to volunteer at cosevent@gmu.edu. You can attend this session to learn more details.

Reminder: 2022 Faculty and Staff Experience Survey
Deadline Monday, May 9 | 11:59 p.m.
On Monday, April 18, and today you received an email from Gallup inviting you to participate in the 2022 Faculty and Staff Experience Survey. Share your voice by completing the survey before it closes at the end of the day on Monday, May 9.

Thomas Lovejoy Symposium
May 19, 2022 | 9 a.m. to 5 p.m. | Fairfax Campus
Join us for a symposium honoring Thomas Lovejoy, hosted by George Mason President Gregory Washington and Smithsonian Under Secretary for Science and Research Ellen Stofan.

College of Science Degree Celebration 2022
May 21, 2022 | 10 a.m. | Eagle Bank Arena
Join us for this year's spring Degree Celebration and celebrate the accomplishments of the class of 2022. Register to attend.

See Full Calendar

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