

CORNERSTONE

MESSAGE FROM DEAN ALLISON S. DANELL

It is my pleasure to present this summer's newsletter from Harriot College! We are proud to share the many ways we contribute to the university's mission, including the student success enjoyed by a young anthropologist, the regional transformation our student and faculty scientists have facilitated through conservation work performed at Sylvan Heights Bird Park, and the ever-present public service provided to our "Dear old East Carolina" by Dr. Ron Mitchelson.

As I recently shared with the many employees who work so hard every day to advance the mission of the liberal arts and sciences, it is hard to overstate what a milestone we reached by successfully completing the 2020-2021 academic year. More than 1,000 students who pursued degree programs in Harriot College graduated this spring. It was such a thrill to celebrate with them safely and in person in Dowdy Ficklen Stadium™! From Economics to English, and Psychology to Sociology, we are so proud of all the majors who are now part of the history

of Harriot College. I truly must thank every one of our wonderful staff and faculty members who helped them navigate the challenges of their final year at ECU.

As we look further in the future, I have played an active role on the planning team for the Fall 2021 return to campus, which is being undertaken with thoughtful deliberation. ECU is looking forward to a more traditional fall semester, and we all are excited to engage with Pirate Nation™ again, live and in person!

I hope many warm, sunny days are in your future this summer. Please stay in touch and take good care.



Dr. Allison S. Danell

Noah Edwards

Majoring in Anthropology

(minoring in History, with a certificate in Cultural Resource Management)



"I liked that everyone was willing to help me find where I needed to be," Edwards said, while visiting ECU. He looks forward to how his degree will help him engage and connect with the wider public.

- ✗ From Elizabeth City, NC, and transferred to ECU from the College of the Albemarle with enough credits to finish in two years with a 4.0 GPA!
- ✗ Member of the Anthropology Student Organization
- ✗ Currently participating in an Anthropology summer field course with Dr. Charles Ewen, researching historically Black cemeteries in Pitt County
- ✗ Will gain experience in the field of archaeology by working for a cultural resource management firm upon graduation, and one day hopes to attend graduate school

Dr. Purificación Martínez

Associate Professor of Hispanic Studies, Department of Foreign Languages and Literatures



"In order to be accessible and attractive to all, ECU has to reflect our society. It is imperative to create an inclusive community... Each one of us has a role to play, and ECU can only function when all are doing exactly that, and all are appreciative of one another."

- ✗ Passionate member of the ECU family for 26 years
- ✗ Feminist scholar whose research interests include more contemporary issues, such as heteromascularity and other aspects of male/female power in royalty
- ✗ Chair of ECU's Faculty Senate and proud to help maintain shared governance at ECU and be a part of Harriot College, the college that provides more general education opportunities to students than any other college at ECU
- ✗ Awarded an ECU 2021 Talton Leadership Award, the most prestigious award given annually in honor of servant leadership, which she attributes to her goal of helping ECU be diverse and inclusive

THE WIND BENEATH THEIR WINGS

Faculty-Mentored Student Research Leads to Internships and Careers

by Lacey L. Gray, University Communications

East Carolina University students in the Thomas Harriot College of Arts and Sciences often take knowledge acquired in the classroom, and mentorship outside of the classroom, and apply it to impactful research and internships that lead to life-long careers.

Associate Professor of Biology Dr. Christopher Balakrishnan, whose expertise ranges from behavioral biology, evolution, genetics and neurobiology, to quantitative biology and bioinformatics, is one Harriot College faculty member who is providing meaningful guidance and partnerships with student researchers.



Dustin Foote, left, and Dr. Chris Balakrishnan examine a bird at Sylvan Heights Bird Park in 2017. (Photo by Rhett Butler, ECU photographer)

Undergraduates, master's students, doctoral students, and alumni have worked alongside Balakrishnan, most recently through ECU's collaboration with Sylvan Heights Bird Park, in Scotland Neck. The association, formalized in fall 2018, boosts interdisciplinary research alliances, preserves endangered species and their habitats, and provides practical, hands-on learning opportunities for ECU students across majors and disciplines.



Kristen Orr measures the tarsus of a young ringneck dove. (Contributed)

"From a broad perspective, I think the partnership with ECU and the participation in research really helps the park justify its mission," said Dustin Foote, general curator of the park and an ECU alumnus now working on a degree in ECU's Interdisciplinary Doctoral Program in Biology, Biomedicine, and Chemistry. "As a zoological facility, we constantly need to prove to the public that we are using captive birds to help conserve their wild counterparts. Partnering with researchers is just one way in which we can do

this. Dr. Balakrishnan has been excellent in understanding and promoting research collaborations that are beneficial for both the park and ECU."

This past year, Foote and Balakrishnan sequenced the genome of the white-winged wood duck, which could help in the conservation effort for the rare avian species that numbers less than 800 in the wild. Sylvan Heights maintains all the white-winged ducks in North America, a portion of the 150-200 that exist in captivity world-wide.

The duck is native to southeast Asia and is difficult to study due to its spotted black-and-white coloring that blends in with its preferred habitat of flooded, forest environments. Foote's research on the birds' genome is aimed to better understand

health issues that affect them, including avian tuberculosis, a disease that is common in captive bird populations and which this species is particularly susceptible.

"The motivation for the sequencing and analysis is ultimately to help the birds," Balakrishnan said. "The goal is to figure out this disease because it's limiting [Sylvan Heights'] ability to keep these birds and grow the population in captivity."



A rendering of Sylvan Heights' new aviary Orr produced during her design internship. (Contributed photo)

ECU biology graduate student Kristen Orr is conducting research at the park under the mentorship of Balakrishnan; Dr. Susan McRae, teaching professor of biology; and Dr. Ariane Peralta, associate professor of biology.

"Doves are a group of bird that feed their offspring using crop milk. It is an unusual behavior, somewhat akin to breastfeeding, and provides an opportunity to study how parental provisioning influences offspring health," Balakrishnan said.

"I've gained so many diverse skills from working on this project." - ECU biology graduate student Kristen Orr

Orr said crop milk has been shown to not only provide nutrition but jumpstart offspring immune systems, and that young pigeons and doves

rarely survive without crop milk. In her research, Orr asks, why is this? How does crop milk impact chick health? What happens to chicks raised without crop milk?

To address these questions, she reared 30 ringneck dove chicks to study how formula feeding versus crop milk feeding affects development and influenced microbes associated with the chicks.

As the chicks aged, Orr measured growth rates and body condition. She collected crop milk and fecal samples and will be sequencing the bacterial DNA present in those samples. She said the research could result in the identification of certain bacteria that are vital to a healthy pigeon and dove, and it could improve the ability to breed and care for several endangered species.

"I've gained so many diverse skills from working on this project," Orr said. "I've enjoyed spending time at Sylvan Heights and learning from the incredibly knowledgeable staff. Thanks to Chris, I even had a short design internship, where I assisted the staff by creating Photoshop renderings of their upcoming exhibits. It's been a great experience."

"Chris, Sue, Ariane and others at ECU have pushed me to continuously improve my research, communication and critical thinking skills. Their support and instruction are helping me to become a better researcher, designer and person." ➤

A STEADY HAND

Mitchelson's Career Reflects ECU's Mission of Success, Service and Transformation

by Jules Norwood & Lacey Gray, University Communications

Dr. Ron Mitchelson's career reflects a lifetime of being a model for student success, serving the public and providing regional transformation. His ECU journey started with a faculty position in Harriot College's Department of Geography, Planning and Environment; weaved through administrative positions within the department, college and university; led to his role as Interim Chancellor; and now, as interim vice chancellor for the Division of Health Sciences.

The son of a New York state dairy farmer who did carpentry work on the side, Mitchelson identifies strongly with ECU's blue-collar identity.

"We have students who come from all walks of life and that social mobility that we equip our students with is something I really gravitated to and love," he said.

Throughout his 40 years in higher education, Mitchelson's passion has remained teaching, even when he served as department chair, vice chancellor and university provost. He realized the benefits a geography degree offered him and his students.

"Geography is a key form of intelligence and the corporate world needs it, national security needs it, and there are a lot of ways you can go with it," he said. "I started to figure that out and have helped a lot of students figure that out as well."



(Contributed photo)

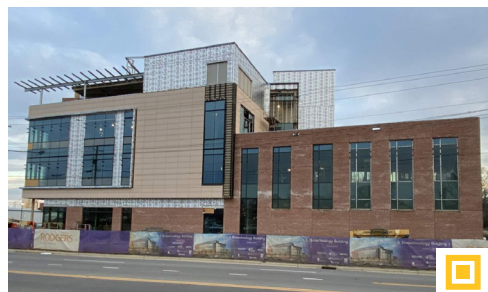
On March 15, when Mitchelson handed over the helm to ECU's 12th chancellor, Dr. Philip Rogers, he said he was grateful for the opportunity to lead the university he's called home for more than 20 years.

In his current leadership role, Mitchelson said, "ECU has developed superior programs in health sciences and health care over the years. While there is clear focus on student success and the region's health, the impact of these programs extends across all of North Carolina. I will do all I can to support these programs and to ensure their continued progress." ➤

COMING TO LIFE

ECU's Life Sciences & Biotechnology Building Set to Open Fall 2021

by Lacey L. Gray, University Communications



(Contributed photo)

This fall, ECU is scheduled to open the Life Sciences and Biotechnology Building – the university's newest intersection of education, innovation and job creation – that will benefit individuals for years to come.

The \$90 million building will encompass more than 140,000 square feet and will host interdisciplinary research from Harriot College's Departments of Biology and Physics, as well as the Department of Engineering in the College of Engineering and Technology.

ECU's Interim Vice Chancellor for the Division of Research, Economic Development and Engagement Dr. Michael Van Scott said the building will "provide a more direct interface between the university community and regional partners."

When completed, the building will house state-of-the-art classrooms, laboratories, offices and support spaces. The building will include the Eastern Region Pharma Center, provide a new home for the Department of Biology, and directly address North Carolina's biotechnology workforce demand by enabling access to state-of-the-art scientific facilities.

It also will create opportunities for discovery with local industry partners; provide for research programs that will be globally competitive; and produce higher-skilled graduates able to compete successfully in the global workplace. The space will allow scientists, students and partners to make discoveries in crop science, agricultural technology and agricultural products, environmental science, microbiology and fisheries biology, as well as new and more efficient ways to manufacture pharmaceuticals.

"The common theme is biological systems, and the advantage to having all of these disciplines co-localized is that a broad array of approaches can be brought to bear on questions or problems within the systems, whether they are found in the agricultural, natural or industry environments," said Van Scott. ➤



(Contributed photo)



Thomas Harriot College of Arts and Sciences
 1002 Bate Building
 Mail Stop 511
 East Carolina University*
 Greenville, NC 27858-4353

Nonprofit
 U.S. Postage
PAID
 Permit #110
 Greenville, NC

ALUMNI SPOTLIGHT

Daniel James Spuller, B.A. Political Science & Minor in Public Administration '06; Certificate in Security Studies, '07

Daniel James Spuller is Head of Industry Affairs for Blockchain Association in Washington, D.C., a trade association that serves as the unified voice of the blockchain and cryptocurrency industry. In his position, Spuller represents the industry on business and regulatory matters and external relations.



"While I believe the technology is still in its infancy, I've seen the bitcoin and blockchain ecosystem transform from being considered quite fringe, into becoming a recognized new asset class embraced by Wall Street and investors across the world.

"I frequently serve as an industry resource and have shared insights with corporate and governmental agencies, lawmakers on Capitol Hill, and regulators at the Office of the Comptroller of the Currency, U.S. Department of Commerce, Department of the Treasury and Department of State," said Spuller. One of the most rewarding aspects of his job, Spuller said, is speaking at colleges and universities and discussing career

growth opportunities in the field. He said ECU played a central role in the development of his career and important communicative skills, self-awareness, passion for critical thinking and knowledge that he still uses to this day.

"I never expected to end up in a career like this," he said. "My background and focus had been primarily in state government and public administration. But upon discovering this technology by chance in 2012, I did a deep dive into researching its promise and realized I needed to pivot my career trajectory."

Spuller maintains close ties to North Carolina. In 2019, he was appointed Co-Chair of the North Carolina Blockchain Initiative, a task force developed to study the unique attributes and use-cases of blockchain technology, virtual assets, smart contracts and digital tokens on behalf of the state. He also serves on the ECU Alumni Board of Directors and is completing his third, three-year term. ➤



Consider supporting Thomas Harriot College of Arts and Sciences by making a donation online at www.ecu.edu/give. Stay in touch with Harriot College by phone at 252-328-6249 or email at thcas@ecu.edu.



Visit our website at <https://thcas.ecu.edu>