

Volume 21 | Issue 1 | Spring 2021 | North Carolina Geographical Society

### **Announcements**

The NCGS Annual Conference was held virtually over Zoom on March 12, 2021. Attendance was outstanding and several papers and posters were presented. Jeff Dequattro, Director of Restoration in the Gulf of Mexico for The Nature Conservancy was featured as the keynote speaker. His presentation featured his work with The Nature Conservancy in the Mobile Bay. To watch the conference online, see <a href="https://youtu.be/ubdOrLZpFR8">https://youtu.be/ubdOrLZpFR8</a>

The North Carolina Geographer peer-reviewed journal is accepting manuscript, book review, and North Carolina cultural landscape article submissions until April 1, 2021. For more information, see the following link:

 $\underline{https://ncgeography.org/journal/index.php/NCGeographer/information/authors.}$ 

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### Minutes from the Spring 2021 NCGS Annual Business Meeting

The meeting was called to order via Zoom, care of the University of North Carolina at Greensboro, at 11:50 pm on March 12, 2021 by President Joyce Clapp. A special thank you was given to all of the participants in this year's annual conference and those in attendance at the Business Meeting. The following people were in attendance: Joyce Clapp, Jesse Lane, Jesse Rouse, Philip Beach, Yongjun Lei, Corey Johnson, Lara Bryant, Julia Cardwell, and Dennis Edgell.

The agenda went as follows:

- 1. Status of the North Carolina Geographer: Plans are underway to publish several journal articles in 2021. Richard Tuinstra has agreed to assist with the review and submission process. Officers and members discussed suggestions for editors. April 1 is the final submission date for the 2021 issue.
- 2. Newsletter: The bi-annual newsletter has recently been revamped and one issue has been published; another issue will be published at the conclusion of the business meeting.
- 3. Bank Account: Jesse Rouse is in the process of transferring Society money from PayPal to a local credit union. More information will be provided to the committee in the future.
- 3. Nominations for New Officers: A vote was called for officer elections. The following positions were filled: Jesse Lane (President), Joyce Clapp (Vice-President), Philip Beach (Secretary), Jesse Rouse (Treasurer), Lara Bryant (Steering Committee), Chris McGinn (Steering Committee), and Yongjun Lei (Steering Committee). No Social Media Editor was elected.
- 4. Meeting was adjourned at 12:30 pm.

#### NEWS FROM THE DEPARTMENTS

## University of North Carolina at Charlotte

The Department of Geography and Earth Sciences is comprised of physical, natural and social scientists from a variety of disciplinary backgrounds. Our mission is to create, extend and disseminate applied and theoretical scientific knowledge of the Earth's physical, natural and human systems and their interactions through scholarly research, teaching and service. This is accomplished through the lens of five interdisciplinary themes:

- Global Change
- Sustainability
- Human Environmental Interaction
- Hazards
- Geospatial Perspective

While each of these thematic areas represents distinct faculty expertise, there are considerable opportunities for multidisciplinary learning and research.

The Department houses programs leading to undergraduate, undergraduate honors, and graduate degrees in the following areas: Geography, Earth Sciences, Geology and Meteorology. Additionally, the department contributes to two interdisciplinary graduate programs; Infrastructure and Environmental Systems and Public Policy.

Recently, Ph.D. Candidate Barbara Lash created a documentary about Charlotte's hidden valley neighborhood. The Hidden Valley neighborhood is over by where I-85 hits West Sugar Creek Road. The documentary looks at how the neighborhood is today and how it started.

A NCDOT proposal led by Dr. Wenwu Tang was selected for funding. Co-PIs are Drs. Wei Fan, Eric Delmelle, and Shenen Chen. This project is entitled "Geo-FRIT: A webbased geospatial analytics tool for quantifying freight risk and resilience in transportation". The project will conduct a comprehensive study on the risk and resiliency profiles on North Carolina public roads, specifically primary and secondary freight routes with the objective of establishing a geospatial analytics platform for transportation data integration and modeling. The platform, identified as "Geo-FRIT", provides a web-based geospatial analytics for quantifying freight risk and resilience transportation. Geo-FRIT will allow for data collection and sharing among DOT divisions, and routing analytics as well as advanced modeling of disaster data for riskbased freight routing through spatial simulation-driven



scenario analysis. A bunch of graduate students will be supported over the next two years.

#### Western Carolina University

A new year brings exciting opportunities for faculty at WCU. GIS classes taught in the Department of Geosciences and Natural Resources at Western will be in a new GIS lab beginning in the fall of 2021. Phase I construction on the Tom Apodaca Science Building will be completed this summer and the new labs open for fall classes. Funding for the project is possible through the Connect NC bond passed in 2016 allocating funds to replace the existing, outdated natural science building built in the 1970's. This new state-of-the-art facility supports  $21^{\rm st}$  century technology and a  $21^{\rm st}$  century education.

The Tom Apodaca Science Building is critical to WCU in providing quality STEM education by increasing the capacity to keep up with the demand for future careers in science, technology and engineering. The lab space in the Apodaca building primarily supports the growing number of majors in the health and human science, technology, biological and physical science programs by adding not only improved lab space but more lab space. Recognizing the importance of GIS in STEM fields, WCU planned for a dedicated GIS lab in the new building.

The new lab is not an ordinary computer lab. It is a class lab designed with pedagogy in mind containing lab space as well as dedicated space for collaborative group work and instruction. While the room technically has the capacity for 56 students without Covid-19 social distancing guidelines, enrollment will remain at 30 students per class. There will be 30 brand new computer work-stations, rolling white boards, and additional tables that are configured to provide a work space for team projects that are often difficult with computers in the way. Faculty in the department are eager to utilize this new lab in ways that promote more engagement and collaboration among our students.

## University of North Carolina at Pembroke

The Department of Geology and Geography is home to faculty focusing on topics including the natural sciences, social sciences, and humanities. This breadth of focus is mirrored in the <u>Geo-Environmental Studies</u> major which shares a common focus of the investigation and understanding of the physical and human environments of the Earth.

The members of the Department of Geology and Geography are involved in a number of research projects. These include work with local agencies, such as the Groundwater Project, with other departments, such as the Kids in the Garden program, and individual projects. If you are a student interested in gaining hands on experience, contact faculty working in the area you are interested in to find out how you can become part of our on-going research.

The Southeastern North Carolina Groundwater Project has been very successful in helping the students involved with the project excel in their academic and professional development, as well as increase recruitment within our Geo-Environmental Studies program by providing internships in partnership with local water resource leaders. The Robeson County Water Department, local well drillers, and the Department of Geology and Geography at UNCP have collaborated on this program to monitor local groundwater resources. Students are mentored by our faculty to help develop a monitoringwell network on the campus and throughout the county. The interns are trained to collect and analyze water levels and water usage for the county then manage a publicly accessible online geodatabase for the groundwater information. The students collect and scan all types of well records, geophysical logs, and other resources from state and private archives to include in the geodatabase in order to summarize them and make the data available to the public. The project has identified background water level conditions in the region in order to inform water users and mitigate the use of our groundwater resources and try to help water managers curtail overuse so that future restrictions do not need to be implemented in the region.

#### East Carolina University

Department of Geography, Planning, Environment is happy to highlight the upcoming book by alumnus Roger L. Payne (1969, 1972). His most recent book was due out on March 8, 2021 and is entitled Outer Banks Gazetteer, The History of Place Names from Carova to Emerald Isle published by the UNC Press. Esteemed geographer and cartographer Mark Monmonier (author of *How to Lie with Maps*) wrote about Mr. Payne and his most recent book: "Roger Payne can rightfully claim to be the expert on toponyms of the Outer Banks, and perhaps for the United States as a whole. Payne has created a historical geography of sorts that is organized by place names with a wealth of information about a variety of topics, such as whaling, shipping, real-estate development (past and recent), and military defense. Readers will appreciate Payne's scholarship, rich in its mix of archival evidence and appreciation of local history."

The department held two successful and highly anticipated colloquia on January 29 and February 19. The January colloquium series included presentations from Yoo Min Park, PhD, and Hannah Cooper, PhD, both faculty members of the Department of Geography, Planning and Environment. Dr. Park's presentation was titled "Making Our Campus More Accessible for All Individuals: Engaging Students in Indoor Mapping" and Dr. Cooper's presentation was titled "Evaluating the ability of multi-sensor techniques to capture topographic complexity." The February colloquium series included Pallavi Gupta, PhD ABD, from UNC of Chapel Hill and Alex Moulton, PhD, from the University of Tennessee, Knoxville. Ms. Gupta's presentation was titled "Geography of Racial Capitalism: A case study of Indian railways" and Dr. Moulton's presentation was titled "Geographies of the Plantationocene: Human-Environmental Change the Post-colonial and Caribbean."

The final colloquium for the semester will be held on April 16 and feature a presentation from Danielle Purifory, PhD, from UNC Chapel Hill. The title of her presentation will be announced in upcoming weeks. For more information, please visit the colloquium series website: https://geography.ecu.edu/dgpe-colloquium-series/

## University of North Carolina at Greensboro

The Department of Geography, Environment, and Sustainability has an active schedule of virtual colloquia this spring, and we encourage NC geographers to look at the schedule and attend if something strikes your fancy. The schedule can be found here:

#### • <a href="https://ges.uncg.edu/news-events/colloquium-series/">https://ges.uncg.edu/news-events/colloquium-series/</a>

Professor Selima Sultana is representing the SEDAAG region on the AAG Council, and she along with Prof. Paul Knapp are serving as co-editors of The Southeastern Geographer. Prof. Keith Debbage's work on aviation's carbon footprint as well as airports as engines of regional economic development was featured in the Fall 2020 issue of UNCG's research magazine.

Several of our Ph.D. students are deeply involved in service roles regionally and nationally, including as chair of the AAG's Graduate Student Affinity Group (Josh Merced), and as president, vice president, and treasurer of the NC Geographical Society (Joyce Clapp, Jesse Lane, and Shane Canup, respectively). We are proud of all of their contributions to the discipline

#### Appalachian State University

The Department of Geography and Planning at Appalachian State University has 14 tenure-track faculty and over 120 majors. This Fall, we updated our curriculum to reach a broader audience of students on campus. We also created a department statement on Black Lives Matter, Diversity, and Inclusion. Our majors were asked to complete an inclusion survey to help us understand how we can better support our students' needs this spring and in the future. One of the new initiatives as a response to the survey is a Food Pantry! I can't think of a more challenging time to be a college student or professor. We are highlighting two faculty that have done exceptional research this past year and who have both earned NSF Career Grants:

Dr. Maggie Sugg and her research team have shared their geospatial analyses and public health expertise with the public and state leaders through COVID-19 virtual town

hall events. They have also published eight articles on the coronavirus in 2020, with three additional articles in review. The articles are published in top journals and are coauthored by current and former graduate students.

Dr. Baker Perry researches precipitation, snow and ice, tropical glacier—climate interactions and climate change in the Himalayas, tropical Andes, and the Appalachian Mountains. Perry is recognized as one of the top experts in his field, one of a handful of researchers who have placed weather stations at high elevations worldwide, including the balcony of Mt. Everest, to study the changes in climate and their impacts on populations.

### University of North Carolina at Chapel Hill

Geography at Carolina brings a unique perspective to the study of some of our world's most pressing issues. Geographers bring together physical science, social science, and the humanities to study patterns and processes across the earth's surface. From analyzing regional dynamics of climate change to investigating new global structures of work and labor, Carolina faculty and students conduct cutting-edge research at one of the top geography departments in the country.

#### **Department Shoutouts:**

Elizabeth Havice earned 2021 Tanner Awards for Excellence in Undergraduate Teaching. For more information, please follow this <a href="link">link</a>. Christian C. Lentz, PhD, recently published his book titled "Contested Territory" and was awarded the 2021 Harry J. Benda prize by the Association of Asian Studies. Awarded annually, the Benda prize recognizes an outstanding first book in any discipline on Southeast Asia. "Contested Territory" offers a new theory of territory based on the historical geography of Dien Bien Phu and its placement in Vietnam.

PhD candidate Manny Hernandez was featured on page 1 of the December 2020 AAG Climate Specialty Group newsletter to spotlight his achievements in climatology. Recent graduate and major in geography, Ezra Rawitsch (BA, 2019) just published a journal article called "Seeing Sapa" in URBAN PEOPLE | LIDÉ MĚSTA 22 | 2020

based on his undergraduate thesis. Bravo! For more information, please visit the link.

# University of North Carolina at Wilmington

UNC Wilmington's Department of Earth and Ocean Sciences has multiple undergrad and grad programs (BA Geography,  $\mathbf{B}\mathbf{A}$ Geoscience, BS Geology, Oceanography, MS Geoscience and Graduate GIS Cert) and is one of 19 universities nationwide that offers a Geospatial Intelligence Certificate accredited with the US Geospatial Intelligence Foundation. This last year has seen a lot of changes to our Geography Program! Dr. Elizabeth Hines has retired after many years of service and is enjoying gardening and catching up with many fun hobbies, although the COVID-19 pandemic is putting a damper on traveling.

Dr. Peng Gao has joined our program and has received several funding grants related to geospatial patterns of drought, wildfires, and risk management (e.g., Kupher et al., 2020, Climate change projected to reduce prescribed burning opportunities in the south-eastern United States, International Journal of Wildland Fire, 29: 764-778). Dr. Chad Lane (lanec@uncw.edu) is the new Grad Coordinator for our MS Geoscience program and Dr. Narcisa Pricope (pricopen@uncw.edu) coordinates the GEOINT program and graduate GIS Certificate. Please check out our webpage (https://uncw.edu/earsci/) to learn about opportunities and contact them if you have any questions.

Dr. Michael Benedetti has continued his work in Portugal where he and his colleagues study human migration and climate change. Dr. Joanne Halls and her graduate student, Jessica Magolan, published a paper that investigates the historical tidal changes in coastal creeks and another paper that investigates changing wetland dynamics along the southeastern NC coast.

Dr. Pricope and her students have been developing UAS technology to <u>map many ecosystems around the world</u> and have published several papers this year. Dr. Chad Lane and Dr. Doug Gamble continue their NSF supported work on <u>paleo-droughts in Costa Rica</u>.





#### North Carolina Central University

During Fall 2020 North Carolina Central University has maintained a low COVID-19 caseload allowing for a mix of remote, hybrid, and face-to-face course delivery. By using innovative methods and with the help from AAG Bridging the Digital Divide program, the Department of Environmental, Earth and Geospatial Sciences has maintained an interactive and dynamic learning environment through augmented and virtual reality experiences, at-home laboratory kits, and 360 camera immersive field trips.

Several of our faculty received new grants including USDA funding to addresses the spatial data integrity and categorization of geospatial data sources used in the study of the food environment (Tim Mulrooney, PI), NIH/NIEHS funding for the establishment of Center for Human and Environmental Health (John Bang, co-PI, a collaboration led by the NC State University), and NSF TIP funding in support of STEM education and recruitment through hands-on learning (Zhiming Yang, PI).

In student news, senior Isabel Gutierrez was selected to present at the 2021 Transportation Research Board Annual Meeting on her research comparing geostatistical measures of availability as applied to food desert research. She, along with Cambria White, also presented at the State of North Carolina Undergraduate Research and Creativity Symposium in November. Two of our graduate students, David Luzader and Phillip Agbesi, will be presenting their GEOINT related research at the NCGIS Conference in February 2021.

## Southeastern Division of the American Association of Geographers (SEDAAG)

Thanks to everyone who helped make the 2020 virtual SEDAAG meeting a great success! Over 160 people attended, and we had a great turnout from North Carolina geographers. It's not too early to mark your calendars for the 2021 SEDAAG Annual Meeting to be held Nov 21-22, 2021 at the Marriott Shoals Hotel and Spa in Florence, Alabama. We remain optimistic for an in-person gathering. Thanks to the University of North Alabama for hosting.

SEDAAG is a regional subdivision of the American Association of Geographers, representing approximately 500 members in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Our organization exists to advance investigations in geography and to encourage the application of geographic findings in education, government, and business. Members receive our quarterly peer-reviewed journal, Southeastern Geographer, and discounted registration rates at our annual meeting. We grant honors in recognition of excellence in teaching, service, and research; host educational and professional development workshops; support student paper and poster awards; and host a World Geography Bowl competition. Please visit https://sedaag.org/ for more information on the organization and for annual meeting updates.



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If you are interested in publishing your research in our peer-reviewed journal, the  $North\ Carolina\ Geographer,$  please visit our submission page a

 $\frac{https://ncgeography.org/journal/index.php/NCGeogra}{pher/user/register.}$ 



"Some hills are each only a few centimeters short of being a mountain."



"When you get mentally free, you are free. The rest is just geography!"



"Maps lie. Or at least, they don't always tell the truth. They're like us humans that way."



"Every where's been where it is ever since it was first put there. It's called geography."

#### What is the NCGS?

The North Carolina Geographical Society (NCGS) focuses on the tenants of:

- The need for the advancement of geographical knowledge in the schools, colleges, and public life of North Carolina.
- The continuing importance of geographical information to the national and international wellbeing of the United States.
- The desirability of a single organization to represent the diverse geographical personnel resources within North Carolina.

The NCGS supports these ideals by promoting events, publishing an annual journal, and supporting academic and professional development opportunities in geography and related fields. To find out how you can become a member of the NCGS, visit our NCGS Membership Page at <a href="https://ncgeography.org/ncgs-membership/">https://ncgeography.org/ncgs-membership/</a>.

#### Under the Spotlight

In a recent publication by App State's Lauren M. Andersen et al. titled "Analyzing the spatial determinants of local COVID-19 transmission in the United States", researchers performed cluster analyses and regression to analyze the spatial relationship between COVID-19 and various socioeconomic factors. Results indicate a significant relationship between COVID-19 deaths and cases, percentage Black population, percentage non-English speaking population, and individuals working in transportation, production, and freight industries.

