# Geography Newsletter 2018

#### **Statement from the Chair**

The Geography Graduate Group (GGG) remains the most academically diverse place for graduate education at UC Davis. We have 69 graduate students and 69 faculty members.

The faculty hail from the departments of Agricultural and Resource Economics, Native American Studies, and Civil and Environmental Engi-



neering, along with many others. The departments with most GGG affiliates are Human Ecology (19), Environmental Science and Policy (10), and Land, Air, and Water Resources (7). New faculty that joined this year are Keith Taylor (Human Ecology), Michael Springborn (Environmental Science and Policy), Mark Cooper (Human Ecology), Elizabeth Mitcham (Plant Sciences), and Erwan Monier (Land, Air, and Water Resources).

With so many faculty members and students it is a challenge to assure that we interact with each other. One great opportunity to do so is during our weekly Geography Speaker Series. It is back for Spring Quarter on Wednesdays from 4:10-5:30. We have an exciting line-up of speakers and every-one is invited to join us at the Davis Farmer's Market following the seminars. Other upcoming events with great socializing opportunities include the Association of American Geographers annual meeting in Washington, D.C. in April and the California Geographical Society meeting in Big Bear in May. We hope to see you all there!

The GGG website received a facelift this year. The design is more modern, and the content more up-to-date. Be sure to check it out at <u>https://geography.ucdavis.edu</u>. There are many people I should thank for their service to the GGG. Notably the students and faculty on the executive and admissions committees, and the students active in GLOBAL (I cannot wait for another Geography trivia night). I am very thankful to Diana Davis, Ryan Galt, Patsy Owens, and Susan Handy for teaching the core Geography courses this year. And my very special thank you to Carrie Armstrong-Ruport who keeps our program running and keeps us all on track.

This is my last year as Chair of the GGG. I have enjoyed serving as chair for 5 years and see our students grow and thrive. Two years ago, our program successfully went through a thorough external review. I am pleased to announce that Patsy Eubanks Owens will take up the torch as the new GGG Chair staring in July 2019. Patsy has been an active member of the GGG for years, and comes to the role of Chair with experience as Vice-Chair of the Human Ecology Department. I, for one, am very excited to welcome her leadership to the program.



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#### **Spotlight On: Students**

#### Sensing the Earth from Above

By: Grace Liu

From centimeters to kilometers, from days to decades, I study biophysical phenomena at various spatial and temporal scales. As an applied physical geographer, I develop ecosystem monitoring tools and provide data-driven information support for more effective resource management, mitigation and adaptation decisions. My current studies focus on rangeland ecosystems. Specifically, I'm studying rangeland forage production and its interaction with the changing climate at different spatio-temporal resolution.

In California, over 60% of the land area is rangeland, which provides a wide range of ecological services, yet it is facing an increasing frequency of natural hazards such as extreme drought and catastrophic wildfire. I've been maintaining six rangeland experiment sites across the state since 2016, where I'm collecting dry biomass, soil moisture and temperature measurements, and small Unmanned Aerial System (sUAS) images for my dissertation study. Over the past three years, using these collected data, I have developed sUAS data driven models for mapping daily forage production at centimeter-resolution. Moving to the next step, I'm developing similar models driven by freely available satellite images at a coarse resolution but is applicable to larger areas. Besides being decision-support tools for ranchers and stakeholders, these forage production mapping models can be further applied to quantify the impact of resource availability on range-land forage production.

In addition to my dissertation study, I'm working with rangeland specialists from the UC Cooperative Extension on a rangeland monitoring project. We are examining the long-term response of rangeland ecosystem services to juniper removal treatment and wildfire at high spatial resolution using sUAS and at high temporal resolution using satellite images.

I believe scale is an important prior when answering research questions. We can usually have different answers to the same question when looking at different scales. For example, a single precipitation event might be crucial in a seasonal forage production analysis, but likely not in a decadal analysis. Often times, we need data at multiple scales to systematically understand our research subject. Through my research, I had the opportunity to visit rangelands with very different resource availability and witnessed immense spatial and temporal heterogeneity imbedded in rangeland ecosystems. I think it is very important, for us physical geographers, to conduct field work, not only for collecting quantitative research data, but also to observe our research subjects in their natural habitat. Qualitative observations at eyeball resolution could be essential in translating numbers to information properly.



Above: Grace flies a small Unmanned Aerial SystemTop Right: Example of a California rangeland in springBottom Right: Example of a California rangeland in winter





# **Spotlight On: Students** Meghan's amazing adventures in Europe

By: Meghan Klasic

I had a pretty rad Summer of 2018. First, I was lucky enough to secure a coveted position as the Onsite Coordinator for one of UC Davis' most popular Summer Study Abroad Programs, Sustainable Cities of Northern Europe (SCONE). SCONE is a month-long program that guides students through four sustainably-minded countries. For the month of July, 26 undergraduates from UC schools and the University of Kentucky, yours truly, and Prof. Catherine Brinkley (Department of Human Ecology) traversed Sweden, Denmark, Germany, and Switzerland. We met with city planners and engineers, toured sustainable neighborhoods, discussed how to incorporate the community into sustainable design planning, learned the secret to cutting greenhouse gas emissions (District Energy!), and ate in community food centers and out of food trucks built from shipping containers. We biked, hiked, walked, swam, trollied, trained, bussed, and swam our way across each country. Summer 2018 was the first year Prof. Brinkley and I helped run the program—and we're excited to sign on again for Summer 2019! We are working to build the curriculum in a way that promotes



Prof. Brinkley walking in Freiburg, Germany

knowledge transmission beyond the course. For example, during the 2018 program, students built StoryMaps (GIS-based interactive blogs) and wrote Opinion Editorials (Op-Eds). We are currently writing up our initial findings related to study abroad and sustainability knowledge transmission so stay tuned for more information!



Meghan and The Matterhorn in Switzerland

As an added bonus to the summer, after *SCONE* wrapped up, I had the opportunity to stay in Switzerland for the month of August for research. I collaborated with Dr. Manuel Fischer at the Swiss Federal Institute of Science and Technology (Eawag), a research institute located outside of Zurich. During my time in Switzerland, Dr. Fischer helped me line up exploratory interviews with government, nonprofit, research, and academic stakeholders who work around the nexus of water quality and harmful algal blooms on Lake Geneva (France/Switzerland). Lake Geneva is of particular interest to me because it has a history of algal blooms (bursts of blue-green algae growth) which can be toxic to plants, animals, and humans. Despite a history of blooms however, Lake Geneva stakeholders were able to restore the lake water quality completely and the water is now used as a drinking water supply. For my dissertation research, I'm conducting a case study comparison between Lake Geneva and Lake Erie (Canada and the United States) to

better understand the decision-making processes and the influential variables that can help one lake move towards restoration, while another continues to face more frequent and intense blooms. Follow me on Twitter (@rogue\_PhD) or check out my website (<u>KlasicH2O.com</u>) for more information!

#### **Spotlight On: Students** Gamma Theta Upsilon

By: Angie Chapman

In January 2019, fourteen GGG students were initiated into the Nu Iota Chapter of the Gamma Theta Upsilon (GTU) International Geographical Honor Society. Gamma Theta Upsilon was founded in 1928 at Illinois State Normal University. Since then, it has grown into an international organization with over 300 chapters. The purpose of GTU includes advancing the status of geography as a cultural and practical discipline for study, administering funds for and supporting student research, and encouraging members to apply geographic knowledge and skills in service to humankind. More information about GTU may be found here: <u>http://gammathetaupsilon.org</u>

The Nu Iota Chapter was formed at UC Davis in spring 2018 and these fourteen students are the chapter's first cohort of initiates. All GTU members demonstrate outstanding scholarship in geography and meet eligibility requirements including completion of at least three geography courses, maintaining a minimum 3.3 GPA in their geography courses, and being in the top 35% of their class. A new cohort of initiates will be invited to apply in spring 2019. In addition to the honor of membership, GTU members have the opportunity to apply for scholarships and travel grants and publish in and receive the peer-reviewed journal *The Geographical Bulletin. A new cohort of initiates will be invited to apply in spring 2019. For more information, contact Nu Iota Chapter President, Angie Chapman (amchapman@ucdavis.edu).* 

**Right:** Initiates include (sitting, left to right) Mackenzie Johnson, Amanda Fencl, Gabi Kirk, (standing, left to right) Meghan Klasic, Nick Robinson, Angie Chapman (founding member and President), Nermin Dessouky (Vice President), and Sasha Pesci. Not pictured: Janet Boulware, Megan Foster, Victoria Torres Gonzales, Alejo Kraus-Polk, Nick Santos, Maya Weeks, and Ana Wegman.



#### Community Development and Geography Students of Color (CDOGS)

By: Mia Dawson



Since 2017, the CDOGS (Community Development and Geography Students of Color) has built community through annual fall welcome dinners and other gatherings to connect, write together, and unwind. Current student leads are aa valdivia, Deedee Chao, Joyce Yee, & Mia Dawson. Students wanting to get plugged into communication with the group can contact Mia (mkdawson@ucdavis.edu).

Left: CDOGS kick off the academic year with a Laotian dinner

## Spotlight On: Students global



Logo by Yasmina Choueiri

The organization previously known as GLOBAL has been rebranded: global. Historically, global was a geography graduate student group focused on providing social and academic opportunities for student and faculty networking. Given the close relationship between the Geography and Community Development programs at UC Davis, we have decided to expand our group's focus to include both graduate programs. The newly branded global still initiates networking opportunities and is working to increase our role in the future development of both our graduate programs. We sponsor a wide range of events including town halls, happy hours, strategic planning workshops, faculty research panels, career diversity days, pumpkin carving, an annual trivia night fundraiser, QE and Thesis support, conference presentation practice, and much more. We are always open to new members. Contact Meghan Klasic (mrklasic@ucdavis.edu) for more information!

# Alumni — Where are they now?

- Sarah Byer ('17) is a Spatial Analyst with The Nature Conservancy—Nevada Chapter, working on land management and conservation planning. She also mastered the art of baking sourdough bread!
- Michael Norton ('17) is working with fellow GGG alum, Josh Perlman at Praedictus Climate Solutions, a small startup company. Michael's work focuses on data architecture for large remote sensing datasets.
- Matthew Palm ('16) is a Postdoctoral Research Fellow at the University of Toronto, working on affordable housing, transport planning, and transport equity.
- Lillian Hayden ('14) is an Environmental Scientists with the California Department of Water Resources, working on GIS and Bathymetry. Lillian also married her partner last year and bought a house!
- Brian Pon ('14) works for Caribou Digital, a boutique strategy/advisory firm focused on digital economies of the Global South. Brian would also like to share that he has "lots of kids" to celebrate!
- Amber Manfree ('14) is a Private Consultant and teaches GIS short courses for the University of California Continuing and Professional Education program.
- Quetzalcóatl Orozco-Ramírez ('14) is a Researcher at Instituto de Geografia, UNAM in Oaxaca, Mexico working on agrobiodiversity, landscape, and sustainable development.
- Michele Tobias ('12) is the GIS Data Curator for the University of California—Davis Library.
- **Tometi Gbedema ('11)** is an Adjunct Faculty Member at California State University—Stanislaus, and Voluntary Director of the Otwetiri Project (www.otwetiri.org).
- Teresa Dillinger ('97) is the Academic Administrator for Professional Development Programs in Graduate Studies at the University of California—Davis. Teresa works on career diversity, graduate student and postdoctoral services, and ImaginePhD.com.

# Fellowships, Grants & Awards

#### Students

- Angie Chapman received a 2018 James Beard Foundation Legacy Scholarship, the Phi Kappa Phi Love of Learning Award, and a Graduate Student Association Travel Grant.
- Amanda Fencl, Rich Pauloo, Alvar Escriva-Bou and Hervé Guillon, won the most <u>DATA-licious sub-</u> <u>mission in the CA Water Data Challenge</u>. Amanda also received a Graduate Student Association Travel Grant.
- **Megan Foster** served on the panel "Hybrid Landscapes and Land-Use Policy: A Roundtable on Public/ Private Power Dynamics" at the American Society for Environmental History Annual Meeting, Riverside, CA, March 14-18, 2018. She also received the Jarena Wright Fellowship from UC Davis.
- Meghan Klasic received a <u>CUAHSI Pathfinder Grant</u> and was inducted into the Phi Kappa Phi Honor Society for top 10% of Graduate Students
- Sasha Pesci was given the <u>Emerging Scholar Award</u> at the Food Studies Network Conference, and a Gamma Theta Upsilon Travel Award.
- **Stacie Townsend** won First Place in the <u>Tom McKnight Paper Award</u> (Graduate) at the California Geo-graphical Society Annual Meeting in 2018
- **Dustin Tsai** received Third Place in the <u>Tom McKnight Paper Award</u> (Graduate) at the California Geographical Society Annual Meeting in 2018
- Mayra Sanchez Barba received the University of California Dissertation Year Fellowship 2018-2019.
- Maya Weeks was awarded a month-long <u>summer artist residency at Konstepidemin</u> where she will begin her dissertation fieldwork on marine debris and gender. Maya also received a Graduate Student Association Travel Grant.
- Gabi Kirk was accepted into the **Political Economy Summer Institute 2019**.
- **Prof. Clare Cannon**, and students/postdocs **Alejo Kraus-Polk**, **Gabi Kirk**, **Jen Sedell**, **Ingrid Behrsin** and others from the UC Davis Political Ecology Lab were awarded a *Davis Humanities Institute Transdisciplinary Research and Arts Cluster* Grant. The awardees wanted to tell students that if they're interested in participating in this interdisciplinary research cluster's activities in 2019 to let them know!

#### Faculty

- Prof. Edward Spang received the 2018 Eleanor and Harry Walker Academic Advising Award
- **Prof. Robert Hijmans** was on of *Web of Science*'s Highly Cited Researchers 2018 for multiple highly cited papers that ranked in the top 1% by citations for a particular field (environment/ecology).
- **Prof. Gwen Arnold** received the <u>UC Davis Chancellor's Award for Excellence in Undergraduate Research Men-</u> toring (2018)
- Prof. Jay Lund was elected to the <u>National Academy of Engineering</u> (2018).
- **Prof. Frances Moore** became a <u>Hellman Fellow</u> for 2018-2019.

# **Selected Publications**

- "Energy Next Door: A Meta-Analysis of Energy Infrastructure Impact on Housing Value" Catherine Brinkley and Andrew Leach, (2019), *Energy Research & Social Science*, 50, 51-65.
- "An Uncertain Future: Climate Resilience of First-Generation Ranchers" Kate Munden-Dixon, Kenneth Tate, Bethany Cutts, and Leslie Roche, (2018), *The Rangeland Journal*, https://doi.org/10.1071/RJ18023.
- "The Estimated Impact of California's Urban Water Conservation Mandate on Electricity Consumption and Greenhouse Gas Emissions" Edward S. Spang, Andrew J. Holguin, and Frank J. Loge, (2018), *Environmental Research Letters*, 13, 014016, 10pp.
- "Under the Feet of Jesus: Food Labor Dynamics in California's Central Valley" **Stacie A. Townsend**, (2018), *Graduate Journal of Food Studies*, 5, https://gradfoodstudies.org/2018/12/11/under-the-feet-of-jesus/
- "Polar Amplifications" Maya Weeks, (2018), The New Inquiry, https://thenewinquiry.com/polar-amplifications/
- "Many Shades of Green: Establishing a Culture of Sustainability in a Diverse, Developer-Driven Expatriate Community" **Nermin Dessouky,** Angela Sanguinetti, Alan Meier, Sarah Outcault, and Richard Tutwiler, (2018), *Communities: Issue on The Culture of Intentional Community*, 181, 60-62.
- "Business-As-Usual Redefined: Energy Systems under Climate-Damaged Economies Warrant Review of Nationally Determined Contributions" **Bernardo A. Bastien-Olvera**, (2019), *Energy*, 170, 862-868.
- "Leveraging Hydrologic Accounting and Water Markets for Improved Water Management: The Case for a Central Clearinghouse" Stephen R. Maples, Ellen M. Bruno, Alejo W. Kraus-Polk, Stacy N. Roberts, and Lauren M. Foster, (2018), *Water*, 10, 1720, 9pp.
- "Waste Incineration is Waste Incineration, No Matter the Classification" **Ingrid Behrsin**, (2018) *Euractive: Energy & Environment*, https://www.euractiv.com/section/circular-economy/opinion/waste-incineration-is-waste-incineration-no-matter-the-classification/
- "The Representation of Urban Female Teenagers in Iranian Cinema" **Mina Rezaei**, Negin Golravesh Fekry, and Seyyed Mohsen Habiba, (2018), Chapter 9 in *The Child in World Cinema*, Debbie Olsen, Ed., Lexington Books, Lanham, Maryland.
- "Estimating Rangeland Forage Production Using Remote Sensing Data from a Small Unmanned Aerial System (sUAS) and PalentScope Satellite" Han Liu, Randy A. Dahlgren, Royce E. Larsen, Scott M. Devine, Leslie M. Roche, Anthony T. O'Geen, Andy J. Y. Wong, Sarah Covello, and Yufang Jin, (2019), *Remote Sensing*, 11, 595, 22pp.
- "A Brief Critical Overview of Geoforum's History, 1970-2018" Gwyneth M. Manser, (2019) *Geoforum*, In Press.
- "Agri-Food Systems in International Research for Development: Ten Theses Regarding Impact Pathways, Partnerships, Program Design, and Priority-Setting for Rural Prosperity" **Thomas P. Tomich**, Preetmoninder Lidder, Jeroen Dijkman, **Mariah Coley**, Patrick Webb, and Maggie Gill, (2019), *Agricultural Systems*, 172, 101-109.
- "The Making of *The Tourist*" **Dean MacCannell**, (2018), *Via: Tourism Review*, 13, DOI : 10.4000/ viatourism.2239
- "Drought Management and Climate Adaptation of Small, Self-Sufficient Drinking Water Systems in California" Julia A. Ekstrom, Meghan R. Klasic, Amanda Fencl, Mark Lubell, Ezekiel Baker, and Frances Einterz, Report for *California's Fourth Climate Change Assessment*, http://www.climateassessment.ca.gov/techreports/ docs/20180827-Water\_CCCA4-CNRA-2018-004.pdf, 59pp.
- "Ecologies of the Colonial Present: Pathological Forestry from the *Taux de Boisement* to Civilized Plantations" **Diana K. Davis** and Paul Robbins, (2018), *Environment and Planning E: Nature and Space*, 1, 447-469.

# **Orientation at Quail Ridge Reserve**

#### By: Angie Chapman

The GGG welcomed its newest cohort of 5 Master's and 9 PhD students at Orientation held at Quail Ridge Reserve in September 2018. Orientation was held in conjunction with the Community Development Graduate Group (CDGG). Activities during the three-day orientation included field trips to Sol Collective and Yisrael Family Urban Farm in Sacramento, kayaking on Lake Berryessa, hiking at Stebbins Cold Canyon, and a visit to the Berryessa Gap Winery. In 2019, Orientation will take place at Baker's Station at the Sonora Pass from September 9-12.



Above: New and continuing GGG students and faculty pose for a photo during orientation activities at Quail Ridge Reserve. Front row, left to right: Erica Scaduto, Mariah Coley, Mia Dawson, Gwyneth Manser, Calin Mason, Sasha Pesci, Sam Roodbar, Prof. Clare Cannon. Back Row, left to right: Raiza Gruner Pilatowsky, Jess Zlotnicki, Luis Hernandez Galvan, Eric Balcom, Lauren Mabe, Tyler Jackson, Angie Chapman, Prof. Robert Hijmans, Prof. Jonathan London, Prof. Stephen Wheeler.

# See you at AAG 2019!

Come see us at the American Association of Geographers Annual Meeting in Washington, D.C.! Stop by our booth in the Exhibit Hall, check out presentations by over 40 faculty, students and alumni!



#### You're Invited!

GGG social event at the AAG Where: MacIntyre's Pub, 2621 Connecticut Avenue NW, Washington, D.C. Our section will be in the back of the pub When: April 4, 2019, 6:30pm-8:30pm

Join us for appetizers and no-host cocktails and get to know our geographers!