Colorado State University
GRADUATE DEGREE PROGRAM IN ECOLOGY
weekly digest

February 6, 2023

Welcome to the first full week of February!

Before talking about some logistics for this month, I would like to take a moment to send out a HUGE congratulations to three of our GDPE faculty for being named **2022 AAAS Fellows**! Join me in celebrating:

- **Gillian Bowser** (ESS)
- **Chris Funk** (Biology)
- **Melinda Laituri** (ESS)

Ok! With the semester in full swing, there are several deadlines approaching. There have been emails going out reminding folks about graduation (GS25's), recruitment events, research & travel grants, progress reports *(past due!)* and more. Make sure you check the deadline section below for many of those dates.

Thanks to all who attended our first DE Seminar of the semester with **Dr. Ambika Kamath**! We had a great turnout and a fun reception afterward. We have a bit of a break before our next DE speaker: **Dr. Emily Stanley** will be sharing their thoughts on "Ecological frontiers: looking back to look forward" on March 22.

Don't forget to check out the **GDPE Events Calendar** for other upcoming activities!

GDPE EVENTS & ANNOUNCEMENTS

29TH ANNUAL
FRONT RANGE
STUDENT ECOLOGY SYMPOSIUM

THURSDAY	FRIDAY
2-4PM: WORKSHOPS & PANELS	8:30-12PM: ORAL PRESENTATIONS
4-5PM: KEYNOTE WORKSHOP	12-1PM: LUNCH
5-7PM: POSTERS & NETWORKING	1-2:30PM: ORAL PRESENTATIONS
	3-4PM: KEYNOTE ADDRESS
	4-6PM: AWARDS AND RECEPTION

FEBRUARY 23-24, 2023
LORY STUDENT CENTER

VISIT OUR SITE
AT FRSES.ORG

CSU_FRSES

GDPE_FRSES@COLOSTATE.EDU

Participate in FRSES!
The Front Range Student Ecology Symposium (FRSES) will be hosted at the Lory Student Center February 23-24, 2023, with opportunities for all undergraduate and graduate ecology researchers. Our keynote speaker will be **Dr. Danielle Ignace**, an ecophysiologist, science communicator, and an advocate for Indigenous voices in STEM. Find out more about Dr. Ignace **at her website**. For more event information and to get involved, check out our website **https://frses.org** and follow us on Twitter **@CSU_frses**.

GDPE Social Chairs Ryleigh and Anna are hosting a **Valentine Card Making social event** this Thursday at Stodgy Brewing.

Don't have a valentine this year? No worries! Come create a thank you card for your favorite GDPE faculty member, family member, friend, or yourself. Or just come by to enjoy a drink and pleasant conversation.

Materials will be provided, though feel free to bring anything from home.

GDPE
Valentine
CRAFT NIGHT

THURSDAY
Feb 09
5:30 - 8:00 PM

STODGY BREWING
NON-ALCOHOLIC DRINKS AVAIL.
OLIO FOOD TRUCK
DOG FRIENDLY
+1'S WELCOME!

GDPE Event Calendar

DEADLINES

GDPE Deadlines
February 1 - GDPE Student Annual Progress Report (this is past due, but we are still missing many)
February 14 - GDPE Small Research Grant Proposals due
February 28 - GDPE Travel & Professional Development Grants due

Other Deadlines
February 6 - Q3 GSC Professional Development and Supply Grant
February 9 - Deadline to Apply to Graduate for SPRING 2023 GRADUATES. Access the form on **RAMweb**.
March 2 - Deadline for SUMMER 2023 GRADUATES to apply for graduation and be listed in the Spring Commencement program

Find all of the deadline details on the CSU Graduate School's website here.
Find all of the registration details on the CSU Registrar's website here.

ECOLOGY & CSU EVENTS
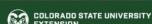
CSU Extension offering 90+ paid summer internships for undergrad and grad students

Undergraduate and graduate students have the opportunity to spend their summers getting hands-on experience **studying pollinators on green roofs, documenting the experiences of migrant farm workers, teaching youth about the natural world, using drones to research innovative agriculture techniques,** and so much more.

Apply here

Ecological Society of America 2023 Annual Meeting
ESA invites abstracts for contributed presentations (talks and posters) for the 2023 Annual Meeting, which will take place August 6-11 in Portland, Oregon.
Abstracts are encouraged to address the meeting theme **ESA for All Ecologists** if appropriate but doing so is not necessary. Abstract submissions are due Thursday, February 23. More information **here**.

Ecological Society of America Webinars

Alt-Academic Career Q&A I - **February 8** *register here*
Join ESA's Early Career Ecologists Section for the first of two panels exploring diverse career pathways in ecology. See how some early career scientists got into their current fields, and get advice for how you can pursue a similar pathway.
Featuring:
* Cari Ficken, Sustainability Project Manager, New York Power Authority
* Madeline Strom, Instructional Designer, University of Arizona
* Pacifica Sommers, Metagenomics Data Scientist, Bayer Crop Science

Alt-Academic Career Q&A II - **February 9** *register here*
Join ESA's Early Career Ecologists Section for the second of two panels exploring diverse career pathways in ecology. See how some early career scientists got into their current fields, and get advice for how you can pursue a similar pathway.
Featuring:
* Kristen Emmett, ORISE Fellow, USDA Forest Service
* Cait Rottler, New Mexico Climate Adaptation Specialist, South Central Climate Adaptation Science Center
* Avery Scherer, Senior Ecologist, Cramer Fish Sciences

Graduate School
The Spring 2023 Graduate Professional Development Series offers an excellent selection of Lunch and Learns and Virtual Speakers. From sessions designed to help you communicate more clearly to sessions designed to help your success on the job market, the Graduate School encourages you to prioritize your professional growth and well-being.

Communicating Research to Non-Experts, hosted by Colorado School of Mines - **February 8** *Register here.*
Research has many stakeholders not educated in your discipline. Effectively communicating your

research and interests to people unfamiliar with your field is an important skill. When you embed in a research group and interact with experts it might seem like everyone knows the jargon, but this is not true. You might also think that to solve this problem you need to "dumb it down" but this is also untrue, your audience isn't dumb. To be effective at communicating research, you need to transcend barriers in language and jargon. This workshop led by Seth Vuletich (Scholarly Communications Librarian) will help you to understand how to effectively communicate your research to non-experts and why it is necessary.

GRADUATE DEGREE PROGRAM IN ECOLOGY
COLORADO STATE UNIVERSITY

Recent Publications

Global water availability boosted by vegetation-driven changes in atmospheric moisture transport
Nature Geoscience - October 2022

GDPE faculty **Anping Chen** and team's analysis of observation-based atmospheric moisture transport data shows that vegetation change over the past two decades has limited the decline in global water availability by enhancing rainfall over evapotranspiration.
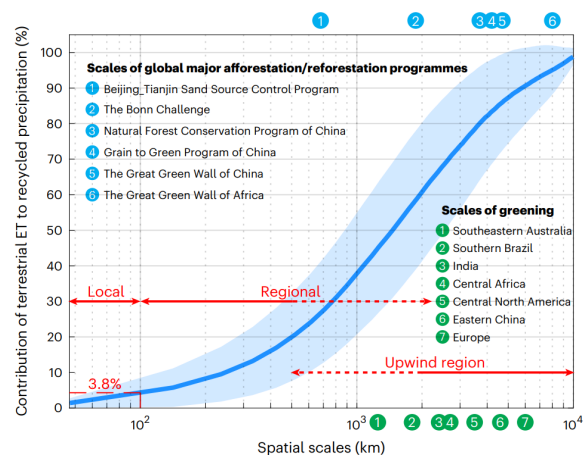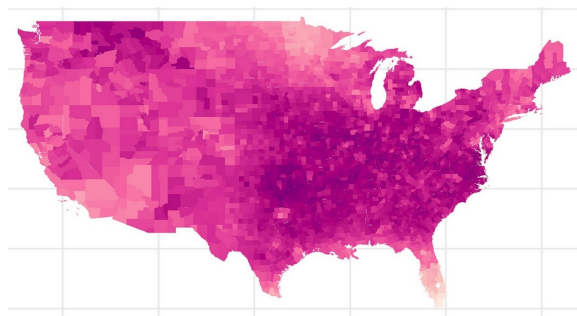

Image provided by Anping Chen

Image provided by Peder Engelstad

Invaders at the doorstep: Using species distribution modeling to enhance invasive plant watch lists
Ecological Informatics - 2023

Many invasive plant species with predicted habitat suitability are as yet unobserved in land management areas but combining occurrence records with predicted suitability maps can identify invaders 'at the doorstep' of management areas. This novel type of list building can be used to help guide Early Detection and Rapid Response efforts.

Check out this recent article from several of our GDPE community members: **Peder Engelstad, Ian Pearse,** and **Helen Sofaer.**

Neuromodulation and differential learning across mosquito species
Proceedings of the Royal Society B: Biological Sciences - January 2023

A recent study by GDPE student **Lizzy Rylance** and her team suggests that the evolution of species-specific host preferences in mosquitoes may have co-evolved with differences in dopaminergic innervation to the antennal lobe.

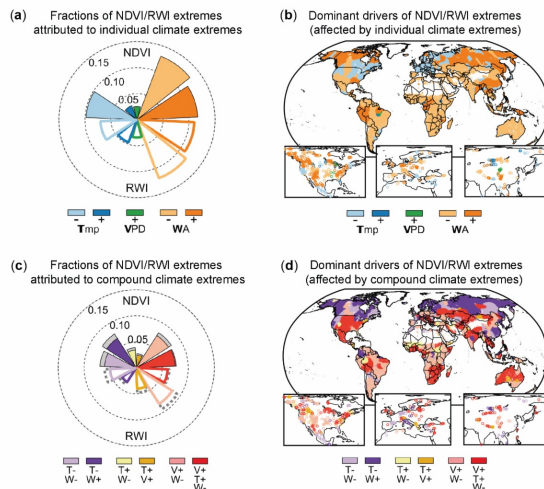Photo credit: Kiley Riffell Photography

Image provided by Anping Chen

[The detection and attribution of extreme reductions in vegetation growth across the global land surface](#)
Global Change Biology - January 2023

Negative extreme anomalies in vegetation growth (NEGs) resulting from natural and anthropogenic causes, including climate extremes (CEs), often imply severely impaired ecosystem services. Using satellite-derived vegetation index data and supporting tree-ring chronologies, GDPE faculty **Anping Chen** and **Alan Knapp**, with their team, identified NEGs from 1981 to 2015 across the global land, among which 70% were attributable to five types of CEs and their combinations.

Prior to winter break, **a publication from a GDPE faculty member** Phil Cafaro that attributes global biodiversity loss to overpopulation was listed in this section. A group of engaged students and several faculty members would like to highlight their disagreement with the publication as it supports the application of population-reduction solutions that can perpetuate harm and discriminatory practices towards historically marginalized communities. To acknowledge and encourage dialogue on this issue, we link two response papers to the original publication (**Green et al., 2022**; **Hughes et al., 2023**) and a **subsequent response from the authors** of the original publication. Our hope is to continue dialogue on the matter moving forward as we work as a community to educate ourselves and each other.

Let us know about your recent publications!

We are trying to highlight the great and diverse science that our faculty and students are doing. If you have recently published an article, please fill out the form linked below and our SciCom Fellow, **Josie Otto**, will add you to our new Recent Publications section above. We can also feature your work on our website!

Please note that inclusion of events and publications in the Digest is not an endorsement by GDPE

Share you Recent Publication

We want your feedback! Do you have comments or suggestions about how your GDPE experience can improve? Let us know! Contact your ExCom Student Representatives, **Mel Morado** and **Erin Weingarten** to provide your feedback.

Stay in touch by tagging GDPE in your posts and photos on Twitter - @CSU_Ecology and use hashtags #GDPE and #CSU_Ecology. We'd be happy to help highlight your research!

GDPE Social Listserv - Please make sure to sign up **here** for the GDPE Social Listserv to keep up with all the fun events we have planned this year!

Submit Photos

We want your photos! What are you up to, how is your field and lab work? Share them with us here.

GRANTS & JOBS

Postdoc Positions
PDRA 1 & PDRA 2
The PDRA will co-lead a two-year project, supporting Natural England to produce a red squirrel recovery plan in England. There will be a focus on building quantitative models that can capture and project interactions between competing species (grey squirrels, red squirrels, and predators), as well as between hosts and parasites. These models will be adapted to project outcomes of a range of alternative management strategies. The role will also include organising stakeholder planning workshops, and applying various decision support tools including expert elicitation, risk analyses and values trade-offs. More information **here.**

Postdoctoral Fellow: Structured Decision Making for Managing Chronic Wasting Disease
This postdoc will work as part of an interdisciplinary team on a USDA–APHIS-funded project, "Structured Decision Making for Managing Chronic Wasting Disease (CWD)", that aims to (1) review current state and regional CWD surveillance programs and management strategies to compare objectives and data collection approaches, (2) evaluate surveillance design trade-offs and determine optimal sampling strategies, and (3) identify willing stakeholders and experts to participate in a series of meetings to develop a structure decision making (SDM) approach to optimize CWD management in regions with shared management objectives.
To apply or if you have any questions, please contact Dr. Larissa Bailey (Larissa.bailey@colostate.edu)

Submit Job Announcement

GRADUATE DEGREE
PROGRAM IN ECOLOGY
COLORADO STATE UNIVERSITY