



# GDPE Weekly Digest

January 18th 2022

Dear all,

Welcome to the spring semester! We have 6 new students this spring who we'll introduce over the next few weeks. We also have a new team of 2 graduate students, Elizabeth Diaz-Clark and Anna Wright, working on science communication with us. Learn all about them and what they'll be focusing on below. Elizabeth has the assistantship position that was advertised, and Anna will be working a few hours each week focusing more on social media. You'll be hearing from them! I'm so thrilled to get to work with and learn from them.

Also read down to learn about the [Front Range Student Ecology Seminar](#) (deadline Friday!), a new potential collaborator, [Dave Lawrence](#) of the NPS, and our upcoming [Resident Distinguished Ecologist](#) talk from Scott Denning.

Students - don't forget that the (new!) [Annual Progress Report is due Feb 1st](#). Details below.

May you all weather this Covid peak well - stay safe, and stay healthy.

Best,  
Ruth



## ELIZABETH DIAZ-CLARK

Sci Comm Fellow & GDPE Program Assistant

First year PhD student in GDPE working with Dr. Meena Balgopal in the Department of Biology researching the role of visuals and media on climate change literacy.

"I am looking forward to working with GDPE faculty, alumni, and fellow students! Together we can find the tools and skills to help make our science accessible to anyone."

# ANNA WRIGHT

Sci Comm Coordinator

First year Master's student in GDPE working with Dr. Troy Ocheltree & Dr. Jeremy Sueltenfuss in the Department of Forest and Rangeland Stewardship researching water loss in restored and mitigated wetlands in the Front Range.

"I am most excited to use social media as a tool to communicate the excellent science that comes out of the GDPE community, especially student-led research."



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## GDPE EVENTS & ANNOUNCEMENTS

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### Distinguished Ecologist Seminar

#### Net Zero Doesn't Mean What You Think It Means

**Scott Denning - Feb. 2nd**  
**3:30pm LSC Ballroom - North**

Since before I was born, plants have been growing faster than they decompose. More and more CO<sub>2</sub> has also dissolved into the surface ocean. These carbon sinks have offset about half of all fossil fuel CO<sub>2</sub> for many decades, yet Earth system models have struggled to reproduce the growth of carbon sinks with emissions. Now for the first time, climate scientists are contemplating a world in which emissions and maybe even CO<sub>2</sub> begin FALLING rapidly. What does this imply for carbon exchanges among the land ecosystems, the ocean, and the atmosphere? The latest assessment by the Intergovernmental Panel on Climate Change answers this question, and I bet you are going to be surprised at the implications!



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#### Welcome Dr. Dave Lawrence - new GDPE Associate

Dave Lawrence specializes in aquatic ecology and is part of the National Park Service (NPS) Climate Change Response Program. In this role Dave conducts and translates research to support climate change adaptation for protected areas across the country. Previously, Dave was the Director of Aquatic Conservation at the National Fish and Wildlife Foundation. Dave's fieldwork has taken him to high desert rivers in the Pacific Northwest, coastal rivers in the Northeast, marshes of the Gulf coast, and the high seas in Alaska. He is based in Fort Collins and is

interested in collaborations with GDPE researchers, as well as teaching and mentoring opportunities. Read more [here](#) and feel free to reach out to him at: [david\\_james\\_lawrence@nps.gov](mailto:david_james_lawrence@nps.gov).



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## ECOLOGY & CSU EVENTS

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### **The Front Range Student Ecology Symposium needs your presentation!**

FRSES is a student-run symposium at Colorado State University that provides an opportunity for students to showcase their work and network in a friendly and supportive peer environment. This year's conference will be held in-person Wednesday - Thursday, February 23-24, 2022. Oral and poster presentations will be scheduled throughout Thursday. You can present your research at any stage of development, from proposed to completed. Undergraduate and graduate research welcome! We are considering abstracts on a first-come-first-served basis, and the spots will fill, so don't delay your submission!

Abstracts will be accepted until **January 21, 2022** at 6pm and are limited to 1350 *characters*. Follow this [link](#) to submit an abstract. If you have questions about FRSES or submitting your abstract, please email [ecosym@rams.colostate.edu](mailto:ecosym@rams.colostate.edu) For more information, check out our website, <https://frses.wordpress.com/>

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## DEADLINES

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### **GDPE Deadlines**

*February 1 - Annual Student Progress Report - see email from Jennifer Neuwald and detail [here](#).*

### **Other Deadlines**

#### **Feb. 2 – by Noon (MT)**

- Request for Change of Department and/or Degree Program (GS7) for SPRING 2022

#### **Feb. 11 – by 4:45 pm (MT)**

- SPRING 2022 GRADUATES – Deadline to Apply to Graduate
  - Deadline for Application for Graduation GS25 Form (students applying to graduate for the first time) OR Reapplication for Graduation (students who have applied to graduate for a previous term). Access the form on **RAMweb**.

*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](#).*

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## COURSES

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### **Upcoming Courses of Interest**

#### **ECOL 592 Interdisciplinary Seminars**

**Please note: Students are welcome to take multiple 592s in a semester.**

◆ **ECOL592 001 "Overpopulation and Ecological Sustainability " (Dr. Philip Cafaro)**



◆ **ECOL592 002** "Plant-soil feedbacks and drought" (Dr. Melinda Smith, Carina Donne, Alex Siggers) CRN 10126 Credits: 1 *Please register for 1 credit only.*

◆ **ECOL592 003** "Understanding the ecological impacts of drought from drought experiments" (Dr. Alan Knapp) CRN 15033 Credits: 1 *Please register for 1 credit only.*

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### **Terrestrial Ecosystem Isotope Ecology (SOCR670) Spring 2022**

**Instructor: Francesca Cotrufo**

Are you curious to know what isotopes are and how they naturally behave in terrestrial ecosystems biogeochemistry? Do you want to know if isotope methods can help you addressing your research questions? Do you want to gain practical skills measuring C, N and water stable isotopes concentrations and analyzing isotopic datasets? More information [here](#).

### **Transdisciplinary convergence: solving complex socio-ecological problems (FW696) Spring 2022**

Instructors: Kyle Horton and Jeffrey Kelly (University of Oklahoma)  
Participants in this seminar will explore best practices and examples of transdisciplinary convergence research for solving complex socio-ecological problems. The most compelling and challenging problems we face are at the boundary of society and ecology. Traditional disciplinary and multi-disciplinary approaches have proven inadequate for resolving these problems. Recently the National Academy of Sciences and the National Science Foundation have emphasized a new Transdisciplinary Convergence approach to make progress on these complex issues. This research approach is identified by: (1) addressing a specific, complex, and compelling problem; (2) engaging a research team that has deep integration across disciplines; and (3) having a research design that plans for transdisciplinary integration beginning at project initiation. More information [here](#).

### **One Healthy City (PBHL692A) Spring 2022**

The One Health Institute team is excited to announce the first for-credit course offering sponsored by OHI. "One Healthy City" (PBHL692A) is a 1-credit seminar course open to all graduate students across colleges and programs. The One Healthy City Project will bring together these interdisciplinary graduate and professional students to enhance our local community through the implementation of the 10-minute walk initiative. The course is a combination of seminars delivered by CSU faculty and City of Fort Collins staff, and project-based learning to create real-world recommendations for neighborhoods in Fort Collins. This group's work will be used to develop the concept of Nature in the City of Fort Collins. This is a great opportunity for students who have an interest in One Health, public health, community-engaged scholarship, and community health. Contact [Sue Vandenwoude](#) for more information.

### **Tools for Food-Energy-Water System Analysis (CIVE 527) for Spring 2022.**

9:00 - 10:50 am on Mondays and Wednesdays. The course includes lab time from 9:50 - 10:50.  
Course Description: This 3-credit hour course aims to equip students with tools to be used across disciplines that advance capacity to assess complex FEWS issues. Statistical analysis and data mining approaches are included to explore prevailing relationships amongst FEWS under varying conditions. Tools and approaches introduced include statistical analyses, life cycle assessment, triple bottom line analysis, and multi-criteria decision analysis. [Syllabus](#) More information [here](#).

### **New online course - Ecosystem Services on Agricultural Lands**

Dr. Dana Hoag in Agricultural and Resource Economics is offering a new online graduate course this Spring: AGRI 638 – Ecosystem Services on Agricultural Lands. Tuition is set at in-state rates, even for non-residents. Check it out or register

at: <https://www.online.colostate.edu/courses/AGRI/AGRI638.dot>

Course description: This course applies an economic lens to look at buying and selling ecosystem services. Students will learn about ecosystem services, but focus on how farmers, ranchers, and other extensive land users can improve their sustainability by earning revenues from resources on agricultural properties. Examples include selling carbon credits, wildlife banking, hunting and agro-tourism. We will dig deep to find unique and innovative ecosystem services, and about how to market them. All students will create an ecosystem marketing plan on an actual farm, ranch or other appropriate extensive properties.

### **ANTH 570 Paleoclimate and Human Evolution Spring 2022**

**Instructor: Andrew Du**

The class will be a seminar, wherein we discuss how one makes paleoecological inferences with the

archaeological/fossil record (so it's a paleoecology class). Topics will include fundamental ecological theory, how we reconstruct paleoenvironments, how we deal with sampling/preservation biases, etc. The topics will be theoretical/methodological and will not be tied to any particular place or time period (though of course we will draw upon certain places and time periods for examples).

### **Plan Ahead! Fall 2022**

#### **ESS 575 - Models for Ecological Data - Dr. Tom Hobbs, Professor Emeritus**

**Lecture: TR 9:30-10:45 Lab: W 1-2:50** Gaining insight about the operation of ecological processes using models and data.

### **Plan Ahead! Fall 2022**

#### **WR 574 - Advanced Snow Hydrology - Professor Steven R. Fassnacht**

**Lecture: TR 9:30-10:45 Recitation: T 12:30-2:00** In-depth study of snowpack processes and modeling, time series data analysis, and discussion of the literature.

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Send us your photos! Now more than ever, it's important for us to keep in touch. Send us your photos of your WFH desk, from the field, or just photos of you relaxing and enjoying summer!

[Submit Photos](#)

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**All paperwork:** Please email forms to Dawn at [ecology@colostate.edu](mailto:ecology@colostate.edu) to coordinate signatures and processing. Thanks!

**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, [Andreas Wion](#) and [Sarah Carroll](#) 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!

[General Student Resources](#)  
[COVID Resources for Grad Students](#)  
[CSU COVID Recovery Resources](#)

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## **GRANTS & JOBS**

### **ESA scientists in Parks Fellows National Park Service**

#### **Application Due Date: January 23**

The Scientists in Parks (SIP) Fellows program is now accepting applications from current upper-level undergraduate and graduate students for summer 2022 opportunities with the National Park Service. Each opportunity with the SIP Program affords a distinct and memorable experience with projects that vary based on location, focus, and complexity. This year's projects include tracking coral reefs at War in the Pacific National Historical Park, community-based education and outreach at Everglades National Park, and surveying pollinator abundance at Yosemite National Park. Visit the website to get the full list of 2022 opportunities! More information [here](#).

### **Post-Doc Research Associate, Chapel Hill, NC**

#### **Proposed Start Date February 1**

The Center for Public Engagement with Science (CPES) in the UNC Institute for the Environment seeks a postdoctoral scholar to begin February 1, 2022. The CPES partners with UNC faculty and community leaders in North Carolina (NC) to translate environmental science research results into action in NC communities and beyond. This position will support curriculum development and teacher professional development (TPD) activities associated with a new NIH-supported project: Iterative Design to Engage All (IDEA) Learners. More information [here](#).

### **Frontera Computational Science Fellowships June 1, 2022 - May 31, 2023**

#### **Application Due Date: February 18**

TACC is pleased to announce the Frontera Computational Science Fellowship program, a unique opportunity for graduate students to perform cutting-edge computations on the most powerful supercomputer available to academic researchers in the world. More information [here](#).

**Swiss Federal Institute for Forest, Snow and Landscape Research WSL**

**Application Due Date: March 15**

The Swiss Federal Institute for Forest, Snow and Landscape Research WSL is part of the ETH Domain. Approximately 600 people work on the sustainable use and protection of the environment and on the handling of natural hazards. The Research Unit Community Ecology is interested in how above- and belowground ecosystem patterns and processes influence communities and their dynamics. By **October 2022**, the Research Group Plant-Animal Interactions is offering a tenure-track position as Soil food web ecologist 80-100% (f/m/d) More information [here](#).

[Submit Job Announcement](#)



GRADUATE DEGREE  
PROGRAM IN ECOLOGY  
COLORADO STATE UNIVERSITY

