



**December 11, 2023**

Greetings, all!

I got to meet with many of the first year students and their peer mentors last week at a potluck and it was so delightful to catch up and get to know some folks better. Our Science Communication Fellow Josie Otto is doing amazing work as Lead mentor getting everything organized! Thanks, Josie, and all the mentors for helping improve the program, and all the first year students for throwing themselves in and getting involved.

We have a great bunch of ECOL 592s for the spring, including a new one on Genetic Rescue (see flier just below). I also wanted to remind folks that I'll be teaching ECOL 693 section 2, with a focus on writing research proposals for your committee, but with modifications for people who have already done that (writing grant proposals or manuscripts up for publication). I'm aiming to make the class as concretely useful as possible to everyone who takes it.

Congrats on making it to the end of another good semester!

Best,  
Ruth

**ECOL 592**

Come learn about genetic rescue, from the underlying principles to multiple examples of at-risk plant and animal populations around the world. We'll examine the power of this approach, and its limitations and risks. We'll also explore how pathogens might spread, or be better managed, through genetic rescue.

Dr. Enakshi Ghosh  
(Postdoc in Ruth Hufbauer's lab)  
Email: enakshi.ghosh@colostate.edu

1 credit | Every Friday at 1:30 PM | Starts on 19<sup>th</sup> Jan

**Genetic Rescue:**  
A Conservation Tool to Prevent Species Extinction (?)



GDPE Event Calendar

## GDPE EVENTS & ANNOUNCEMENTS

### FRSES Meeting

The Front Range Student Ecology Symposium (FRSES), an annual student-led conference held at CSU, will meet biweekly on **Mondays from 12-1PM** in NR 142. The next all-member meeting will be held December 11.

## ECOLOGY SEMINARS AND CONFERENCES



**Register now**  
*for the 30th anniversary*  
**Front Range  
Student Ecology  
Symposium**

February 1st - 2nd, 2024  
Colorado State University

CONNECT WITH US  
GDPE\_FRSES@colorado.edu  
FRSES.org

ABSTRACT SUBMISSION OPEN FOR THE  
*30TH ANNIVERSARY*  
FRONT RANGE STUDENT ECOLOGY SYMPOSIUM

WHO IS THIS FOR?  
• Undergraduates, graduate students and post-docs conducting ecology research  
• Proposals or current/completed work!

WHY PARTICIPATE?  
• Receive constructive feedback  
• Share your research with other Front Range ecologists  
• Win prizes!

CONFERENCE DETAILS  
• Poster presentations: 3/1/2024  
• Oral presentations: 3/2/2024

Abstract submission deadline is January 15 or once capacity is reached

### Front Range Student Ecology Symposium - 30th Anniversary

Register now for FRSES, held at CSU on February 1-2, 2024.

The priority deadline for submitting abstracts is December 1st. Students who submit their abstract by the priority deadline will be informed of their acceptance by Friday, December 8th. **The abstract submission form will close once capacity is reached (45 oral presentations; 50 poster presentations) or on January 15th**, whichever comes first.

Click [here](#) for more details.

### Entomological Society of America - North Central Branch Meeting

The North Central Branch meeting of the Entomological Society of America takes place in Fort Collins on **March 24-27, 2024**. Abstracts and registration are now open. The deadline for submissions is December 15. You just have to be a registered member of Ent. Soc (fee associated) and be apart of the North Central Branch (no fee associated) and register for the meeting to attend.

Click [here](#) for more details.

## NON-ECOLOGY CSU EVENTS

### NREL Writes

Julie Heinrichs, an NREL scientist affiliated with GDPE as well, Kristina Quynn and Kimi Conro from CSU Writes together offer Wednesday AM “Show up and Write” sessions (9-12), and they’re inviting GDPE students and faculty members to join in. There’s also a Dec 11-13 three day writing retreat. They’re on MS Teams, so you can write from wherever, with a accountability and community built in.

See flier attached! (the pdf version has [the live MS Teams link, or just use this!](#))

# NREL WRITES

FALL 2023

Wednesday mornings 9-12

Oct 4 - Dec 6, 2023

Hosted on MS-Teams: [Click Here](#)



NREL Writes is designed for researchers (faculty, graduate students, soft money research associates, postdoctoral fellows) to facilitate collaboration and writing productivity. NREL Writes provides topical presentations, weekly writing sessions, that create low-stakes accountability to enhance individual and collaborative writing success.

Co-facilitated sessions with  
Dr. Julie Heinrichs, NREL  
Dr. Kristina Gagnon, CSU Writes  
Kimi Conroy, CSU Writes

**JAN 26 - DEC 6 (WEDS, 9am-12pm)**  
**WEEKLY WRITING SESSIONS**  
Weekly "show up & write." sessions and accountability check-ins. Held on MS-Teams.  
Feel free to send additional topic ideas to Julie or Kristina.

**DEC 11-13, 9am-12pm (optional afternoon 1-4pm)**  
**WRITING RETREAT**  
Build momentum on your projects at the close of the semester with a 3-day retreat. You can make significant progress on your project and with colleagues at NREL Writing Retreats.  
Additional offerings may be added during the semester to serve NREL writers' interests and needs.

 Colorado State University  NREL WRITES



BEST PRACTICES IN Teaching		
<b>Jan. 8 - Jan. 28</b> First Four Weeks Student Motivation	<b>Jan. 29 - Feb. 18</b> Classroom Climate Learning Outcomes & Course Alignment	<b>Feb. 19 - Mar. 10</b> Accessible & Inclusive Electronic Content Planning an Effective Class Session

 TEACHING EFFECTIVENESS FRAMEWORK  THE INSTITUTE FOR LEARNING AND TEACHING

## Best Practices in Teaching - Graduate Students

Some of the most popular programs we offer, our [Best Practices in Teaching \(BPiT\) courses](#), are coming soon!

These three-week courses are designed to enrich your teaching skills while operating asynchronously in Canvas, with most of the work happening on your own schedule. During these courses, you'll have the opportunity to explore, apply, and discuss

research-based teaching approaches based on the [Teaching Effectiveness Framework](#). Plan to dedicate 4-5 hours per week to assignments, discussions, readings, and meaningful interactions with fellow educators across campus. To see what other workshops are offered this semester, [click here](#).



 GRADUATE DEGREE PROGRAM IN ECOLOGY  
COLORADO STATE UNIVERSITY

## Recent Publications and Highlights

### [Agrivoltaic arrays can maintain semi-arid grassland productivity and extend the seasonality of forage quality](#)

*Applied Energy - February 2024 Issue*

In their recent publication, GDPE members **Matt Sturchio**, **Steve Kannenberg**, and **Alan Knapp** assessed patterns of productivity and forage quality of a grassland beneath an agrivoltaic system and found that simulated grazing resulted in a compensatory effect, with productivity sometimes exceeding that of the control site and forage protein content increasing later in the growing season.



Agrivoltaic System  
Photo provided by Matt Sturchio

### [Study: Light pollution is luring birds to cities – and sometimes to their deaths](#)

*CSU Source - December 2023*

"In the largest study of its kind, **published in Nature Communications**, scientists used weather radar data to map





bird stopover density in the United States and found that artificial light is a top indicator of where birds will land. City lights lure birds into what can be an ecological trap, said lead author Kyle Horton, an assistant professor in Colorado State University's Department of Fish, Wildlife and Conservation Biology." Read more of this press release [here](#).

Rose-breasted grosbeaks like this one were among the nearly 1,000 birds that died in a single night in October after colliding with the McCormick Place Convention Center building in Chicago.

*Photo by Kyle Horton*

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### [Bringing NEON Data into the Classroom: Lessons from ESA](#)

*NEON Observatory Blog - December 2023*

The availability of large, open data sets is changing the way ecology can be taught. Open data from the NEON program and other large ecology networks are a potential goldmine for undergraduate and graduate educators.

Presenters at this summer's Ecological Society of America conference, **Josie Otto**, **Elizabeth Diaz-Clark**, and **Joe von Fischer** evaluated ways that NEON data are leveraged in lesson plans and shared practical advice to help educators get the most out of NEON's data products and abundant learning resources.

Use of NEON data in the classroom has been spearheaded by GDPE faculty member and ECOL610 Professor, **Joe von Fischer**, and co-developed by GDPE members **Josie Otto**, **Katie Rocci**, and **Steve Kannenberg**. Click [here](#) to read more.



Students in ECOL 610: Ecosystem Ecology

*Photo provided by Joe von Fischer*

Share your Recent Publication or Research Highlight

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**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!

**GDPE Slack Channel** - Join our GPDE Slack channel [here](#).

**GDPE Student Teams Channel** - Join our Teams Channel [here](#).

Submit Photos

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

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## SPRING 2024 COURSES

Below are lists of courses available for next semester, along with the times they're being offered, and how they fit into [the curriculum](#). To find out who is teaching them, you can refer to the CSU [Class Schedule](#). Detailed descriptions of ECOL 592s are [on the website](#)!

## SPRING 2024 COURSE OPTIONS

### REQUIRED - ALL

ECOL 571: DISTINGUISHED ECOLOGIST LECTURE SERIES  
LECTURE: M/W 4:00 - 5:30 PM  
LUNCH AND WORKSHOP: R 11:00 - 1:30 PM  
ECOL 693: RESEARCH SEMINAR FOR PROFESSIONAL COMMUNICATION  
ORAL SECTION: T 10:00 - 10:50 AM  
WRITTEN SECTION: W 9:00 - 9:50 AM

### FUNDAMENTALS - PHD AND MS (6 CREDITS)

ECOL 600: COMMUNITY ECOLOGY  
LECTURE: M/W 1:00 - 1:50 PM  
RECITATION: T 2:00 - 2:50 PM OR R 2:00 - 2:50 PM

### REQUIRED - PHD (2 COURSES), MS (1 COURSE)

ECOL 592: BIG DATA IN ECOLOGY: PROGRESSES AND PITFALLS  
LECTURE: T 1:00 - 1:50 PM  
ECOL 592: PEER REVIEWING FOR EARLY CAREER RESEARCHERS  
LECTURE: T 2:00 - 3:50 PM  
ECOL 592: UNDERSTANDING 'ECOLOGICAL RESILIENCE' IN A RAPIDLY CHANGING WORLD  
LECTURE: W 11:00 - 11:50 AM  
ECOL 592: ECOLOGICAL ADAPTATIONS: CONNECTING GENOME TO PHENOME  
LECTURE: R 3:00 - 3:50 PM  
ECOL 592: GENETIC RESCUE: A CONSERVATION TOOL TO PREVENT SPECIES EXTINCTION  
LECTURE: F 1:30 - 2:30 PM

### ELECTIVES - PHD (55 CREDITS), MS (15 CREDITS)

AREC 540: ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS  
LECTURE: T/R 12:30 - 1:45 PM  
BZ 520: ADVANCED SYSTEMATICS  
LECTURE: M/W/F 8:00 - 8:50 AM  
BZ 530: ECOLOGICAL PLANT MORPHOLOGY  
LECTURE: T/R 3:00 - 3:50 PM  
FW 544: ECOTOXICOLOGY  
LECTURE: T/R 10:00 - 10:50 AM  
RECITATION: R 11:00 - 11:50 AM  
FW 558: CONSERVATION BIOLOGY  
LECTURE: T/R 12:30 - 1:20 PM  
RECITATION: T/R 1:21 - 1:45 PM  
FW 605: ADVANCED PHYSIOLOGICAL ECOLOGY OF FISHES  
LECTURE: M/W 12:00 - 12:50 PM  
LAB: T 2:00 - 4:50 PM  
GES 520: ISSUES IN GLOBAL ENVIRONMENTAL SUSTAINABILITY  
LECTURE: M/W/F 9:00 - 9:50 AM  
HORT 571: SOIL PLANT WATER RELATIONS  
LECTURE: T/R 9:30 - 10:45 AM  
NR 678: ADVANCED ECOLOGICAL RESTORATION  
LECTURE: M/W/F 12:00 - 12:50 PM  
SOCR 540: SOIL PLANT NUTRIENT RELATIONSHIPS  
LECTURE: M/W/F 3:00 - 3:50 PM  
SOCR 567: ENVIRONMENTAL SOIL CHEMISTRY  
LECTURE: M/W/F 9:00 - 9:50 AM  
ECOL 698: RESEARCH  
ECOL 699: THESIS  
ECOL 799: DISSERTATION

### TOOLS - PHD AND MS (3 CREDITS)

AREC 735: ECONOMETRIC THEORY II  
LECTURE: T/R 9:30 - 10:45 AM  
FW 663: SAMPLING AND ANALYSIS OF VERTEBRATE POPULATIONS  
LECTURE: M 8:00 - 12:00 PM  
RECITATION: F 8:00 - 12:00 PM  
LAB: W 8:00 - 12:00 PM  
SOCR 670: TERRESTRIAL ECOSYSTEMS ISOTOPE ECOLOGY  
LECTURE: M/W 11:00 - 11:50 PM  
LAB: TBD  
STAR 511: DESIGN AND DATA ANALYSIS FOR RESEARCHERS I  
LECTURE: W 2:00 - 2:50 PM; F 9:00 - 9:50 PM  
RECITATION: ONLINE  
STAR 512: DESIGN AND DATA ANALYSIS FOR RESEARCHERS II  
LECTURE: T 1:00 - 2:50 PM; R 1:00 - 1:50 PM  
RECITATION: R 2:00 - 2:50 PM  
STAT 530: MATHEMATICAL STATISTICS  
LECTURE: T/R 2:00 - 3:15 PM

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## JOBS, FELLOWSHIPS, INTERNSHIPS

### Assistant Professor of Environmental Science at Fresno State

**Deadline December 31, 2023**

Fresno State invites applications for a **full-time, tenure-track position** in the Department of Earth and Environmental Sciences beginning in Fall 2024 at the Assistant Professor rank. A Ph.D. in Environmental Science with a specialization in Watershed Science, Wetland Science, Forest Ecosystems, Ecohydrology, Applied Ecology, or a closely related field, is required. Click [here](#) to learn more.

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### Assistant Professor of Biology at Northern Michigan University

**Deadline January 7, 2024**

The Department of Biology at Northern Michigan University is seeking applications for an Assistant Professor position to begin August 2024. This is a full time, 9-month, **tenure-track faculty position** that requires a Ph.D. in any biological field. Click [here](#) to learn more.

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### Ewel Postdoctoral Fellowship in Ecology & Environmental Science

**Deadline January 7, 2024**

The John J. and Katherine C. Ewel Postdoctoral Fellowship Program in Ecology and Environmental Science in the Tropics and Subtropics will enable a recent doctoral recipient to study tropical or subtropical ecology and environmental sciences at the University of Florida (UF). The Fellow will conduct research for an award period of two years with a UF faculty member in any department, in any subdiscipline of ecology or environmental science.

UF Ph.D. graduates and UF postdocs are not eligible to apply. Citizens of any country may apply. Click [here](#) to learn more.

Submit a Job Announcement



GRADUATE DEGREE  
PROGRAM IN ECOLOGY  
COLORADO STATE UNIVERSITY



CSU Graduate Degree Program in Ecology | Colorado State University, Johnson Hall rm 102,  
Fort Collins, CO 80523-1021

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