December 12, 2022

It's finals week, y'all!! Good luck to everyone wrapping up their semester :).

We all need a breather, but it's good to have a game plan for not letting too many things go stale on that back burner while we take that much-needed break. You may find it helpful to make a list or set calendar events for some of those things that creep up quickly at the start of the spring semester! For example:

- Annual Student Progress Reports are due February 1st. You can access the template and submit your forms [here](#).
- GDPE Research & Travel Grants - these would be great things to start thinking about over break. You can find [instructions here](#) for the February deadlines.
- GDPE is planning our recruitment events that coincide with [FRSES 2023](#) (Feb.23-24). If you are a faculty member interested in bringing a student(s) in for these events, you may [apply for funding](#) from GDPE to help defray the cost.

Have a great week!
Jennifer

GDPE EVENTS & ANNOUNCEMENTS
Save the date for 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. We are currently accepting abstracts! 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.

Symposium registration and abstract submission are now LIVE on the Front Range Student Ecology Symposium website! FRSES is a great place to find community and share your research with a local audience. We look forward to seeing you all there!

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GDPE Event Calendar

ECOLOGY & CSU EVENTS

GSC and ASCSU Grants
Graduate Student Council (GSC), The Graduate School, and the Associated Students of Colorado State University (ASCSU) are excited to sponsor Professional Development & Supply grants open to all graduate and professional students for use prior to June 30, 2023. More information here.

Important GTA Information
First-Time Graduate Teaching Assistant Training Registration is Open!
The Spring 2023 required online training for newly appointed Graduate Teaching Assistants (GTA registration is now open. The training will be offered January 9-15th.
This Training Program includes online content that addresses universal teaching issues and introduce students to best practices in pedagogy. Content is focused on explaining modeling best practice strategies. Because not all best practice strategies are readily applied in all classroom settings, the training emphasizes informing GTAs about the strategies while emphasizing the need to choose and adapt strategies according to disciplinary needs and departmental expectations.
GTAs who will be teaching for the first time in Spring 2023 and those who missed the training in the Fall are required to complete this training. If you are serving as a GTA for the first time please complete this mandatory training. Register on the TILT website. (https://tilt.colostate.edu/grad-students/gta-training/) Please complete registrations by January 2nd. If you have any questions, please contact Debora Colbert at 970-491-2645 or Debora.colbert@colostate.edu.

**Colorado PARC 2023 Annual Meeting**
MARK YOUR CALENDARS & GRAB YOUR TICKETS!
Come on out to our 2023 Annual Meeting! We are excited to have this event again but capacity is very limited, so get your tickets soon! This year the meeting will be hosted on February 4th, at the Colorado Parks & Wildlife Headquarters in Denver. Follow us on Facebook for updates!
**Colorado Partners in Amphibian and Reptile Conservation**

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**COURSES**

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**Spring 2023**

**ECOL 592 Interdisciplinary Seminars**

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

- **ECOL592 001** Vertebrate Climate Change Responses *(Dr. Cory Williams)*
  CRN: 18824  **Credits:** 1  Please register for 1 credit only.

- **ECOL592 003** Continuation of Fall 2022 ECOL 610 Project *(Dr. Joe von Fischer)*
  CRN: 15033  **Credits:** 1  Please register for 1 credit only.

- **ECOL592 004** Transdisciplinary Approaches in Sustainability: principles & practice *(Dr. Joe von Fischer)*
  CRN: 10127  **Credits:** 1  Please register for 1 credit only.

- **ECOL592 006** Sustainable Food Systems *(Dr. Meagan Schipanksi)*
  CRN: 10129  **Credits:** 1  Please register for 1 credit only.

- **ECOL592 002** Assessing the Genetic Status of US Endangered Species Act-listed Species *(Drs. Chris Funk, Brenna Forester, Sean Hoban)*
  CRN: 10126  **Credits:** 1  Please register for 1 credit only.
ECOL 592 005/FWCB 696  Ecological Science Writing (Drs. Dan Preston and Kevin Bestgen)  
CRN: 10128  Credits: 2  Note: this course is a 2 credit course

Pollinators and Citizen Science (Drs. Gillian Bowser and Phil Halliwell) CRN: 12969  
Credits: 1  Please register for 1 credit only.
Keep checking back here and on our website for new ECOL 592s

AGRI 638 - Ecosystem Service on Agricultural Lands
3-credit online course that 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 find ways to increase returns through marketing resources on their agricultural properties. Examples include hunting, agro-tourism and selling carbon credits. We will dig deep to explore innovative potential. All students will create an ecosystem marketing plan on an actual farm, ranch or other appropriate properties. Taught by Dana Hoag

ECOL and AB 581A2 - Insect Ecology
Insects play crucial roles in most ecosystems, and their biology is just fascinating - come learn all about them in this new experimental course taught by GDPE Director Ruth Hufbauer.
3 credits, 10-10:50 MWF.
ECOL Lecture CRN: 21553; AB Lecture CRN: 21102

BZ 568 (CRN 20597) & FW 568 (CRN 20598) - Sustaining River Ecosystems in a Changing
**Free-living Allen's hummingbirds** *(Selasphorus sasin)* rarely use torpor while nesting

*Journal of Thermal Biology*

December 2022

**Mel Morado** and team used thermal imaging to noninvasively explore how nesting female hummingbirds sustain their own energy balance while effectively incubating their offspring. They also modeled nightly energetic requirements of a bird experiencing nest temperatures vs. ambient temperature and using torpor or remaining normothermic, using data from similarly-sized broad-billed hummingbirds. Their findings suggest that the warm environment of the nest, and possibly shallow torpor, help...
Evolution of reproductive life-history and dispersal traits during the range expansion of a biological control agent

Evolutionary Applications
November 2022

GDPE student Eliza Clark with Dr. Ruth Hufbauer found that during range expansion, many important traits can evolve, like reproductive output and dispersal ability. They investigated theoretical predictions for the evolution of these traits in the natural range expansion of a biological control agent, the tamarisk beetle, in the Western United States. They found that evolution is very rapid, but depends on the context individuals experience.

Overpopulation is a major cause of biodiversity loss and smaller human populations are necessary to preserve what is left

Biological Conservation
June 2022

Philip Cafaro finds excessive human numbers destroy and degrade habitats for other species, while human population decrease opens possibilities for ecological restoration. Whether the goal is to save threatened species, create more protected areas, restore degraded landscapes, limit climate disruption, or any of the other objectives key to preserving biodiversity, reducing the size of the human population is necessary to achieve it.

Divergent impacts of crop diversity on caloric and economic yield stability

Environmental Research Letters
November 2022

Using a national data across a 40 year time period, GDPE student Sam Leuthold and team analyzed the relationship between caloric and economic yield stability and crop diversity at the state level. They found that increasing crop diversity helped to stabilize the economic yields of farmers, but decreased overall caloric yield stability.
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, Elizabeth Diaz-Clark, will add you to our new Recent Publications section above. We can also feature your work on our website!

[Share you Recent Publication]

All paperwork: Please email forms to Dawn at 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, 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
Assistant Professor of Quantitative Population Ecology  
S. J. & Jessie E. Quinney College of Natural Resources  
Utah State University

Review of applications begins December 5  
The Utah State University Department of Wildland Resources and the Ecology Center are seeking applications for a full-time, 9-month tenure-track faculty position in quantitative population ecology. The position, to be filled at the Assistant Professor level, will be 50% research, 40% teaching, and 10% service. More information here.

Early Career Scientists Synthesis Working Groups  
Application closing date December 16  
A call for Early Career Researcher Synthesis Working Groups (ECR) and Modular Synthesis Projects (SynFlex)  
With this call, we specifically encourage proposals that engage genuinely with topics and researchers from under-represented regions. More details here.

Spectral Ecology Summer School (SPEC School)  
Application closing date December 23  
SPEC School will introduce participants to concepts in ecological remote sensing and inclusive leadership. Participants will get hands on experience with field spectroscopy, imaging spectroscopy, lidar, and other data products from the National Ecological Observatory Network. In addition, major foci of the course are justice, equity, diversity, and inclusion in scientific research and on developing leadership skills for academia and beyond. The in-person component of the course (June 18-24, 2023) will emphasize active learning with field data collection, group leadership activities, and research projects, while lectures will be held online in the months leading up to the field week. More information here.

Climate Impacts Postdoctoral Fellowship on Southeastern Rare Plants  
Application closing date December 30  
The Southeast Climate Adaptation Science Center is hiring a post-doctoral associate to develop climate-change impacts information for rare plants of the southeastern U.S. More information here.

Rocky Mountain Conservancy & Rocky Mountain National Park Continental Divide Research Learning Center  
2023 Call for Bailey Fellowship Research Proposals  
Application closing date February 1  
The RMNP Bailey Research Fellowship is an endowed program of the Rocky Mountain Conservancy that is funded by the Leslie Fidel Bailey Charitable Trust. It is designed to encourage highly qualified graduate students to apply their talents to conducting research in the national parks. It is also intended to convey the importance of communicating park research to the public. More information here.