Letter From the Chair

Dr. Rachel Jabaily

It is an exciting new season here in OBE! We have many new faces in our department (some profiled in this newsletter), new research, and new courses as well to celebrate. I am enjoying serving as the new chair of the department. We have had a busy and very successful year as a department, and we are heading towards graduating one of our largest senior classes next month. We look forward to celebrating with them and their people at our Honors Convocation, our reception for graduates after Baccalaureate, and at Commencement. Drs. Linkhart and Khorsand just completed a wonderful block in Argentina with BE390: Ecology & Biogeography of Patagonia students, our first abroad course since Covid. Many of our students have engaged in life-changing research with faculty mentors, both within OBE (with thanks to our generous department donors) and through various summer and abroad opportunities. Check out the features in our newsletter on some of our labs and projects. We had an excellent OBE day showcasing their work at the end of block 6, and we welcomed back Dr. Alyssa-Lois Gehman ‘05 as our plenary speaker, who gave an excellent talk “Finding *Vibrio pectenicida*, a causative agent of sea star wasting disease”. Despite the uncertainty in federal funding, many of our students and alumni are getting the great news of their admittance to graduate and professional programs to further their studies. We are celebrating the recent awarding of National Science Foundation Graduate Research Fellowships to two alumni, Heather Rolph ‘21 and Zach Ginn ‘23 - congratulations!

In the year ahead, we look forward to new elective course offerings detailed in this newsletter and shared in our course grid, and meaningful progress towards our new science building. The College is actively in the fundraising phase of an ambitious plan to replace and expand Olin Hall, bringing more of the science departments together under one roof, strengthening opportunities for collaborative teaching and research, and yielding a much-needed update to our facilities. This is an exciting moment of momentum, and we look forward to sharing more updates as the project continues to take shape. If you have questions or are interested in being part of this effort, please contact Vice President for Advancement, Molly Bodnar.

We love hearing updates from our alumni! Please send yours to rjabaily@coloradocollege.edu and we might include them in the next newsletter. Go Tigers!

Rachel S. Jabaily

Welcoming New Staff

Animal Suite Coordinator and Equipment Manager: Aubrey Pautler

Since joining the department as the Animal Suite & Lab Coordinator in August, I've had a great time getting settled into the role—meeting students, building connections across campus, and becoming part of such a dynamic community. Over the past year, I've been especially excited to partner with Admissions to host open house tours of the Animal Suite, giving prospective students a behind-the-scenes look at the spaces and resources that support hands-on learning in our program. I've also had the opportunity to hire and work closely with a team of student employees in the Animal Suite, which has been one of the most rewarding parts of the position—supporting their development while keeping our operations running smoothly. Outside of these projects, I've really enjoyed getting involved in campus life and connecting with students in new ways. One of my favorite activities so far has been participating in Clay Club, which has been a fun and creative outlet and a great way to engage with the community beyond the lab. I'm looking forward to continuing to grow in this role and expanding opportunities for student involvement in the Animal Suite!

Administrative Assistant: Brandi Wren

As I wrap up my first semester, I'm still settling into my role as Academic Administrative Assistant and learning all the behind-the-scenes work that goes on to keep a department operating. I've learned about everything from building course schedules to finance spreadsheets and forms to student/staff employment. I'm grateful to the staff, faculty, and students for making me feel welcome and supported right from the start! I'm just now returning to some of my previous ongoing projects outside the office, including volunteering for a local farm animal rescue, a sprinkling of writing projects, and renewing my IUCN membership.

Upcoming Course Spotlights

BE440: Conservation Ecology — Dr. Kate McGinn

Offered Block 1 2026

This upper-level course builds on foundational concepts from introductory ecology and biology to examine the science and application of biodiversity conservation in a rapidly changing world. Students will explore both current and emerging threats to species, communities, and ecosystems, with particular emphasis on fire ecology and shifting fire regimes in western North America. Course concepts are reinforced through extensive field-based research in local burn scars, where students engage in hands-on investigations of post-fire and fuels managed landscapes. Through these experiences, students will assess ecological responses to wildfire and evaluate restoration strategies. The course includes up to ten off-campus field trips, providing opportunities to work directly in regional ecosystems, collaborate with practicing conservation biologists, and gain practical field experience. Students will also develop proficiency in quantitative approaches commonly used in conservation science, including species distribution modeling, population viability analysis, and landscape metrics. By the end of the course, students will have a strong grounding in conservation theory along with applied skills in ecological monitoring and data analysis, preparing them for careers in research, land management, and environmental policy.

BE440: Evolution of Multicellularity — Dr. Jesús Peña

Offered Block 6 2027

What does it mean to be an individual? A mushroom, a tree, a lichen, a sponge: each complicates that question in ways that push biology beyond tidy definitions. In this writing-intensive course, we dive into multicellularity as one of evolution's most fascinating and repeatedly invented innovations. We'll also challenge the usual animal-centric story of complexity by exploring diverse lineages and global perspectives in biology, asking who gets to produce scientific knowledge and how that shapes what we think we know. We'll work directly with primary scientific literature. You'll read, dissect, and debate studies spanning microbes to macro-organisms, tracing how multicellularity emerges, evolves, and sometimes blurs back into collective life. Along the way, we'll compare strategies across the tree of life, from cooperative bacteria to complex eukaryotes, and situate multicellularity within the broader framework of major evolutionary transitions. This course is built around participating in science as much as learning it. Through guided discussions, collaborative analysis, and scaffolded writing, you'll develop skills in interpreting data, evaluating competing hypotheses, and engaging in scientific argumentation. The centerpiece of the course is an original scholarly review style article on a multicellular lineage of your choice. Think of it as your entry into the scientific conversation. You'll draft, workshop, revise, and refine your work with peer feedback, with the option to produce a piece that could be shared beyond the classroom. If you're curious about how life scales from single cells to intricate collectives and ready to read, write, and think like an organismal biologist this course is for you.

Highlighting Past Student Research - Linkhart Lab

Mary Reinbold, ‘25

Researching owls has surprising overlaps with medicine. I am currently a pre-medical student and ophthalmic technician, but being on “Flam Crew” was one of the highlights of my undergraduate years. Whether observing feeding patterns or catching the causes of nest predation in real time, I was able to actually witness my questions being answered right in front of me. During nocturnal field nights, I’d sit absolutely still for hours, binoculars in hand, recording every movement and hoot, much like charting notes about a patient. The experience also honed my attention to detail. I learned to distinguish minute variations in my surroundings, like spotting a camouflaged flammulated owl tucked into its cavity or discerning the direction of distant forest sounds. Some connections to medicine were more direct, like collecting blood samples. Just as importantly, both medicine and field research rely on teamwork, and Flam Crew is not possible (nor would it be nearly as much fun) without it. From developing new field skills to gaining confidence in bringing an ecologist’s perspective into medicine, to the simple joys of living in a beautiful place with wonderful people, this research was a dream come true. I’m so grateful to Dr. Linkhart and the OBE department.

Kate McGinn, ‘18

I joined Brian Linhart’s Flammulated Owl Research Project (affectionately called Flam Crew) in 2016. Through his unwavering patience, Brian taught me how to collect biological data in the field, collaborate effectively, and lead with compassion. That experience inspired me to study spotted owls during my PhD in Wildlife Ecology at the University of Wisconsin–Madison, and later to research nocturnal birds across western North America as a scientist with the U.S. Forest Service. Now, as an Assistant Visiting Professor at Colorado College, I strive to pass on the same joy for ecology and discovery that Brian instilled in me as a student. This summer marks my tenth year studying owls, as I return—this time leading Flam Crew 2.0—to the very forests where I first learned how to do ecological research.

Zoë Moffett, ‘17

While I was an OBE student, I made it my mission to try and take every single course that was offered. After taking Animal Ecology and Ornithology with Dr. Linkhart, I was thrilled by the opportunity to work on his Flammulated Owl crew in the summer of 2017. On his crew, I was trained in valuable skills such as how to be an effective team member, how to take forest plots and measurements, how to capture, handle, and process flammulated owls, and I learned everything that I could about the forest ecology of the Pikes Peak region. After getting my BA from Colorado College, I went on to receive my MS degree from Utah State University where I studied Greater Sage-grouse nest depredation by the Common Raven. Today, I am wildlife habitat biologist and forester with Bird Conservancy of the Rockies, a conservation-focused nonprofit. My job is to teach private landowners about the ecology of their forests, develop forest management plans that aim to improve their forests for wildfire conditions and wildlife habitat, and to oversee these forest restoration projects. My time on Dr. Linkhart’s crew perfectly prepared me to speak confidently to these landowners about ecological concepts such as the historic fire regimes of these Colorado forests and about the importance of dead and dying trees for our primary and secondary cavity nesters.

Highlighting Current Student Research - Peña Lab

Theo Ollier, ‘26

My research experience in the Peña lab made me a more independent scientist and helped me understand the full process of carrying out a research project. I had the privilege of doing one summer and multiple blocks of research with Dr. Peña, in which I worked on a project studying the endophytic fungi of Colorado native flora and their potential to aid in drought stress when transplanted in corn seeds. I was allowed to pursue research I was interested in, as long as it related to fungi and could be carried out before I graduated. Most undergraduate research does not allow for this much creative freedom, and I am grateful that I had the opportunity to pursue what I was interested in. Having so much creative freedom with the research made me more motivated during each step of the project. I was also taught in a way that promoted being independent as a scientist. Dr. Peña had me try almost everything on my own, run into issues, problem-solve, and get help when I really needed it. Above all else, I was encouraged to focus on the process of failing, redoing, and learning from it. This was essential for my growth as a prospective professional in the natural sciences. I had an enjoyable time doing research over the summer and throughout the school year, and doing a senior thesis actually made me realize that I needed a break from academia. The block plan did not fit my life very well, and I did not realize how much I needed a break until I took some blocks to do research, and this schedule felt much better. I learned that it is alright to take breaks if you can, especially if you are burned out. This research project helped me understand that I need a break from science for now to think more critically about what I want the next few years of my life to look like, and prompted me to try something new after graduation.

Meet the Pets!

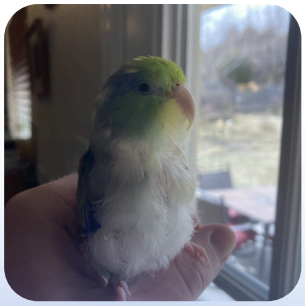
Marv (Left) and Feldspar (Right)
Dr. Jesús Peña

Kygo (Left) and Kona (Right)
Ali Keller

Tony (Left) and Clark (Right)
Dr. Kate McGinn

Denali
Dr. Brian Linkhart

Otis
Dr. Rachel Jabaily



Mr. Felix
Dr. Shane Heschel

Marlin
Aubrey Pautler

Pickett
Dr. Amanda Hewes

Bobby (Top) and
KittenCat (Bottom)
Dr. Brandi Wren

Past Paraprof's Corner

Josh Felton, '22

During my time at Colorado College, I was constantly figuring out what kind of biologist I wanted to be. I arrived thinking I would leave college as an environmental scientist, but after taking BE105, I found myself drawn into plant biology. From there, my interests shifted from originally being drawn to plant–pollinator interactions towards evolution after recieving advising and metornship from Dr. Jabaily as I worked in the greenhouse on my honors thesis. COVID-19 really threw a wrench in my schemes during my college career as I tried to get into Field Botany during my sophomore year but never made it off the waitlist before everyone was sent home before spring break. Currently I am a PhD candidate at Cornell University studying plant reproductive biology and population genomics of multple genera in Bromeliaceae, supported by the NSF Graduate Research Fellowship. That opportunity, along with many others, would not have been possible without my mentors at CC, including Rachel Jabaily and Shane Heschel, who helped me grow as a scientist and communicator.

As a paraprofessional, I learned the importance of a solid work-life balance. During that year, I found joy and passion in playing guitar. That year after graduation was crucial to understand how to sustain both my curiosity and my well-being, something I have be very intentional with during my graduate studies.

Olivia Noonan '20

Hi all! I graduated from CC in 2020 and served as the OBE paraprof until 2022 (during the time the last newsletter went out!). Throughout my time at CC, I was fortunate to work on Brian's flammulated owl research project for 5+ years. This research experience shaped my decision to pursue avian field biology and was paramount in building the skills I now use to conduct extensive independent field research and lead small crews of undergraduates. After CC, I headed to Oregon State University, where I'm currently pursuing a PhD in Integrative Biology. Much of my work focuses on a long-term population study of mountain white-crowned sparrows in the eastern Sierra Nevada, where I'm investigating the physiological impacts of feather loss and how birds flexibly modify their annual schedules on capricious high-alpine breeding grounds. As part of a teaching certificate program, I've also been designing an immersive summer field course focused on the ecology of the Sierra Nevada – directly inspired by the fantastic OBE field courses on the block plan :)

I'm incredibly grateful for the applied coursework, research opportunities, and supportive faculty, staff, peers, and alumni within the OBE community. I always enjoy hearing from current CC students/alumni, so feel free to reach out with questions about applying to grad school, research, teaching, or related paths!

Pike Li '23

Pike graduated from Colorado College in 2023 and was the paraprof for OBE for 2023-2024. CC's immersive research blocks and friendly student-faculty relationship have inspired him to develop a passion for ecological research. Currently, he is a PhD student at UT Austin Ecology, Evolution, and Behavior program studying coral genomics and symbiosis under Dr. Mikhail Matz. He hopes to uncover the molecular mechanism behind coral bleaching and help coral reefs sustain the climate change.

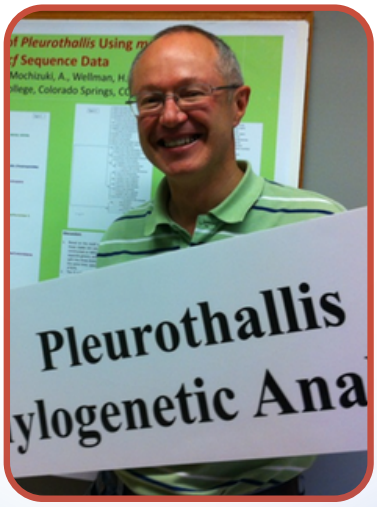
Recent Departmental Retirements

Donna Sison

Administrative Assistant

Steve Langlois

Animal Suite & Equipment Manager



Mark Wilson

Professor

Mark Snyder

Professor

OBE Class of 2025

[1] = Winner of Hamilton Award; [2] = Winner of Enderson Award;
[3] = Winner of Beidleman Award; [4] = Winner of Laboratory Award

Corinne Kallio, Riley Kadis, Cori DeLano, Emily Hitt, Gracie Huebner
Luke Stanley, Max Renwick, Jace Fuller[2], Brian Marks, Rachel Kingsley
Marcilla Kollie[4], Liam Keilty, Andy Taplin, Holden Maxfield, Liam Dietrich
Abby Rivas[3], Isabel Olson, Mara Mueting, Charlotte Agliata, Tori Barrow[1]
Kelsey Pivnick, Raegan Cushman, Saige Ferguson, Talyn Snow
Mary Reinbold[2], Cameron Robie, Megan Krussman[3], Luca Keon
Emily Marple, Kaelin Enga[1], Elie Deshommes[4], Dori O'Sullivan

Recent Faculty Publications

Campbell, Alexandra M., Anna C. Kula, **Rachel S. Jabaily**, et al. "Predicting Potential Recovery of the Endangered Bromeliad *Tillandsia utriculata*: An Agent-Based Modeling Approach." PLOS Computational Biology 21, no. 6 (2025): e1013157. https://doi.org/10.1371/journal.pcbi.1013157.

Dossett, Olivia, Keirsten Brown, Kathryn Dalton, Murphy Brasuel, and **M. Shane Heschel**. "*Tamarix ramosissima* Shade Intolerance – Functional Traits & Fitness in CO." ScienceOpen Posters, ahead of print, June 3, 2025. https://doi.org/10.14293/P2199-8442.1.SOP-.PJHNXM.v1.

Hade, Katherine, and **M. Shane Heschel**. "Cottonwood and Willow Tree Health in a Disturbed Urban Riparian Ecosystem." ScienceOpen Posters, ahead of print, January 17, 2025. https://doi.org/10.14293/P2199-8442.1.SOP-.PMVW5R.v1.

Jabaily, Rachel, and M. G. B. Hurst. The Biology of Plants Coloring Textbook. 2025. https://doi.org/10.52295/dcc.8580.

Khorsand, Roxaneh S., Zachary R. Ginn, and Flavia Sancier-Barbosa. "Spatio-Temporal Patterns in Floral Resources and Plant-Pollinator Network Structure in the Alaskan Arctic." Frontiers in Plant Science 16 (September 2025). https://doi.org/10.3389/fpls.2025.1552422.

Ocupa-Horna, Luis, Luis Valenzuela, Raven Ward, and **Mark Wilson**. "A New, Spectacular, Long-Caudate Species of *Pleurothallis* (Orchidaceae) from Central Peru Related to *P. sijmii*." Phytotaxa 720, no. 3 (2025): 193–208. https://doi.org/10.11646/phytotaxa.720.3.1.

Revatta-Bustos, Fiorela, José D. Edquén, Jessy P. Arista, et al. "A New Species of *Pleurothallis* in the *P. cardiostola-P. lilijae* Complex of Section Macrophyllae-Fasciculatae (Orchidaceae, Pleurothallidinae) from Ecuador and Peru." PhytoKeys 262 (September 2025): 279–92. https://doi.org/10.3897/phytokeys.262.157111.

Sierra-Ariza, Mario Alexei, **Mark Wilson**, David P. Edwards, German Beltrán Perilla, and Edicson Parra-Sánchez. "Pleurothallis moniquirensis (Orchidaceae, Pleurothallidinae): A New Species from the Eastern Andes of Colombia Threatened by Habitat Loss, Illegal Collection, and Mining." Phytotaxa 718, no. 2 (2025): 109–22. https://doi.org/10.11646/phytotaxa.718.2.3.

Stanley, Luke, and **Jesús F. Peña**. "Sexual Crosses with the Mucoromycete *Phycomyces blakesleeanus*." Journal of Visualized Experiments (JoVE), no. 220 (June 2025): e67790. https://doi.org/10.3791/67790.

Michaela L. Gustafson, **Kate McGinn**, Jeffrey A. Heys, Sarah C. Sawyer, Connor M. Wood, Rapid implementation and adaptive design of a large-scale monitoring program for a declining species, Biological Conservation, Volume 311, 2025, 111442, ISSN 0006-3207, https://doi.org/10.1016/j.biocon.2025.111442.

McGinn, Kate, Benjamin Zuckerberg, Gavin M. Jones, Connor M. Wood, Stefan Kahl, Kevin G. Kelly, Sheila A. Whitmore, et al. 2025. " Frequent, Heterogenous Fire Supports a Forest Owl Assemblage." Ecological Applications 35(1): e3080. https://doi.org/10.1002/eap.3080

Course Grid 2026-27

OBE Course Schedule 2026-2027											
	Block 1	**Block 2**	**Block 3**	**Block 4**	**Half-Block**	**Block 5**	**Block 6**	**Block 7**	**Block 8**	**Summer (A)**	**Summer (B)**
	8/24 - 9/16	9/21 - 10/14	10/19 - 11/11	11/16 - 12/16	1/4 - 1/14	1/18 - 2/10	2/15 - 3/10	3/22 - 4/14	4/19 - 5/12		
Gamboa	CC100: Natural History of Colorado Vertebrates	BE332: Animal Behavior		BE309/409							
Heschel		BE309/409	BE280: Population Genetics	BE105: Biology of Plants							EV209
Jabaily		BE105: Biology of Plants				BE309/409	BE380: Evolution				
Khorsand	BE208: Ecology	BE208: Ecology		BE220: Biostatistics and Experimental Design			BE309/409	BE440: Special Topics: Methods & Techniques in Pollination Ecology			
Linkhart	BE367: Animal Ecology				BE389: (Patagonia)	BE390: Ecology and Biogeography of Patagonia			BE410: Ornithology		
Peña	BE411: Mycology	BE309/409	BE107: Biology of Microbes			BE107: Biology of Microbes	BE440: Special Topics in Organismal Biology and Ecology: Evolution of Multicellularity		BE107: Biology of Microbes		
McGinn	BE440: Special Topics in Organismal Biology and Ecology: Conservation Ecology		BE106: Biology of Animals	BE106: Biology of Animals		BE106: Biology of Animals	BE309/409	BE208: Ecology			
Block Visitor - Josh									BE202: Field Botany		
Block Visitor - 2									BE208: Ecology		