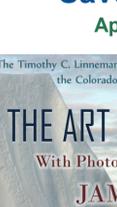


Top stories in this newsletter



Linnemann Lecture: April 20
James Balog



TREE Semester: New program at Catamount



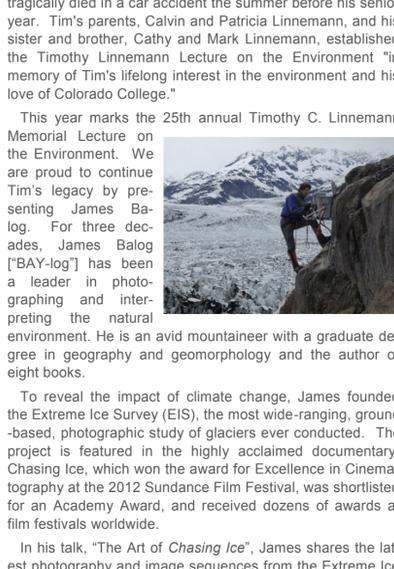
New Faculty: Dr. Lynne Gratz & Dr. Jean Lee



Alumni Survey: RESULTS!!!

Save the Date!

April 20 at 6pm



The Timothy C. Linnemann Memorial Lecture on the Environment and the Colorado College Environmental Program
present
THE ART OF CHASING ICE
With Photographer and Adventurer
JAMES BALOG
April 20, 2015 6:00pm
Armstrong Theatre
Colorado College, 14 E. Cache La Poudre St., Colorado Springs, CO

UPDATES

New Course: EV 422 Ecosystem Ecology



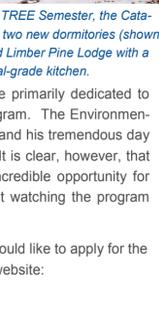
Last fall, Professors Miro Kummel and Mike Taber introduced a new, advanced level course on Terrestrial Ecosystem Ecology. The course explores how the biosphere interacts with the atmosphere, the hydrosphere, and the lithosphere in natural and managed (agricultural) systems. To study these systems in context, students spent a week in Paonia, CO to analyze the impact of air flow on agricultural production. The data collected will hopefully improve the farmers' ability to manage their land and crops more effectively.

Big Year for EV:

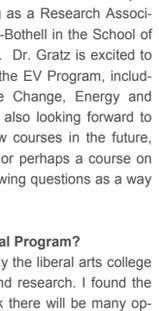
The EV Program continues to grow. This year alone, we have...
43 graduating seniors (our largest class ever)
Taken students on over **40** field trips
Hosted almost **15** EV-sponsored events
Involved over **30** professors from various disciplines to teach EV courses
Hired **2** new faculty, from a combined applicant pool of over **160**

Over 150 responses to Alumni Survey

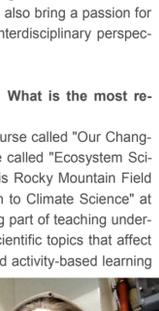
Earlier this winter, the EV Program mailed an alumni survey with hopes of learning more about our graduates and their current adventures. We had almost half of the email recipients respond to our survey! Some of the results are below.



Our alumni are currently employed in a large spectrum of fields, but 75% consider their work relevant to environmental issues:



Our survey had particularly strong turnout among recent graduates:



Half of our respondents provided information regarding a total of **78** potential job opportunities for current CC students and/or EV alumni.

Miro as EV Director

Dr. Miro Kummel will be Director of the Environmental Program starting in the Fall of 2015. Directors generally serve for a 3 to 6 year term. We are very excited to support Miro in this new role!

Every year, the Environmental Program is proud to host the Timothy C. Linnemann Memorial Lecture on the Environment. The lecture series brings prominent leaders in the environmental field to the Colorado College campus. During Earth Week of each year, the guest lecturer presents a public lecture and joins the graduating senior class and faculty of the Environmental Program for a private dinner.

The program started in 1991 to preserve the legacy of CC student, Timothy Linnemann (Class of '91). Tim was a Biology major at Colorado College, an outdoorsman, environmental activist, and a member of the EndAct student group. He tragically died in a car accident the summer before his senior year. Tim's parents, Calvin and Patricia Linnemann, and his sister and brother, Cathy and Mark Linnemann, established the Timothy Linnemann Lecture on the Environment "in memory of Tim's lifelong interest in the environment and his love of Colorado College."

This year marks the 25th annual Timothy C. Linnemann Memorial Lecture on the Environment. We are proud to continue Tim's legacy by presenting James Balog. For three decades, James Balog ["BAY-log"] has been a leader in photographing and interpreting the natural environment. He is an avid mountaineer with a graduate degree in geography and geomorphology and the author of eight books.

To reveal the impact of climate change, James founded the Extreme Ice Survey (EIS), the most wide-ranging, ground-based, photographic study of glaciers ever conducted. The project is featured in the highly acclaimed documentary, Chasing Ice, which won the award for Excellence in Cinematography at the 2012 Sundance Film Festival, was shortlisted for an Academy Award, and received dozens of awards at film festivals worldwide.

In his talk, "The Art of Chasing Ice", James shares the latest photography and image sequences from the Extreme Ice Survey. His images provide the "smoking gun" of climate change, visual evidence that audiences young and old can understand. In this visually stunning presentation, James and his team braves treacherous conditions—crevasses, rockslides, avalanches, temperatures down to -40 F., and frigid river crossings. His show provides a fascinating exploration of humanity's relationship with nature, and a profound understanding of how climate change is affecting human health and our planet. It is nothing short of a call to arms to one of the greatest challenges of our generation.

Come join us for this free, special event on **Monday, April 20 at 6pm in Armstrong Theatre.** Overlunch seating will be available in Edith Kinney Gaylord Cornerstone Arts Center.

To complement the lecture, the Colorado College and the Colorado Springs Fine Arts Center are hosting an exhibit of Mr. Balog's photography at the Fine Arts Center. The exhibit will run from April 18 through early July.

TREE Semester

Howard Drossman moving to Education Department

The past year has been quite exciting for the Catamount Center, the environmental education and research center founded by Professor Howard Drossman and his wife Julie Francis in the late 1990s. Since its founding, the Catamount Center has been an active biological field station and center of spiritual retreat. Many EV students might remember visiting Catamount for field trips or overnight stays. Located on the north slope of Pikes Peak and only about 40 minutes from the CC campus, it is a beautiful and inspiring place to study the natural environment and to contemplate our place among the trees, mountains, and lakes.

For the first time, the Catamount Center is offering a full semester-long program for Colorado College students and other undergraduates from around the country. The Teaching and Research in Environmental Education (TREE) Semester is a 16-week, residential semester program that mirrors the traditional study abroad experience. The TREE Semester is a unique opportunity for undergraduate students to gain over 100 hours of teaching experience towards professional licensure, while living, learning, and conducting their own independent research in a spectacular mountain setting.

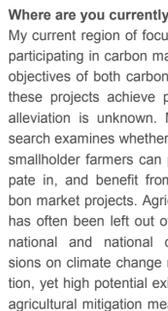
Along with opportunities for current undergraduates, the Catamount Center is also looking to hire recent alums and other qualified individuals with a Bachelor's degree for a four-month residential TREE Fellowship Program. TREE Fellows will provide support to undergraduate students enrolled in the TREE Semester and therefore should have experience and enthusiasm for environmental science and outdoor education. As part of the fellowship, TREE Fellows will work towards certification as a Colorado Environmental Educator (pending CAEE portfolio completion). Applications for the TREE Fellowship are due no later than March 31. Fellows will be selected by April 15.

As part of the TREE Semester, Howard will be officially moving to the faculty of the Education Department at Colorado College. Howard will continue to teach a few courses for the Environmental Program, but will be primarily dedicated to running and teaching in the TREE program. The Environmental Program will certainly miss Howard and his tremendous day-to-day influence on the EV program. It is clear, however, that the TREE Semester will provide an incredible opportunity for our students and we are excited about watching the program develop.

If you would like to learn more about the TREE Semester or would like to apply for the TREE Fellowship, visit the Catamount Center's website: <http://www.catamountcenter.org/>

New EV Faculty

Introducing Dr. Lynne Gratz, Atmospheric Scientist



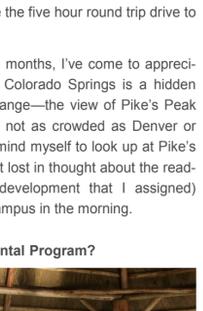
Starting next fall, Dr. Lynne Gratz will be moving to Colorado to begin as the Environmental Program's newest tenure-track faculty member. Dr. Gratz received her B.S., M.S., and Ph.D. all in Atmospheric Science from the University of Michigan. She is currently working as a Research Associate at the University of Washington-Bothell in the School of STEM's Physical Sciences Division. Dr. Gratz is excited to teach some of the core classes in the EV Program, including Introduction to Global Climate Change, Energy and Thermodynamics, and Air. She is also looking forward to developing and teaching some new courses in the future, including Environmental Chemistry or perhaps a course on Community Air Pollution. Dr. Gratz kindly responded to the following questions as a way to introduce herself to the EV community.

What inspired you to join the Colorado College Environmental Program?
The interdisciplinary nature of the EV Program (and more broadly the liberal arts college environment) really appeals to my approach toward teaching and research. I found the EV Program to be extremely welcoming and inviting, and I think there will be many opportunities for me to collaborate both through research and teaching with other faculty members. The program seems to be growing and evolving and I look forward to contributing to that vision for the future. Colorado College's unique block system is also a really exciting way to fully engage students in the learning process. It allows professors and students to really get to know one another and fully immerse themselves in the course subject matter. Specifically in the Earth Sciences, the block teaching format encourages much more activity-based learning that students often don't get in a typical classroom lecture format.

What do you think you will bring to the CC Environmental Program?
I bring expertise in atmospheric science teaching and research. I also bring a passion for learning and studying important environmental topics from an interdisciplinary perspective.

What undergraduate teaching experiences have you had? What is the most rewarding part of teaching undergraduates?
During graduate school I was an instructor for an introductory course called "Our Changing Atmosphere". During the summers I co-taught a field course called "Ecosystem Science in the Rockies" at the University of Michigan's Camp Davis Rocky Mountain Field Station near Jackson, WY. Currently I am teaching "Introduction to Climate Science" at the University of Washington-Bothell. For me, the most rewarding part of teaching undergraduates about atmospheric sciences is opening them up to scientific topics that affect their daily lives in very tangible ways. I also really enjoy field- and activity-based learning where students are able to directly interact with, and thus better understand, the course topics.

What research projects are you currently working on?
I am working on the NSF-sponsored Nitrogen, Oxidants, Mercury, and Aerosol Distributions, Sources, and Sinks (NOMADSS) project. The NOMADSS field campaign took place in the southeastern U.S. during summer 2013 and involved making atmospheric chemical measurements from the NSF/NCAR C-130 aircraft. My role was to measure atmospheric mercury species, and I am now using that data to investigate the chemistry of oxidized mercury in the free troposphere as well as total mercury emissions from major urban/industrial areas.



Dr. Gratz collecting data on the NSF/NCAR C-130 aircraft

What research questions are you interested in pursuing in the future?
My research can be broadly divided into the following themes: (1) atmospheric mercury chemistry and biogeochemical cycling, (2) long-range transport of atmospheric pollutants (such as ozone), and (3) impacts of urban/industrial emissions on local and regional air quality.

Specifically at Colorado College I anticipate trying to answer questions such as the following:

- What are the sources of summertime ozone in Colorado Springs? How do exceptional events (such as long-range transport and wildfires) impact local air quality?
- What are the emissions of mercury and other pollutants from the local power plant and how do they affect local air quality?
- What is the impact of regional mining activities on mercury in the atmosphere and ecosystem?
- What are the sources and chemical mechanisms for mercury oxidation in the atmosphere (especially in the free troposphere)?
- Can we use new and emerging methods, such as mercury stable isotope analysis, to better understand atmospheric mercury chemistry?

How do you see yourself incorporating CC students into your research?
Students at CC will play a vital role in my research activities. The types of studies I anticipate conducting will involve laboratory method development and sample analysis, field measurements and sample collection, and data analysis and modeling. I will welcome students who are interested in any or all of these aspects of my research projects and I will work with them to try to answer some of the questions I mentioned above. I will also encourage students to present their work at meetings or seminars when possible, and also to contribute to publication of our findings in the peer-reviewed literature.

What excites you about your move to Colorado College?
I am excited to begin working with the great group of faculty in the EV Program, and also getting to know the other new faculty hires. I am also excited to develop my research laboratory and involve students in my research activities. Colorado Springs seems like a beautiful place to live and I look forward to taking advantage of the many outdoor activities that the area offers.

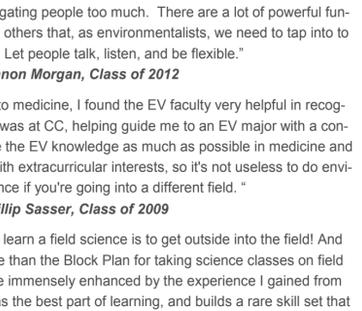
Introducing Dr. Jean Lee, Social Scientist



Dr. Jean Lee joined the EV faculty as a visiting professor for the 2014-2015 Academic Year and will now be joining the EV Program as a tenure-track faculty member. Dr. Lee has been teaching courses such as Sustainable Development, Ecological Economics and Sustainability, and Environmental Inquiry. Next year, Dr. Lee will also teach Environmental Management and a new Topics course that Dr. Lee developed on Community Forestry.

What is your educational background?
I went to Columbia University (Columbia College...not Barnard!) and got a B.A. in E3B—Ecology, Evolution, and Environmental Biology. I then went to Duke for my Masters in Environmental Management (and I always put Duke in the final four, even though they don't necessarily deserve it sometimes). I got my PhD in the most beautiful state in the US—Vermont.

Where are you currently working and what projects are you currently working on?
My current region of focus is East Africa. I'm working with smallholder farmers who are participating in carbon market projects. Many of these carbon market projects have dual objectives of both carbon sequestration and poverty alleviation, but the extent to which these projects achieve poverty alleviation is unknown. My research examines whether or not smallholder farmers can participate in, and benefit from, carbon market projects. Agriculture has often been left out of international and national discussions on climate change mitigation, yet high potential exists for agricultural mitigation measures to also increase food security and foster climate change adaptation. I am expanding my research program to Southeast Asia this summer and continuing to work at the intersection of agriculture, food security, and climate change in developing countries. I plan on including students as research assistants and guiding them in starting independent projects in the regions that I work in (assuming political stability, of course!).



Dr. Lee displaying a plant that generates income in the communities she studies

What is the most rewarding part of teaching undergraduates?
I love teaching undergraduates because I love brainwashing them (just kidding—introducing them would be the more appropriate word) about the importance of—and then teaching them to be critical of—past, current, and future environmental issues and helping them situate these issues in a social, political, and economic context. I enjoy the freedom and flexibility of designing classes and focusing on what I find most interesting and relevant to fostering critical thinking of hot topics that have emerged in the past decade.

What have you enjoyed about living and working in Colorado?
Unlike the majority of 20- to 30-somethings that move to Colorado because they want to ski and hike...I moved to Colorado because I got a job. Luckily, the job was what I went back to graduate school for—I wanted to teach at an undergraduate institution that strongly believes in the value of a liberal arts education and has a student body that is intelligent and motivated to learn. I am thrilled I have the opportunity to continue as a tenure-track faculty and look forward to how the program will develop over time. In just closing disclosure, I do like to hike and ski, which is just icing on cake. I knocked out 10% of the 14ers within my first month of moving to the Springs. I haven't had as much luck with skiing—teaching on the Block Plan pretty much means I have no time to make the five hour round trip drive to the mountains.

Over the past couple months, I've come to appreciate and believe that Colorado Springs is a hidden "gem" in the Front Range—the view of Pike's Peak is awesome, and it's not as crowded as Denver or Boulder. I have to remind myself to look up at Pike's Peak (and not just get lost in thought about the reading on sustainable development that I assigned) whenever I walk to campus in the morning.

What do you think you will bring to the CC Environmental Program?
I've had numerous international research experiences in Central America and in sub-Saharan Africa. I've also served in Americorps, worked for the US government (Forest Service), and consulted for international non-governmental organizations such as CARE International. I bring in examples of these research and work experiences in my classes. It's my hope that these experiences stimulate students to probe deeper into subject matters I'm passionate about.



Training local students to be enumerators for a household survey

Which courses are you most excited about teaching?
I'm most excited to teach Ecological Economics and Community Forestry. Ecological economics is such a different way of thinking from the current dominant paradigm of thought, which is one that places the environment within the context of the economy. In contrast, ecological economics focuses on how the economy operates within the boundaries of the environment and the importance of recognizing ecological limits when designing economic and environmental policies. This past year I took the students on a week-long field trip to the Western Slope to see the intersection of economics and the environment in practice, and I can't wait to do it again next year. Community Forestry will be a class that focuses in the emergence of the concept of community forestry and will include comparative elements of community forestry initiatives in both the Global North and the Global South. It will also examine community-based natural resource management and decentralization, which have been proposed by many as the way to go for managing resources sustainably. I'll be teaching it in Block 8, so I'll have an opportunity to experiment and make it even better for the 2015-16 school year!

Alumni Survey Results

Thank you to everyone who responded to our Alumni Survey! We have been so excited to hear from you and to learn about all the accomplishments of our alumni! Reactions to the survey were overwhelmingly positive, with many alums commenting how thankful they were to connect with the EV Program again.

One of our favorite questions on the survey was:

"Do you have any advice, memories, or comments you wish to share with the EV program or other CC students and alums?"

We enjoyed everyone's responses so much, that it only seemed fair to share some of them with you! Below, are a select, but representative collection of some of the responses we received. We hope you enjoy reflecting on your experience at Colorado College!

"I miss CC and the EV program! The program prepared me well for many opportunities in the environmental and science-related industry. I felt well qualified for many jobs and internships after graduating. I would advise current students to take full advantage of the incredible opportunities offered by the EV program, because those opportunities may not be available after graduating! So take every opportunity you can while you're still a student!"
Daniel Boyes, Class of 2012

"Advice for current students: Take every field class you can. What a phenomenal way to see that part of the country and learn firsthand about the environmental issues. We're excited to see you in the workforce - the world desperately needs informed, creative thinkers like you!"
Cheryl Grabham, Class of 1997

"Solving major environmental issues requires a lot of people with a very diverse set of backgrounds, educations, and professions to sit down and negotiate mutually beneficial solutions. That means making an effort to try to understand where the person across the table is coming from."
I've been blown away by the energy I see at for profit and even resource intensive organizations. Be careful about segregating people too much. There are a lot of powerful fundamentals in this country and in others that, as environmentalists, we need to tap into to get stuff done. Let people talk, listen, and be flexible."
Shannon Morgan, Class of 2012

"As an EV student who went into medicine, I found the EV faculty very helpful in recognizing my wide interests while I was at CC, helping guide me to an EV major with a concentration in chemistry. I still use the EV knowledge as much as possible in medicine and especially outside of medicine with extracurricular interests, so it's not useless to do environmental science if you're going into a different field."
Phillip Sasser, Class of 2009

"In my opinion, the best way to learn a field science is to get outside into the field! And there's no better class schedule than the Block Plan for taking science classes on field trips. My abilities in ecology are immensely enhanced by the experience I gained from numerous field trips at CC. It was the best part of learning, and builds a rare skill set that is quite valuable for applied ecology. Thanks Block Plan!"
Evan Wolf, Class of 1998

"Dive into your thesis! My thesis was my favorite part of my CC education."
Nico Dattels, Class of 2013

"I graduated with a great education and a strong desire to work in the environmental field. I spent several years working a part time, entry level job waiting for that perfect position. I finally decided to take a job that wasn't environmentally related and found that my skills and intelligence were highly valued. I guess my advice to current students and recent grads is don't hold out for your dream job straight out of college. Every job is an opportunity for learning and growth and the experience you gain will make you a more desirable candidate when that perfect position does come around."
Elizabeth Tucker, Class of 2010

"Keep active, stay outdoors and learn the process of learning - how to think critically, deeply and rapidly about many issues. Become excellent at writing. The ability to communicate clearly in succinct writing is difficult and harder to find in the workplace."
Joe Kurland, Class of 2002

"Stay outside as long as you can and avoid the desk job!"
Ethan Watel, Class of 2007

"Leverage connections that you've made in school and maintain relationships as much as possible. Don't be afraid to reach out to folks that might be able to help you in your career - particularly from the CC community."
George Patten, Class of 2006

"CC was an amazing experience—as an educator, I now appreciate even more the top notch education I received at CC. Thank you!"
Jennifer Pierce, Class of 1995