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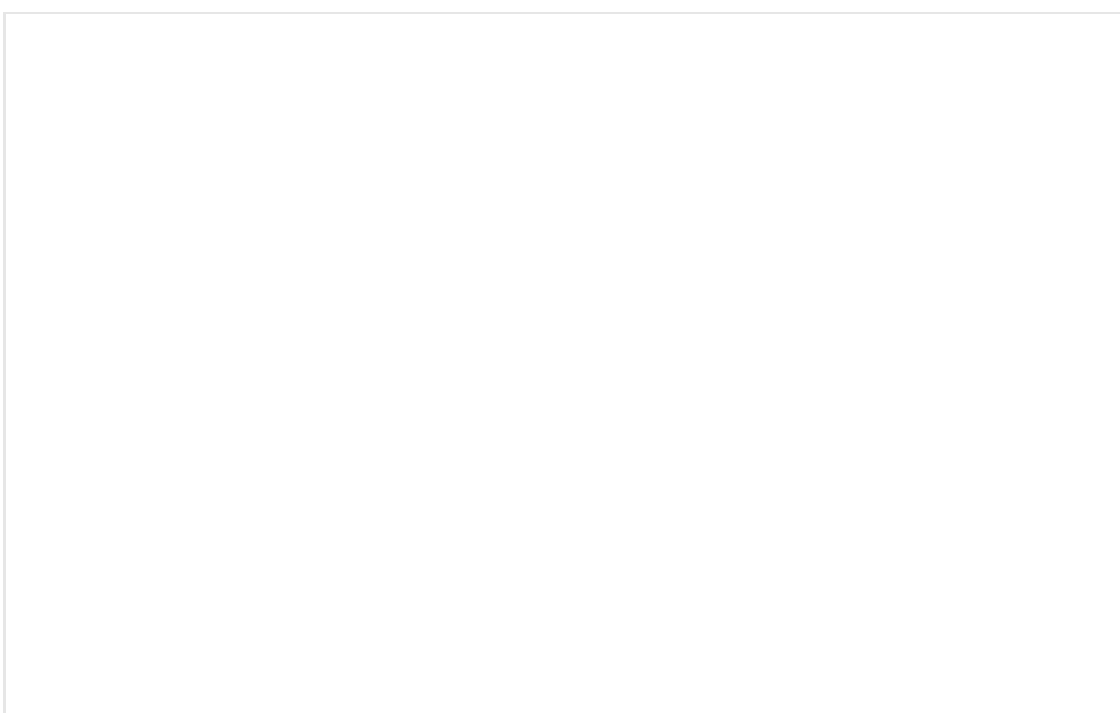


August 10, 2021

GLOBAL CHANGE CENTER
AT VIRGINIA TECH



ANNOUNCEMENTS





GCC Advisory Committee Undergoes Transition with New Members

Several Global Change Center faculty members have recently completed terms on the [GCC Advisory Committee](#). Each member has shown great leadership and resilience during a year of unprecedented challenges in their research, teaching, and guidance of the GCC. Please join us in thanking **Brian Badgley**, **Kelly Cobourn**, **Brian Romans**, and **Kendra Sewall** for their service and dedication to the program. Also, please welcome the newest Advisory Committee faculty members **Leandro Castello**, **Chloé Lahondère**, **Kevin McGuire**, and **Ignacio Moore!**

[Read more](#)



GCC Faculty Affiliates Co-locate to Steger Hall to Create Novel Synergies

Throughout the pandemic, Virginia Tech researchers at the Fralin Life Sciences Institute have co-located from across three colleges at Virginia Tech to the recently updated Steger Hall. The newest cohort of faculty members to make the move include three GCC affiliates who aim to tackle the problem of invasive species. **Meryl Mims** of the Department of Biological Sciences, **Todd Schenk** of the School of Public, and International Affairs and **Jacob Barney** of the School of Plant and Environmental Sciences have joined other GCC affiliates at Steger Hall this summer.

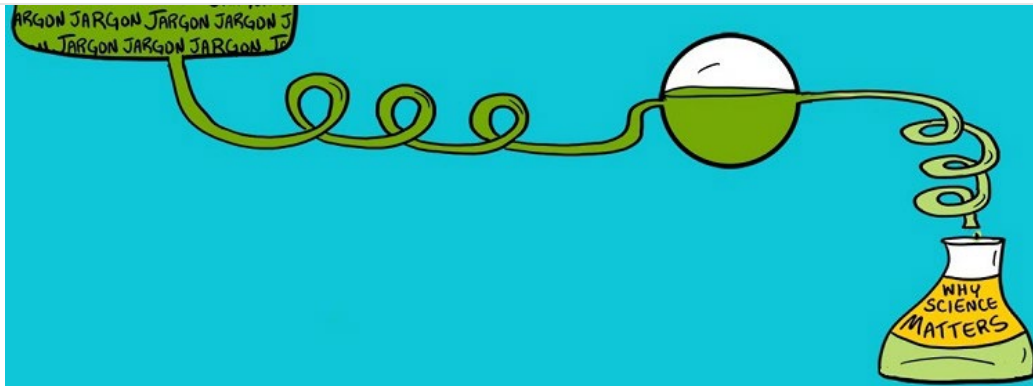
[Read more](#)



Call for Students Interested in the Interfaces of Global Change IGEP: Sign Up by September 15th

Students who are interested in applying to the Interfaces of Global Change must express interest by emailing temporary GCC Coordinator **Lara Hopkins** (hopkinsl@vt.edu) before **September 15**.

Details about the upcoming IGC Information Sessions will be sent out to the listserv of prospective applicants so make sure you've contacted GCC staff! More information about application requirements can be found on our [website](#).



Volunteers Needed for Flipped Science Fair!

Advancing Earth and Space Science (AGU) is offering Sharing Science Grants for Science Communication and Outreach this fall and IGC Fellows are encouraged to join the efforts of **Abby Lewis** in organizing a "flipped science fair."

Graduate students would present science fair-style posters and elementary students would be the judges, with prizes for the best posters and raffle prizes for the students.

If you're interested in presenting a poster, but not necessarily organizing, stay tuned for another email later in the fall semester!

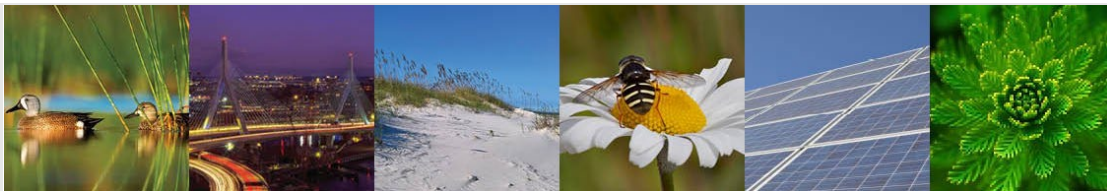
For more information, contact [Abby Lewis](#).

Job Posting: Research Ecologist for the USDA Forest Service

The USDA Forest Service, Southern Research Station's Insects, Diseases and Invasive Plants research work unit anticipates hiring a GS-0408 Research Ecologist: Invasive Plants.

If you are interested in this position please see the attached outreach announcement, and respond in the [outreach database](#) by **August 19, 2021**.

[Outreach Announcement](#)



Job Posting: Science Associate - Environmental Consultant at Industrial Economics, Inc.

IEc is seeking individuals with a science-related graduate degree to join their consulting firm to support their work on topics such as natural resource damage assessment, oil spill assessment, habitat restoration, environmental impact analyses, and site remediation.

This position is full time and starts immediately.

Job posting can be found [here](#).



Job Posting: Faculty Position in Freshwater Ecology - Oakland University

The Department of Biological Sciences at Oakland University invites applications for an open-rank faculty position in Freshwater Ecology, with a start date of **August 15, 2022**. Competitive applicants will have a Ph.D. in ecology, environmental science or related field, postdoctoral experience, and a strong research record dealing with freshwater ecology.

Job posting can be found [here](#).

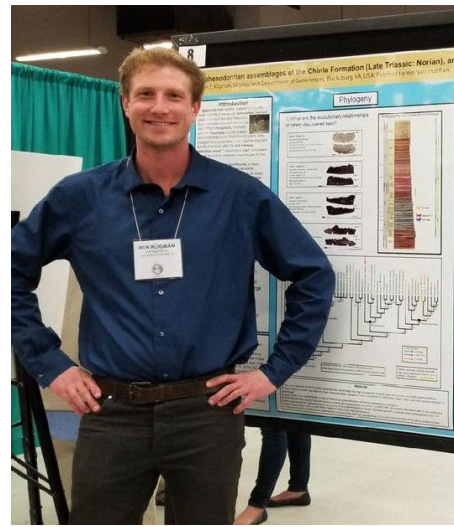
FACULTY AND FELLOW SPOTLIGHT



Dr. Susanna Werth - Department of Geoscience

GCC affiliate **Suanna Werth** is an Associate Research Professor in the **Department of Geoscience**. Susanna is a Geodesist/Engineer specialized in satellite gravimetry, large-scale hydrology and water resource management. Her research interests are the time-dependent Earth and planetary gravity field, hydrology, terrestrial water cycle and resources management, interaction of the water, climate, environmental and human societies as well as signal processing. A main focus of her research is on monitoring, modeling and forecasting the Earth's water mass budget variations using remote sensing data. This multifaceted research effort includes: enhancing techniques for monitoring water mass budget variations with a focus on gravity and deformation data; obtaining and analyzing large-scale estimates of temporal changes in continental water mass budget; and investigating impact of changes in water availability on environment, human societies as well as crisis management. Susanna also teaches many courses such as Satellite Gravimetry & Applications, Introduction to Programming & Python, and Interactions of Groundwater with Climate & Humans. Susanna will also co-lead a **workshop** this fall aiming to enhance our community's expertise in two web-based tools for teaching and research: Jupyter Notebooks and GitHub.

For more information about her lab, click [here](#).



Ben Kligman - Department of Geosciences

Ben is a Ph.D. student in Department of Geosciences at Virginia Tech under the advisement of Assistant Professor of Geobiology **Michelle Stocker** as part of the **Paleobiology & Geobiology Research Group**. During his undergraduate studies at UC Berkeley, Ben worked as a paleontology intern at Petrified Forest National Park in Arizona, which culminated in a year-long research position post-graduation and discovery of a **new rat-like species**. Ben now studies patterns of biotic change in terrestrial ecosystems using microvertebrate assemblages, which are fossilized deposits of bones from small-bodied vertebrates that accumulate in river and lake settings. His main study system is the Chinle Formation in southwest North America, which was deposited by rivers and lakes over the last 25 million years of the Late Triassic. Through studying microvertebrate assemblages in the Chinle Formation, he has discovered many new species of early **reptiles** and **frogs** that occupied a range of ecological niches in the Chinle vertebrate ecosystem. Ben views events in Earth history as important analogues for Earth system changes that are currently being observed. He is particularly interested in how climate change and associated events might affect the evolution of life, and cause diversification and extinction events.

Read more [here](#).

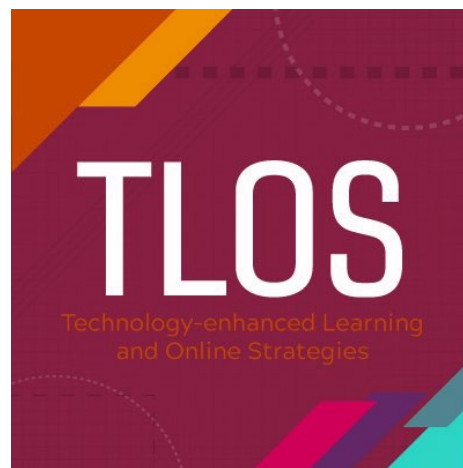
AROUND CAMPUS

New TLOS Workshop: Web-based Tools for Teaching and Research

This [Academy of Data Sciences](#)-sponsored in-person workshop for faculty (including researchers and postdoctoral scholars) at Virginia Tech aims to enhance our community's expertise in two web-based tools for teaching and research: Jupyter Notebooks and GitHub. Both Jupyter Notebooks and GitHub are valuable tools for teaching courses that include data analysis projects that require computer programming.

This workshop, co-led by GCC affiliate [Susanna Werth](#), consists of two four-hour blocks on two subsequent days, which will take place **September 9th-10th from 8AM - 1PM** (including lunch) at the Virginia Tech Inn Skelton Center.

[Workshop Announcement](#)



Undergraduate Research Scholarships for Fall 2021

Dennis Dean Undergraduate Research Scholarship

The [DDURS](#) recognizes VT undergraduate students in any major who are participating in mentored undergraduate research. One awardee each semester will be selected to receive a scholarship in the amount of \$1,000.

Jacklyn W. and William R. Jones, Jr. Experiential Learning Scholarship

This [scholarship](#) recognizes VT undergraduate students in any major who are participating in guided experiential learning opportunity at Virginia Tech. One awardee each semester will be selected to receive a scholarship in the amount of \$1,000.

Fall deadlines for both: August 1, 2021 - August 31, 2021

[Read more.](#)

COMMUNITY

DIVERSITY SUMMIT 2021

Wednesday, August 11



- 7:00 am Virtual sessions open in the event's Canvas and available all day
- 9:00 am Welcome and Keynote (in person and livestreamed) "Why are Campuses so Tense? Building Trust for an Inclusive Campus"
- 10:30 am Differential Impacts Conversations: Pandemic Reflections (in person only)
- 1:00 pm Panel on Understanding the Bias Reporting Process (in person and livestreamed)

Virginia Tech's annual Diversity Summit, sponsored by the [Office for Inclusion & Diversity](#), will take place Wednesday, Aug. 11 with virtual sessions available all day. Visit the Diversity Summit 2021 [website](#) for more information.

Register [here](#).

NEWSWORTHY



Integrative Organismal Biology

A Journal of the Society
for Integrative and
Comparative Biology

GCC Affiliates and IGC Fellow Effectively Include Distorted Specimens in Allometric Studies

Associate Professor of Geobiology in the Department of Geosciences **Sterling Nesbitt**, Assistant Professor of Evolutionary Biology in the Department of Biological Sciences **Josef Uyeda**, and IGC IGEP Fellow **Brenen Wynd** author newly published research article showing that distorted samples don't need to be thrown out when reconstructing allometry/ontogeny in fossils. Reconstructing allometries, or patterns of relative change in body parts, is one of the few methods available to reconstruct growth in fossil specimens. However, many fossil specimens are deformed during fossilization. This study demonstrates that the generalized linear mixed model (GLMM) is able to estimate additional variation, reconstruct allometric relationships, and retain the critical individual variation in studies of allometry in specimens showing any degree of distortion.

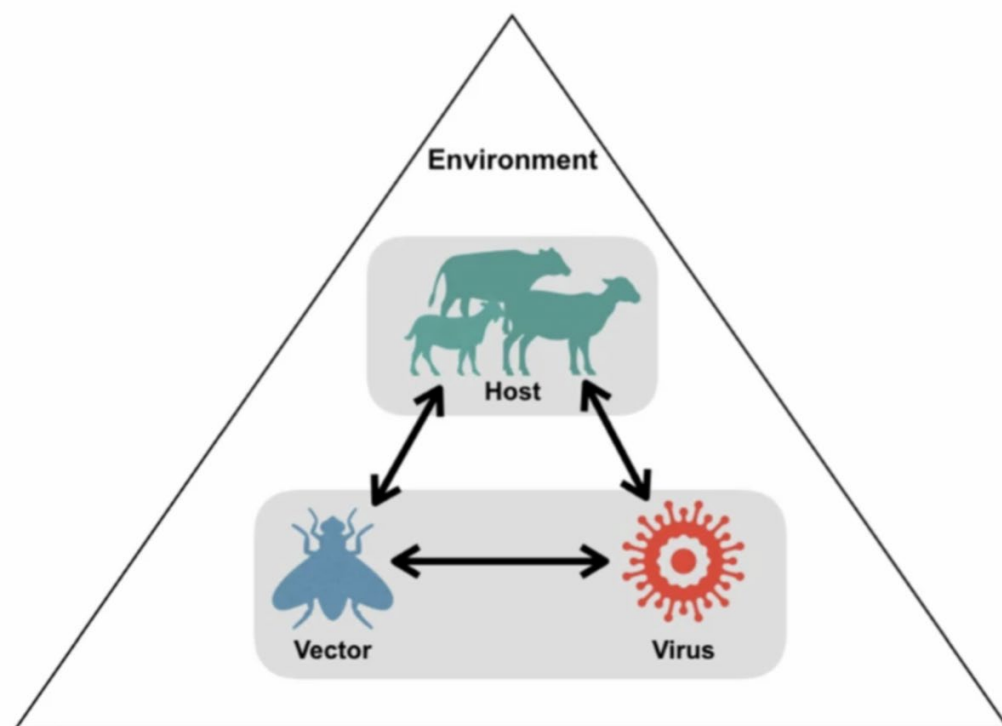
[Read more](#)



GCC Affiliates and Recently Graduated IGC Fellow Study the Reproductive Microbiome of Female Tree Swallows

GCC Affiliates Drs. **Ignacio Moore**, **Joel McGlothlin**, **Lisa Belden** of the Department of **Biological Sciences**, **Dr. David Haak** of the **School of Plant and Environmental Sciences** and recently graduated IGC IGEP Fellow **Dr. Jessica Hernandez** assess age, breeding stage, and mating activity as drivers of variation in the reproductive microbiome of female tree swallows in a new article. As one of few studies to document within-individual changes and age-related differences in the reproductive microbiome across successive breeding stages, this project contributes to our understanding of the roles that host life history and behavior play in shaping the cloacal microbiomes of wild birds. This theoretical work also advances our understanding of the transmission and potential effects of pathogenic microbes, which has largely been ignored the reproductive microbiome as a whole.

[Read more](#)



GCC Affiliate Leah Johnson and Fadoua El Moustaid Co-author Paper Studying Bluetongue Virus in Livestock

In a new study, GCC Affiliate Assistant Professor **Leah Johnson** of the Department of Statistics and **Dr. Fadoua El Moustaid** assess temperature-dependent transmission suitability of bluetongue virus in livestock. The transmission of vector-borne diseases is governed by many complex factors including temperature. In this study, Leah and Fadoua sought to predict where the transmission can occur based on suitable temperatures for the Bluetongue viral (BTV) disease found in livestock. Through their work, they were able to create global risk maps identifying geographic locations suitable for BTV disease transmission. These risk maps provide a useful planning tool, both to understand the scale of current risk and to anticipate suitable regions where the establishment of BTV could be successful were it to be introduced, with competent vectors.

[Read more](#)

Do you have an opportunity or announcement you'd like to share with the GCC community? [Send us an email!](#)



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The Global Change Center is a strategic initiative of the Fralin Life Sciences Institute

Global Change Center | Virginia Tech | 540-231-5400 | www.globalchange.vt.edu

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