

INTEGRATIVE BIOLOGY

Welcome to the SIB Connections!



Dear Alumni,

Welcome to the second edition of the SIB Connections, a newsletter we launched last year specifically for IB alumni. Since the School of Integrative Biology was formed, our thousands of alumni have created lasting value and impact through their professional achievements and success. Our alumni have built their careers in fields from medicine and public health to conservation, education, and more. We invite you to contact us and tell us about your own career journey! More information on how to contact us can be found at the end of this newsletter.

This past year has been a unique and challenging one. With the COVID-19 pandemic changing how we live, work, and recharge, we have all had to learn to adapt, creating new opportunities for growth and connection. I am so proud of the work that our faculty, students, and staff have invested transitioning to online learning and collaboration. Our drive for research and educational excellence is what has made this possible, and I especially commend the resilience and hard work of our students.

We have also seen renewed calls for equality and justice for millions of Americans. We join our broader University and Champaign-Urbana communities in acknowledging the emotional and physical toll systemic racism places on Black Americans, and committing ourselves to substantive and meaningful change. We invite your input and participation in this process, which you can learn more about in this newsletter. Everyone is welcome and heartily encouraged to participate in this important dialogue.

This year, to help better connect our students with career opportunities, resources, and tools, our Alumni Mentoring Program Coordinator Christina Swanson has developed and launched the SIB Career Connections. This program includes alumni and peer mentoring, our IB 292 Career Course, individual consultations, and workshops. Students can explore career options, engage in undergraduate research, and learn how to leverage their own skills and experiences. You can read more about this program (including how to get involved) on p. 4.

I hope you enjoy reading about what we've accomplished this year, and I look forward to continuing to foster dialogue among our SIB community.

With my best wishes,

Carla Cáceres - Director, School of Integrative Biology

SIB's Commitment to Diversity, Equity and Inclusion



This year, the deaths of George Floyd, Breonna Taylor, and so many others ignited tensions across the US, once again offering a chilling reminder of how racism has played and continues to play a role in many of our institutions.

We have stood at this same point far too often in recent history. Every time, it has carried a heavy emotional and physical toll on the African-American community. That toll, this time, is magnified by a global pandemic that has upended all of our lives, but has been disproportionately cruel to minority and underserved communities.

The organizational culture that tolerates such violence starts with individuals. Such a culture needs fundamental changes to create positive cultures that embrace diversity. Anything less from each and every one of us will undermine the future we all dream of creating – one that is truly worthy of our vibrant and diverse learning communities. It is now time to leverage our deep abundance of knowledge, will, and expertise to change the assumptions that inform our decisions. We also need to carefully consider the necessary and difficult questions that we need to ask of ourselves as a community.

We are a community committed to the scholarship, engagement, equity, inclusion and leadership that dismantles systems that utilize power, privilege and violence to disenfranchise, diminish and destroy. As part of that community, you play a vital role in our path forward. We invite you to share your ideas, experiences, and perspective on how we as a learning community can better engage with and empower all young scientists. You can access this statement and learn more about related resources and support by visiting sib.illinois.edu/dei. You can contact the School at sib@life.illinois.edu, or on social media (Twitter, Facebook, Instagram, and LinkedIn).

At a broader level, the University of Illinois has launched the Call to Action initiative, designed to quickly and permanently transform how the university supports, prioritizes and recognizes the research of scholars working on issues of systemic racism. The initiative will establish working groups charged with taking concrete steps in the coming academic year to dismantle systemic racism and injustice. To learn more about the Call to Action and the Office of the Vice Chancellor for Diversity, Equity and Inclusion, please visit diversity.illinois.edu.

The strength of our community comes from our shared talents, ideas, and perspectives. We look forward to coming together to establish shared community norms of inclusion, as well as use our combined knowledge to serve the public good. ❖

SIB Alumni Awards: 2020 Winner and 2021 Nominations

The School of Integrative Biology has a tradition of teaching and research excellence over 150 years old, when courses in Zoology, Botany, and Entomology were first taught at the University of Illinois. Our departments were founded in 1884 (Zoology/EEE, Genetics and Development, Animal Biology), 1901 (Botany/Plant Biology), and 1909 (Entomology). In the last century and a half, our faculty have had the pleasure of working with tens of thousands of undergraduate and graduate students who have gone on to change the world through their impactful and cross-cutting work.

To celebrate these accomplishments, in 2019 the School of Integrative Biology created the Alumni Achievement Award and the Outstanding Young Alumni Award:

- The **Achievement Award** recognizes outstanding professional achievement that demonstrates the value of an education (BS, MS, or PhD) from the University of Illinois.
- The **Outstanding Recent Alumni Award** recognizes a recent graduate (within 10 years of final Illinois degree) for outstanding or noteworthy professional achievement.

2020 Alumni Achievement Winner: Steve Caldwell



Steve Caldwell | Class of 1993
Senior Manager of Validation and Change Control, Illumina
Adjunct Professor (Applied Biotechnology M.S. program), University of Wisconsin

The contribution Steve has made to our School is more than note-worthy, it has been transformative. When a call went out to our IB community four years ago to help engage our undergraduates and improve career success, Steve leapt at the opportunity to give back to his alma mater, helping to develop the first ever Integrative Biology career course (now a permanent course: IB292 Translating your IB Degree into Career Success).

As the co-instructor for the course, Steve has served as a constant resource for the instructors, collaborators, and students (95 students and over 110 hours in the classroom!), providing insights, developing course content, networking with alumni, recruiting participants, mentoring students, and much more.

To learn more about Steve, read our blog: sib.illinois.edu/blog/2020alumniaward-stevecaldwell.

"Don't focus your career search or learning solely based on labels or your specific degree. What's more important is how you use your knowledge, how you adapt in life, choosing what you want to experience and how you want to live. See if you can find creative ways to apply your knowledge; you'll be surprised at what opportunities exist."

2021 Nominations

Nominations may come from alumni, faculty, commercial enterprises, college of campus advancement personnel, friends of the University, or other academic institutions that employ Illinois graduates. Nominees must have earned a BS, MS, or PhD in Biology (with or without a concentration), Botany, Ecology, Evolution and Conservation Biology, Entomology, Genetics and Development, Integrative Biology, or Plant Biology.

To nominate an alumni for either the Achievement Award or the Outstanding Recent Alumni Award, please include the nominee's name, address, degree(s)/years at Illinois, employers, career path, C.V., statement of recipient's achievement or significant accomplishments, and at least two letters of support from individuals familiar with the nominee in a single PDF and submit to go.illinois.edu/SIBAlumniAwardNomination. Applications are received on a rolling basis and evaluated each December.

To learn more, or to access nomination information, please visit: sib.illinois.edu/alumni/awards. ❖

Career Connections: New resources for students and alumni

In 2017, the School of Integrative Biology launched its Alumni Mentoring Program, an initiative designed to grow alumni-driven career development courses and mentorship for current students. In those three short years, over 70 alumni mentors have shared their experiences with hundreds of SIB students.

This year, to build on this incredible success, SIB is proud to announce Career Connections, a resource hub and program for both our alumni and students. Our alumni have gone on to exciting fields in all kinds of industries and professions, and the SIB Career Connections is your place to hear from and contribute to our community.

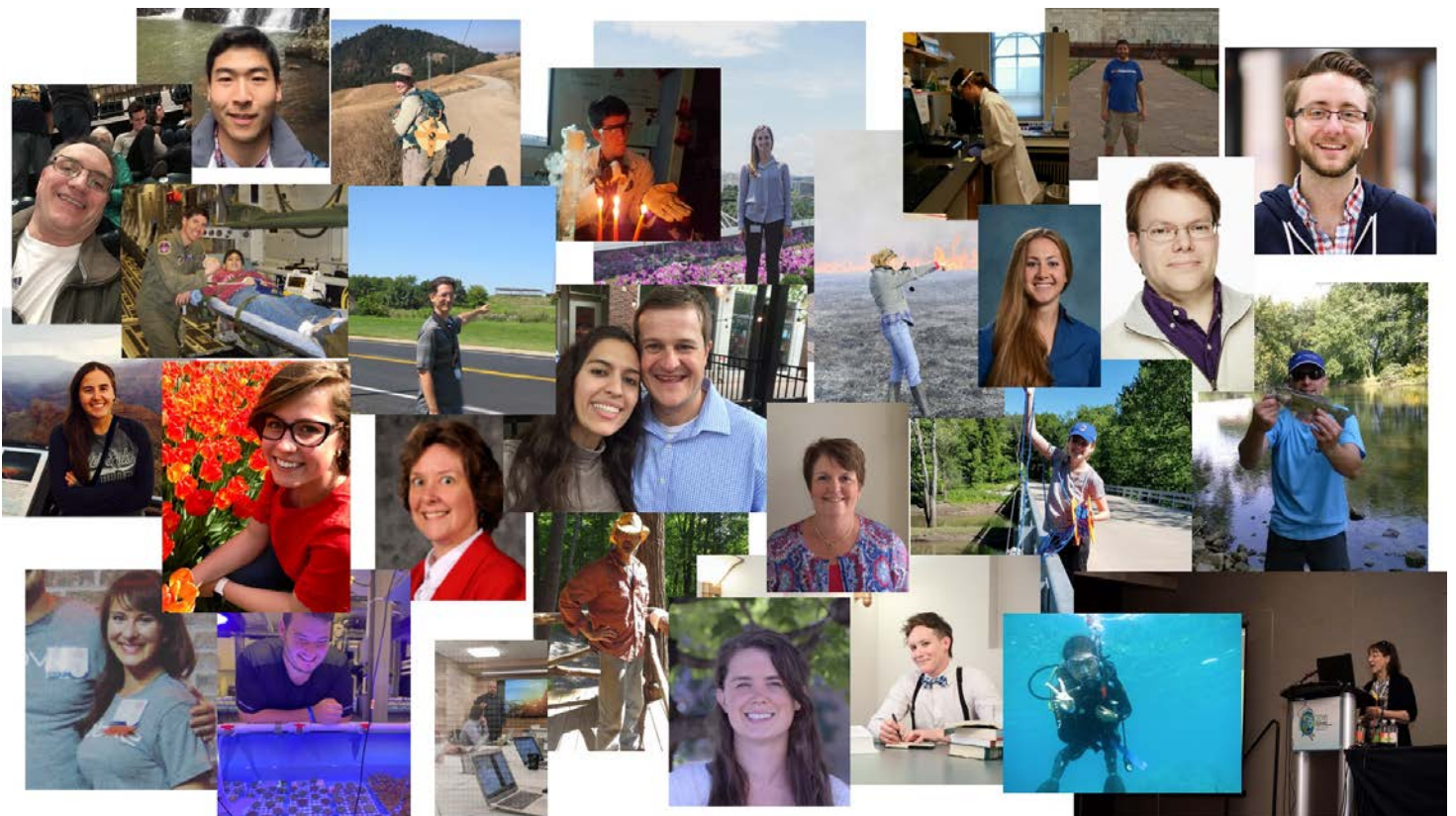
“This has been a difficult year for all of us, and we wanted to make sure that nobody was going through this alone,” said Christina Swanson, Alumni Mentoring Program Coordinator. “Career Connections is a way for our entire community to support one another and to ensure everyone has access to the career development resources they need to succeed.”

Just as Integrative Biology itself shows us the myriad connections in the natural world, so too are our connections integrated within our community. Our workshops, career support groups, mentoring and other resources allow alumni in all stages of their career to contribute what they’ve learned and experienced in their professional journey, as well as gain insights from others. Please consider taking advantage of all of the services Career Connections provides, including professional connections and mentors.

The reason the Alumni Mentoring Program has been such a success (and expanded into the Career Connections!) is because of the participation of alumni like yourself, so if you have even a few minutes we would love to hear from you – even just to say hello and add your job title to our growing list. Fill out a short profile survey to let us know how you’d like to stay connected with SIB at:

go.illinois.edu/SIBAlumniProfile.

To learn more, visit: go.illinois.edu/SIBCareerConnections or contact Christina Swanson at sillima2@illinois.edu. ❖



37th Annual Insect Fear Film Festival – Crustaceans

The Department of Entomology, together with the Entomology Graduate Student Association, hosted the 37th Annual Insect Fear Film Festival this past February. Held every spring, the festival is an opportunity to see movies focused on insects, interact with the insects in our petting zoo, and dispel some fears of these incredible, fascinating creatures!



The theme of this year's festival was crustaceans, a large and diverse group of animals such as lobsters, shrimp, krill, crabs, and more. Crustaceans look like marine versions of insects, with their antennae and segmented bodies. The resemblance is not by chance. Crustaceans and insects are related – more closely than scientists once thought.

Crustaceans have become more important to entomologists in the last decade, said May Berenbaum, the department head of entomology and founder of the film festival. “Crustaceans are not insects. But the science community has realized that insects are probably crustaceans.”

Both insects and crustaceans are arthropods, characterized by segmented bodies, exoskeletons and legs with joints. Genomic studies have revealed that the two groups have a common ancestor. “It’s kind of like Ancestry.com for arthropods. You never know what will turn up in your family tree,” Berenbaum said.

The festival's films included two short films and two feature length films, covering everything from the inventor of “Amazing Sea Monkeys” to giant radiation-altered crabs to a parasitic isopod eco-horror story set in the Chesapeake Bay.

The festival's insect petting zoo included the usual assortment of insects, including hissing cockroaches, grasshoppers and beetles, as well as tarantulas and other arthropods. New additions for the festival featured crustaceans such as triops, clam shrimp, colorful ornamental freshwater shrimp, crayfish, a tangerine-and-white species of roly-poly bugs (also called pill bugs) and spider, blue and vampire crabs.

To learn more about the Entomology Graduate Student Association and the Insect Fear Film Festival, please visit: go.illinois.edu/EGSA-IFFF. ❖



Alumni Feature: Dr. Katy Heath

Dr. Katy Heath is an associate professor in the Department of Plant Biology, returning to the University of Illinois after completing her bachelor's in 2000 and earning her doctorate from the University of Minnesota in 2007.

Q: What is your current area of research?

A: I study the evolution of plant-microbe interactions. These interactions are so important in natural ecosystems, which are all built on plant primary production, but they are also critical in agriculture for improving plant health and ameliorating plant disease. We really need to understand how these interactions have come to be and how they are evolving right now, especially in response to spatial or environmental variation. Through this we can better predict how they will change into the future, and if we can manipulate plant-microbe interactions to address conservation or agricultural needs.



Q: How did you go from SIB alumna to associate professor?

A: I left Illinois thinking I would study tree physiology. I went to the University of Minnesota for a PhD in Plant Biology, but once I got there, I took a course with two amazing and inspiring women faculty (Linda Kinkel and Patrice Morrow) where I quickly realized I wanted to study microbes and genetic variation. For my first rotation project, I was working with an awesome postdoc in mycorrhizal-plant interactions (Ian Dickie), and he was a great early mentor as well. From there, I found a conceptual home in Peter Tiffin's lab. He was a new professor, and I was his first graduate student. There, I developed my interests in what is still one of the main study systems in the lab: the symbiosis between *Medicago truncatula* (a legume) and its nitrogen-fixing bacterial symbiont (*Ensifer meliloti*). I applied for and won a postdoctoral fellowship at the University of Toronto to work with John Stinchcombe, where I continued my work in this system. I was there for about 2 years before moving here!

Q: What's your favorite memory of your time with SIB?

A: As an undergrad, my fondest memories are learning to identify trees in Trelease woods with Carol Augspurger and having the amazing opportunity to travel to Belize twice for fieldwork with John Cheeseman (both retired Plant Biology professors), where we studied mangrove ecology and physiology - with considerable time spent snorkeling and swinging in hammocks between field and lab work.

As a faculty member - wow, that's hard. It's been a great 10 years. I have had the pleasure to get to know some really special students, both in Genetics (IB204) and my smaller upper-division course Ecological Genetics (IB405, now called Evolution of Traits and Genomes). Helping undergraduate researchers make it through the Distinction process is arduous (mostly for them!) but it's amazing to see them grow. And on the research side, I think getting grants with colleagues and friends is probably the most exciting, toast-worthy thing because it's such a fantastic feeling to hear that your peers around the world advocated for your research and thought it was worth funding. ❖



Hear from other IB Alumni

Since its formation in 2004, the School of Integrative Biology has trained and educated almost two thousand alumni, many of whom have pursued careers in all kinds of fields. Learn about what these alums are doing now, and visit our website to learn more about other alumni: sib.illinois.edu/alumni/mentor/profiles. Do you know someone you'd like to see featured? Let us know! ❖

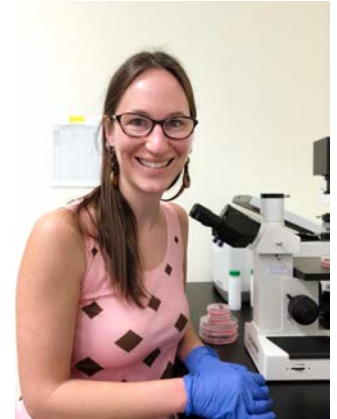


Xorla S. Ocloo
Class of 2016
PhD Candidate, Emory University

Xorla is now pursuing a PhD where she is exploring the social and ecological factors that influence the adoption of Azolla-rice farming in the Senegal River Valley.

Madeline Keleher
Class of 2009
*Postdoctoral Researcher,
University of Colorado Anschutz
Medical Campus*

Madeline studies the effects of maternal obesity on the placenta, the baby's umbilical cord cells, DNA methylation, gene expression, and the child's health later in life.



Georgia Arvanitis
Class of 2020
*Scientific Recruitment Advisor,
Medix*

Georgia works to match talent with the necessary background and skill-sets Medix clients across a variety of industries, including clinical research, biotechnology, and more.



Eric Giesing
Class of 2008
*Director, Centrifuge and Particle
Characterization Biotechnology,
Beckman Coulter Life
Sciences/Danaher*

Eric work with researchers to develop next-generation scientific instruments for research and discovery, including causes of disease and possible treatments.



Angela Cruz
Class of 2016
*Fulbright Research Student in
Indonesia*

Angela will blend her research experience from SIB and professional experience from the Washington Sea Grant to study stakeholder participation in the blue swimmer crab industry in Indonesia.

Izabella Redlinski
Class of 2006
*Conservation Ecologist,
Field Museum*

Izabella works to increase the biodiversity and resilience on protected lands in the Chicagoland region and create functional habitat patches in urban spaces that benefit both nature and people.



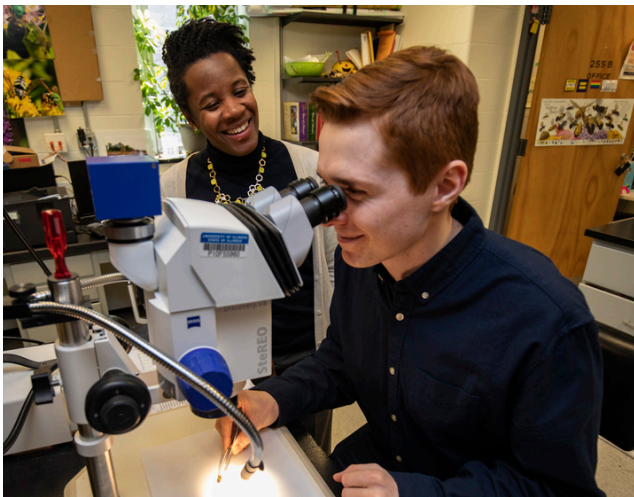


School of Integrative Biology

COLLEGE OF LIBERAL ARTS & SCIENCES

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How can I stay connected to SIB?



We would love to hear from you! Our website includes all of our recent news, research updates, student blogs and more, and can be accessed at sib.illinois.edu.

SIB is also active on social media! Be sure to like, share and subscribe to stay up to date on our news, events and accomplishments. You can find us on Facebook, Twitter and Instagram by our handle [@iBioIllinois](https://www.instagram.com/iBioIllinois).

Our alumni play an important role in helping to guide and mentor our undergraduate students through the SIB Alumni Mentoring Program and the Career Connections. For more information and to get involved, contact Christina Swanson, sillima2@illinois.edu or visit sib.illinois.edu/alumni/mentor.

For everything else, send us an email at sib@life.illinois.edu. We look forward to hearing from you and celebrating your success! ❖

What's New? Let us know!

Did you change your address? Have you had a career switch? Are you interested in visiting campus or joining our Alumni Mentoring Program?

We invite you to complete our survey! go.illinois.edu/SIBConnectionsAlumniSurvey. ❖