

HOW THE MONKEY FLOWER GOT ITS SPOTS

The monkeyflower, or *Mimulus*, though possessing a relatively simple genome, is able to produce a stunning array of pigmentation patterns. A team of researchers is one step closer to understanding exactly how this genus of wildflowers is able to achieve such remarkable diversity, as shown by their research recently published in [*Current Biology*](#).

Visual variations such as spots or stripes can act as camouflage and potentially as a means of communication between species throughout nature. The mechanisms that give rise to these variations have stumped not only biologists, but also mathematicians for centuries.

“Patterns are everywhere in nature, not just color patterns but even how leaves are arranged on a stem, really anything with periodicity. Explaining these patterns could be similar in principle, and that is what we’re hoping to do,” says Associate Professor **Yaowu Yuan**.

In the case of monkeyflowers, colorful anthocyanin spots attract and act as guides to help pollinators zero in on the nectar in the flowers. Alterations of these signal patterns could impact the flower’s chance at pollination and seed production; therefore, careful regulation of the system is essential. The researchers were interested in learning about these developmental mechanisms.

Previously, mathematicians developed a theory to try and explain how patterns of pigmentation in nature may arise, as with the stripes on zebras or the spots on leopards, for instance. This theory posited that there must be some sort of reaction-diffusion effect occurring, involving an activator-inhibitor system governed by two proteins — an activator and a repressor. In theory, the activator activates itself as well as the repressor. Once the repressor is activated in a pigment cell, there is a reaction-diffusion effect where the repressors fine-tune pigment production in surrounding cells, depending on the concentration of the repressor that diffuses into those cells.



Photo by Yaowu Yuan

The monkeyflower is a good model for studying this phenomenon, due to its relatively small genome, the fact that the genome has been sequenced, and also because the flowers are easy to grow and amenable to experimental manipulations.

The project initially started as two separate projects, and the opportunity to collaborate happened almost by chance says Yuan, arising after he saw a presentation by one of the three co-first authors, Erin Patterson from Ben Blackman’s lab at the University of California, Berkeley, about a gene that Yuan’s group was also working with. “While we know a good deal about how hue is specified in flower petals — whether it is red or orange or blue, for instance — we don’t know a lot about how those pigments are then painted into patterns on petals during development to give rise to these spots and stripes that are often critical for interacting with pollinators,” Blackman said.

Previously, a gene called Nectar Guide Anthocyanin (NEGAN) was found to be self-regulating and activating anthocyanin production. If the gene is disrupted, no nectar guide spots are formed on the flowers. The researchers theorize that NEGAN could be the activator component of an activator-inhibitor pair as part of a reaction-diffusion mechanism working to control the pigmentation patterns seen in the flowers. The researchers thought the gene that both labs were working on independently could be the inhibitor coupled with NEGAN.

MONKEY FLOWER SPOTS CON'T

If true, according to the reaction-diffusion model, if the inhibitor is activated by NEGAN, the inhibitor would diffuse to surrounding cells, inhibit NEGAN function, and thus influence the formation of pigments in those cells.

To test these theories, Dr. Yuan's postdoc Baoqing Ding and UC Berkeley postdoc Srinidhi V. Holalu experimentally altered spot formation in two different species of *Mimulus* by transgenic manipulation of the candidate inhibitor gene they named "red tongue" (rto). They also found *Mimulus* flowers occurring in the wild that had mutations in the same gene.

— Adapted from UConn Today article by
[Elaina Hancock](#)

PALEONTOLOGISTS DISCOVER WHY THE OCEANS ARE SO DIVERSE

A new study in the journal *Science* has given insight into why the world's oceans are full of more species than ever before – a question that has long been a focus of paleontological research. The most diverse kinds of animals in the modern oceans, such as fish, mollusks, and crustaceans, diversified slowly and steadily for long periods of time, and were buffered against extinction.

Andrew Bush, an author on the paper and associate professor of Geosciences and Ecology & Evolutionary Biology, says that knowing how biodiversity evolved over Earth's history can help humans think about future issues with environmental disruptions, like climate change.

"Paleontology can help us identify traits that helped species survive and thrive in the past, including during mass extinctions," Bush says. "Hopefully, research like this can help us plan for the effects of environmental disruption in the coming decades."

The study examined approximately 20,000 genera (groups of related species) of fossil marine animals across the past 500 million years, and approximately 30,000 genera of living marine animals.

The findings clearly show that the species in the most diverse animal groups also tend to be more mobile and more varied in how they feed and live, notes lead study author Matthew Knope, assistant professor of biology at the University of Hawai'i at Hilo.



— Photo by Andy Bush

"Being a member of an ecologically flexible group makes you resistant to extinction, particularly during mass extinctions," he says. "The oceans we see today are filled with a dizzying array of species in groups like fishes, arthropods, and mollusks, not because they had higher origination rates than groups that are less common, but because they had lower extinction rates over very long intervals of time."

Co-authors also include Luke O. Frishkoff, University of Texas at Arlington, Noel A. Heim, Tufts University, and Jonathan L. Payne, Stanford University. Read the study online at [Science](#).

— Adapted from a UConn Today article
combined reports

TIME TO SAY GOOD-BYE

After 26+ years, **Clint Morse**, EEB's Plant Growth Facilities Manager, officially retired on April 1, 2020. Clint devoted his career to the preservation, accessibility and growth of the EEB Biodiversity Greenhouse's collections. With nearly 3,000 species from around the globe, the Greenhouse contains one of the most diverse living plant collections in the US including a recent acquisition of over 200 species of rare ginger species from the lab of Dr. W. John Kress (Smithsonian Institution) in 2019.

The outstanding collections are a core unit of the EEB Biodiversity Research Collections and are used extensively for teaching and research at the University of Connecticut and by secondary schools around the state.

Clint is enjoying his retirement although travel plans have been disrupted due to COVID-19. He put in vegetable garden—a first in a long time. As Clint notes, “When horticulture is your day job, gardening is not the first thing on your mind when you get home.”

He has taken on a part-time contractor position with Orienteering USA managing their media presence including their website, newsletter and social media. This is a position made for Clint as orienteering has been one of his passions for many, many years.



EEB also said good-bye to **Madeline Hennessey** on July 23, 2020. Madeline was an EEB Program Assistant and the Graduate Student Coordinator who joined the Department 2 1/2 years ago. Madeline headed to the University of Colorado for graduate studies with the intention of teaching literature at the college level. EEB wishes her great success in her graduate studies and is looking forward to updates now that she is on the other side of the graduate student coordination process.

EEB will say good-bye to **Pat Anderson**, Business Services Supervisor, who will retire on February 1, 2021. Pat joined EEB in 2004 from Prescott College in Prescott, AZ where she was the Assistant Registrar for the Resident Degree Program. Prior to moving to AZ, she was the Assistant to the Dean of the College at Wesleyan University, and a fundraiser for The Nature Conservancy Connecticut Chapter.

Like Clint, Pat has a long list of “things to do” in retirement among them is a return to the medical field. There is some “bucket list” traveling on her agenda as well. In the near future, she is looking forward to “gardening and spending as much time outdoors as possible.”

WELCOME

EEB welcomed Dr. **Katrina Menard** in January, 2020. Katrina joins the EEB Biodiversity Collections as the Invertebrates Manager. She comes to EEB from Sam Noble Oklahoma Museum of Natural History, University of Oklahoma where she served as the Assistant Staff Curator of Recent Invertebrates.

In June, 2020 EEB welcomed **Meghan Moriarty** as the Plant Growth Facilities Manager. Meghan comes to EEB from Logee's Greenhouse where she was the Head Grower. Meghan is no stranger to UConn having been the Site Director of the Greenhouse Operations for Agrivida on the Storrs campus for 8 years.

EEB is thrilled to welcome Katrina and Meghan and is looking forward getting to know them better on the other side of COVID-19 when campus returns to a new normal.

AWARDS

FACULTY AWARDS AND GRANTS

Dr. **Susan Herrick**, and Dr. **Michael Finiguerra**, (Avery Point) received 2020 Faculty Excellence in Teaching Awards this spring. This award recognizes individuals who have excelled at teaching both inside and outside the classroom.

Dr. **Jill Wegrzyn**, received a National Science Foundation Faculty Early Career Development Program (CAREER) award. The CAREER award supports early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department (or organization).

Jill's 5-year award will provide funding to develop an integrated and accessible deep learning framework for the annotation of eukaryotic reference genomes, which can improve gene models. The software development will be paired with research partnerships representing over 30 new insect, plant and animal genomes.

Mark Urban and **Margaret Rubega** are CO-PIs on a 5-year National Science Foundation Research Training Grant for their proposal entitled "*NRT: Building resilient landscapes for food, energy, water, and ecosystems in America's megalopolis.*" Additional PIs are Steward T. Pickett (Institute of Ecosystem Studies), Chuanrong Zhang, and Milagros Castillo-Montoya both from UConn.

Mark Urban received a 2020 CARIC Award (Convergence Awards for Research in Interdisciplinary Centers) for his proposal entitled, "*241: Reintegrating Biology & Harnessing the Data Revolution to Predict and Prevent Global Ecosystem Change*"

GRADUATE STUDENT AWARDS

Mark Stukel, working in Chris Simon's lab, received a 2020-2021 Fulbright Student Program Award. Mark will conduct research in New Zealand.

Lisa Terlova, working in Louise Lewis' lab, received a 2020 Society of Systematic Biologists Graduate Student Research Award (GSRA), for her proposal "*Signatures of desiccation tolerance in genomes of aquatic and desert sister-species*".

Doctoral Dissertation Fellowships from UConn's Graduate School have been awarded to **Liz Clifton** (Jockusch lab), **Jacob Kasper** (Schultz lab), **Val Milici** (Bagchi lab) and **Lisa Terlova** (L. Lewis lab).

Henry Frye, working in Cindi Jones and John Silander's labs, received a 3-year Future Investigators in NASA Earth and Space Science and Technology (FINEST) grant for his proposal entitled "*Evaluation of Hyperspectral Techniques for Quantifying Taxonomic and Functional Diversity in Coastal and Shrubland Ecosystems.*"

Eliza Grames, working in Chris Elphick's lab, was one of 4 winners of the best contributed talks in the Student Presentation Competition at the (virtual) 2020 International Statistical Ecology Conference. Her talk was entitled "*Separating acoustic signal patterns into underlying behavior components with Hawkes self-exciting point process models.*"

Becca Colby, working in Eric Schultz's lab, received a 2020 Best Poster award at the 2020 Annual Meeting of the Southern New England Chapter of the American Fisheries Society for her poster entitled, "*Are They Born Ready? Evaluating Migratory Physiology of Juvenile Alewife (*Alosa pseudoharengus*).*"

2020 Doctoral Student Travel Awards from UConn's Graduate School were awarded **Samantha Apgar** (Elphick lab), **Liz Clifton** (Jockusch lab), and **Jacob Kasper** (Schultz lab).

AWARDS

UNDERGRADUATE STUDENT AWARDS

Seven undergraduates, working with EEB faculty, received 2020 SURF (Summer Undergraduate Research Fund). They are:

- ◆ **Rachel Bahouth '21 Project Title:** Does Food Supplementation Influence Parasite Community Composition Across the Geographic Range of Eastern Bluebirds (*Sialia sialis*)? Faculty Mentor: Dr. Sarah Knutie
- ◆ **Akriti Bhattarai '21 Project Title:** Identification of Putative Resistance Genes in the Sugar Pine Genome (*Pinus lambertiana*) and across the White Pines. Faculty Mentor: Dr. Jill Wegrzyn
- ◆ **Peter Goggins '21 Project Title:** Influences of Habitat Quality on Juvenile Condition in Anadromous Alewives (*Alosa pseudoharengus*) Faculty Mentor: Dr. Eric Schultz
- ◆ **Olivia Lemieux '22 Project Title:** Assessing Allopolyploidy and Speciation across the *Physcomitrium pyriforme* Moss Complex. Faculty Mentor: Dr. Bernard Goffinet
- ◆ **Ariana Rojas '21 Project Title:** The Role of Taxi, Miniature, and an Uncharacterized Homeobox Gene in the Development of Double-Layered Epithelium in *Oncopeltus fasciatus*. Faculty Mentor: Dr. Elizabeth Jockusch
- ◆ **Danielle Schwartz, Dec. '20 Project Title:** Impact of Forest Fragmentation on Bark Gleaning Bird Foraging Behavior Faculty Mentor: Dr. Christopher Elphick
- ◆ **Sarah Tsuruo '21 Project Title:** Testing if a Fibrosis Immune Response Affects Sex Hormones in Stickleback Fish Faculty Mentor: Dr. Daniel Bolnick

NOTE OF INTEREST: Every year, EEB engages @ 130 undergraduate students (hired by 22 faculty and staff) to work which includes the EEB office, labs, field work, greenhouse activities, etc.

IN MEMORIAM

Peter H. Rich Ph.D, of Colchester, died April 4, 2020 after an extended illness complicated by Covid-19. He was 80. Professor Emeritus at the University of Connecticut, Peter was born and raised in Wellfleet MA on Cape Cod, son of the late Earle G. and Florence R. Rich. He was the beloved husband of Mary C. Lavery for over 20 years. He is survived by his son Jonathan Rich and wife Sandy, grandsons Christopher and Steven, and one great grandson, all of Brookfield, MA., and a step-daughter Bethany Zahner of Norwich, CT. His feline companion, Zoe also survives him.

His childhood on Cape Cod ultimately influenced his choice to pursue scientific research as a career, especially the study of freshwater lakes. He received his PhD at Michigan State University and embarked on a 35 year career of research and teaching of Limnology at UCONN. He was committed to his students and also the citizens of Connecticut, often advising individuals and towns about issues with their lakes. He served on the board of the CT. Chapter of the Nature Conservancy. Peter loved nature. He was an avid fly fisherman, bird enthusiast, cyclist, hiker; he also loved wild flowers, animals, and steam trains. He had a wonderful sense of humor, amazing smile, and endearing manner despite a long illness. A celebration of Peter's life will be held at a later date. Please bring your stories and anecdotes to share! In lieu of flowers, memorial donations may be made in Peter's name to The Nature Conservancy, 55 Church Street, Floor 3, New Haven, CT 06510-3029. The Aurora McCarthy Funeral Home of Colchester has been entrusted with arrangements. www.auroramccarthyfuneralhome.com

ALUMNI NEWS

Cera Fisher (Ph.D. 2019) has accepted a postdoctoral position at Cornell working with Jeffrey Scott. She will continue her work on the evolution of novel traits with mosquitoes and insecticide resistance taking their place.

Kristen Nolting (Ph.D. 2020) has accepted a postdoctoral position at the University of Georgia working with Dr. John Burke and Dr. Lisa Donovan.

Jon Velotta (Ph.D. 2014) has accepted an Assistant Professor of Evolutionary Biology position at the University of Denver. He will start in September 2020.

Bryan Connolly (M.S. 2000) has accepted a teaching position in Biology at Eastern State University. Bryan earned his Ph.D. with UConn's Plant Sciences Department in 2014.

Jaleigh Pier (M.S. 2018) will begin her Ph.D. at Cornell this fall.

Tanisha Williams (Ph.D. 2019) following the success of #BlackBirdersWeek, Tanisha and others, organized the highly successful #BlackBiotanistsWeek on Twitter and Instagram during the week of 6 July 2020.

Lauren Stanley (Ph.D. 2020) has accepted a post doctoral position at Michigan State University working with Dr. David Lowry in the Department of Plant Biology.

Chris Nadeau (Ph.D. 2020) has accepted the position of a Smith Conservation Research Fellow at the Marine Science Center at Northeastern University. He'll be working with Randall Hughes (Northeastern), Abe Miller-Rushing (Acadia National Park), and Nick Fisichelli (Schoodic Institute).

James Mickley (Ph.D. 2017) has accepted the position of Curator of the Oregon State University Herbarium which will start in the Fall 2020. In addition to his Curator responsibilities, he will be teaching in the Department of Botany and Plant Pathology.

Amanda Hewes (M.S. 2020) will start her Ph.D. at the University of Washington. Amanda will be working in Alejandro Rico-Guevara's lab, an EEB alum who completed his Ph.D. with EEB in 2014.

ALUMNI AWARDS

Anna Sjodin, (Ph.D. 2019) received an honorable mention for the Ecological Society of American's (ESA) 2020 Buell Award for Excellence in Ecology for her talk, "*Do host traits affect viral transmission? Accounting for imperfect detection when exploring individual level heterogeneity.*" She discussed the role of individual traits and imperfect detection on viral transmission in bats.

The Buell Award was created in memory of Murray F. Buell. The award is given to a student for the outstanding oral paper presented at the ESA Annual Meeting.

Nick Russo, (B.S. 2018) was awarded a 2020 NSF Graduate Research Fellowship award. Nick is currently in the M.S. program at UCLA.

EEB IN THE NEWS

BioScience “In Their Own Words” *BioScience*, Volume 70, Issue 1, January 2020, Pages 31–34, **Kent Holsinger**
<https://doi.org/10.1093/biosci/biz136>.

BioScience “In Their Own Words” *BioScience*, Volume 70, Issue 5, May 2020, Pages 383–389 **Greg Anderson**
<https://academic.oup.com/bioscience/article/70/5/383/5836268>

BioScience “In Their Own Words” *BioScience*, Volume 70, Issue 8, August 2020, Pages 640–646 **Gene Likens**
<https://academic.oup.com/bioscience/article/70/8/640/5892446>

UConn Today, “Important Lessons from Social, Yet Sick, Bats” https://today.uconn.edu/2020/03/important-lessons-social-yet-sick-bats/?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today
Dan Bolnick

UConn Today, “Birds are in big trouble: What does that mean for the planet and for our souls?” - Kelly-Jane Cotter
https://www.mycentraljersey.com/story/life/2020/04/01/birds-trouble-what-does-mean-planet-our-souls/506228002/?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today **Chris Elphick**

New York Times, “Wildlife Collapse From Climate Change Is Predicted to Hit Suddenly and Sooner” - Catrin Einhorn
https://www.nytimes.com/2020/04/15/climate/wildlife-population-collapse-climate-change.html?searchResultPosition=1?utm_source=listserv&utm_medium=email&utm_campaign=weekly&utm_content=uconn-today
Mark Urban, Cory Merow

New York Times, “Could the Power of the Sun Slow the Coronavirus?” - William J. Broad
<https://www.nytimes.com/2020/04/24/health/coronavirus-summer-ultraviolet-light.html> **Mark Urban, Cory Merow**

UConn Today, “Don’t Expect a Summer Reprieve From COVID-19” - Elaina Hancock
https://today.uconn.edu/2020/04/dont-expect-summer-reprieve-covid-19/?utm_source=listserv&utm_medium=email&utm_campaign=weekly&utm_content=uconn-today **Mark Urban, Cory Merow**

USA Today, “Cicadas will emerge in North Carolina, Virginia and West Virginia starting this month” - Jessica Flores
https://www.usatoday.com/story/news/nation/2020/05/12/cicadas-emerge-eastern-states-after-living-17-years-underground/3119671001/?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today **John Cooley**

Time, “This Researcher Predicted 2020 Would Be Mayhem. Here’s What He Says May Come Next” - Melissa Chan
<https://apple.news/Alh-RcNtSai9Q1zrz4YCDQ> **Peter Turchin**

VICE, “Bow, Humans: Trillions of Cicadas Are Going to Rule America” - Becky Ferreira
https://www.vice.com/en_us/article/akzd9p/bow-humans-trillions-of-cicadas-are-going-to-rule-america **Chris Simon**

BYUradio, “Return of the Cicadas, Zombie Bugs” - Marcus Smith, host
http://www.byuradio.org/episode/46df1c70-c214-40d5-9d3b-776c841feb93/constant-wonder-return-of-the-cicadas-zombie-bugs?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today **Chris Simon**

Ensia, “Should plants and animals that relocate because of climate change be considered invasive?” - Jenny Morber
https://ensia.com/features/climate-change-nonnative-invasive-species/?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today **Mark Urban**

UConn Today, “Bringing the Heat to Field Research” - Elaina Hancock
<https://today.uconn.edu/2020/04/bringing-heat-field-research/> **Carlos Garcia-Robledo, Christina Baer**

EEB ALUMNI IN THE NEWS

Chris Martine, Ph.D. 2006 HGTV 12 Surprising Health Benefits of Gardening— Joe Sills
https://www.hgtv.com/outdoors/gardens/health-benefits-of-gardening-pictures?fbclid=IwAR0Mo0O3XvjIIAMfKKiW68_hNRLskFmDXCLjj2wy0AFKwnxRIImYG-8jaGGY

Chris Martine, Ph.D. 2006, Plants are Cool Too! video, May 15, 2020 “Allegheny Ice and the Blue False Indigo”
https://www.youtube.com/watch?v=b-XhtTw7VIY&fbclid=IwAR2v0M7fNJ_Ee_P4VoVY8FujfINb0CUE5U7xmuBGsW99RKYxNjtZ-IEPVk4

Chris Martine, Ph.D. 2006, Plants are Cool Too! video, July 19, 2020 “Rare plant biodiversity protection at the National Tropical Botanical Garden” https://www.youtube.com/watch?v=GO nuk1naI50&feature=youtu.be&fbclid=IwAR1Bw0uOWe0npBFMYM7u_5KsoCGi4Qlq8bnNUBBh8UBPqIN28Y2LOstHDjs

Alejandro Rico-Guevara Ph.D. 2014, **Kristiina Hurme**, Ph.D. 2011 Burke Museum video, “Five Questions: Alejandro Rico-Guevara, Curator of Birds” <https://www.facebook.com/burkemuseum/videos/571117360284114/UzpfSTc1Nzk2NTgwNjM6MTAxNTgwMTM3OTI0MjMwNjQ/>

Alejandro Rico-Guevara Ph.D. 2014 NPR interview, “Animal Slander! Debunking 'Birdbrained' And 'Eat Like A Bird'” https://www.npr.org/2020/04/21/840338275/animal-slander-debunking-birdbrained-and-eat-like-a-bird?fbclid=IwAR1rDPNBB3eTnlvVKMIvEauhhg06X6PoVGNU-pcVVJN0E_G-IN11aKJgW5E

Alejandro Rico-Guevara Ph.D. 2014, Burke Museum video, “How Hummingbirds Feed & Fight” https://www.youtube.com/watch?v=-AE2xnmYSXA&fbclid=IwAR03DnRHdR4So_8DvmK2HZgyguIuUzV5qESF7YixxpWL6_JAnXht9ixC0tg

Justin Davis, M.S. 2004, *Connecticut Magazine* “The Sound is on the rebound, but the work to ensure its future is far from over” - Todd McLeish https://www.connecticutmag.com/issues/features/the-sound-is-on-the-rebound-but-the-work-to-ensure-its-future-is-far/article_fb6c8e3e-c843-11ea-ae66-83a9342b0f48.html?utm_source=listserv&utm_medium=email&utm_campaign=daily&utm_content=uconn-today

Colin Carlson, M.S. 2013, *Live Science*, “The coronavirus didn't really start at that Wuhan 'wet market'” - Rafi Letzer <https://www.livescience.com/covid-19-did-not-start-at-wuhan-wet-market.html>

Kaitlin Gallagher, Ph.D. 2019, presented a seminar for the Bamfield Marine Sciences Centre “When the hunter becomes the hunted: tapeworms of the pelagic thresher shark” https://www.youtube.com/watch?v=P1Z8_URJjHw&t=5s&fbclid=IwAR3CDxOJ1nblHErYbBF7F82X3zlsGKevTTA-rxi2UhOt8rS3x6cIcunpeK0

Chris Martine, Ph.D. 2006 and **Tanisha Williams**, Ph.D. 2019 *The Daily Item* “Bucknell professor, students to be featured in art exhibit” - Marcia Moore https://www.dailyitem.com/news/snyder_county/bucknell-professor-students-to-be-featured-in-art-exhibit/article_b303770f-4054-5306-b247-9c9073d13a1f.html?fbclid=IwAR2AZVJdq5ys43iyj7PKLcDVzZLkABfEkeHHueuwVDGY4QwRYp1e3eQvCG8

Tanisha Williams, Ph.D. 2019 *The Daily Item* “Bucknell researcher starts social media movement to highlight Black botanists” - Marcia Moore https://www.dailyitem.com/news/local_news/bucknell-researcher-starts-social-media-movement-to-highlight-black-botanists/article_45f85956-f9cd-5ec2-9a18-fc6f7d163e8f.html?fbclid=IwAR2-WaiiVfWMUz3OxUg-qGpsOCvK2VP6-qdxCBUUHyZSCriuEV4tasMYA5k

EEB POST DOCS IN THE NEWS

Christina Baer accepted a position to join SUNY- Binghamton as a Research Educator with a focus on Ecological Genetics. Christina will leave EEB in the fall but will continue to collaborate on projects with Dr. Carlos Garcia-Robledo and his lab.

Stephen De Lisle was awarded a 2020 American Society of Naturalist’s Jasper Loftus-Hill Young Investigator Award. These awards go to applicants who completed their Ph.D. three years preceding the application deadline or are in the last year of a Ph.D.

2020 PUBLICATIONS

Grads, undergrads and faculty have published 94 new papers in 8 months!

- Addesso, A.M.⁺, J.A. Harvey, G.J. Vaziri, T.B. Verrett, L. Albert, T. Arthur, K. Chernicky, S. Simons, J.A. Chaves, S.A. Knutie. 2020. Effect of introduced parasites on the survival and microbiota of nestling cactus finches (*Geospiza scandens*) in the Galapagos Islands. *Journal of Ornithology*. doi: 10.1007/s10336-020-01793-6
- Almeida, D. R. A., E. N. Broadbent, A. Almeyda Zambrano, A. Wendt, P. F. Foster, B. E. Wilkinson, C. Salk, D. D. Papa, S. C. Stark, R. Valbuena, E. B. Gorgens, C. A. Silva, P. H. S. Brancalion, and R. Chazdon. 2020. Detecting successional changes in tropical forest structure using GatorEye drone-borne lidar. *Biotropica*, in press. <https://doi.org/10.1111/btp.12814>
- Alonso Garcia M., Villarreal J.C., K. McFarland & B. Goffinet. 2020. Population genomics confirms extreme sex ratio of a clonal bryophyte. *Frontiers in Plant Science* 11: 495. <https://doi.org/10.3389/fpls.2020.00495>
- Augyte, S., G. Wikfors, S. Pitchford, M. Marty-Rivera, S. Umanzor, C. Yarish, D. Bailey, & S. Lindell. 2020. The application of flow cytometry for kelp meiospore isolation. *Algal Research* 46, March 2020, 101810; <https://doi.org/10.1016/j.algal.2020.101810>
- Badari, C. G., L. E. Bernardini, D. R. A. d. Almeida, P. H. S. Brancalion, R. C. Cesar, V. Gutierrez, R. L. C. Chazdon, H. Borges Gomes, and R. A. G. Viani. 2020. Ecological outcomes of agroforests and restoration 15 years after planting. *Restoration Ecology*, in press. <https://doi.org/10.1111/rec.13171>
- Baer, C., S., Dierick, D. and Garcia-Robledo C. (2020) Portable heaters for microhabitat heating experiments. *Methods in Ecology and Evolution* 11: 727-732. doi.org/10.1111/2041-210X.13391
- Bolnick, D.I., E.J. Resettarits, K. Ballare, Y.E. Stuart, W.E. Stutz. 2020. Scale-dependent effects of geography, host ecology, and host heterozygosity on species richness in a stickleback parasite metacommunity. *Ecography*. 43:990-1002. <https://doi.org/10.1111/ecog.04994>
- Bulgarella, M., Knutie, S.A., Voss, M.A., Cunninghame, F., Florence-Bennett, B.J., Robson, G., Keyzers, R.A., Taylor, L.M., Lester, P.J., Heimpel, G.E., Causton, C.E. 2020. Sub-lethal effects of permethrin exposure on a passerine: Implications for managing ectoparasites in wild bird nests. *Conservation Physiology* 8: coaa076. doi: 10.1093/comphys/coaa076
- Chao, A., Y. Kubota, D. Zelený, C. H. Chiu, C. F. Li, B. Kusumoto, M. Yasuhara ..., and R. K. Colwell. 2020. Quantifying sample completeness and comparing diversities among assemblages. *Ecological Research* 35:292-314. doi.org/10.1111/1440-1703.12102
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