FLORIDA MUSEUM®

Annual Report

MESSAGE FROM THE DIRECTOR

Welcome to our annual report for fiscal year 2022. It's been a dynamic year at the Florida Museum. Any lingering effects from the COVID-19 pandemic substantially disappeared as museum attendance not only returned to pre-pandemic levels but exceeded it, with 213,200 visitors. Once again K-12 school groups are arriving every day of the week for museum field trips. Even UF students found their way back to the museum in record numbers (17,297). But in addition to welcoming visitors, we did a lot of planning this year.

After months of thoughtful discussion, we launched our new museum strategic plan in January. One of the themes of the plan focuses on unity. Specifically, we are interested in better integrating the activities and personnel involved in our Research and Collections Division, primarily located in Dickinson Hall, with the staff and activities associated with our Exhibits and Public Programs Division situated in Powell Hall and the McGuire Center, 2 miles across campus.

One way to accomplish this goal involves our new Science Up Close initiative, in which we design and build our own temporary exhibition around a particular collection or research topic. Then we staff the exhibit with real scientists in a "live lab" conducting their research in full public view and talking to visitors about what they're doing, how it works and why it matters. Our goal going forward is to alternate one Science Up Close exhibition each year with a leased temporary exhibition.

Our first Science Up Close installment is "Fantastic Fossils," which opened in April. It features our three paleontology collections and will remain through the end of 2022. By all measures, it's been a resounding success. Visitors report loving their interactions with our scientists, who discuss their work with fossil excavations at our Montbrook fossil site near Williston, Florida, which involves specimen preparation and identification, and high-tech imaging and computer cataloging of specimens, as well as careers in paleontology and science. The visitor impact has been phenomenal, as has the response of museum personnel, who often don't get an opportunity to work with their colleagues on such cross-division projects.

Finally, much of our year was devoted to monitoring construction of our new Special Collections Building, slated for completion in late 2022. Located just south of Powell Hall and west of the Phillips Center for the Performing Arts, this 23,500-square-foot, purpose-built facility will house the museum's wet collections: about 4 million specimens primarily from ichthyology, herpetology and invertebrate zoology preserved in alcohol. Once the building is completed, the move of specimens from Dickinson Hall to the new facility will commence but will require many months to accomplish. Staff excitement is palpable.

Naturally, many more exciting things occurred throughout the year, and I encourage you to peruse this report to learn more about what YOUR museum has been doing. From my perspective, I couldn't be prouder of the museum faculty, staff and students as they continue to perform at a very high level. Hopefully you'll agree that we punch above our weight class — a Top 5 natural history museum for a Top 5 university.

Thank you for your generous support of the Florida Museum of Natural History.

Douglas S. Jones
Director
Florida Museum of Natural History

SCIENCE UP CLOSE

"Fantastic Fossils," first installment featuring the Florida Museum's three paleontology collections

The Florida Museum of Natural History's "Rare, Beautiful & Fascinating: 100 Years @Florida Museum" exhibit was a milestone in multiple ways. In addition to commemorating 2017 as the centennial anniversary of being designated the state's official natural history museum, the exhibit also initiated the idea of including a working lab as a regular feature in Powell Hall, strengthening the partnership between researchers and public programs to benefit museum visitors. This concept bloomed into the "Science Up Close" exhibit series, which opened in April 2022 with the first iteration, "Fantastic Fossils."

The series takes a deep dive into the myriad collections that call the Florida Museum home and brings visitors face-to-face with experts to reveal different aspects of the 40 million specimens in the museum's 18 collections. The initiative kicked off by highlighting the vertebrate paleontology, invertebrate paleontology and paleobotany collections. The task of creating a working lab dedicated to fossil research from scratch was no easy feat. The result has been a unique opportunity for people across the museum to collaborate and has put museum research front and center in a new way.

"The exhibit gives our scientists an opportunity to engage with people in a way that they don't typically get to," said Jonnie Dietz, exhibit developer. "They get to change the perception of collections and specimens being dusty jars sitting on shelves and can directly show people the value of science and the relevance of their research."

Apart from the rare fossils on display, the centerpiece of the exhibit is the working lab. Recognizable by the constant bustle of collection managers, curators, students and volunteers, this functional prep lab serves as a space for scientists to do research they typically would do in their respective divisions while still engaging with visitors face-to-face.

Despite her expected initial nervousness at the prospect of being on public display instead of "underground" at Dickinson Hall, Vertebrate Paleontology Collections Manager Rachel Narducci said the partnership has proven to be an enriching experience.

"I was originally worried about how engagement with visitors would go, but after being a part of it all these months we've found it to be incredibly rewarding," she said. "Sometimes all we're doing is sitting at a computer entering data but being able to see real fossils and the daily life of a paleontologist makes a huge difference to visitors."

The lab creates a unique guest experience, as each trip presents something new, depending on what's going on in the lab. Tasks vary from sorting bones from matrix to creating digital reconstructions and cleaning and rebuilding fossils. In fact, staff members have noticed people coming back for multiple visits and staying for far longer than a regular special exhibit.

Apart from the innovative experience for visitors, the series also benefits the researchers, as they get to engage with the public on a scale that isn't possible when they're in the collections. Featured exhibits see tens of thousands of visitors over the course of their runs, offering scientists a great chance to fulfill the broader impact requirements of grants while also talking to everyday people about their research.

"That level of direct feedback and communication is new for scientists and is a good thing for us to engage in," Narducci said. "It brings back the excitement. Sometimes things can get monotonous as we're doing it every day, but showing it to someone new is a reminder that what we do is the coolest thing ever!"

An essential part of the success of this grand experiment has been the volunteer contribution. More than three dozen volunteers, both new and seasoned alike, have provided nearly 3,000 hours of service in the exhibit — preparing fossils, engaging with visitors and even recruiting guests to volunteer in the exhibit or at the Montbrook dig site.

"This whole experience would not have been possible without our volunteers," Narducci said.

One such volunteer is Ken Marks, a retired computer programmer, whose love for fossils led him and his wife, Tammy, to move to Gainesville from Boca Raton. He started volunteering at the Thomas Farm site in 2014 and began attending digs at the Montbrook site when it opened to the public in 2016, all while still living in South Florida and driving up on his days off.

Apart from fieldwork over the last eight years, Marks has also spent time in the collections, sorting through microfossils and preparing plaster jackets, among other tasks. Since April, he's been in the "Fantastic Fossils" lab as an important liaison between researchers and the public by providing visitors a first-person example of how anyone can contribute to science.

Volunteer Ken Marks prepares a roughly 5-million-year-old rhinoceros fossil from the Late Miocene Epoch while talking to visitors during the opening of 'Fantastic Fossils.' ©Florida Museum/Kristen Grace

"Museums run on volunteers, but people think there's no way to break in because they don't have a background in science or work in an office," Marks said. "Just being able to let the people who come here as museum visitors know they can come back as museum volunteers is a great thing. I enjoy the heck out of doing this, and I want to share that feeling with other people."

The Science Up Close series will continue next year with "Incredible Insects," which will involve more partnerships, including with the museum's McGuire Center for Lepidoptera and Biodiversity and other University of Florida colleges and departments, as it continues to put the unity in community.

RESEARCH & COLLECTIONS

Department of Natural History Highlights

The Department of Natural History had another extraordinary year. Our faculty, staff, and students had many notable publications, received high levels of external funding supporting our collections and research, and conducted fieldwork around the globe. Our faculty made significant contributions to teaching and mentoring undergraduate and graduate students. Our science reached teachers, students, and the general public through public programs, exhibits, news stories, and more. We hired our first curator of artificial intelligence as part of a broad initiative by the University of Florida to spur innovation in AI and data science. We were honored to host a visit from National Science Foundation Director Sethuraman Panchanathan. We made substantial progress towards opening and planning the move into a new state-of-the-art building housing our fluid-preserved specimens. And finally, we opened the first of a new, dynamic exhibit series focused on research and collections in collaboration with Florida Museum Exhibits and Public Programs.

Big data, big discoveries

Researchers are increasingly turning to citizen scientists to help take the pulse of a rapidly changing planet. This year, Florida Museum researchers used crowdsourced data to determine how urban cityscapes affect the wild mammals who live in them and why disappearing Joshua tree populations experienced an early-blooming event in 2019. To help scientists sidestep irregularities in these large data pools, researchers also scrutinized differences in the timing, location and the type of organism documented on the citizen scientist platform iNaturalist.

Collections-based science

Frogs hopped into the spotlight this year with insights into their jumping behavior — or lack thereof — and the weird relationship frogs have with teeth. Pottery shards revealed the ancient trade routes used by Indigenous peoples in the Caribbean. In another study, a massive dataset revealed how and what birds see.

Florida's wildlife

Researchers have had their hands full keeping tabs on newcomers to the state of Florida, those just passing through, and those in danger of disappearing. Herpetologist Coleman Sheehy is actively tracking the first record of invasive caecilians, a type of amphibian, in South Florida. Elsewhere in the state, researchers are working to reduce the number of migratory bird deaths caused by collisions with windows. And Florida Museum specimens were instrumental in the designation of a protected habitat in North Florida for a freshwater mollusk that was once believed to be extinct.

Collections & Research Data

211
Peer-reviewed publications

55
Grants & contracts worth $29.5 million

172
Undergraduates & postdoctoral fellows working in the collections

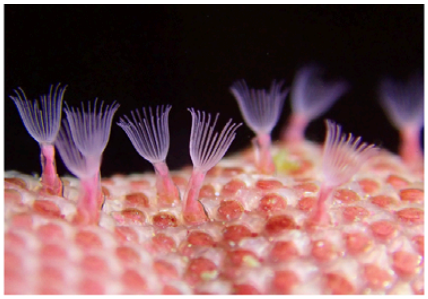
40+
Million specimens & artifacts

99,355
New accessions to collections

152,910
New specimens & artifacts cataloged

50,214
Specimens & artifacts loaned via 2,170 loans

5,030
News articles about museum research with potential readership of 10.3 billion



DNA and genetics

National Academy of Sciences members Doug and Pam Soltis are forging ahead with the Earth BioGenome Project, an ambitious international effort to map the genomes of Earth's 1.8 million eukaryotic species. Researchers also published the largest genetic study on bryozoans to date, highlighting their relationships and the important role parental care has played in their survival and diversity. DNA analysis collected nearly a century ago led museum botanists to the discovery of a new and rare plant species in the Dominican Republic. And a broad analysis of seed plant genomes revealed that an accidental DNA duplication likely led to the origin of gymnosperms, a diverse group that includes pines, cypresses and sequoias.

Museum education and research

Studies revealed the challenges of virtual learning during a pandemic and the toll of closures on museum educators. Museum researchers were also a part of a call to action to strengthen working relationships between zoos and museums to advance shared research, discovery and conservation goals.

Paleobiology

Several incredible fossils have led to record discoveries this year. Paleontologists have unearthed the first mosasaur from the West Indies, the oldest giant ground sloth from Hispaniola, and the first fossil evidence of a land bridge between North and South America during the Cretaceous. In more explosive news, paleobotanists discovered what may be the oldest fruit of the spurge family, a group of plants whose fruits often have a self-destruct method of seed dispersal. In the Adriatic Sea, a sobering study of more than 70,000 fossilized mollusks revealed that major climactic shifts had less of an effect on marine populations than the last few centuries of human activity.

National Science Foundation Director's Visit

National Science Foundation director Sethuraman Panchanathan visited the University of Florida in May to discuss opportunities for university researchers as well as the agency's priorities and vision. He toured various NSF-funded projects beginning at the Florida Museum of Natural History. For fiscal year 2021, NSF funded approximately $60.9 million in UF research, with more than $25 million going to the Florida Museum.

McGuire Center for Lepidoptera & Biodiversity

Curators, staff and students at the McGuire Center for Lepidoptera and Biodiversity pursued a broad range of projects relating to the conservation, diversity, ecology and evolution of moths, butterflies and other insects. This year saw the launch of a new Visiting Researcher program supported by the Mr. Carl Wisler and Dr. Midge Smith Visiting Researcher Endowment, bringing experts from around the world to work with McGuire Center researchers and our continually growing Lepidoptera collections.

DeLuca Preserve survey

McGuire Center researchers initiated a project to inventory the moths and butterflies of the diverse landscapes of UF's DeLuca Preserve in south Florida.

Taking the planet's pulse

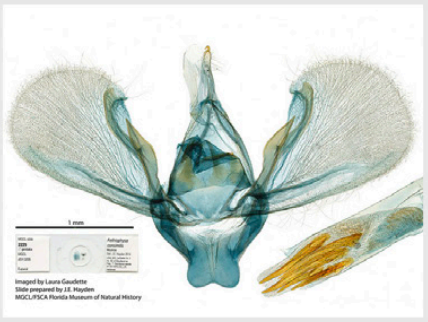
Park rangers in Ecuador's hyper-diverse Yasuní National Park, along with McGuire Center and Ecuadorian institution researchers, demonstrated the potential for a butterfly monitoring program to help detect long-term trends in tropical insect biodiversity.

Moth tracking device

Researchers designed and built a portable moth tracking device that will improve understanding of the behavior and activity of these often inconspicuous insects.

Lives of Moths

A new, beautifully illustrated book that provides an overview of these remarkable, highly diverse but often overlooked insects, their extraordinary lives, and the vital roles they play in the natural world. (Choice Editors' Picks)



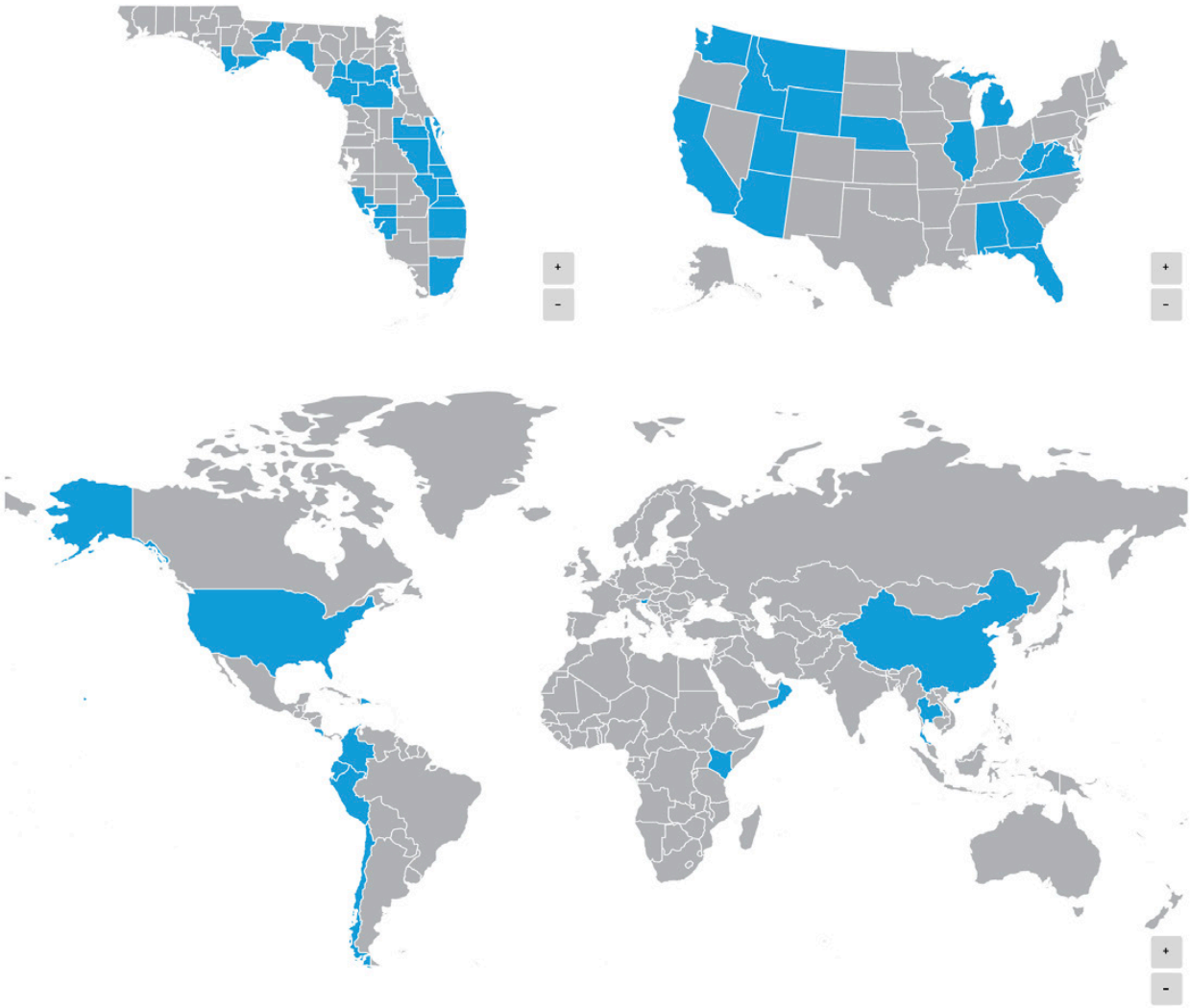
Secret morphology

To more broadly share the wealth of information within the museum's Lepidoptera collections, microscope slides of the intricately sculptured genitalia of moth specimens, often critical in identification, are being scanned and made available online.

Schaus' Swallowtail

The tireless efforts of museum researchers and volunteers were rewarded with one of the best years in recent memory for the iconic, beautiful, and threatened south Florida Schaus' Swallowtail butterfly.

Research Locations



Staff & Faculty Teaching

98	166	130	35
Graduate committees chaired	Graduate committees served	Independent studies supervised	Courses taught by Museum faculty

Faculty Promotions

Akito Kawahara

Curator of Lepidoptera
Hired in 2011 as an assistant curator of lepidoptera, Kawahara was tenured and promoted to associate curator in 2017. He has published over 160 peer-reviewed scientific papers and is one of the world's leading researchers on the systematics and evolutionary biology of moths and butterflies.

OUTREACH

Exhibits & Public Programs

The year brought much good news – as the pandemic waned, museum visitors returned in pre-pandemic numbers and programs returned in person. Welcoming visitors from each of Florida's 67 counties, all 50 states and 37 other countries, underscores the value of the museum experience to a wide range of audiences.

On the exhibition front, we proudly opened "Science Up Close: Fantastic Fossils," created by the museum. This exhibit showcases the paleontology collections and features faculty, staff, student and volunteer paleontologists in a live laboratory setting, providing real-time engagement between visitors and scientists. One of the first in a new exhibit series, "Science Up Close," intends to share current museum and university science with public audiences.

As programs resumed, we brought back some large-scale on-site events, such as the popular Can You Dig It? and the fall and spring plant sales, which drew record crowds. Focus shifted this fiscal year to strengthening impact and diversifying the audiences we serve. Girls Do Science aimed to inspire the next generation to consider science careers, Museum for Me opened the doors early to guests on the autism spectrum, Family Discovery Time hosted Head Start youth and families and Summer Science Surprises engaged hundreds of underserved youth at community partner locations. These projects continue to broaden the museum's audiences and support its strategic goals.

The Florida Museum's downloadable exhibit "Earth's Forecast: Hurricanes and Climate Change" was installed at the Phillip and Patricia Frost Museum of Science in Miami, Florida. ©Photo courtesy of Cory Keester-O'Mills

Further extending the institution's reach, the museum's traveling exhibits program hosted two long-term installations – "First Colony: Our Spanish Origins" at Governor's House in St. Augustine, Florida and "Dugout Canoes: Paddling through the Americas" at the Silver River Museum in Ocala, Florida. "Megalodon: Largest Shark that Ever Lived" continued its national tour, and a new downloadable exhibits portal brought some of our smaller exhibits to venues around the world, enjoyed by over a million people.

Attendance & Outreach Data

213,200
Annual visitation

5,853
Public program participants

1,447,870
Visitors to Museum traveling exhibits at other venues

567
Youth onsite program participants

2,677
Youth outreach program participants

9,901
Youth field trip participants

Butterfly Rainforest exhibit

READ MORE

Family Discovery Time

READ MORE

Tot Trots

READ MORE

Museum in the Parks

READ MORE

Fantastic Fossils 5K

READ MORE

Tiny Titans: Dinosaur Eggs and Babies exhibit

READ MORE

Thompson Earth Systems Institute

The University of Florida Thompson Earth Systems Institute (TESI) is advancing communication and education about Earth systems science in a way that inspires Floridians to be effective stewards of our planet.

What is Earth systems science?

The study of the interactions among air, water, land and life on Earth, and how these systems are influenced by human activities. Only by understanding how the Earth's systems interact will we be poised to fully understand the ways human activity affects the natural environment in which we live.

Our vision is to lead the way to a healthier planet by cultivating a responsible and curious society that values, trusts and has access to science.

TESI Outreach Data

50,000
K-12 Students representing 357 schools

1,403
Scientist in Every Florida School (SEFS) scientist visits

8,000
K-12 students & teachers attend 137 virtual events

5,800
Lifelong learners attend 10 public outreach events

21
Undergraduates gain experience through TESI internships and fellowships

$83K
In private funding acquired for SEFS & outreach

UF TESI environmental leaders fellowship

With funding from the Henry David Thoreau Foundation, TESI's Environmental Leaders Fellowship brought together 12 students from diverse majors and backgrounds and provided them with opportunities to gain the knowledge, skills, confidence, and network to advocate for the planet as they take on leadership roles in their respective careers.

Scientist in Every Florida School

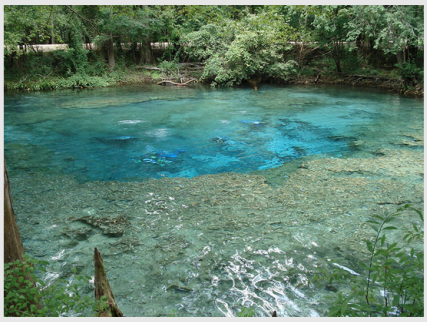
Scientist in Every Florida School engages Florida K-12 students and teachers in cutting-edge research by providing science role models and experiences that inspire the future stewards of our planet. During 2021-22, the SEFS team coordinated scientist visits to classrooms in 43 counties across the state.

K-12 teacher professional development

Our Scientist in Every Florida School professional development workshops allow teachers to work closely with scientists to co-develop lesson plans. After the workshops conclude, the learning continues throughout the school year as teachers invite scientists to their classrooms. Over the past year, 83 teachers representing 25 counties attended three professional development programs focusing on the hydrosphere, climate change and adaptations, and Florida paleontology.

TESI environmental communicators internship

During 2021-22, eight undergraduate TESI Environmental Communicators developed social media content, wrote newsletter articles, created videos and more, all focused on communicating Earth systems issues to Floridians, and beyond. This year, TESI environmental communicators were named finalists in the 2021 ArcGis StoryMaps Challenge for Restoring Our Ocean for their project, "By Saving the Sea Cows, We're Saving Ourselves."



TESI digital outreach

Through online platforms, TESI's digital outreach team curates and shares information about Florida's environment and natural resources. During 2021-22, 9,248 people followed TESI on social media and 75,000 unique users visited the Institute's website to learn more about Florida environmental topics. TESI social media channels earned 603,000 impressions and 40,000 comments, likes and shares. Educational videos on the TESI YouTube channel garnered 59,000 views.

K-12 shark AI

With the goal of recruiting more students to STEM and computer science careers, a team from TESI, the College of Education, the Herbert Wertheim College of Engineering, and the Calvert Marine Museum in Maryland received a $1.3 million grant from the National Science Foundation to teach Florida middle school teachers how to use fossil shark teeth to promote learning about artificial intelligence (AI).

Museum-wide Digital Engagement Data

8,781,396	3,807,757	10,564,418	244,386	18,832	5,377
Website pageviews	Website visitors	Social reach	Social interactions	Email subscribers	YouTube subscribers

40,117	3,847	11,810	12,617	1,497	216,442
Main Facebook likes	Science Facebook likes	Instagram followers	Twitter followers	LinkedIn followers	Pinterest followers

SUPPORT

Generous endowment improves accessibility of collections for leading experts

Mr. Carl Wisler and Dr. Midge Smith

Midge Smith and her late husband Carl Wisler based their life's work on helping public, private, and governmental agencies measure performance and achieve accountability. In 1995, Dr. Smith helped codify the fledgling field of evaluation by launching an ambitious new endeavor—The Evaluators' Institute (TEI)—providing adult learners with knowledge and skills, and eventually with certified credentials, to assess any program—from U.S. foreign policy to classroom curricula to nonformal community-based programs. The first classes were located at the Johns Hopkins University (MD) and later in several large U.S. cities plus Canada. Midge was the Director while Carl, who'd recently retired from an extensive career as a physicist and government accountability leader (USGAO*) was the "General Factotum"—a title codified by him—because he could and did assist with anything needed. Midge donated TEI to the George Washington University in 2008—by which time adult learners from more than 100 countries had participated and the influx of expertise, facilitated by TEI, evaluation had blossomed into a "profession."

"Carl had an insatiable thirst for knowledge and was one of the most widely read people I'd ever met—one of his many attributes that attracted me to him," Midge said, noting he could discourse on nearly any subject. "He was also the most decent human being on Earth. He was kind, unassuming, considerate, and very—but quietly—intelligent...and it didn't hurt any that he was quite handsome!"

This year, Smith brought her spirit of success and belief in science to the Florida Museum with the establishment of a visiting researcher endowment to honor Carl's life and achievements.

Funds from the endowment are awarded to top specialists in the field of Lepidoptera to conduct research at the McGuire Center for Lepidoptera and Biodiversity. The center houses more than 10 million moth and butterfly specimens, making it the largest collections-based research and education center of its kind in the world. As technology improves, the amount of new information that can be gleaned from these specimens becomes nearly limitless, but gathering it requires the concerted effort of researchers the world over.

Painting of Carl Wisler by Dale Rayburn

In 2022 alone, the endowment has supported eight visitors from multiple countries and a diverse range of expertise, said McGuire Center director Keith Willmott. "These funds have enabled visiting students to work on dissertation research, provided opportunities for McGuire Center students and staff to interact with experts from outside our institution, and have made our collections more accessible to the global research community."

*U.S. General Accounting Office

Volunteer Hours

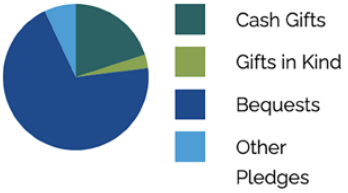
15009
Hours donated

234
Total volunteers

Fundraising Data

$10,473,582
Total Gifts FY 20-21

$34,716,379
Total Endowment Value



Cash Gifts	$2,140,200	20%
Gifts in Kind	$720,882	3%
Bequests	$7,287,500	70%
Other Pledges	$325,000	7%

PEOPLE

Inclusivity, Diversity, Equity and Accessibility

The Florida Museum has centered Inclusivity, Diversity, Equity, and Accessibility (IDEA) in its new strategic plan. This year multiple initiatives were launched. Among them are internships for university students from diverse backgrounds, expanded outreach with youth traditionally underrepresented in science and stronger partnerships with diverse community organizations. Two museum committees are dedicated to advancing IDEA for staff, students and visitors – a museum-wide committee advisory to the Director, and a committee specific to the Natural History department to advise departmental activities. The combined efforts have resulted in new recruitment and hiring practices, leading to more diverse candidates applying for positions, as well as climate surveys, listening sessions and internal communication strategies with a goal of creating a more welcoming space for employees and visitors.

Faculty & Staff Changes

New Hires

Nicole Caldwell
Human Resources Generalist II

Nicolas Gauthier
Assistant Curator, AI for Biological/Cultural Diversity

Kali Geiger
Development Assistant

Jennifer Green
Collection Manager II, South Florida Archaeology and Ethnography

Clint Grice
End User Computing Specialist II, OMT

Alan Franck
Collection Manager II, Herbarium

Janelle Peña-Jiménez
Public Programs Coordinator II

Jerald Pinson
Science Writer

David Plotkin
Project Manager I, Kawahara Lab

Joshua Spurgin
IT Support Supervisor, OMT

Retirements

Pamela Atwell
Fiscal Assistant II

Cindy Bear
Co-Director, Randell Research Center

Bill Keegan
Curator, Caribbean Archaeology

Kent Perkins
Collection Manager, Herbarium

David Steadman
Curator, Ornithology

Karen Walker
Assistant Scientist and Collection Manager III, South Florida Archaeology and Ethnography

FINANCIALS

Revenue
$28.41M

- UF and State Allocation
- Contracts and Grants
- Earned Income
- Gifts
- Other UF Income
- Investment Income

UF/State Allocation	$14.28M	50.27%
Contracts and Grants	$5.79M	20.38%
Earned Income	$3.51M	12.34%
Gifts	$2.63M	9.26%
Other UF Income	$1.37M	4.82%
Investment Income	$0.83M	2.93%

Expenses
$23.54M

- Salaries and Benefits
- Other Operating Expenses
- Overhead and Other Fees
- Transfers for Future Programming

Salaries & Benefits	$17.03M	72.36%
Other Operating Expenses	$4.40M	18.67%
Overhead/Other Fees	$1.68M	7.14%
Transfers for Future Programming	$0.43M	1.83%

AWARDS & HONORS

Micheal Belitz

David Blackburn

Charles Cobb

Trevor Duke

Megan Ennes

Adania Flemming

Kristen Grace

Robert Guralnick

Gregory Jongsma

Bruce MacFadden

Daniel Paluh

Pamela Soltis

Pamela & Douglas Soltis

Alberto López Torres

Jiachun Zhan

PUBLICATIONS

1. **Abramowitz, B.**, **M. Ennes**, **S. Killingsworth**, **P.D. Antonenko**, **B.J. MacFadden**, and **A. Ivory**. 2021. Science in school: Transforming K-12 outreach through scientist teacher partnerships. *Journal of STEM Outreach*. 4(1):1-14. DOI:10.15695/jstem/v4i1.14.
2. Achá, S. and **L.C. Majure**. 2022. A new approach using targeted sequence capture for phylogenomic studies across Cactaceae. *Genes* 13:350. DOI:10.3390/genes13020350.
3. Agne, S., **G.J.P. Naylor**, M. Preick, **L. Yang**, R. Thiel, S. Weigmann, J.L.A. Paijmans, A. Barlow, M. Hofreiter, and N. Straube. 2022. Taxonomic identification of two poorly known Lantern shark species based on mitochondrial DNA from wet-collection paratypes. *Frontiers in Ecology and Evolution* 10:910009. DOI:10.3389/fevo.2022.910009.
4. Aiello, B.R., U.B. Sikandar, H. Minoguchi, B. Bhinderwala, **C.A. Hamilton**, **A.Y. Kawahara**, and S. Sponberg. 2021. The evolution of two distinct aerodynamic mechanisms of moth flight. *Journal of the Royal Society Interface* 18(185):20210632. DOI:10.1098/rsif.2021.0632.
5. Allen-Perkins, A., A. Magrach, M. Dainese, L.A. Garibaldi, D. Kleijn, R. Rader, J.R. Reilly, R. Winfree, O. Lundin, C.M. McGrady, C. Brittain, D.J. Biddinger, D.R. Artz, E. Elle, G. Hoffman, J.D. Ellis, **J.C. Daniels**, J. Gibbs, J.W. Campbell, J. Brokaw, J.K. Wilson, K. Mason, K.L. Ward, K.B. Gundersen, K. Bobiwash, L. Gut, L.M. Rowe, N.K. Boyle, N.M. Williams, N.K. Joshi, N. Rothwell, R.L. Gillespie, R. Isaacs, S.J. Fleischer, S.S. Peterson, S. Rao, T.L. Pitts-Singer, T. Fijen, V. Boreux, M. Rundlöf, B.F. Viana, A.M. Klein, H.G. Smith, R. Bommarco, L.G. Carvalheiro, T.H. Ricketts, J. Ghazoul, S. Krishnan, F.E. Benjamin, J. Loureiro, S. Castro, N.E. Raine, G.A. de Groot, F.G. Horgan, J. Hipólito, G. Smagghe, I. Meeus, M. Eeraerts, S.G. Potts, C. Kremen, D. García, M. Miñarro, D.W. Crowder, G. Pisanty, Y. Mandelik, N.J. Vereecken, N. Leclercq, T. Weekers, S.A.M. Lindstrom, D.A. Stanley, C. Zaragoza-Trello, C.C. Nicholson, J. Scheper, C. Rad, E.A.N. Marks, L. Mota, B. Danforth, M. Park, A.D.M. Bezerra, B.M. Freitas, R.E. Mallinger, F. Oliveira da Silva, B. Willcox, D.L. Ramos, F.D. da Silva e Silva, A. Lázaro, D. Alomar, M.A. González-Estévez, H. Taki, D.P. Cariveau, M.P.D. Garratt, D.N. Nabaes Jodar, R.I.A. Stewart, D. Ariza, M. Pisman, E.M. Lichtenberg, C. Schüepp, F. Herzog, M.H. Entling, Y.L. Dupont, C.D. Michener, G.C. Daily, P.R. Ehrlich, K.L.W. Burns, M. Vilà, A. Robson, B. Howlett, L. Blechschmidt, F. Jauker, F. Schwarzbach, M. Nesper, T. Diekötter, V. Wolters, H. Castro, H. Gaspar, B.A. Nault, I. Badenhausser, J.D. Petersen, T. Tscharntke, V. Bretagnolle, D.S. Willis Chan, N. Chacoff, G.K.S. Andersson, S. Jha, J.F. Colville, R. Veldtman, J. Coutinho, F.J.J.A. Bianchi, L. Sutter, M. Albrecht, P. Jeanneret, Y. Zou, A.L. Averill, A. Saez, A.R. Sciligo, C.H. Vergara, E.H. Bloom, E. Oeller, E.I. Badano, G.M. Loeb, H. Grab, J. Ekroos, V. Gagic, S.A. Cunningham, J. Åström, P. Cavigliasso, A. Trillo, A. Classen, A.L. Mauchline, A. Montero-Castaño, A. Wilby, B.A. Woodcock, C.S. Sidhu, I. Steffan-Dewenter, I.N. Vogiatzakis, J.M. Herrera, M. Otieno, M.W. Gikungu, S.J. Cusser, T. Nauss, L. Nilsson, J. Knapp, J.J. Ortega-Marcos, J.A. González, J.L. Osborne, R. Blanche, R.F. Shaw, V. Hevia, J. Stout, A.D. Arthur, B. Blochtein, H. Szentgyorgyi, J. Li, M.M. Mayfield, M. Woyciechowski, P. Nunes-Silva, R. Halinski de Oliveira, S. Henry, B.I. Simmons, B. Dalsgaard, K. Hansen, T. Sritongchuay, A.D. O'Reilly, F.J. Chamorro García, G. Nates Parra, C. Magalhães Pigozo and I. Bartomeus. 2022. CropPol: A dynamic, open and global database on crop pollination. *Ecology* 103(3):e3614. DOI:10.1002/ecy.3614.
6. **Amarasinghe, P.**, **N. Barve**, H. Kathriarachchi, B. Loiselle, and **N. Cellinese**. 2021. Niche dynamics of *Memecylon* in Sri Lanka: Distribution patterns, climate change effects, and conservation priorities. *Ecology and Evolution* 11(24):18196-18215. DOI:10.1002/ece3.8415.
7. **Amarasinghe, P.**, **P. Pham**, R.D. Stone, and **N. Cellinese**. 2021. Discordance in a South African *Memecylon* clade (Melastomataceae): Evidence for reticulate evolution. *International Journal of Plant Sciences* 182:682-694. DOI:10.1086/715636.
8. Antonenko, P. and **B. Abramowitz**. 2022. In-service teachers' (mis)conceptions of artificial intelligence in K-12 science education. *Journal of Research on Technology in Education* 2022:1-15. DOI:10.1080/15391523.2022.2119450.
9. Balk, M.A., J. Deck, **K.F. Emery**, R.L. Walls, D. Reuter, **R. La France**, J. Arroyo-Cabrales, P. Barrett, J. Blois, **A. Boileau**, **L. Brenskelle**, **N.R. Cannarozzi**, A. Cruz, L.M. Davanos, **M.M. Hantak**, S. Hopkins, B. Kohli, **J.N. King**, M. Koo, M. Lawing, H. Machado, S.S. McCrane, B. McLean, M.E. Morgan, S. Pilaar-Birch, D. Reed, E.J. Reitz, N.U. de la Sancha, N. Sewnath, N.S. Upham, A. Villasenor, L. Yohe, **R.P. Guralnick**, and E.B. Davis. 2022. A solution to the challenges of interdisciplinary aggregation and use of specimen-level trait data. *iScience* 25(10):105101. DOI:10.1016/j.isci.2022.105101.
10. Barber, J.R., **D. Plotkin**, **J.J. Rubin**, **N. Homziak**, B.C. Leavell, **P. Houlihan**, K. Miner, **J.W. Breinholt**, B. Quirk-Royal, S. Padron, M. Nunez, and **A.Y. Kawahara**. 2022. Anti-bat ultrasound production in moths is globally and phylogenetically widespread. *Proceedings of the National Academy of Sciences, USA*. 119(25):e2117485119. DOI:10.1073/pnas.2117485119.
11. Barrios, D., J.M. Acuña, E. Díaz, H. Lemus-Barrios, and **L.C. Majure**. 2022. Análisis morfométrico del grupo *Melocactus harlowii* (Cactaceae) a partir de caracteres vegetativos y reproductivos. *Revista del Jardín Botánico Nacional* 43:51-67.
12. Barrios, D. and **L.C. Majure**. 2022. Types and typifications of the Antillean endemic genus *Leptocereus* (Cactaceae). *Brittonia* 74:219-226. DOI:10.1007/s12228-022-09709-9.

13. **Belitz, M.W.**, **V. Barve**, **J. Doby**, **M.M. Hantak**, E. Larsen, **D. Li**, **J.A. Oswald**, **N. Sewnath**, **M. Walters**, **N. Barve**, **K. Earl**, **N. Gardner**, **R.P. Guralnick**, and **B.J. Stucky**. 2021. Climate drivers of adult insect activity are conditioned by life history traits. *Ecology Letters* 24(12):2687-2699. DOI:10.1111/ele.13889.
14. **Blackburn, D.C.**, S.V. Nielsen, S.L. Ghose, M. Burger, L.N. Gonwouo, E. Greenbaum, V. Gvoždík, M. Hirschfeld, **M.T. Kouete**, C. Kusamba, D. Lawson, P.J. McLaughlin, A. Zassi-Boulou, and M.-O. Rödel. 2021. Phylogeny of African Long-fingered frogs (Arthroleptidae: *Cardioglossa*) reveals recent allopatric divergences in coloration. *Ichthyology & Herpetology* 109(3):728-742. DOI:10.1643/h2020165.
15. **Blackburn, D.C.**, S.V. Nielsen, and T.B Jdeidi. 2022. Atlas of the frogs of Libya. *Herpetological Review* 53(2):211-219. DOI:10.15468/dl.z7mjw5.
16. Blaxter, M., J.M. Archibald, A.K. Childers, J.A. Coddington, K.A. Crandall, F. Di Palma, R. Durbin, S.V. Edwards, J.A.M. Graves, K.J. Hackett, N. Hall, E.D. Jarvis, R.N. Johnson, E.K. Karlsson, W.J. Kress, S. Kuraku, M.K.N. Lawniczak, K. Lindblad-Toh, J.V. Lopez, N.A. Moran, G.E. Robinson, O.A. Ryder, B. Shapiro, **P.S. Soltis**, T. Warnow, G. Zhang, and H.A. Lewin. 2022. Why sequence all eukaryotes? *Proceedings of the National Academy of Sciences, USA* 119(4):e2115636118. DOI:10.1073/pnas.2115636118.
17. Boatwright, J.L., C.-T. Yeh, H.-C. Hu, A. Susanna, **D.E. Soltis**, **P.S. Soltis**, P. Schnable, and W.B. Barbazuk. 2021. Trajectories of homeolog-specific expression in allotetraploid *Tragopogon castellanus* populations of independent origins. *Frontiers in Plant Science* 12:679047. DOI:10.3389/fpls.2021.679047.
18. **Boileau, A.** Identifying household-level political economy on the Maya/Spanish frontier: A zooarchaeological perspective from Lamanai, Belize. *New Florida Journal of Anthropology* 3(1). DOI:10.32473/nfja.v3i1.129885.
19. **Bourque, J.R.** A new geoemydid (Testudines, aff. Rhinoclemmydinae) from the upper Eocene Chadron Formation (White River Group) of northwestern Nebraska. *Bulletin of the Florida Museum of Natural History* 58(5):86-101.
20. **Brenskelle, L.**, **V. Barve**, **L.C. Majure**, **R.P. Guralnick**, and D. Li. 2021. Analyzing a phenological anomaly in *Yucca* of the southwestern United States. *Scientific Reports* 11:20819. DOI:10.1038/s41598-021-00265-y.
21. **Brenskelle, L.**, J. Wieczorek, E. Davis, **K.F. Emery**, **N.J. Wallis**, **M.J. LeFebvre**, and **R.P. Guralnick**. 2022. A community-developed extension to Darwin Core for reporting the chronometric age of specimens. *PLOS ONE* 17(9):e0261044. DOI:10.1371/journal.pone.0261044.
22. Brown, M.E., **R.H. Robins**, and P.J. Schofield. 2022. Risk assessment of chanchita *Cichlasoma dimerus* (Heckel, 1840), a newly identified non-native cichlid fish in Florida. *Management of Biological Invasions* 13(2):435-448. DOI:10.5066/P949CEKG.
23. **Butterwort, V.**, **H. Dansby**, F.A. Zink, L.R. Tembrock, T.M. Gilligan, A. Godoy, W.E. Braswell, and **A.Y. Kawahara**. 2022. A DNA extraction method for insects from sticky traps: Targeting a low abundance target pest, *Phthorimaea absoluta* (Lepidoptera: Gelechiidae), in mixed species communities. *Journal of Economic Entomology* 115(3):844-851. DOI:10.1093/jee/toac046.
24. Canhos, D.A.L., E.A.B. Almeida, A.L. Assad, M.M. da Cunha Bustamante, V. Perez Canhos, A.D. Chapman, R. De Giovanni, V.L. Imperatriz-Fonseca, L. Garcez Lohmann, L. Costa Maia, J.T. Miller, **G. Nelson**, A. Townsend Peterson, J. Rubens Pirani, S. de Souza, J. Renato Stehmann, and B. Thiers. 2022. *Species*Link: Rich data and novel tools for digital assessments of biodiversity. *Biota Neotropica* 22(spe):e20221394. DOI:10.1590/1676-0611-BN-2022-1394.
25. Čerňanský, A., **E.L. Stanley**, J.D. Daza, A. Bolet, J.S. Arias, A.M. Bauer, M. Vidal-García, J.J. Bevitt, A.M. Peretti, N.N. Aung, and S.E. Evans. 2022. A new Early Cretaceous lizard in Myanmar amber with exceptionally preserved integument. *Scientific Reports* 12:1660. DOI:10.1038/s41598-022-05735-5.
26. **Chanderbali, A.S.**, L. Jin, Q. Xu, Y. Zhang, J. Zhang, S. Jian, E. Carroll, D. Sankoff, V.A. Albert, D.G. Howarth, **D.E. Soltis**, and **P.S. Soltis**. 2022. *Buxus* and *Tetracentron* genomes help resolve eudicot genome history. *Nature Communications* 13:643. DOI:10.1038/s41467-022-28312-w.
27. Chazot, N., F. Condamine, G. Dudas, C. Pena, P. Matos-Maravi, A.V.L. Freitas, M. Elias, **A.D. Warren**, K. Aduse-Poku, D.J. Lohman, C.M. Penz, P. DeVries, U. Kodandaramaiah, Z.F. Fric, S. Nylin, C. Muller, C. Wheat, **A.Y. Kawahara**, K.L. Silva-Brandao, G. Lamas, A. Zubek, **E. Ortiz-Acevedo**, R. Vila, R.I. Vane-Wright, S.P. Mullen, C.D. Jiggins, I. Slamova, and N. Wahlberg. 2021. Conserved ancestral tropical niche but different continental histories explain the latitudinal diversity gradient in Brush-footed butterflies. *Nature Communications* 12:5717. DOI:10.1038/s41467-021-25906-8.
28. Checa, M.F., S. Nogales, P.A. Salazar, L. Bustos, V. Ojeda, A. Bustos, and **K.R. Willmott**. 2022. Implementing a novel approach to long-term monitoring of butterfly communities in the Neotropics. *Insect Conservation and Diversity* 2022:1-13. DOI:10.1111/icad.12567.
29. Claunch, N.M., C. Goodman, R. Reed, **R.P. Guralnick**, C. Romagosa, and E. Taylor. 2021. Invaders from islands: Thermal matching, potential, or plasticity? *Biological Journal of the Linnean Society* 134(3):587-603. DOI:10.1093/biolinnean/blab103.
30. **Cobb, C.R.** Landscapes of forgetting and structural silence in the American Southeast. *American Anthropologist* 124(1):90-103. DOI:10.1111/aman.13697.
31. **Cobb, C.R.**, B. Legg, S.D. Smith, C.B. DePratter, B.R. Lieb, and E.A. Boudreaux III. 2021. The remains of the fray: Nascent colonialism and heterogeneous hybridity. *American Antiquity* 86(3):569-592. DOI:10.1017/aaq.2021.17.
32. **Cobb, C.R.** Indigenous negotiations of missionization and religious conversion. pp. 163-179. *In:* L.M. Panich and S.L. Gonzalez, eds. *Handbook of the Archaeology of Indigenous-Colonial Interaction in the Americas*. Routledge Press, New York.
33. **Cordell, A.S.** Revisiting the McKeithen Site and Weeden Island pottery manufacturing origins. pp. 147-192. *In:* **A.S. Cordell** and J.M. Mitchem, eds. *Methods, Mounds, and Missions: New Contributions to Florida Archaeology*. University of Florida Press, Gainesville.
34. Crawford, C.H., A. Webber-Schultz, P.B. Hart, **Z.S. Randall**, A.B. Kellogg, H.E. Amplo, C. Cerrato-Morales, A. Suvarnaraksha, **L.M. Page**, P. Chakrabarty, and B.E. Flammang. 2022. They like to move it (move it): Walking kinematics of Balitorid loaches of Thailand. *Journal of Experimental Biology* 225(6):jeb242906. DOI:10.1242/jeb.242906.
35. **Daniels, J.C.** *Garden Bugs & Insects of the Midwest: Identify Pollinators, Pests, and Other Garden Visitors (Adventure Quick Guides)*. Adventure Publications. Cambridge, MN. 36 pp.
36. **Daniels, J.C.** *Native Plant Gardening for Birds, Bees & Butterflies: South (Nature-Friendly Gardens)*. Adventure Publications. Cambridge, MN. 276 pp.
37. **Daniels, J.C.** *Your Florida Guide to Butterfly Gardening: A Guide for the Deep South. 2nd edition*. University Press of Florida, Gainesville, FL. 256 pp.
38. Davis, C., **R.P. Guralnick**, and E. Zipkin. 2022. Challenges and opportunities for using natural history collections to estimate insect population trends. *Journal of Animal Ecology*. 2022:1-13. DOI:10.1111/1365-2656.13763.
39. Degroot, D., K.J. Anchukaitis, J.E. Tierney, F. Riede, A. Manica, E. Moesswilde, and **N. Gauthier**. 2022. The history of climate and society: A review of the influence of climate change on the human past. *Environmental Research Letters* 17(10):103001. DOI:10.1088/1748-9326/ac8faa.

40. **Delsol, N.**, **B.J. Stucky**, **J.A. Oswald**, E.J. Reitz, **K.F. Emery**, **R.P. Guralnick**. 2022. Analysis of the earliest complete mtDNA genome of a Caribbean colonial horse (*Equus caballus*) from 16th century Haiti. *PLOS ONE* 17(7):e0270600. DOI:10.1371/journal.pone.0270600.
41. Di Cecco, G.J., **V. Barve**, **M.W. Belitz**, **B.J. Stucky**, **R.P. Guralnick**, and A.H. Hurlbert. 2021. Observing the observers: How participants contribute data to iNaturalist and implications for biodiversity science. *Bioscience* 71(11):1179-1188. DOI:10.1093/biosci/biab093.
42. Di Cecco, G.J., **M.W. Belitz**, R.J. Cooper, E.A. Larsen, W.B. Lewis, L. Ries, **R.P. Guralnick**, and A.H. Hurlbert. 2022. Phenology in adult and larval Lepidoptera from structured and unstructured surveys across eastern North America. *Frontiers in Biogeography* 14(4):e56346. DOI:10.21425/F5FBG56346.
43. **Doby, J.**, D. Li, R.A. Folk, C. Siniscalchi, and **R.P. Guralnick**. 2022. Aridity drives diversity of nitrogen fixing plants in North America. *Global Ecology and Biogeography* 31(8):1630-1642. DOI:10.1111/geb.13535.
44. Donovan, S.K. and **R.W. Portell**. 2021. Ichnology of a dolomitized raised reef: Hopegate Formation, Jamaica (upper Pliocene). *Ichnos* 28(3):231-242. DOI:10.1080/10420940.2021.1932489.
45. Doré, M., **K.R. Willmott**, B. Leroy, N. Chazot, J. Mallet, A.V.L. Freitas, J.P.W. Hall, G. Lamas, K.K. Dasmahapatra, C. Fontaine, and M. Elias. 2021. Anthropogenic pressures coincide with Neotropical biodiversity hotspots in a flagship butterfly group. *Diversity and Distributions* 2021:1-19. DOI:10.1111/ddi.13455.
46. Dowding, E.M., M.C. Ebach, and **M.V. Mavrodiev**. 2022. Validating marine Devonian biogeography: A study in bioregionalization. *Palaeontology* 65(1):e12578. DOI:10.1111/pala.12578.
47. **Ebert, D.A.**, **J. Alfaro-Shigueto**, **X. Velez-Zuazo**, **M. Pajuelo**, and **J.C. Mangel**. 2022. *Bathyraja chapmani* n. sp., a new deep-sea skate (Rajiformes: Arhynchobatidae) from the southeast Pacific Ocean. *Journal of the Ocean Science Foundation* 39:23-35. DOI:10.5281/zenodo.7108880.
48. **Ellwood, E.R.**, S. Gallinat, C. McDonough MacKenzie, T. Miller, A.J. Miller-Rushing, C. Polgar, and R.B. Primack. 2022. Plant and bird phenology and plant occurrence from 1851 to 2020 (non-continuous) in Thoreau's Concord, Massachusetts. *Ecology* 103(5):e3646. DOI:10.1002/ecy.3646.
49. Enge, K.M., **C.M. Sheehy III**, A. Dupuis, J. Howze, M.R. Gacheny, K. Guyton II, and E.P. Hill. 2021. *Lampropeltis elapsoides*. Phenotypic aberrancies. *Herpetological Review* 52(3):669.
50. **Ennes, M.**, **A. Wagner-Pelkey**, and **M. McVey**. 2021. Museum-based online learning one year after COVID-19 museum closures. *Journal of Museum Education*. 46(4):467-480. DOI:10.1080/10598650.2021.1982221.
51. **Ennes, M.** and **I. Lee**. 2021. Distance learning in museums: A review of the literature. *International Review of Research in Open and Distributed Learning* 22(3):162-187. DOI:10.19173/irrodl.v21i3.5387.
52. Essner Jr., R.L., R.E.E. Pereira, **D.C. Blackburn**, A.L. Singh, **E.L. Stanley**, M.O. Moura, A.E. Confetti, and M.R. Pie. 2022. Semicircular canal size constrains vestibular function in miniaturized frogs. *Science Advances* 8(24):eabn1104. DOI:10.1126/sciadv.abn1104.
53. Farid, A., A.E. Bessette, A.R. Bessette, J.B. Bolin, L. Kudzma, **A.R. Franck**, and J.R. Garey. 2021. Investigations in the boletes (Boletaceae) of southeastern USA: Four novel species, and three novel combinations. *Mycosphere* 12:1038-1076. DOI:10.5943/mycosphere/12/1/12.
54. Fenster, C.B., **P.S. Soltis**, and P.E. Turner. 2021. Pandemic policy in the vaccine era: The long haul approach. *BioScience* 71:673-675. DOI:10.1093/biosci/biab061.
55. **Fladeboe, R.** The social lives of captive macaws. Revisiting birds in the Southwest. *Archaeology Southwest* 35(1&2):27-28. https://www.archaeologysouthwest.org/product/asw35-1-2/.
56. **Fladeboe, R.** and K.L.M. Taylor. 2022. Health and husbandry of Scarlet macaws among ancient communities in the southwestern United States and northwestern Mexico: Taking a biological perspective on the acquisition, maintenance, and use of Scarlet macaws. pp. 263-296. *In*:W. Schwartz, S. Plog, and P.A. Gilman, eds. *Birds of the Sun: Macaws and People in the U.S. Southwest and Mexican Northwest.* University of Arizona Press, Tucson, AZ.
57. **Franz, R.** Road cruising for dead wildlife. *Journal of Florida Studies* 1(10)1-18. https://www.journaloffloridastudies.org/files/vol0110/Franz-Road-Cruising-for-Dead-Wildlife.pdf.
58. Fricke, R., **Z.S. Randall**, and J.S. Maclaine. 2021. Western Atlantic Spotted groupers (Teleostei: Serranidae: Epinephelinae): Stabilisation of currently used scientific names by neotype designations. *FishTaxa* 21:28-59.
59. Gallinat, A.S., **E.R. Ellwood**, J.M. Heberling, A.J. Miller-Rushing, W.D. Pearse, and R.B. Primack. 2021. Macrophenology: Insights into the broad-scale patterns, drivers, and consequences of phenology. *American Journal of Botany* 108(11):2112-26. DOI:10.1002/ajb2.1793.
60. **Gauthier, N.**, K.J. Anchukaitis, and B. Coulthard. Pattern-based downscaling of snowpack variability in the western United States. *Climate Dynamics* 58(11):3225-3241. DOI:10.1007/s00382-021-06094-z.
61. Gomes, D., C. Toth, **C. Bateman**, C.D. Francis, **A.Y. Kawahara**, and J.R. Barber. 2021. Experimental river noise alters arthropod abundance. *Oikos* 130(11):2001-2014. DOI:10.1111/oik.08499.
62. Gomez-Zapata, P.A., **M.S. Frank**, M.E. Smith, and M.C. Aime. 2022. First report of *Pucciniastrum boehmeriae* in North America, causing rust disease in bog hemp. *Plant Health Progress* Online Early. DOI:10.1094/PHP-02-22-0016-BR.
63. Goto, R., T. Takano, K. Seike, M. Yamashita, **G. Paulay**, K.S. Rodgers, C.L. Hunter, P. Tongkerd, S. Sato, and K. Endo. 2022. Stasis and diversity in living fossils: Species delimitation and evolution of lingulid brachiopods. *Molecular Phylogenetics & Evolution* 175:107460. DOI:10.1016/j.ympev.2022.107460.
64. Guo, X., D. Fang, S.K. Sahu, S. Yang, X. Guang, R. Folk, S.A. Smith, **A.S. Chanderbali**, S. Chen, M. Liu, T. Yang, S. Zhang, X. Liu, X. Xu, **P.S. Soltis**, **D.E. Soltis**, and H. Liu. 2021. *Chloranthus* genome provides insights into the early diversification of angiosperms. *Nature Communications* 12:6930. DOI:10.1038/s41467-021-26922-4.
65. **Hamersma, A.**, Herrera, K. Wurdack, and **S.R. Manchester**. 2022. *Belenocarpa tertiara* (Berry) gen. et comb. nov. (Euphorbiaceae): Fossil fruits with carunculate seeds from the Oligocene of Peru. *International Journal of Plant Sciences* 183(4):296-306. DOI:10.1086/718830.
66. **Hamilton, C.A.**, N. Winiger, **J.J. Rubin**, **J. Breinholt**, R. Rougerie, I.J. Kitching, J.R. Barber, and **A.Y. Kawahara**. 2021. Hidden phylogenomic signal helps elucidate arsenurine silkmoth phylogeny and the evolution of body size and wing shape trade-offs. *Systematic Biology* 71(4)859-874. DOI:10.1093/sysbio/syab090.
67. **Hantak, M.M.**, N.A. Federico, **D.C. Blackburn**, and **R.P. Guralnick**. 2021. Rapid phenotypic change in a polymorphic salamander over 43 years. *Scientific Reports* 11:22681. DOI:10.1038/s41598-021-02124-2.

68. **Hantak, M.M.**, B.S. McLean, D. Li, and **R.P. Guralnick**. 2021. Mammalian body size is determined by interactions between climate, urbanization and traits. *Communications Biology* 4:972. DOI:10.1038/s42003-021-02505-3.
69. Harvey, V.L., **M.J. LeFebvre**, **A.E. Sharpe**, C. Toftgaard, S.D. deFrance, C.M. Giovas, S.M. Fitzpatrick, and M. Buckley. 2022. Collagen fingerprinting of Caribbean archaeological fish bones: Methodological implications for historical fisheries baselines and anthropogenic change. *Journal of Archaeological Science* 145:105642. DOI:10.1016/j.jas.2022.105642.
70. Hendrick, L.K., U. Somjee, **J.J. Rubin**, and **A.Y. Kawahara**. 2022. A review of false heads in lycaenid butterflies. *Journal of the Lepidopterists' Society* 76(2):140-148. DOI:10.18473/lepi.76i2.a6.
71. Henry, E.H., A.J. Terando, W.F. Morris, **J.C. Daniels**, and N.M. Haddad. 2022. Shifting precipitation regimes alter the phenology and population dynamics of low latitude ectotherms. *Climate Change Ecology* 3:100051. DOI:10.1016/j.ecochg.2022.100051.
72. Hite, R., M.G. Jones, G. Childers, **M. Ennes**, K. Chesnutt, M. Pereyra Perez, and E. Cayton. 2022. The utility of 3D, haptic-enabled, virtual reality technologies for student knowledge gains in the complex biological system of the human heart. *Journal of Computer Assisted Learning* 38(3):651-667. DOI:10.1111/jcal.12638.
73. **Howard, C.C.**, A.A. Crowl, T.S. Harvey, and **N. Cellinese**. 2022. Peeling back the layers: First phylogenomic insights into the Ledebouriinae (Scilloideae, Asparagaceae). *Molecular Phylogenetics and Evolution* 169:107430. DOI:10.1016/j.ympev.2022.107430.
74. Hu, H., A. Scheben, B. Verpaalen, S. Tirnaz, P.E. Bayer, R.G.J. Hodel, J. Batley, **D.E. Soltis**, **P.S. Soltis**, and D. Edwards. 2022. *Amborella* gene presence/absence variation is associated with environmental adaptation. *New Phytologist* 233(4):1548-1555. DOI:10.1111/nph.17658.
75. Hu, H., J. Ye, B. Liu, Z. Chen, R. L. Barrett, **P.S. Soltis**, **D.E. Soltis**, S.A. Smith, L. Mao, and L. Lu. 2021. Temporal and spatial diversity differences of East Asian and North American floras. *National Science Review* 9(6):nwab199. DOI:10.1093/nsr/nwab199.
76. **Huegele, I.B.** and **S.R. Manchester**. 2022. Newly recognized reproductive structures linked with *Langeria* from the Eocene of Washington, USA, and their affinities with Platanaceae. *International Journal of Plant Sciences* 183(5):367-379. DOI:10.1086/720138.
77. **Huegele, I.B.**, **H. Zhu**, B. Zhao., Y.F. Wang, and **S.R. Manchester**. 2022. Trans-Beringial distribution of *Platimeliphyllum* (Platanaceae) in the Eocene of eastern Asia and western North America. *International Journal of Plant Sciences* 183(2):139-153. DOI:10.1086/717692.
78. Iglésias, S.P., J.M. Kemper, and **G.J.P. Naylor**. *Chimaera compacta*, a new species from southern Indian Ocean, and an estimate of phylogenetic relationships within the genus *Chimaera* (Chondrichthyes: Chimaeridae). *Ichthyological Research* 69(1):31-45. DOI:10.1007/s10228-021-00810-9.
79. **Jantzen, J.R.**, P.J.F. Guimarães, L. Pederneiras, A.L. Freitas Oliveira, **D.E. Soltis**, and **P.S. Soltis**. 2022. Phylogenomic analysis of *Tibouchina* s.s. (Melastomataceae) highlights the evolutionary complexity of Neotropical savannas. *Botanical Journal of the Linnean Society* 199(1):372-411. DOI:10.1093/botlinnean/boab086.
80. Jaynes, K.E., E.A. Myers, V. Gvoždik, **D.C. Blackburn**, D.M. Portik, E. Greenbaum, **G.F.M. Jongsma**, M.-O. Rödel, G. Badjedjea, A. Bamba-Kaya, N.L. Baptista, J.B. Akuboy, R. Ernst, **M.T. Kouete**, C. Kusamba, F.M. Masudi, P.J. McLaughlin, L.M. Nneji, A.B. Onadeko, J. Penner, P. Vaz Pinto, B.L. Stuart, E. Tobi, A.-G. Zassi-Boulou, A.D. Leaché, M. Fujita, and R.C. Bell. 2022. Giant tree frog diversification in West and Central Africa: Isolation by physical barriers, climate, and reproductive traits. *Molecular Ecology* 31(15):3979-3998. DOI:10.1111/mec.16169.
81. **Jones, H.H.**, E. Barreto, O. Murillo, and **S.K. Robinson**. 2021. Turnover-driven loss of forest-dependent species changed avian species richness, functional diversity, and community composition in Andean forest fragments. *Global Ecology and Conservation* 32:e01922. DOI:10.1016/j.gecco.2021.e01922.
82. **Jones, H.H.**, **M.J. Walters**, and **S.K. Robinson**. 2021. Effect of temperature on flocking propensity and species interactions in a subtropical mixed-species flocking system. *Wilson Journal of Ornithology* 132(3):560-574. DOI:10.1676/19-28.
83. Judd, W.S. and **L.C. Majure**. 2022. Taxonomic studies in the Miconieae (Melastomataceae): XV. Revision of *Miconia* sect. *Menendezia*. *Brittonia* 74:297-310. DOI:10.1007/s12228-022-09708-w.
84. Kapitonova, O.A., A.A. Muldashev, G.R. Platunova, and **E.V. Mavrodiev**. 2022. *Typha lepechinii* Mavrodiev et Kapit. sp. nov. (Typhaceae Juss.) — A new endangered endemic cattail in the outmost east of European Russia. *Taxonomy* 2(2):180-195. DOI:10.3390/taxonomy2020014.
85. **Kates, H.R.**, F. López Anido, G. Sánchez-De La Vega, L. Eguiarte, **P.S. Soltis**, and **D.E Soltis**. 2021. Targeted sequencing suggests wild-crop gene flow is central to different genetic consequences of two independent pumpkin domestications. *Frontiers in Ecology and Evolution* 9. DOI:10.3389/fevo.2021.618380.
86. **Kawahara, A.Y.**, **C.G. Storer**, **A. Markee**, J. Heckenhauer, A. Powell, **D. Plotkin**, S. Hotaling, T.P. Cleland, R.B. Dikow, T. Dikow, R.B. Kuranishi, **R. Messcher**, S.U. Pauls, R.J. Stewart, K. Tojo, and P.B. Frandsen. 2022. Long-read HiFi sequencing correctly assembles repetitive heavy fibroin silk genes in new moth and caddisfly genomes. *Gigabyte* 2022. DOI:10.46471/gigabyte.64.
87. Kays R., M. Lasky, M.L. Allen, R.C. Dowler, M.T.R. Hawkins, A.G. Hope, B.A. Kohli, **V.L. Mathis**, B. McLean, L.E. Olson, C.W. Thompson, D. Thornton, J. Widness, and M.V. Cove. 2022. Which mammals can be identified from camera traps and crowdsourced photographs? *Journal of Mammalogy* 103(4):767-775. DOI:10.1093/jmammal/gyac021.
88. **Keegan, W.F.**, C.B. Young, **M.J. LeFebvre**, M.P. Pateman, J.A. Hanna, L.A. Newsom, B.A. Mistretta, A.J. Ciofalo, and A.H. Ross. 2021. Unique Lucayan sand dune burials at the Rolling Heads site, Long Island, The Bahamas. *International Journal of Osteoarchaeology* 32(1):192-201. DOI:10.1002/oa.3055.
89. Kennett, D.J., M. Masson, C. Peraza Lope, S. Serafin, R.J. George, T.C. Spencer, J.A. Hoggarth, B.J. Culleton, T.K. Harper, K.M. Prufer, **S. Milbrath**, B.W. Russell, E. Uc González, W.C. McCool, V.V. Aquino, E.H. Paris, J.H. Curtis, N. Marwan, M. Zhang, Y. Asmerom, V.J. Polyak, S.A. Carolin, D.H. James, A.J. Mason, G.M. Henderson, M. Brenner, J.U.L. Baldini, S.F.M. Breitenbach, and D.A. Hodell. 2022. Drought-induced civil conflict among the ancient Maya. *Nature Communications* 13:3911. DOI:10.1038/s41467-022-31522-x.
90. Klompmaker, A.A., C.M. Robins, **R.W. Portell**, and A. De Angeli. 2022. Crustaceans as hosts of parasites throughout the Phanerozoic. pp. 121-172. *In:* K. De Baets and J.W. Huntley, eds. *The Evolution and Fossil Record of Parasitism. Topics in Geobiology* 50. Springer, Cham. DOI:10.1007/978-3-030-52233-9_5.
91. Köhler, M., L.J. Oakley, F. Font, M.L. Las Peñas, and **L.C. Majure**. 2021. On the continuum of evolution: A putative new hybrid speciation event in *Opuntia* (Cactaceae). *Systematics and Biodiversity* 19(8):1026-1039. DOI:10.1080/14772000.2021.1967510.

92. Kress, W.J., **D.E. Soltis**, P.J. Kersey, J.L. Wegrzyn, J.H. Leebens-Mack, M.R. Gostel, X. Liu, and **P.S. Soltis**. 2022. Green plant genomes: What we know in an era of rapidly expanding opportunities. *Proceedings of the National Academy of Sciences, USA* 119(4):e2115640118. DOI:10.1073/pnas.2115640118.
93. **Kusnerik**, **K.M.**, G.H. Means, **R.W. Portell**, A. Kannai, M.M. Monroe, R. Means, and **M. Kowalewski**. 2022. Long-term shifts in faunal composition of freshwater mollusks in spring-fed rivers of Florida. *Frontiers in Ecology and Evolution* 10:1-17. DOI:10.3389/fevo.2022.851499.
94. **Lasley Jr., R.M.**, A. Smith, **G. Paulay**, and P.K.L. Ng. 2022. Revision of the coral reef crab genus *Tweedieia* Ward, 1935 (Decapoda, Brachyura, Xanthidae). *Journal of Crustacean Biology* 42(1):1-14. DOI:10.1093/jcbiol/ruab081.
95. Lawniczak, M.K., R. Durbin, P. Flicek, K. Lindblad-Toh, X. Wei, J.M. Archibald, W.J. Baker, K. Belov, M.L. Blaxter, T.M. Bonet, C.T. Brown, A.K. Childers, J.A. Coddington, K.A. Crandall, A.J. Crawford, R.P. Davey, F. Di Palma, Q. Fang, W. Haerty, N. Hall, K.J. Hoff, K. Howe, E.D. Jarvis, W.E. Johnson, R.N. Johnson, P.J. Kersey, X. Liu, J.V. Lopez, C.J. Mungall, E.W. Myers, O.V. Pettersson, A.M Phillippy, M.F. Poelchau, K.D. Pruitt, A. Rhie, J.C. Castilla Rubio, S.K. Sahu, N.A. Salmon, **P.S. Soltis**, D. Swarbreck, F. Thibaud-Nissen, S. Wang, J.L. Wegrzyn, G. Zhang, H. Zhang, H.A. Lewin, and S. Richards. 2022. Standards recommendations for the Earth BioGenome Project. *Proceedings of the National Academy of Sciences, USA* 119(4):e2115639118. DOI:10.1073/pnas.2115639118.
96. Lewin, H.A., S. Richards, E. Lieberman Aiden, M.L. Allende, J.M. Archibald, M. Bálint, K.B. Barker, B. Baumgartner, K. Belov, G. Bertorelle, M.L. Blaxter, J. Cai, N.D. Caperello, K. Carlson, J.C. Castilla-Rubio, S.-M. Chaw, L. Chen, A.K. Childers, J.A. Coddington, D.A. Conde, M. Corominas, K.A. Crandall, A.J. Crawford, F. DiPalma, R. Durbin, T.E. Ebenezer, S.V. Edwards, O. Fedrigo, P. Flicek, G. Formenti, R.A. Gibbs, M.T.P. Gilbert, M.M. Goldstein, J. Marshall Graves, H.T. Greely, I.V. Grigoriev, K.J. Hackett, N. Hall, D. Haussler, K.M. Helgen, C.J. Hogg, S. Isobe, K. Sigurd Jakobsen, A. Janke, E.D. Jarvis, W.E. Johnson, S.J.M. Jones, E.K. Karlsson, P.J. Kersey, J.-H. Kim, W.J. Kress, S. Kuraku, M.K.N. Lawniczak, J.H. Leebens-Mack, X. Li, K. Lindblad-Toh, X. Liu, J.V. Lopez, T. Marques-Bonet, S. Mazard, J.A.K. Mazet, C.J. Mazzoni, E.W. Myers, R.J. O'Neill, S. Paez, H. Park, G.E. Robinson, C. Roquet, O.A. Ryder, J.S.M. Sabir, H.B. Shaffer, T.M. Shank, J.S. Sherkow, **P.S. Soltis**, B. Tang, L. Tedersoo, M. Uliano-Silva, K. Wang, X. Wei, R. Wetzer, J.L. Wilson, X. Xu, H. Yang, A.D. Yoder, and G. Zhang. 2022. The Earth BioGenome Project 2020: Starting the clock. 2022. *Proceedings of the National Academy of Sciences, USA* 119:e2115635118. DOI:10.1073/pnas.2115635118.
97. **Li, D.**, **B.J. Stucky**, B. Baiser, and **R.P. Guralnick**. 2022. Urbanization delays plant leaf senescence and extends growing season length in cold, but not in warm, areas. *Global Ecology and Biogeography* 31(2):308-320. DOI:10.1111/geb.13429.
98. Li, L., X. Chen, D. Fang, S. Dong, X. Guo, N. Li, L. Campos-Dominguez, W. Wang, Y. Liu, X. Lang, Y. Peng, D. Tian, D.C. Thomas, W. Mu, M. Liu, T. Yang, S. Zhang, L. Yang, J. Yang, Z. Liu, L. Zhang, X. Zhang, F. Chen, Y. Jiao, Y. Guo, M. Hughes, W. Wang, X. Liu, C. Zhong, A. Li, S. Kumar Sahu, H. Yang, X. Xu, X. Liu, E. Wu, M. Lisay, **D.E. Soltis**,Y. Van de Peer, C. Kidner, S. Zhang, and H. Liu. 2022. *Begonia* genomes shed light on shade adaptation and evolution in a large genus. *New Phytologist* 234(1):295-310. DOI:10.1111/nph.17949.
99. **Li, X.**, **E. Ellis**, **D. Plotkin**, Y. Imada, M. Yago, J. Heckenhauer, T. Cleland, R. Dikow, T. Dikow, **C.G. Storer**, **A.Y. Kawahara**, and P. Frandsen. 2021. First annotated genome of a mandibulate moth, *Neomicropteryx cornuta*, generated using PacBio HiFi sequencing. *Genome Biology and Evolution* 13(10):evab229. DOI:10.1093/gbe/evab229.
100. **Li, X.**, **C.A. Hamilton**, **R. St Laurent**, L. Ballesteros-Mejia, **A. Markee**, J. Haxaire, R. Rougerie, I.J. Kitching, and **A.Y. Kawahara**. 2022. A diversification relay race from Caribbean-Mesoamerica to the Andes: Historical biogeography of *Xylophanes* hawkmoths. *Proceedings of the Royal Society B* 289(1968):20212435. DOI:10.1098/rspb.2021.2435.
101. Li, X., **S.R. Manchester**, **J.E. Correa-Narvaez**, and P.S. Herendeen. 2021. An extinct fruit species of Fabaceae from the early Eocene of northwestern Wyoming, USA. *International Journal of Plant Sciences* 182(8):730-746. DOI:10.1086/715634.
102. **Li, X.**, **R. St Laurent**, **C. Earl**, C. Doorenweerd, E.J. van Nieukerken, D. Davis, **C.A. Johns**, A. Kawakita, S. Kobayashi, A. Zwick, C. Lopez-Vaamonde, I. Ohshima, and **A.Y. Kawahara**. 2021. Phylogeny of gracillariid Leaf-mining moths: Evolution of larval behaviour inferred from phylogenomic and Sanger data. *Cladistics* 38(3):277-300. DOI:10.1111/cla.12490.
103. Liang, D., X. Pan, X. Luo, C. Wenda, Y. Zhao, Y. Hiu, **S.K. Robinson**, and Y. Liu. 2021. Seasonal variation in community composition and distributional ranges of birds along a subtropical elevation gradient in China. *Diversity and Distributions* 27(12):2527-2541. DOI:10.1111/ddi.13420.
104. Lightfoot, D.E., S.C. Atkins, and **I.R. Quitmyer**. 2021. To be sold, for ready money; reconstructing patterns of human predation, marketing, and oyster exploitation. pp. 95-115. *In:* Y.D. Edwards-Ingram and A.C. Edwards, eds. *Historical Archaeology in the Twenty-First Century: Lessons from Colonial Williamsburg.* University Press of Florida, Gainesville.
105. Lim, K., W.T. White, A.Y.H. Then, **G.J.P. Naylor**, S. Arunrugstichai, and K.H. Loh. 2022. Integrated taxonomy revealed genetic differences in morphologically similar and non-sympatric *Scoliodon macrorhynchos* and *S. laticaudus*. *Animals* 12(6):68122022. DOI:10.3390/ani12060681.
106. Linton, D.L., **E. Ellwood**, L.D. White, N.F. Douglas, and A.K. Monfils. 2022. Experiments in data mining: Using digitized natural history collections to introduce biology students to data science. pp. 123-141. *In:* N.J. Pelaez, S.M. Gardner, and T.R. Anderson, eds. *Trends in Teaching Experimentation in the Life Sciences. Contributions from Biology Education Research*. Springer, Cham. DOI:10.1007/978-3-030-98592-9_7.
107. Liu, X.Y., **S.R. Manchester**, A.C. Rozefelds, C. Quan, and J.H. Jin. 2022. First fossil fruits of *Elaeocarpus* (Elaeocarpaceae) in East Asia: Implications for phytogeography and paleoecology. *Journal of Systematics and Evolution* 60(2):456-471. DOI:10.1111/jse.12684.
108. Liu, Y., Wang, L. Li, T. Yang, S. Dong, T. Wei, S. Wu, Y. Liu, Y. Gong, X. Feng, J. Ma, G. Chang, J. Huang, Y. Yang, H. Wang, M. Liu, Y. Xu, H. Liang, Jin Yu, Y. Cai, Z. Zhang, Y. Fan, W. Mu, S. Kumar Sahu, S. Liu, X. Lang, L. Yang, N. Li, S. Habib, Y. Yang, A.J. Lindstrom, P. Liang, B. Goffinet, S. Zaman, J.L. Wegrzyn, D. Li, J. Liu, J. Cui, E.C. Sonnenschein, X. Wang, J. Ruan, J.-Y. Xue, Z.-Q. Shao, C. Song, G. Fan, Z. Li, L. Zhang, J. Liu, Z.-J. Liu, Y. Jiao, X.-Q. Wang, H. Wu, E. Wang, M. Lisby, H. Yang, J. Wang, X. Liu, X. Xu, N. Li, **P.S. Soltis**, Y. Van de Peer, **D.E. Soltis**, X. Gong, H. Liu, and S. Zhang. 2022. The *Cycas* genome and the early evolution of seed plants. *Nature Plants* 8:389-401. DOI:10.1038/s41477-022-01129-7.
109. Lourtie, A., L. Duchatelet, N. Straube, N. Puozzo, M.A. Grace, and **G.J.P. Naylor**. 2022. Placoid scales in bioluminescent sharks: Scaling their evolution using morphology and elemental composition. *Frontiers* 9:908237. DOI:10.3389/fmars.2022.908237.
110. **Mabry, M.E.**, F. Zapata, D.L. Paul, P.M. O'Connor, **P.S. Soltis**, **D.C. Blackburn**, and N.B. Simmons. 2022. Monographs as a nexus for building extended specimen networks using persistent identifiers. *Bulletin of the Society of Systematic Biologists* 1(1):8323. DOI:10.18061/bssb.v1i1.8323.
111. Mahecha-J., O., K. Florczyk, **K.R. Willmott**, J. Cerdeña, A. Zubek, P. Boyer, J. Farfán, D. Lachowska-Cierlik, and T.W. Pyrcz. 2021. Solving the cryptic diversity of the genus *Manerebia* Staudinger in northern Peru: Description of new species and considerations on the biogeographical role of the Huancabamba deflection (Nymphalidae: Satyrinae: Pronophilina). *Zootaxa* 5072(3):201-237. DOI:10.11646/zootaxa.5072.3.1.

112. Maillaud, C., J. Fournier, A.L. Guittonneau, P. Tirard, **T. Bowling**, and **G.J.P. Naylor**. 2022. Tiger shark attack on a scuba diver in New Caledonia. *Wilderness & Environmental Medicine* 33(3):332-336. DOI:10.1016/j.wem.2022.04.003.
113. **Majure, L.C.** On the origin of two putative allopolyploids, *Opuntia curvispina* and *O. martiniana* (Cactaceae). *Journal of the Botanical Research Institute of Texas* 16:317-333. DOI:10.17348/jbrit.v16.i1.1235.
114. **Majure, L.C.**, **K. Pham**, and T. Clase. 2021. *Castela senticosa* (Simaroubaceae: Sapindales), a new species from the Caribbean clade endemic to seasonally dry tropical forest on Hispaniola. *Systematic Botany* 46:1033-1041. DOI:10.1600/036364421X16370109698560.
115. **Manchester S.R.** and W.S. Judd. 2022. Extinct anacardiaceous samaras and sumac-like leaves from the Eocene of western North America. *International Journal of Plant Sciences* 183(5):357-356. DOI:10.1086/719948.
116. **Manchester, S.R.**, **T.A. Lott**, F. Herrera, H. Hooghiemstra, V.M. Wijninga, and P.W. Fritsch. 2021. *Symplocos* fruits from the Pliocene of Colombia. *Systematic Botany* 46(2):416-421. DOI:10.1600/036364421X16231782047398.
117. **Manchester, S.R.**, Zhang, C.L. Hotton, S.L. Wing, and P.R. Crane. 2021. Distinctive quadrangular seed-bearing structures of gnetalean affinity from the Late Jurassic Morrison Formation of Utah, USA. *Journal of Systematic Palaeontology* 19(10):743-760. DOI:10.1080/14772019.2021.1968522.
118. **Markee, A.**, **H. Dansby**, **R. Messcher**, **E. Hernandez**, **A.Y. Kawahara**, and **C.G. Storer**. 2021. Frass in the class: A model for fostering interest in the natural world through insect rearing in the classroom. *American Entomologist* 67(3):24-29. DOI:10.1093/ae/tmab042.
119. **Marquardt, W.H.**, **K.J. Walker**, V.D. Thompson, M. Savarese, A.D. Roberts Thompson, and L.A. Newsom. 2021. Episodic complexity and the emergence of a coastal kingdom: Climate, cooperation, and coercion in southwest Florida. *Journal of Anthropological Archaeology* 65:101364. DOI:10.1016/j.jaa.2021.101364.
120. **Marquardt, W.H.** Trade and Calusa complexity: Achieving resilience in a changing environment. pp. 173-206. *In:* J. Ling, R. Chacon, and K. Kristiansen, eds. *Trade before Civilization: Long Distance Exchange and the Development of Social Complexity*. Cambridge University Press, Cambridge.
121. Marsh, C., … **R.P. Guralnick**, et al. 2022. Expert range maps of global mammal distributions harmonised to three taxonomic authorities. *Journal of Biogeography* 49(5):979-992. DOI:10.1111/jbi.14330.
122. **Martinez, J.I.**, T. Kasiske, D. Contrina, and **J.Y. Miller**. 2022. Life history of the Jaguar moth *Cicadomorphus falkasiska* Martinez (Noctuidae: Pantheinae) with notes on behavior. *Tropical Lepidoptera Research* 32(1):24-31. DOI:10.5281/zenodo.6588459.
123. Maynard, L., P. Howorth, **J.C. Daniels**, K. Bunney, R. Snyder, D. Jenike, T. Barnhart, E. Spevak, and Z. Gezon. 2022. Conservation psychology strategies for collaborative planning and impact evaluation. *Zoo Biology* 41(5):425-438. DOI:10.1002/zoo.21692.
124. McDonald, H.G. and **D.W. Steadman**. 2022. Fossil flamingo (Phoenicopteriformes) from the Miocene (Hemingfordian) of southern California. *Historical Biology* Online Only. DOI:10.1080/08912963.2022.2103694.
125. Metzke, B.A., B.M. Burr, L.C. Hinz Jr., **L.M. Page**, and C.A. Taylor. 2022. *An Atlas of Illinois Fishes: 150 Years of Change*. University of Illinois Press, Champaign. 404 pp.
126. Meyer, C., E. Duffy, A. Collins, **G. Paulay**, and R. Wetzer. 2021. The U.S. ocean biocode. *Marine Technology Society Journal* 55(3):140-141. DOI:10.4031/MTSJ.55.3.33.
127. **Milbrath, S.** Seasonal cycles, veintena rituals, and yearbearer ceremonies in central Mexico. *Trace* 81(2022):247-248. DOI:10.22134/trace.81.2022.142.
128. **Milbrath, S.**, D. Walker, and C. Peraza Lope. 2021. Postclassic effigy censers of Mayapán: Context, iconography, and external connections. pp. 293-313. *In:*A. Masson, T.S. Hare, C. Peraza Lope, and B.R. Bradley, eds. *Settlement, Economy, and Society at a Postclassic Maya City: Mayapán, Yucatan, Mexico*. University of Pittsburgh Press, Pittsburgh.
129. **Miller, J.Y.**, **D.L. Matthews**, and **R.J. Gott**. 2022. Three new species of *Cautethia* Grote (Lepidoptera: Sphingidae) from the Lucayan Archipelago and keys to West Indies species. *Insecta Mundi* 0937:1-28.
130. Monarrez, P.M., J.B. Zimmt, A.M. Clement, W. Gearty, J.J. Jacisin, K.M. Jenkins, K.M. Kusnerik, A.W. Poust, S.V. Robson, J.A. Sclafani, K.T. Stilson, **S.D. Tennakoon**, and **C.M. Thompson**. 2022. Our past creates our present: A brief overview of racism and colonialism in Western paleontology. *Paleobiology* 48(2):173-185. DOI:10.1017/pab.2021.28.
131. Mongue, A. and **A.Y. Kawahara**. 2022. Population differentiation and structural variation in the tobacco hornworm across the United States. *G3: Genes, Genomes, Genetics* 12(5):jkac047. DOI:10.1093/g3journal/jkac047.
132. Mota, L.L., A.H.B. Rosa, L.R. Vasconcellos, **K.R. Willmott**, and A.V.L. Freitas. 2022. A new subspecies of *Mechanitis lysimnia* from southern Amazonia (Nymphalidae: Danainae: Ithomiini). *Tropical Lepidoptera Research* 32(1):47-51. DOI:10.5281/zenodo.6604683.
133. Mulochau, T., **G. Paulay**, C. Conand, F. Trentin, L. Ballesta, T. Rauby, and P. Durville. 2022. Premier inventaire des holothuries (Holothuroidea) observées sur le Mont sous-marin La Pérouse – Ile de La Réunion sud-ouest de l'océan Indien – Expédition La Pérouse *2019*. *Beche-de-mer Information Bulletin* 42:50-57.
134. **Nakahara, S.**, B. Huertas, G. Nandi Das, and **K.R. Willmott**. 2022. Revision of the "*celia* clade" of *Pseudodebis* Forster, 1964, with two new species and notes on *Papilio phorcys* Fabricius, 1793 (Lepidoptera: Nymphalidae: Satyrinae). *Neotropical Entomology* 51:536-556. DOI:10.1007/s13744-022-00954-x.
135. **Nakahara, S.**, M. Rodríguez-Melgarejo, **K. Kleckner**, T. Corahua-Espinoza, R. Tejeira, M. Espeland, M.M. Casagrande, E.P. Barbosa, J. See, G. Gallice, G. Lamas, and **K.R. Willmott**. 2022. Systematic revision of a new butterfly genus, *Cisandina* Nakahara & Espeland, n. gen., with descriptions of three new taxa (Lepidoptera: Nymphalidae: Satyrinae). *Insect Systematics and Diversity* 6(1)2022(2):1-30. DOI:10.1093/isd/ixab028.
136. **Nakahara, S.**, **K.R. Willmott**, J.R. MacDonald, and A. Thurman. 2021. Description of an enigmatic new species of *Chloreuptychia* Forster, 1964 from Panama (Lepidoptera: Nymphalidae: Satyrinae). *Tropical Lepidoptera Research* 31(3):145-150. DOI:10.5281/zenodo.5776918.
137. **Naranjo, A.A.**, **A.E. Melton**, **D.E. Soltis**, and **P.S. Soltis**. 2022. Endemism and projected climate change impact in the Scrub Mint clade (Lamiaceae): Identifying species of critical concern. *Conservation Science and Practice* 2022(4):e621. DOI:10.1111/csp2.621.
138. **Naylor, G.J.P.**, A. de Lima, J.I. Castro, G. Hubbell, and M.C.C. de Pinna. 2022. Comment on "An early Miocene extinction in pelagic sharks". *Science* 374(6573):eabj872332021. DOI:10.1126/science.abj8723.
139. Neira-Salamea, K., J. Doumbia, A. Hillers, L. Sandberger-Loua, N.G. Kouamé, C. Brede, M. Schäfer, **D.C. Blackburn**, M.F. Barej, and M.-O. Rödel. 2022. A new Slippery frog (Amphibia, Conrauidae, *Conraua*) from the Fouta Djallon highlands, west-central Guinea. *Zoosystematics and Evolution* 98(1):23-42. DOI:10.3897/zse.98.76692.

140. **Newell, F.L.**, **I.J. Ausprey**, and **S.K. Robinson**. 2022. Spatiotemporal climate variability in the Andes of northern Peru: Evaluation of gridded datasets to describe cloud forest microclimate and local rainfall. *International Journal of Climatology* 42(11):5892-5915. DOI:10.1002/joc.7567.
141. Ni, Y., T. Yang, Y. Ma, K. Zhang, **P.S. Soltis**, **D.E. Soltis**, J.A. Gilbert, Y. Zhao, C. Fu, and H. Chu. 2021. Soil pH determines bacterial distribution and assembly processes in natural mountain forests of eastern China. *Global Ecology and Biogeography* 30(11):2164-2177. DOI:10.1111/geb.13373.
142. Núñez, R, **K.R. Willmott**, Y. Álvarez, J. Genaro, A.R. Pérez-Asso, M. Quejereta, T. Turner, **J.Y. Miller**, C. Brévignon, G. Lamas, and A. Hausmann. 2022. Integrative taxonomy clarifies species limits in the hitherto monotypic passion-vine butterfly genera *Agraulis* and *Dryas* (Lepidoptera, Nymphalidae, Heliconiinae). *Systematic Entomology* 47(1):152-178. DOI:10.1111/syen.12523.
143. Ocon, S., L. Lundgren, R. Bex II, J. Bauer, M. Hughes, and **S.M. Mills**. 2021. *Follow the Fossils: Developing Metrics for Instagram as a Natural Science Communication Tool (Elements of Paleontology)*. Cambridge University Press, Cambridge. DOI:10.1017/9781009157476.
144. Orr, R.J.S., E. Di Martino, M. Ramsfjell, D.P. Gordon, B. Berning, I. Chowdhury, S. Craig, R.L. Cumming, B. Figuerola, W. Florence, J.-G. Harmelin, M. Hirose, D. Huang, S.S. Jain, H.L. Jenkins, O.N. Kotenko, P. Kuklinski, H.E. Lee, T. Madurell, L. McCann, L. Mello, M. Obst, A.N. Ostrovsky, **G. Paulay**, N.N. Shunatova, A.M. Smith, J. Souto-Derungs, L. Vieira, K.L. Voje, A. Waeschenbach, K. Zágoršek, R. Warnock, and L.H. Liow. 2022. Paleozoic origins of cheilostome bryozoans and parental care revealed by a new genome-skimmed phylogeny. *Science Advances* 8(13):eabm7452. DOI:10.1126/sciadv.abm7452.
145. Padrón, P.S., T.W. Pyrcz, and **K.R. Willmott**. 2021. A contribution towards resolving the systematics of the high altitude tropical Andean satyrine genus *Altopedaliodes* Forster, 1964 (Lepidoptera, Nymphalinae [sic]: Satyrinae). *Neotropical Entomology* 50:767-803. DOI:10.1007/s13744-021-00897-9.
146. **Paluh, D.J.**, W.A. Dillard, **E.L. Stanley**, G.J. Fraser, and **D.C. Blackburn**. 2021. Re-evaluating the morphological evidence for the re-evolution of lost mandibular teeth in frogs. *Evolution* 75:3203-3213. DOI:10.1111/evo.14379.
147. Pinheiro, P.D., B.L. Blotto, S.R. Ron, **E.L. Stanley**, P.C. Garcia, C.F. Haddad, T. Grant, and J. Faivovich. 2021. Prepollex diversity and evolution in Cophomantini (Anura: Hylidae: Hylinae). *Zoological Journal of the Linnean Society* 195(3):995-1021. DOI:10.1093/zoolinnean/zlab079.
148. Pinkert, S., **V. Barve**, **R.P. Guralnick**, and W. Jetz. 2022. Global geographic and latitudinal variation in butterfly species richness captured through a comprehensive country-level occurrence database. *Global Ecology and Biogeography* 31(5):830-839. DOI:10.1111/geb.13475.
149. Pluckhahn, T.J. and **N.J. Wallis**. 2022. Pottery, social memory, and cooperation: A case study from the Woodland Period in the Southeast U.S. pp. 27-52. *In:* L. Carpenter and A. Prentiss, eds. *Archaeology of Households, Kinship, and Social Change*. University of Arizona Press.
150. Poo, S., S.M. Whitfield, A. Shepack, G.J. Watkins-Colwell, **G. Nelson**, **J. Goodwin**, A. Bogisich, P.L.R. Brennan, J. D'Agostino, M. Koo, J.R. Mendelson III, R. Snyder, S. Wilson, G.P. Aronsen, A.C. Bentley, **D.C. Blackburn**, M.R. Borths, M.L. Campbell, D.A. Conde, J.A. Cook, J.D. Daza, D.P. Dembiec, J.L. Dunnum, C.M. Early, A. Ferguson, A. Greene, **R.P. Guralnick**, C. Janney, D. Johnson, F. Knightly, S. Poulin, L. Rocha, **P.S. Soltis**, B. Thiers, and P. Chakrabarty. 2022. Bridging the research gap between live collections in zoos and preserved collections in natural history museums. *BioScience* 72:449-460. DOI:10.1093/biosci/biac022.
151. Primack, R.B., **E.R. Ellwood**, A.S. Gallinat, and A.J. Miller-Rushing. 2021. The growing and vital role of botanical gardens in climate change research. *New Phytologist* 231(3):917-932. DOI:10.1111/nph.17410.
152. Qin, L., Y. Hu, J. Wang, X. Wang, R. Zhao, H. Shan, K. Li, P. Xu, H. Wu, X. Yan, L. Liu, X. Yi, S. Wanke, C.W. dePamphilis, **P.S. Soltis**, **D.E. Soltis**, H. Kong, and Y. Jiao. 2021. The *Aristolochia fimbriata* genome: Insights into angiosperm evolution, floral development and chemical biosynthesis. *Nature Plants* 7:1239-1253. DOI:10.1038/s41477-021-00990-2.
153. Reeder-Myers, L.A., T.J. Braje, C.A. Hofman, E.A. Elliott Smith, C. Garland, M. Grone, C.S. Hadden, M. Hatch, T. Hunt, A. Kelley, **M.J. LeFebvre**, M. Lockman, I. McKechnie, I.J. McNiven, B. Newsom, T. Pluckhahn, G. Sanchez, M. Schwadron, K. Smith, T. Smith, A. Spiess, G. Tayac, V.D. Thompson, T. Vollman, E.M. Weitzel, and T.C. Rick. 2022. Indigenous oyster fisheries persisted for millennia and should inform future management. *Nature Communications* 13:2383. DOI:10.1038/s41467-022-29818-z.
154. Refvem, E., M.G. Jones, K. Rende, S. Carrier, and **M. Ennes**. 2022. The next generation of science educators: Museum volunteers. *Journal of Science Teacher Education* 33(3):326-343. DOI:10.1080/1046560X.2021.1929713.
155. Rende, K., K. Fromson, M.G. Jones, and **M. Ennes**. 2021. The privilege of low pay: Informal educators' perspectives on workforce equity and diversity. *Journal of Museum Education* 46(4):430-440. DOI:10.1080/10598650.2021.1975484.
156. Rice, P.M. and **A.S. Cordell**. 2021. Weeden Island pottery: Manufacturing origins and implications. *The Florida Anthropologist* 74(4):227-245.
157. Rice, P.M. and **N.J. Wallis**. 2022. Thoughts on Weeden Island pottery classification: The type-variety system (again). *Southeastern Archaeology* 41(3):145-154. DOI:10.1080/0734578X.2022.2086517.
158. **Robinson, S.K.** Ruddy Quail-dove (*Geotrygon montana*). pp. 14-15. *In:* J. Whitelaw, J.W. Fitzpatrick, J. Brawn, and H. Pollock, eds. *Essays on Panama's Lesser-Known Birds*. Cornell University Press, Ithaca, NY.
159. **Robinson, S.K.** White-flanked antwren (*Myrmotherula axillaris*). pp. 38-41. *In:* J. Whitelaw, J.W. Fitzpatrick, J. Brawn, and H. Pollock, eds. *Essays on Panama's Lesser-Known Birds*. Cornell University Press, Ithaca, NY.
160. **Robinson, S.K.** Olive-striped flycatcher (*Mionectes olivaceus*). pp. 78-79. *In:* J. Whitelaw, J.W. Fitzpatrick, J. Brawn, and H. Pollock, eds. *Essays on Panama's Lesser-Known Birds*. Cornell University Press, Ithaca, NY.
161. **Robinson, S.K.** Ruddy-capped Nightingale-thrush (*Catharus frantzii*). pp. 118-119. *In:* J. Whitelaw, J.W. Fitzpatrick, J. Brawn, and H. Pollock, eds. *Essays on Panama's Lesser-Known Birds*. Cornell University Press, Ithaca, NY.
162. Rojas, A., A. Gracia, I. Hernández-Ávila, P. Patarroyo, and **M. Kowalewski**. 2022. Occurrence of the brachiopod *Tichosina* in deep-sea coral bottoms of the Caribbean Sea and its paleoenvironmental implications. *Bulletin of the Florida Museum of Natural History* 59(1):1-15.
163. **Rooney, M.P.**, T. Skipton, B.R. Lieb, and **C.R. Cobb**. 2022. Archaeological investigations at the Charity Hall Mission Site. *Southeastern Archaeology* 41(1):16-31. DOI:10.1080/0734578X.2021.2021354.
164. Rosa, A.H.B., B. Huertas, **K.R. Willmott**, E.P. Barbosa, P.A. Machado, O.H.H. Mielke, C.H.P. Canaan, and A.V.L. Freitas. 2021. Fifty years without a name: A new species of *Splendeuptychia* Forster (Lepidoptera: Nymphalidae: Satyrinae). *Zootaxa* 5061(1):95-114. DOI:10.11646/zootaxa.5061.1.4.
165. **Rubin, J.J.** Darwin's hawkmoth *Xanthopan praedicta* responds to bat ultrasound at sonar-jamming rates. *Biotropica* 54(3):571-575. DOI:10.1111/btp.13093.

166. Rubinatto Serrano, J., **M.C. Vallejo-Pareja**, S.D. deFrance, S.I. Baitzel, and P.S. Goldstein. 2022. Contextual, taphonomic, and paleoecological insights from anurans on Tiwanaku sites in southern Peru. *Quaternary* 5(1):16. DOI:10.3390/quat5010016.
167. Scarponi, D., R. Nawrot, M. Azzarone, C. Pellegrini, F. Gamberi, F. Trincardi, and **M. Kowalewski**. 2022. Resilient biotic response to long-term climate change in the Adriatic Sea. *Global Change Biology* 28(13):4041-4053. DOI:10.1111/gcb.16168.
168. **Sharpe, A.E.** and K. Aoyama. 2022. Lithic and faunal evidence for craft production among the Middle Preclassic Maya at Ceibal, Guatemala. *Ancient Mesoamerica* Online Early. DOI:10.1017/S0956536122000049.
169. **Sheehy III, C.M.** *The Fantastic World of Reptiles*. Puppy Dogs & Ice Cream, 48 pp. ISBN:1956462074.
170. Shirley, V., E. Larsen, A. Doherty, C.A. Kim, F.T. Al-Sulaiman, J.D. Hinolan, M.G.A. Itliong, M.A.K. Naive, M. Ku, **M.W. Belitz**, G. Jeschke, **V. Barve**, G. Lamas, **A.Y. Kawahara**, **R.P. Guralnick**, N.E. Pierce, D.J. Lohman, and L. Ries. 2022. LepTraits 1.0: A globally comprehensive dataset of butterfly and moth traits. *Scientific Data* 9:382. DOI:10.1038/s41597-022-01473-5.
171. Smith, K.T., B.A.S. Bhullar, and **J.I. Bloch**. 2022. New diminutive Eocene lizard reveals high K-Pg survivorship and taxonomic diversity of stem xenosaurs in North America. *American Museum Novitates* 3986:1-36. http://hdl.handle.net/2246/7293.
172. **Soltis, D.E.**, **E.V. Mavrodiev**, **M.A. Gitzendanner**, Y.E. Alexeev, **G.T. Godden**, and **P.S. Soltis**. 2022. *Tragopogon dubius*: Multiple introductions to North America and the formation of the New World tetraploids. *TAXON* Online Early. DOI:10.1002/tax.12743.
173. Sondhi, Y., N.J. Jo, B. Alpizar, **A. Markee**, **H.E. Dansby**, J.P. Currea, S.T. Fabian, C. Ruiz, E. Barredo, M. Degennaro, **A.Y. Kawahara**, and J.C. Theobald. 2022. Portable locomotion activity monitor (pLAM): A cost-effective setup for robust activity tracking in small animals. *Methods in Ecology and Evolution* 13(4):805-812. DOI:10.1111/2041-210X.13809.
174. **Sorresso, D.C.**, **C.T. Duke**, **C.R. Cobb**, B.R. Lieb, E.A. Boudreaux III, and A.M. Krus. 2022. Functional and stylistic considerations of mixed grog- and shell-tempered Mississippian vessels from the Nashville Basin. *Midcontinental Journal of Archaeology* 47(1):47-67. DOI:10.5406/23274271.47.1.03.
175. **Sourakov, A.** Wolves in sheep's clothing: Predation by *Chalcoela* (Crambidae) of *Polistes* wasp immatures and additional wasp nest infestations by *Niditinea orleansella* (Tineidae). *News of the Lepidopterists' Society* 64(1):6-9. DOI:10.13140/RG.2.2.19811.02086.
176. **Sourakov, A.** and R.W. Chadd. 2022. *The Lives of Moths: A Natural History of Our Planet's Moth Life*. Princeton University Press. 288 pp.
177. **Spoelhof, J.P.**, **P.S. Soltis**, and **D.E. Soltis**. 2021. Polyploidy and mutation in *Arabidopsis*. *Evolution* 75(9):2299-2308. DOI:10.1111/evo.14307.
178. Stemkovski, M., J.R. Bell, **E.R. Ellwood**, B.D. Inouye, H. Kobori, S.D. Lee, T. Lloyd-Evans, R.B. Primack, B. Templ, and W.D. Pearse. 2021. Disorder or a new order: How climate change affects phenological variability. *Ecology* 2021:e3846. DOI:10.1002/ecy.3846.
179. Stephan, T., S.M. Burgess, H. Cheng, C.G. Danko, C.A. Gill, E.D. Jarvis, K.-P. Koepfli, J.E. Koltes, E. Lyons, P. Ronald, O.A. Ryder, L.M. Schriml, **P.S. Soltis**, S. VandeWoude, H. Zhou, E.A. Ostrander, and E.K. Karlsson. 2022. Darwinian genomics and diversity in the Tree of Life. *Proceedings of the National Academy of Sciences, USA* 119(4):e2115644119. DOI:10.1073/pnas.2115644119.
180. Straube, N., M. Preick, **G.J.P. Naylor**, and M. Hofreiter. 2021. Mitochondrial DNA sequencing of a wet-collection syntype demonstrates the importance of type material as genetic resource for Lantern shark taxonomy (Chondrichthyes: Etmopteridae). *Royal Society Open Science* 8(9):1-13. DOI:10.1098/rsos.210474.
181. Stull, G.W., X.-J. Qu, C. Parins-Fukuchi, Y.-Y. Yang, **P.S. Soltis**, **D.E. Soltis**, H. Ma, D.-Z. Li, S.A. Smith, and T.-S. Yi. 2021. Gene duplications and genomic conflict underlie major pulses of phenotypic evolution in gymnosperms. *Nature Plants* 7(8):1015-1025. DOI:10.1038/s41477-021-00964-4.
182. **Tennakoon**, **S.**, **R.W. Portell**, E. Petsios, C.L. Tyler, and **M. Kowalewski**. 2022. *Semicassis globosum* (Mollusca: Gastropoda: Cassidae) from the upper Eocene Ocala Limestone of Florida with redescription and discussion of its extreme morphological variability. *Historical Biology* Online Only. DOI:10.1080/08912963.2022.2063055.
183. Thornton, E.K. and **K.F. Emery**. 2022 Los orígenes de la domesticación del pavo en Mesoamérica: Una revisión de la evidencia actual. pp. 35-54. *In:*A. de Vidas, N. Latsanopoulos, and P. Pitrou, eds. *El Guajolote en Mesoamérica. Enfoques Arqueológicos, Históricos y Antropológicos*. Centro de Estudios Mexicanos y Centroamericanos, Mexico.
184. Tong, J., E.B. Knox, C.W. Morden, **N. Cellinese**, F. Mossolem, A.S. Zubair, and D.G. Howarth. 2022. Duplication and expression patterns of *CYCLOIDEA*-like genes in Campanulaceae. *EvoDevo* 13(5)1-22. DOI:10.1186/s13227-021-00189-8.
185. Tunckol, B., H. Yasayacak, and **L.C. Majure**. 2022. *Opuntia macrorhiza* Engelm: A new record of an invasive alien species in the flora of Turkey. *Bioinvasions Records* 11(2):345-350. DOI:10.3391/bir.2022.11.2.06.
186. Turner, A.M., **S.K. Robinson**, and M.E. Hauber. 2021. Avian brood parasitism. pp. 1-9. *In:* S. Scheiner and S. Levin, eds. *Encyclopedia of Biodiversity*. Elsevier.
187. Tyler, C., T. Dexter, **R.W. Portell**, and **M. Kowalewski**. 2021. Coordinates for traces of predation in *Meoma* tests from San Salvador Island. *Dryad, Dataset*. DOI:10.5061/dryad.b8gtht7cj.
188. Urbana, B., A.T. Antczak, M. Magdalena Antczak, **N.R. Cannarozzi**, R.H. Colten, **K.F. Emery**, R.A.C.F. Dijkhoff, T.A. Wake, **M.J. LeFebvre**, L.A. Carlson, **W.F. Keegan**, and D.C. Nieweg. 2022. Monkeys on the islands and coasts of paradise: Pre-Hispanic nonhuman primates in the Circum-Caribbean region (AD 300-1500). pp. 63-107. *In:* A.T. Antczak, B. Urbani, and D. Youlatos, eds. *World Archeoprimatology: Interconnections of Humans and Nonhuman Primates in the Past*. Cambridge University Press, Cambridge. ISBN 9781108487337, 1108487335.
189. Vaidya, G., **N. Cellinese**, and H. Lapp. 2022. A new phylogenetic data standard for computable clade definitions: The Phyloreference Exchange Format (Phyx). *PeerJ* 10:e12618. DOI:10.7717/peerj.12618.
190. Vannatta, J.M., J.A. Gore, **V.L. Mathis**, and B.D. Carver. *Eumops floridanus* (Chiroptera: Molossidae). *Mammalian Species* 53(1009):125-133. DOI:10.1093/mspecies/seab012.
191. Villalobos-Segura, E., G. Marramà, G. Carnevale, K.M. Claeson, C.J. Underwood, **G.J.P. Naylor**, and J. Kriwet. 2022. The phylogeny of rays and skates (Chondrichthyes: Elasmobranchii) based on morphological characters revisited. *Diversity* 14(6):4562022. DOI:10.3390/d14060456.
192. **Viñola-López, L.W.**, E.E. Core Suarez, J. Vélez-Juarbe, J.N. Almonte Milan, and **J.I. Bloch**. 2022. The oldest known record of a ground sloth (Mammalia, Xenarthra, Folivora) from Hispaniola: Evolutionary and paleobiogeographical implications. *Journal of Paleontology* 96:684-691. DOI:10.1017/jpa.2021.109.

193. **Viñola-López, L.W.**, I.A. Cerda, J. Correa-Narvaez, L. Codorniú, C.R. Borges-Sellén, A.F. Arano-Ruiz, and Y. Ceballos-Izquierdo. 2022. New fossils shed light on the Late Cretaceous terrestrial community in the Caribbean and the First American Biotic Interchange. *Cretaceous Research* 130:105067. DOI:10.1016/j.cretres.2021.105067.
194. Wallace, C.C. and **R.W. Portell**. 2022. Earliest western Atlantic Staghorn corals (*Acropora*): Two new fossil species from the lower Oligocene Suwannee Limestone of Florida, USA, and their significance for modern coral distribution. *Journal of Paleontology* Online Early. DOI:10.1017/jpa.2022.47.
195. **Wang, A.**, **A.E. Melton**, **D.E. Soltis**, and **P.S. Soltis**. 2021. Potential distributional shifts in North America of allelopathic invasive plant species under climate change models. *Plant Diversity* 44(1):11-19. DOI:10.1016/j.pld.2021.06.010.
196. **Warren, A.D.** and **R.J. Gott**. 2021. Four new species of *Piruna* Evans, 1955 from western Mexico (Lepidoptera: Hesperiidae: Heteropterinae). *Tropical Lepidoptera Research* 31(2):101-117. DOI:10.5281/zenodo.5600416.
197. **Warren, A.D.**, **R.J. Gott**, and D.R. Dolibaina. 2021. A new species of *Lindra* Evans, 1955 from Ecuador (Lepidoptera: Hesperiidae: Hesperiinae). *Tropical Lepidoptera Research* 31(2):86-89. DOI:10.5281/zenodo.5600362.
198. **Warren, A.D.**, **R.J. Gott**, and W.W. McGuire. 2021. A review of *Hesperia uncas* W. H. Edwards, 1863 in Mexico, with the description of a new subspecies (Lepidoptera: Hesperiidae: Hesperiinae). *Tropical Lepidoptera Research* 31(2):70-79. DOI:10.5281/zenodo.5290345.
199. Wheeler, E.A., P. Baas, and **S.R. Manchester**. 2022. Wood anatomy of modern and fossil Fagales in relation to phylogenetic hypotheses, familial classification, and patterns of character evolution. *International Journal of Plant Sciences* 183(1):61-86. DOI:10.1086/717328.
200. Wheeler, E.A. and **S.R. Manchester**. 2021. A diverse assemblage of late Eocene woods from Oregon, western USA. *Fossil Imprint* 77(2):299-329. DOI:10.37520/fi.2021.022.
201. White, W.T., J. Guallart, D.A. Ebert, **G.J.P. Naylor**, A. Verissimo, C.F Cotton, M. Harris, F. Serena, and S.P. Iglesias. 2022. Revision of the genus *Centrophorus* (Squaliformes: Centrophoridae): Part 3—Redescription of *Centrophorus uyato* (Rafinesque) with a discussion of its complicated nomenclatural history. *Zootaxa* 5155(1):1-51. DOI:10.11646/zootaxa.5155.1.1.
202. White, W.T., H.L. O'Neill, and **G.J.P. Naylor**. 2022. Taxonomy and diversity of extant elasmobranchs. pp. 31-57. *In:* J.C. Carrier, C.A. Simpfendorfer, M.R. Heithaus, and K.E. Yopak, eds. *Biology of Sharks and Their Relatives (3rd ed.)*. CRC Press, Boca Raton, FL. DOI:10.1201/9781003262190-2.
203. **Willmott, K.R.**, G. Lamas, J.P.W. Hall, F. Vitale, P. Boyer, J.-C. Petit, J. Radford, and M. Elias. A new species and thirty-eight new subspecies of equatorial Ithomiini (Lepidoptera, Nymphalidae, Danainae). *Tropical Lepidoptera Research* 31(3):1-80. DOI:10.5281/zenodo.5526837.
204. Wu, R., R. Guo, Q. Xi, **G. Paulay**, and J. An. 2022. Phylogenetic position of *Bopyroides hippolytes*, with comments on the evolution of the mitochondrial genome in isopods (Isopoda: Epicaridea: Bopyridae). *BMC Genomics* 23:253. DOI:10.1186/s12864-022-08513-9.
205. Xu, T., H. Bravo, **G. Paulay**, and S.E.T. van der Meij. 2021. Diversification and distribution of Gall crabs (Brachyura: Cryptochiridae: *Opecarcinus*) associated with Agariciidae corals. *Coral Reefs* 41:699-709. DOI:10.1007/s00338-021-02163-1.
206. **Yang, L.**, **G.J.P. Naylor**, and R.L. Mayden. 2022. Deciphering reticulate evolution of the largest group of polyploid vertebrates, the subfamily cyprininae (Teleostei: Cypriniformes). *Molecular Phylogenetics and Evolution* 166:107323. DOI:10.1016/j.ympev.2021.107323.
207. **Yang, Z.**, **D. Plotkin**, J.-F. Landry, **C.G. Storer**, and **A.Y. Kawahara**. 2021. Revisiting the evolution of *Ostrinia* moths with phylogenomics (Pyraloidea: Crambidae: Pyraustinae). *Systematic Entomology* 46(4):827-838. DOI:10.1111/syen.12491.
208. Yoshimoto, J., J.L. Salinas-Gutierrez, M. Barrios, and **A.D. Warren**. 2022. An updated list of butterflies (Lepidoptera, Papilionoidea) of two Guatemalan seasonally dry forests. *ZooKeys* 1118(1):21-38. DOI:10.3897/zookeys.1118.85810.
209. Zacca, T., M.M. Casagrande, O.H.H. Mielke, B. Huertas, A.V.L. Freitas, M.A. Marín, M. Espeland, and **K.R. Willmott**. 2021. A new euptychiine butterfly species from south Brazil and taxonomic rearrangements for *Taydebis* Freitas, 2013 and *Hermeuptychia* Forster, 1964 (Lepidoptera: Nymphalidae: Satyrinae). *Zootaxa* 5023(4):555-570. DOI:10.11646/zootaxa.5023.4.5.
210. Zhang, Q., L. Zhao, R.A. Folk, J.-Li. Zhao, N. Zamora, S.-X. Yang, **D.E. Soltis**, **P.S. Soltis**, L.-M. Gao, H. Peng, and X.-Q. Yu. 2022. Phylotranscriptomics of Theaceae: Generic-level relationships, reticulation and whole-genome duplication. *Annals of Botany* 129(4):457-471. DOI:10.1093/aob/mcac007.
211. Zolina, A.A., **S.R. Manchester**, and L. Golovneva. 2021. Typification of the genus *Zizyphoides* Seward et Conway (Magnoliophyta, Trochodendraceae). *Acta Palaeobotanica* 61(2):123-135. DOI:10.35535/acpa-2021-0007.