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Introducing the **U N D E R** at the Museum of Vertebrate Zoology !



Dear MVZ Community

With this newsletter, we are pleased to introduce the first eight awardees from MVZ's 40under40 list! This new list highlights 40 alumni of the MVZ who are each under 40 years of age and have made substantial contributions in their chosen career. A call for nominations went out to the MVZ community this summer and nominees were chosen by a vote of the MVZ faculty and staff. Each of the winners will be featured in our upcoming newsletters. We hope the list will serve to acknowledge and promote the work and careers of MVZ's younger alumni! Congratulations to the winners!

Michael Nachman
MVZ Director

Dr. Rayna Bell

Graduate Student Moritz Lab, Postdoc McGuire Lab, Currently Associate Curator of Herpetology, Institute of Biodiversity Science and Sustainability, California Academy of Sciences

As an undergraduate Rayna majored in Integrative Biology and conducted research on Australian frogs and lizards with the Moritz Lab at the MVZ. “When I started volunteering in the Moritz Lab, I was made to feel so welcome by all the faculty, staff, postdocs, and students in the MVZ and knew right away I had found an amazing support network. **The folks I met as an undergrad (and when I returned as a postdoc) are still some of my very best friends and collaborators.**” She earned her Ph.D. in Ecology & Evolutionary Biology at Cornell University and returned to the MVZ as a Chancellor’s Postdoctoral Fellow with the McGuire Lab. In 2015 she joined the National Museum of Natural History, Smithsonian Institution as a Curator of Amphibians and Reptiles. She returned to the Bay Area in 2019 to the Institute of Biodiversity Science and Sustainability at the California Academy of Sciences where she is the Associate Curator of Herpetology. Her research focuses on the ecology, evolution and conservation of amphibians and reptiles.



Dr. Nassima (Sima) Bouzid

MVZ Undergraduate Curatorial Assistant, Currently Data Scientist at Invitae



Sima worked as a curatorial assistant in herpetology at the MVZ as an undergraduate. She conducted research on Guatemalan salamanders with the late Professor David Wake and assisted on several amphibian and reptile field expeditions to Mexico. At the MVZ Sima “learned to problem solve with data...thinking through where missing specimens might be or what a collector might have meant in their notes. **Being persistent and thorough even with problematic data has made it possible for me to complete my PhD and enter a**

field that’s full of mysteries.” She got her Ph.D. from the University of Washington studying population genetics and phylogenetics on *Sceloporus* lizards. Today, Sima is a Data Scientist at Invitae, a biotech company in San Francisco, working with complex, real-world datasets to improve human health.

Katharine Lovett, J.D.

MVZ Undergraduate Volunteer Research and Prep Lab Assistant, Currently Lawyer practicing in Wyoming

As an undergraduate Katharine worked in the MVZ as a bird curatorial assistant and in the field on the Grinnell Resurvey project. “What I loved about my time there was the connections and friends I made. I think it’s such a huge testament to those friendships that 12 years after leaving Cal, I got to return to the MVZ for Carla Cicero’s retirement party, and it was like no time had passed. **Same people, same spirit, same good time.**”

In 2009 Katharine graduated from UC Berkeley in Molecular Environmental Biology and worked as a wildlife biologist for the U.S. Geological Survey (USGS) studying the effect of sea level rise on marshlands along the West Coast. After five years she left to attend the University of Colorado Law School in Boulder, where she served as an editor for the Colorado Natural Resources, Energy, and Environmental Law Review. She moved to Jackson, Wyoming after finishing law school, and opened her own practice in 2021. Katharine still enjoys natural history and the outdoors, “**Everything I did at the MVZ sparked and grew my curiosity.** Whether it was sequencing frog DNA or deciding which drawer that one subspecies of LBBs (little brown birds) went in the cases, the staff, grad students, researchers, and professors at the MVZ instilled in me a desire to learn, to become independent, and to use my knowledge as a means to contribute to science. **As an attorney, I have to continue to be curious, to avoid complacency when I’m working on yet another**



Dr. Josh Peñalba

MVZ Undergraduate Research, Curatorial and Prep Lab Assistant, Currently Research Scientist at the Museum für Naturkunde, German



Josh worked as a research, curatorial and prep lab assistant in the MVZ eventually becoming the assistant lab manager of the MVZ's Evolutionary Genetics Lab. His first research experience focused on phylogeography and phylogenetics of various African bird taxa under Professor Rauri Bowie. “My favorite thing about my time at the MVZ was the community. **The MVZ served as a second home where I made life-long connections.** As an undergrad, I made friends with graduate students, staff scientists, curators, and faculty and formed memories which I cherish to this day.” Josh

graduated from UC Berkeley in 2013 in integrative biology and in 2017 he completed his Ph.D. at Australian National University under former MVZ director Craig Moritz. As a postdoc he worked in the lab of Jochen Wolf to develop methods to estimate recombination rate variation across the genome. “**At the MVZ, I learned the importance of good mentorship.** Good supportive mentors played an invaluable role in the early stages of my career. It is important to have mentors who care about your well-being and goals and would make time and effort to help you reach them.” Josh is now a research scientist at the Museum für Naturkunde, Berlin, Germany. The focus of his research is speciation, population genetics, and comparative biogeography.

Dr. Allison Schultz

MVZ Undergraduate Volunteer and MVZ Centennial Coordinator, Currently Associate Curator of Ornithology at the Natural History Museum of Los Angeles

Allison was an undergraduate at the MVZ, graduating in integrative biology in 2007, after which she served as the coordinator for the MVZ's Centennial Celebration. One of the most important things she learned during her time at the MVZ was “how to value students and mentees and to treat them with respect. **Being treated like a colleague from the beginning made me a much more confident and capable scientist, and as my role has transitioned from mentee to mentor, has formed the basis of my own mentorship philosophy.**”

She earned graduate degrees at San Diego State University (M.Sc.) and Harvard University (Ph.D.) and has continued to carry the museum legacy forward in her work as Associate Curator of Ornithology at the Natural History Museum of Los Angeles, where she has actively enhanced diversity, equity, and inclusion while performing field-advancing research.



Dr. Sonal Singhal

Graduate Student Moritz Lab, Currently Professor at Cal State Dominguez Hills



Sonal was a graduate student studying lizards at the MVZ under former MVZ Director Craig Moritz. In 2013 she received her Ph.D. in integrative biology from UC Berkeley. During her time at the MVZ she “learned so much from so many different folks at every career stage, and I felt part of a larger community united in our desire to better understand the natural world. **The friends and mentors I made at the MVZ continue to support and uplift me to this day.**” She did postdocs at Columbia University and the University of Michigan. For the past six years, she has been teaching biology

at California State University, Dominguez Hills (CSUDH). In her research she uses genetics to uncover how species evolve in both lizards and desert plants. Sonal is passionate about diversity in STEM education and collaborates with her CSUDH colleagues to develop initiatives that promote equitable student success.

Dr. Jessica Castillo Vardaro

Postdoc Nachman Lab, Currently Assistant Professor at San Jose State University

Jessica was an undergraduate at UC Berkeley, graduating in Conservation and Resource Studies in 2008. To Jessica the best part about working in the MVZ was being a part of a scientific community, **“It gave me the confidence that I could pursue a career in science.** Whether it was interacting with graduate students, faculty and staff, or emeritus professors, I always felt included. I could strike up a conversation with Craig Moritz, Jim Patton, or any of the faculty curators and they never once made me feel like I was wasting their time, even though I probably was occasionally.” She did her Ph.D. at Oregon State on the population genetics of American pika (*Ochotona princeps*). Jessica did a postdoc at Princeton and returned to the MVZ in 2018 for a President’s Postdoc under MVZ Director Michael Nachman. In 2019 she joined the faculty at San Jose State University’s Department of Biological Science as an Assistant Professor. **“As a faculty member now, the great mentorship I received at the MVZ informs how I mentor students, especially undergrads, in the lab and field.”** Her research is focused on population genetics and landscape genomics of American Pikas (*Ochotona princeps*).



Anand Varma

MVZ Field Photographer and Undergraduate Volunteer, Currently National Geographic Photographer



Anand was an undergraduate at the MVZ who documented the Grinnell Resurvey Project with photographs. He graduated from UC Berkeley in Integrative Biology in 2008, and was then hired on a National Science Foundation Grant to photograph all of the MVZ’s egg and nest collections. He received an “Early Career Grant” from National Geographic in 2010 and has since photographed numerous stories for the magazine including a cover story in 2014. He has been recognized as a National Geographic Media Innovation Fellow, a Rita Allen Civic Science Fellow, and World Press Award winner for best nature story. He lives in Berkeley and uses photography to share the story behind the science on everything from honeybee health

to hummingbird biomechanics. He works to reveal the invisible details around us with the goal of sparking a sense of wonder about our world.

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To sustain our leadership in discovery and understanding of vertebrate diversity, and to protect the collection for future generations, we depend on donations. Any gifts, large or small, make a difference.

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