Mark W. Moffett: E. O. Wilson Protégé, *National Geographic* Photographer, Ecologist

Marlin E. Rice

Born
January 1958
Salida, Colorado

Current Position
Research Associate, Department of Entomology, U.S. National Museum (Smithsonian), Washington, D.C. (1997–present)

Books
The High Frontier: Exploring the Tropical Rainforest Canopy. Harvard University Press.
Face to Face with Frogs. National Geographic Society.
Adventures Among Ants: A Global Safari with a Cast of Trillions. University of California Press.
The Human Swarm: How Our Societies Arise, Thrive, and Fall. Basic Books.

National Geographic articles
31

Refereed Publications & Book Chapters
59

Invited Guest Speaker
American Philosophical Society
Google Headquarters
Institute of Human Origins
NASA Goddard Space Flight Center
National Geographic Society
National Public Radio
Santa Fe Institute
World Science Festival

Research Appointments
Visiting Scholar, Department of Human Evolutionary Biology, Harvard University (2015–2020)

Research Fellow, The Skeptics Society (2019–2024)

Research Scholar, National Evolutionary Synthesis Center, Duke University (2015)

Research Associate, Museum of Vertebrate Zoology, UC–Berkeley (1998–2005)

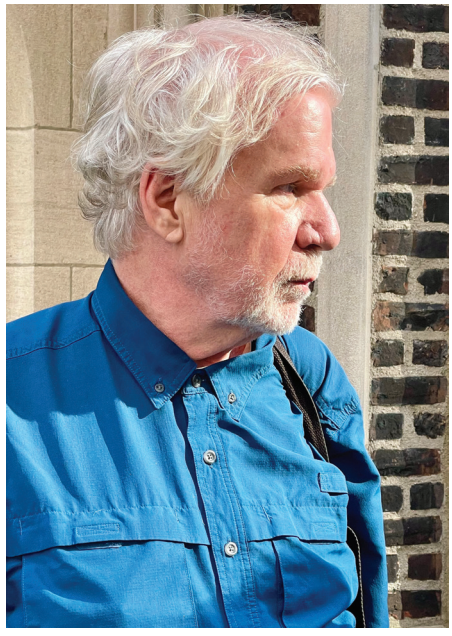
Visiting Scholar in Anthropology, Peabody Museum, Harvard University (1997–2000)

Research Associate, Museum of Comparative Zoology, Harvard University (1991–1997)

Associate Curator, Museum of Comparative Zoology, Harvard University (1987–1991)

Before graduating from Harvard University with a Ph.D. (1987) under the mentorship of famed entomologist Edward O. Wilson, Mark Moffett was a high school dropout. During his Harvard years, he flourished and began to build a career that blends research in ecology, entomology, and anthropology as well as exploration, photography, and storytelling. His curiosity began in his backyard in Salida, Colorado, where he watched ants as a toddler. That early obsession with insects led him years later to examine how social systems emerge in ants and, eventually, humans.

Moffett's family were not academics. His mother was a stay-at-home mom, and his father was a Presbyterian minister. A shy, nature-obsessed child, he spent hours exploring creeks, climbing trees, breeding reptiles, and watching ants. Although he never graduated from high school, Moffett was accepted and encouraged by the friendships he had made with scientists at Beloit College, where he found academic refuge. Early in his undergraduate career, Moffett joined an expedition to Costa Rica—his first trip outside the U.S.—where he was noted as an expert snake catcher. He caught the attention of seasoned scientists and joined further expeditions studying *Mechanitis* butterflies, Coleoptera, and lizards across Central and South America, where he cultivated a taste for exploration. On one six-month expedition across the Andes, he discovered a new species of *Notiobia* beetle (Carabidae) at 12,000 feet in Peru. It would become the first of several animals named after him, from a frog he found a quarter-mile deep in a Venezuelan sinkhole to an ant in French Guiana. He graduated from Beloit with a B.A. (1979), magna cum laude, Phi Beta Kappa, and five scientific publications.



Mark W. Moffett, Smithsonian Research Associate, 2025. (Photo by Marlin E. Rice)

Moffett's ambitions crystallized around ants because of E. O. Wilson's book *The Insect Societies*, which he received in junior high as one of three books for a one-dollar membership in a science book club. He finally met his hero Wilson in his Harvard office in 1980. Mark's informal "Hi, Ed!" greeting broke with convention, but not with connection. Their bond was instant, and Wilson welcomed him into the entomological fold. With funding from a National Science Foundation Fellowship, he began his doctoral studies at Harvard.

Harvard's famed ant collection intro-

duced Moffett to the genus *Pheidologeton* (now *Carebara*), which had never been the subject of field investigations despite the extreme polymorphism of its workers—a clue to rich social complexity. With Wilson's support and a National Geographic Society grant, he embarked on a 29-month journey across southern Asia to research the genus firsthand, most closely studying *Carebara diversa,* which he came to call the marauder ant for its army ant-style swarms and intricate division of labor. Getting by on a shoestring budget—spending just $100 in his first six months in India—he explored countries from Nepal and Sri Lanka to Indonesia and New Guinea, mailing his findings to Wilson from local post offices. To document his fieldwork, Moffett took up photography. His photos, paired with his fascinating research findings, launched a decades-long relationship with *National Geographic*. By the time he completed his Ph.D. (1987), he was already a fixture at the National Geographic headquarters in D.C.

After earning his doctorate, Moffett served as an associate curator at Harvard's Museum of Comparative Zoology, then held additional posts at Harvard and University of California–Berkeley. He eschewed the traditional academic path, preferring freedom while irking some friends by saying on National Public Radio that he would never be a professor because he hated the idea of faculty meetings.

Moffett shifted his interests from ants to canopy biology—the forest ecosystem overhead hiding much of Earth's biodiversity—and authored *The High Frontier: Exploring the Tropical Rainforest Canopy*. He has climbed trees in forty countries and joined the team that summited and measured the tallest known tree—a California redwood standing 365.5 feet high. To capture his vast experiences with ants, he penned *Adventures Among Ants*, about which primatologist Jane Goodall wrote, "I was fascinated with ants when I was a child—how I wish this book was available to me then." While exploring ant societies, Mark realized that bigger questions loomed: how do societies form and dissolve, in both animals and humans? This led him to take a scholar-in-residence position at Duke University's National Evolutionary Synthesis Center in 2015. After that, he collaborated with psychologists and anthropologists, culminating in his 2019 book *The Human Swarm: How Societies Arise, Thrive, & Fall*.

Mark Moffett (left) and his mentor E. O. Wilson in 2000 at the Washington, D.C., opening of Mark's Smithsonian exhibit ***Farmers, Warriors, Builders: The Hidden Life of Ants***—telling each other adventure stories, no doubt.

His life hasn't been all academic inquiry. On a research expedition to Easter Island, the governor, an archaeologist, decided that Moffett should marry his partner Melissa Wells in the first traditional Rapa Nui ceremony to take place in years. It featured feathers, body paint, loincloths and chanting at the rim of the Rano Kau volcano.

His field experiences helped him overcome childhood shyness. Public speaking became an outlet—he appeared several times on both *The Colbert Report* and *Late Night with Conan O'Brien*. A natural storyteller, he often shares images and tales from the wild to captivate audiences, hoping to rekindle the sense of wonder that children feel when climbing trees or chasing fireflies. Moffett has eaten scorpions and centipedes, survived confrontations with drug lords, and made it into the Guinness Book of World Records a second time for finding the heaviest recorded insect, a New Zealand weta (Guinness World Records 2025). His adventures have been immortalized in *National Geographic* in countless photos in 31 articles (https://www.doctorbugs.com/nature-photography/). Other stories he's filed have covered such remote locales as Socotra, Iran, and the Guiana tepui region. He received the Bowdoin Medal (the most prestigious award for writing given by Harvard University) and was named a Poynter Journalism Fellow at Yale. His worldwide expeditions to study forest canopies earned him the Lowell Thomas Medal for Exploration from the Explorers Club and Rolex. His work often spotlights overlooked biodiversity, especially insects and pollinators.

Photography will always be a central part of Mark's legacy. His images have won global awards, with five appearing in *National Geographic*'s "100 Best Wildlife Pictures" issue, and he currently has an exhibit of Ba'Aka hunter-gatherer pictures in a major art event, the Biennale in Venice. One article on Brazil's Atlantic Forest won both Best Picture and Best Story in the Sixty-First Annual Pictures of the Year International Competition in 2004 (https://poy.org/61/01/01.php). His perspectives on nature photography were presented in *Magnificent Moments: The World's Great Wildlife Photographs.* Though currently focused more on research, he remains a member of The Photo Society, the association of National Geographic photographers (https://tinyurl.com/3ertce3c and https://tinyurl.com/y8vvxk2m).

Today, Moffett continues his research as a Smithsonian Associate, pursuing two themes: the life and death of societies, including in humans, and the physical architecture of forest canopies and other ecosystems.

This interview occurred 19 July 2025 at The Explorers Club in Manhattan. The introduction was adapted from content provided by Moffett. Both are edited for clarity and length.

Rice: You have had an extremely diverse and eclectic career. How do you define yourself?

Moffett: I'm an academic who also tells my stories in words and pictures. Some biologists have pigeonholed me as a photographer, while photographers tend to see me as a biologist. We can expect people to fit into certain categories, but the possibility of connecting with people across disciplines is a driving force for me. I've always admired the nineteenth-century attitude. Back then scientists, artists, and writers would come together for dinner at someone's home. I occasionally arrange such gatherings. That's my idea of a good time.

Do you consider yourself successful with this diverse career?

Only because I don't take people's expectations around my career seriously. How was it I even became a photographer? I learned to take insect pictures in graduate school with no expectation other than to document my subjects. Before departing for my research in Asia, I didn't even get a chance to test my camera on live ants, yet I conveyed their behavior on film well enough to catch the attention of *National Geographic*. I shot six rolls of Kodachrome during the first six months of that trip. I had been living on the cheap in India with a small initial grant from that Society's research arm, so I was glad when their magazine offered to cover the shipping costs and develop my film. I got a cable saying the magazine was flying someone to Bangalore to talk to me about my pictures. Suddenly I was deemed a photographer. All I knew was that every time I saw something happen, I pressed the camera button [Lanza 2020]. So there you go.

What have you been up to recently?

I've just finished a three-year Templeton Foundation grant, for which I'm grateful, to examine the life and death of societies. Their funding took me to several parts of the world to observe the societies of different species, many of them vertebrates, some of which are cool nonetheless—from wolves at Yellowstone to a lizard outside Sydney. I've initiated an interdisciplinary dialogue on how we should define a "society," both in humans and other species, and what causes a society to stay intact over time—or leads it to fall apart. I published on this topic in *Behavioral and Brain Sciences* alongside commentaries on my views by philosophers, sociologists, political scientists, psychologists, anthropologists, archeologists, and primatologists [Moffett 2025]. The grant ended in May with a multidisciplinary think tank I assembled at Yale, hosted by their psychology department.

BEING A PROFESSOR SOUNDED LIKE NO FUN.

Moffett's *National Geographic* cover for his 1998 "Planet of the Beetles" article.

You're definitely more than a photographer.

Well, I shift between academics and public communication—often with pictures. While I have prioritized my academic work in recent years, I'm still welcomed to the annual gathering of *National Geographic* photographers—a motley collection of Pulitzer winners, war documentarians, and the like. My first *National Geographic* story, on my thesis subject, the marauder ant, truly came out of the blue in 1989—I'd never published a photograph, or written a popular article, before. Things just kept going. I found so much cool stuff about ant–plant interactions that *National Geographic* split the material into three articles. I pursued vertebrates, too, starting with poison dart frogs in 1995, the first of several chances I've had to record vertebrate behaviors that had never been photographed in the wild. I expanded my documentation of frogs into a 2007 exhibition for the National Geographic Museum in D.C., which the *Washington Post* described as "stunning!" I'm proud of my 2009 exhibit for the Smithsonian Institution, *Farmers, Warriors, Builders: The Hidden Life of Ants*, which was so popular that it travelled to venues across North America for years afterward.

You have received eight research grants from the National Geographic Society.

I could've worked with them even more, but it seems I am driven by a hunger to try new creative directions. I decided early on that being a professor sounded like no fun, though it would have increased my academic standing, and certainly improved my financial security! Instead, "I've become an escape artist" is what I tell people. Unconstrained by the career path of a mainstream academic, I move as I wish between my interests in the physical structure of ecosystems such as forest canopies, and the stability of societies. For example, I've spoken for three years running at the annual conference of the Society for the Study of Personality and Social Psychology. Mind you, I'm no Ed Wilson. My brain has definite limits. But insofar as I accomplish anything, it's because of an urge to link ideas together—what the leading expert on human creativity, Howard Gardner, has described to me as a "synthesizing mind." And while Ed found himself under vitriolic attack by social scientists in his day, I seem to be having some success: the sociology journal *Theory & Society* just published a surprisingly positive interview of me [McCaffrey and Moffett 2025]. Times have changed.

What was it like being mentored by E. O. Wilson?

Growing up, I've survived through ignorance. Knowing too little has made me unaware of what's thought to be impossible. I was certainly ignorant of how *famous*—and presumably unapproachable—Ed was when I knocked on his door at Harvard on my way to take an undergraduate course at

Woods Hole. His delight at everything in the natural world made me feel I was with another kid. That still is the magic of Ed for me. To my mind, the best academics combine sophisticated ways of thinking with the childlike sense of wonder I saw that day in Ed. Counter to claims that sociobiological thinking fosters bias, I should add, for the record, that Ed was not only generous, but equality-minded to the core. For sure, the relatively few students he took on were more diverse than those who came through the biology department in general: he had Peruvian, Mexican, Chinese, African American, and Indian doctoral students. Any of us will tell you that Ed treated no one as inherently above or below anyone else. To the contrary, the sense of wonder that defined him extended to a deep appreciation of our varied identities and points of view.

How did the relationship with Wilson shape yourself as a scientist or a writer?

Basically, he let me be.

Are you saying he turned you loose?

Yes, and in a way that I later learned is unusual for a student–teacher relationship. First of all, I admit to being old-fashioned. A natural historian. I want to see things. I want to touch them. He let me do that, which was great. And I wanted to find a research topic that I could truly claim as my own. I roamed the ant collection at Harvard—where I would one day become curator—until I stumbled upon a genus of striking Asian ants that no one had looked at before. There's a rule: the more oddball an ant looks, the more likely that it does something extraordinary. I told Ed, "I will study these ants." He was surprised. "Oh, don't you want to go to Costa Rica?" The usual destination for grad students. "Nope, tropical Asia." He responded, "Do it." So after one year at Harvard, rather than the usual two years of coursework, I vanished to nine Asian countries over twenty-nine long months with nary a committee meeting.

Did you take any coursework at Harvard before escaping to the opposite side of the planet?

I took one course on developmental biology, a subject I still need to know better. Even in college, I took relatively few biology classes. As a liberal arts student, I wanted to learn about topics I'd never encounter otherwise. Anyway, too often, college-level biology courses focus on memorization and not enough on *thinking*. Whenever possible, I substituted coursework with fieldwork. As an undergrad, I learned to clone protozoa and was fortunate to take positions on field projects that would normally have gone to graduate students.

Mark Moffett photographing flora and fauna in the rainforest canopy, Monteverde, Costa Rica, 1989. (Photo by John "Jack" Longino.)

What was the most interesting question or situation from Wilson that challenged you intellectually?

The situation that challenged me ended up being communication. I wrote Ed letters from the field, and because I kept on the move, his hand-scrawled responses wouldn't reach me for a month or two. While his sage advice still mattered

profoundly, the staggeringly long waits forced me to think on my own. Creativity flourishes in the time *between* things—away from distractions, and certainly away from other experts, as Darwin and Wallace were, for years. Maybe you end up sitting for days or weeks waiting for a pollinator to visit a flower. That'll be when something entirely novel springs to mind. My doctoral studies in remote parts of Asia put me in that situation.

But you came back and were awarded a degree.

I didn't do badly. I ended up with a publication for every few weeks in the field. In addition to those on my thesis subject—marauder ants—I filled in gaps in the literature on pretty unique species, including an ant that slices up enemies with sawblade mandibles; one that snaps its jaws like clicking your fingers to knock out prey off to its side; and another so polymorphic the body of the soldier caste fits into a cavity under its head—it walks around like a disembodied head.

You've discovered new species and behaviors. What's one moment of discovery that still gives you chills?

[*Laughs.*] Well, the foragers of typical ant species spread out as individuals either from the nest or a trail, then recruit assistance as needed. My marauder ants would pour out together in astonishing numbers, in the hundreds per minute, with the first colony I ever saw advancing at a rate that exceeded a *thousand.* I was awestruck. What I would learn is that my ants swarm forward without any of them first surveying the land ahead. They overwhelm any prey they come across by shock and awe, even taking down the occasional frog or lizard. In short, they had evolved the mass foraging strategy of army ants.

If you could make yourself ant-sized for a day, where would you go and what would you want to observe?

If I was ant-sized, just about any actual ant would kill me immediately. Could I instead be an ant myself? In that case, I'd join a raid of army ants with thousands of workers around me, all of us taking in information from each other as to where to go and what to do without anyone leading the swarm. I'd love to see how that works. For a day.

Have you ever formed an emotional bond with an insect or an animal?

I form such connections constantly! While watching an ant through a macro lens, I know the moment she detects my presence. She tenses, starts to turn. I respond exactly as I would to a leopard. I duck behind the nearest tree (or grass blade if I'm stalking an ant), where I stay hidden until I see her calm down. What goes on in an ant's head is unknowable, of course, but when used wisely, anthropomorphism can help you form testable hypotheses—including, in this trivial case, accurately predicting when an ant is about to go into attack mode. Gordon Burghardt calls this skill "critical anthropomorphism." An expert on animal tracking who I once joined with the San Bushmen in Namibia, Louis Liebenberg, proposed in his book *The Art of Tracking: The Origin of Science* that our capacity for science traces back to how hunter-gatherers predict their quarry's next move by getting into its head.

As a teenager, you raised chameleons. I don't suppose you still do that?

No, but studying those African lizards would've been an alternate career choice. I was a founding member of the Wisconsin Herpetological Society, which I joined when I was twelve. In high school, I figured out how to rear Jackson's chameleons, which was considered impossible. So I wrote up my findings for the society newsletter. The phone rang one morning while I was at the breakfast table with mom and dad. It was a call from South Africa … for me! Assuming I was a scientist, the fellow at the other end of the line asked me about my lizard insights. Boy, that impressed my parents. Then the Wisconsin Herpetological Society's president, Max Allen Nickerson, also was impressed and invited me to Costa Rica to study the fer-de-lance, a deadly snake.

And your parents let you chase venomous snakes in Costa Rica?

They had never been outside of North America, but were very supportive—though a *Milwaukee Public Journal* reporter who visited us in Costa Rica wrote a story about our snake and crocodile hunting exploits that may have kept them up at night!

I read where you once sat on a fer-de-lance. Why would you do that?

Well, that happened much later, while I was curator of ants at Harvard. It had been a brutal journey to get to Manu National Park in Peru with then grad student Doug Yu. We came upon a very cool ant-plant. Exhausted, I plopped down in front of it. Doug screamed. I couldn't tell what he was saying, but something was writhing to my side, so I rolled away. I had sat on a fer-de-lance. The snake went one direction, and I went the other. When telling this story, I always end with this advice: if you sit on a deadly snake, land directly on its head. Absolutely do not miss the head! *National Geographic* published a cartoon of the incident, as well as my photograph of the plant—part of the series of three articles on ant–plant interactions mentioned earlier.

I LOOK UP AND SEE AN ELEPHANT STANDING DIRECTLY OVER ME.

Was there ever a moment where you genuinely thought you might die?

You mean the time I ran out of water after a couple days crossing a lava field on the Galapagos? [*Laughs.*] Yes, there were two, actually. I was tracking a dense column of marauder ants up a steep slope in Thailand. Reaching the crest of the hill, I located the ant's nest at the base of a giant dipterocarp tree—success! I'm still down on my hands and knees, excitedly studying my ants, when I look up and see an elephant standing *directly over me*. At that moment I understood what a human looks like from an ant's perspective. [*Laughs*.] Luckily for me, the elephant backed away and disappeared into the forest.

What's the other moment of near death?

I brought Ed Wilson to Panama to show him the rainforest canopy. We had an assignment, too. Ed was to write a story for *National Geographic* that I'd photograph. His then grad student John Tobin

and I encouraged him to climb 100 feet up a research tower on Barro Colorado Island. John kept nervous Ed busy looking for ants while I climbed the rope we had rigged on a nearby tree, from which I could photograph them. I was abruptly flung upside down. The belt on my harness had snapped open. I was sliding right out of the harness, about to plummet to earth. Turns out this harness has a quick-release feature—worst idea ever! Ed kept calling over to find out what I was doing. I kept responding "Wait a second." Holding onto the harness for dear life to stop it from sliding down my legs and off my body, I managed to pull myself upright and clip the belt back together. I got the picture of Ed. He never knew what happened.

You've climbed trees in over forty countries, including a monster redwood in California. What was the most memorable experience you've had up in a tree crown?

Tree climbing is a passion of mine. I climbed trees as a child and have become attuned to the unique ecology up there. I've written reviews on canopy biology and most recently lectured on the subject at the Santa Fe Institute, where I talked about one of my long-term interests: how the physical structure of forests compares with that of communities ranging from coral reefs to the bacterial film on your teeth. Climbing that redwood was the pinnacle for me in more ways than one. Our measurements confirmed that it was the tallest known tree in the world. Reaching its summit, holding its terminal branch, I found a rodent dropping. A mouse had beat me there. Or maybe it lived that high up? The canopy ecosystem is amazingly complex. A grove of trees can sprout from the soil that accumulates on the enormous branches of a redwood, out of view from the ground.

When you go off on a research or photography expedition, such as two and a half years in Asia, how do you prepare yourself mentally for the challenges?

I wish I could do extended expeditions more often! I was a loner when I arrived at graduate school. I'm still an introvert, which means that even though I love meeting folks, after an hour, I'm worn out rather than invigorated by conversations with social groups. Doing my doctoral research at some remote sites in Asia, I ended up not talking to people for long periods of time and was comfortable with it. In fact, that's when I developed my sense of humor. Say I'm waiting at some bus stop in rural India, and curious people who don't speak English gather around. What to do? I'd improvise. I'd lecture them on the woobie ants of Wubooland using an imaginary chalkboard, which usually left everyone smiling. In a weird way, that was training for me to be comfortable when I started to give actual lectures. I'd come back from a trip having hardly spoken to anyone and abruptly be thrust in front of an audience of 2,000 people in Seattle as a speaker for the National Geographic lecture series. Having my photos on the screen behind me was a great crutch. People's attention was on the pictures and not my face. But I still like to do a bit of improv. I'm often remembered for acting out the courtship moves of a male frog or spider on stage.

How do you end up in a comedy club where you're talking directly to an audience that expects you to be humorous?

Well, I haven't done it enough to be very good, but it forces me to figure out how to engage with folks in a different way. It pushes me outside of my comfort zone.

Many people will view any story about insects, unless it's a butterfly, as typically disgusting or off-putting. How do you get an audience from "yuck" to "wow"?

When speaking to groups of children or adults, I like to use humor. Humor is a means to get a message across even to those who claim, for example, to hate "bugs." The trials and tribulations that a spider faces in attracting a female can bring to mind the challenges of courtship in our own species. Tell the little guy's story—do his courtship dance on stage! Make that arachnophobe root for him! We scientists need to go beyond dry facts and statistics. Living in New York, I meet artists and writers who I admire for their skill at conveying messages emotionally. We need to do the same to change people's minds on issues like conservation. I'm convinced humor can also accomplish that, which is why making people laugh is another one of my passions.

You posted a YouTube video of a bot fly maggot emerging from your hand. Even as an entomologist, I found the video simultaneously awesome and repulsive.

I've had those maggots twice. I took a video of the second one that I'm proud to say was used for a time at Johns Hopkins School of Medicine, despite—or was it because of?—my use of humor. I was in Ed Wilson's office for a meeting of environmentalists. The maggot decided this was the safest moment to emerge because it was in good company, which made for quite a show [https://tinyurl.com/365h66z7].

Could you feel the maggot in your skin and sense when it was ready to pop?

Yes, but that feeling was even more horrifying the first time because I was a graduate student and the bot fly was on the top of my head, where I had no idea what it was because I couldn't see what was going on. I went to the tropical medical department at Harvard and showed them my head, and they couldn't identify it, oddly enough.

Not as smart as they should have been!

[*Laughs*.] The next day, walking to the Museum of Comparative Zoology, I felt something emerging from my head, like a finger. I was ready to faint. That famous scene of the creature in *Alien* flashes across my mind. I first saw *Alien* in Sri Lanka—the best movie experience ever. People stood on the chairs, screaming, and ran down the aisles. Anyway, my story: I dropped to my knees, felt the lump on my head collapse, and see a large squirming maggot fall into my hand. Looking at it, I was like, okay, what now? I carried it up the museum steps, where I met Bert Hölldobler, who started talking (no doubt about ponerine ants). I wasn't ready to show this child-of-Moffett to anyone. I ended up in Bert's office while this bloated thing nosed around my palm. *What is it doing?* Our conversation over, I run to my office to drop it in alcohol.

You studied supermodel photography to improve your photography skills. Tell me about that.

I couldn't find a book on photographing insects, but came across one on glamour photography that led me to decide I needed a hair light and a fill light. With my minimal budget, I bought a used Canon camera to which I jerry-rigged cheap flashes that sometimes gave me electric shocks in the field. My original camera setup will be on display at the new National Geographic

Mark Moffett (left) holding a racerunner lizard on one of his several visits to Conan O'Brien's late-night talk show, 2015.

Museum of Exploration when it opens next year. The hair light better separated my supermodel ant from the background in its cluttered, natural setting. Even today, I avoid taking pictures in the lab. Some photographers build elaborate enclosures to document animal behaviors that, with a little patience and a lot less cash, they could have gotten *au naturel*. If you know the behavior, you'll see the difference. I was once asked to confirm an image, intended for an advertisement, of a salticid leaping on a bee. The midair spider was clearly dead. The picture was withdrawn. The average Joe wouldn't realize the photo was a fake, but I'd bet that most people, when comparing this image with one of a live spider in mid-pounce, would nevertheless intuit that the second one was better. That something *real* had been captured, like the moment an ant tenses up and is about to turn because it's sensed my presence. Too often, nature photographers are driven to produce pretty pictures rather than to accurately record significant events from the life of their subjects, which are the moments that journalists strive to document for humans.

Failures. Are there any that have taught you a life lesson?

The life lesson I've learned is that the best trips are either utter successes or absolute failures. It's the ones in the middle you forget. The really bad trips—when you sit on a snake—well, the fact that you learn from those mistakes becomes part of the story you'll tell.

Do you have bucket list of what you wish to accomplish?

I am thankful for the freedom I've had to wholeheartedly pursue my intellectual interests, unconfined by a real job, and thus far, that's worked out. The research on societies, from ants to humans, has been an intense ride, but my species, damn it, is a pain in the neck to study. I'd like to get back to my efforts at canopy biology. An Australian friend is trying to lure me into doing a project on giant Tasmanian eucalypts, and I'm pondering other possibilities in Mongolia, Brazil, and Russia (should travel there become advisable again).

You've appeared on late-night television to share your experiences.

One of the most toxic living organisms is *Phyllobates terribilis,* a poison dart frog I once tracked down in a remote part of Colombia. One of these two-inch rascals could theoretically kill 500 people. The researchers that first collected this frog were warned by the local Choco tribe that merely touching its skin can kill. So there I am, on *Late Night with Conan O'Brien*, with a *terribilis* frog that a friend of a friend has raised in captivity. Now, captive-reared dart frogs are harmless since they gain their toxicity from their natural diet of ants. I tell Conan the frog is captive-born and therefore not dangerous. "Prove it," he says. Briefly wondering if this friend of my friend was trustworthy, I lick the frog. Perhaps I shouldn't have done that! [*Laughs*.] While it didn't kill me, it packed a punch. My face went numb, though luckily an hour after the interview.

You've described yourself as a storyteller. You wrote a deeply personal account describing the death of your herpetologist friend Joe Slowinski.

Joe was known for his expertise on cobras. We were in northern Myanmar. A tough expedition—rainy, horribly muddy. He had hired sixty people to carry crates of gear, even a generator to power blacklights for collecting insects. We walked for days. The puddles along our route became splotched red from the blood spilled from leech bites. Joe's assistant handed him a bag that he told Joe contained a snake he believed was a harmless mimic of the krait, a species more deadly than a cobra. Joe reached into the bag without looking and pulled out a krait—and it's already biting his finger. Joe's skin didn't seem to be scratched. Still, he should've chopped this finger off right then and there. He showed symptoms within the hour and ended up dying, after quite a struggle, a day later. I wrote about his death for *Outside* magazine in part to remind people how much Joe loved snakes, right up to the end [Moffett 2002]. To love something always means accepting a risk—the girl might leave you, a spider might bite. Nature isn't really nature unless you allow for sharks in water and snakes on land.

Marlin E. Rice *is a Fellow, Honorary Member, and past president of the Entomological Society of America.*

DOI: https://doi.org/10.1093/ae/tmaf059

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