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A LIFETIME OF SCALED ADVENTURES

Herpetologist Robert Drewes creates his own American Dream — of snakes and frogs

by Sue Dremann



Courtesy of Robert Drewes

Robert Drewes was having an Indiana Jones moment, wrestling a giant python in Africa. The snake at one point seemed to be getting the upper hand.

"It was a big mistake. It was bigger than I thought it was," Drewes said, recalling the incident in the 1980s from his haven at the California Academy of Sciences in San Francisco. He came out of the experience unscathed.

Drewes, 67, a Stanford resident, might be considered past the snake-wrestling age now, but one shouldn't count him out. The energetic curator of the Academy's Department of Herpetology recently jetted off to Ethiopia and is planning another trip to the Democratic Republic of São Tomé and Príncipe, a two-island nation off the western equatorial coast of Africa.

He will continue his search for new species and study the evolutionary relationships of frogs and snakes.

"I've had a million Indiana Jones moments," Drewes said of his excursions, where he's often chest-deep in a swamp or down in a chasm in search of new life forms.

"There is no thrill comparable to finding something new in the world. I'm a bit of a romantic. I'm happiest in the middle of a swamp with a light on my head," he said.

A new species of stinkhorn fungus found on São Tomé was named in his honor in 2006:

Phallus drewesii, which is two inches long and shaped like a male body part. The fungus was named by longtime friend Dennis Desjardin, a mushroom expert at San Francisco State University, who joined Drewes on a 2006 expedition to the islands.

'There is no thrill comparable to finding something new in the world.'

— Robert Drewes

"It's a huge honor to have something named after you. It's a form of immortality. It doesn't matter that it is the second smallest in the world and it's limp and it smells and attracts flies," he said, laughing.

The mushroom is the third species to be named after Drewes, along with a blind worm snake from Kenya (*Leptotyphlops drewesi*) and the South African moss frog (*Arthroleptella drewesii*).

As a child, Drewes was endlessly fascinated by things living under rocks or at the beach, he said.

Drewes was born and raised in San Francisco near Golden Gate Park, and the Acad-

emy of Sciences and Steinhart Aquarium were boyhood haunts. He fell in love with the beauty of the Academy's African Hall and was influenced by his great uncle, Norman Banks Livermore. Livermore chaired the Academy's Board of Trustees during the Depression and World War II and the African Hall was built under his auspices, Drewes said.

It was under those conditions that herpetology "chose me," Drewes said.

But his parents were children of the Great Depression — his grandparents died as a result of those times, he said.

"I was supposed to recoup the family fortune and become a doctor, lawyer or businessman," he said.

Drewes became a pre-med student at Northwestern University in Illinois — the only man on the football team who was studying medicine, he said. Unhappy, he flunked out.

He joined the U.S. Army Special Forces, serving one tour before returning to college to study psychology at San Francisco State University. It was intuitive and came easily,

Drewes said.

He married his childhood sweetheart, Gail, while still a student. In their tiny Potrero Hill apartment, the couple kept a rattlesnake, two monkeys, a coatimundi and a marmoset.

"One night as Gail fed our marmoset, she asked me, 'Bob, why on earth are you studying psychology?' From that moment on, I never looked back," he wrote on his website.

Drewes completed his undergraduate degree at San Francisco State and his Ph.D. in biology at UCLA, focusing on the evolutionary relationships of tree frogs in Africa, Madagascar and the Seychelles Islands.

He developed an ongoing fascination with environmental physiology, the study of how individual organisms physically interact with the environment, he said.

Drewes was hired by the Academy, doing research on frogs.

"I got very lucky, and I got to go to Africa to lead tours," he said.

In 1969, he received a grant from renowned

(continued on next page)



Veronica Weber



Courtesy of Robert Drewes

Herpetologist Robert Drewes, top, continues his research into frogs and snakes in São Tomé. Left, Drewes has been playing saxophone since age 10; Drewes says he is happiest in the middle of a swamp with a light on his head, this time in an impenetrable forest in Uganda.

Robert Drewes

(continued from previous page)

paleoanthropologist Richard Leakey to study and record the fauna of northern Kenya, which no one had yet recorded, he said.

Drewes has now worked in 30 different African countries and has led 35 expeditions, traveling to Africa on average once a year, he said.

In São Tomé and Príncipe, Drewes has led four multi-disciplinary expeditions of scientists to study the islands. It's a race against time, he said. The islands are in an exclusive economic zone that includes Gulf of Guinea oil and could soon be changed forever.

Drewes is hoping the discovery of so many new species of plants and animals will help get the area set aside for protection, he said. *Phallus drewesii*, the stinkhorn mushroom, is one of 225 fungus species that Desjardin and colleague Brian Perry collected during 2006 and 2008 expeditions, he said.

"Most people don't know it's a biological gold mine. It has the highest concentration of endemic bird species in the world," Drewes said.

The islands were never attached to mainland Africa. Because of that separateness, species that evolved in Africa before the Great Rift Valley was formed still exist, he said.

São Tomé's remnant species date back 14 to 15 million years; on Príncipe, the smaller of the two islands, some of the species are 31 million years old, he said.

'There is probably not a single field biologist anywhere who does not have a secret dislike or even fear of one sort of critter or another.'

— Robert Drewes

"The study of the fauna of these islands is a real window into the ancient history of Africa," he said.

Sometimes Drewes finds new species where he hadn't planned to look.

"I was leading a trip in 1992-93 in the Serengeti with friends and there were nine kids, 18 to 9 years of age. It's one of the most intensely studied areas," Drewes said. "We stopped at a large rock ... and one kid raced up on the rock and said, 'Bob, there's a frog up here.'"

It was a new species in a place where people eat lunch every day, he added. Further looking into how the creatures have survived there, Drewes did research in a London laboratory.

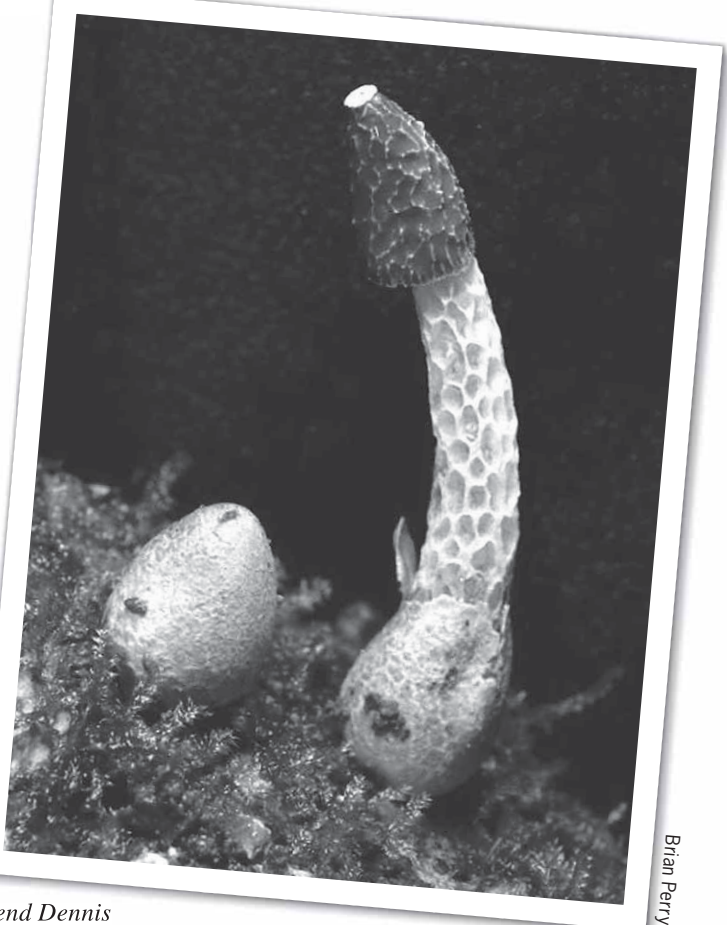
"I went into the stomachs of the frogs. There were whole snails in the gut of these things.



Courtesy of Robert Drewes

Left, Robert Drewes poses with a baracuda in Príncipe.

Right, *Phallus drewesii* was named after Robert Drewes by his friend Dennis Desjardin, a mushroom expert who joined Drewes on a 2006 expedition to São Tomé and Príncipe.



Brian Perry

I ran shrieking down the halls of the British Museum, which is something you don't do," he said.

Drewes' most memorable Indiana Jones moment wasn't on the Serengeti Plain or in a dark swamp wrestling crocodiles, he said. It took place on the first 747 jumbo jet he'd ever been on.

"Remember the movie 'Snakes on a Plane?'" It was in 1970 and I had a whole bag of snakes, each in its own cloth pouch. One was a burrowing snake that eats termites," he said.

Approached by an attractive stewardess from Woodside, Calif., and overcome by exhaustion, Drewes made an ungainly request on behalf of the serpents.

"I asked her, 'Will you help me water my snakes?'" he said.

The pair went into the bathroom and took each snake out of the bag. When the creatures were done drinking water from the lavatory sink, Drewes and the stewardess tied up the bags and stuck them into the overhead bin.

Drewes fell asleep, oblivious to the ensuing crisis around him.

"The stewardess came up and said, 'Excuse me, sir. I think we have a problem.' It seemed like the plane was empty. I follow the stewardess to the back of the plane, and there's a

woman standing on her seat with her hands on the back of the seat in front of her, staring at the floor. The burrowing snake had burrowed out of the bag and was crawling around the cabin," he said.

Drewes scooped it up and returned it to its pouch.

"After that, the stewardess took my bag of snakes away," he said.

For all of his love of creatures, Drewes does have one fear:

"There is probably not a single field biologist anywhere who does not have a secret dislike or even fear of one sort of critter or another. With me, it has always been centipedes — even when I was a child. I can't bear the things! And, naturally, there are some real monsters common on São Tomé," he recently wrote on his blog.

At home, Drewes raises birds and plays the saxophone — something he took up at age 10 when he fell in love with the sound and demanded one for Christmas, he said.

He's part of a quartet now at the Academy

called the Chopsaw Lounge, so named because they used to play in the woodshop. The group is composed of the head of the Mineralogy Department, an engineer and an IT manager, he said.

"It has kept me sane. I keep two saxes in the lab. I have a small soprano that I can stick in my luggage and scare the Africans," he said.

Drewes no longer keeps the menagerie of creatures he started with in his San Francisco apartment years ago. In his Stanford home, decades later, things are a little different.

"I have four children — I live with animals! I don't need them at home!" he said, laughing. ■

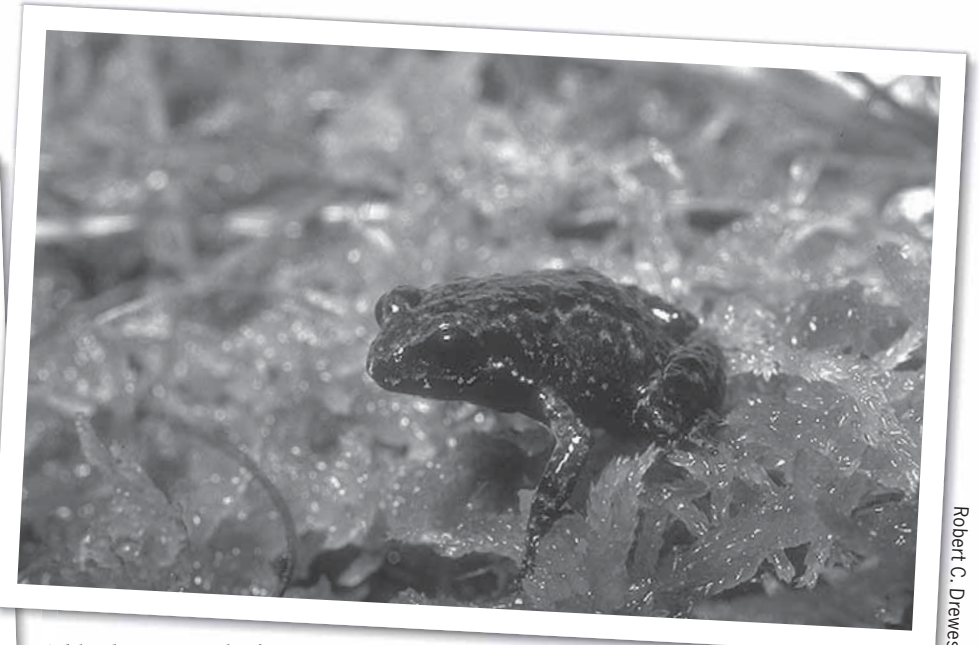
More about Bob Drewes, along with photos from his 35 expeditions, can be found at www.calacademy.org/science/heroes/rdrewes/.

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On the cover: Drewes photograph by Michelle Le. Collage by Shannon Corey.



Courtesy of Robert Drewes



Robert C. Drewes

A blind worm snake from Kenya (*Leptotyphlops drewesii*), left, and the South African moss frog (*Arthroleptella drewesii*) were also named for Robert Drewes.