



BATTY FOR BATS

Story: Steven Drury | Photography: Suzy Rodriguez

Bats are often misunderstood and are frequently depicted in popular culture and ancient myths as mysterious creatures of the night. Bats are quite unique. They are the only mammals capable of true and sustained flight and are invaluable to our world as pollinators and natural pest control. Aditi

“You never think of bats as pollinators, but they are the reason we have mangoes, peaches, and even tequila”

Jayarajan, a current doctoral student in the Department of Biology at the University of Florida (UF), researches bats at the Florida Museum of Natural History’s (FLMNH) Mammal Collections.



Figure 1: Aditi holds preserved bat.

When she’s not studying the museum’s rich collection of bat specimens, Jayarajan travels for fieldwork. Using fossil data, ancient DNA, physical forms, and genetics of bat populations in the Caribbean islands, she tracks how their populations are structured and evolve over time.

She shares her love and knowledge of bats with the public to spread awareness of their benefit to our environment and the urgent need for their conservation. Jayarajan discovered her love for bats at an early age when she used to photograph the greater Indian fruit bats (*Pteropus medius*) that

would feast upon the mango trees in the front yard of her mother’s home in India. “There was one bat in particular that would show up every day and I used to photograph it all the time,” reflects Jayarajan.

Unfortunately, climate change is negatively affecting the bat populations that Jayarajan studies. She explains that large climatic shifts and events such as hurricanes have removed entire colonies of bats in The Bahamas.

What can we do to help bats thrive? One guideline Jayarajan provides is to use caution when visiting their homes in caves. “When people are loud and disruptive exploring a cave, it disturbs the bats, and the minute they think something is not viable for them to be there, they will leave,” says Jayarajan. Jayarajan believes the key lies in raising people’s awareness of the importance of bats to our world.

What’s the best way to reach the public about bats? Jayarajan believes it starts with school outreach. “I personally think talking to kids is the best way because kids tend to get home and tell their parents about it and get all excited about it, and want to learn more about it,” says Jayarajan.

Jayarajan brings 3-D prints of bat skulls to classrooms to engage with kids, and uses CT scans of the same skulls to provide educators with tools to use in classrooms.

Over 500,000 bats inhabit the Bat Houses across from Lake Alice on the UF campus. Jayarajan explains these tiny bats, *tadarida brasiliensis* or Mexican free-tailed bat, can fly nine miles and eat up to three billion insects each night. The next you’re enjoying an evening walk, be sure to thank bats for keeping mosquito populations down! Bats are highly effective pollinators, too. Jayarajan cites a scientific study that found bats were 90% effective at pollinating

compared to hummingbirds’ 40% effectiveness. “You never think of bats as pollinators, but they are the reason we have mangoes, peaches, and even tequila,” says Jayarajan. That’s right, bats are responsible for pollinating the agave plants that are used to make popular drinks for happy hours around the world.



Figure 2: Aditi stands amongst the museum collection room.

There are over 1,400 species of bats in our world and they all serve important roles in our planet’s ecosystems. Scientists like Jayarajan are helping to change our perspectives of bats and understand the truth behind these magnificent creatures of the night.

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Jayarajan sums this mission up nicely, “Bats are like the antihero, they do so much and we’re just not aware of what they do ... Perhaps if people were a little less weary of them, they could see what’s so great about them.”

For more information about bat teaching and research at FLMNH, visit our website.
www.floridamuseum.ufl.edu

