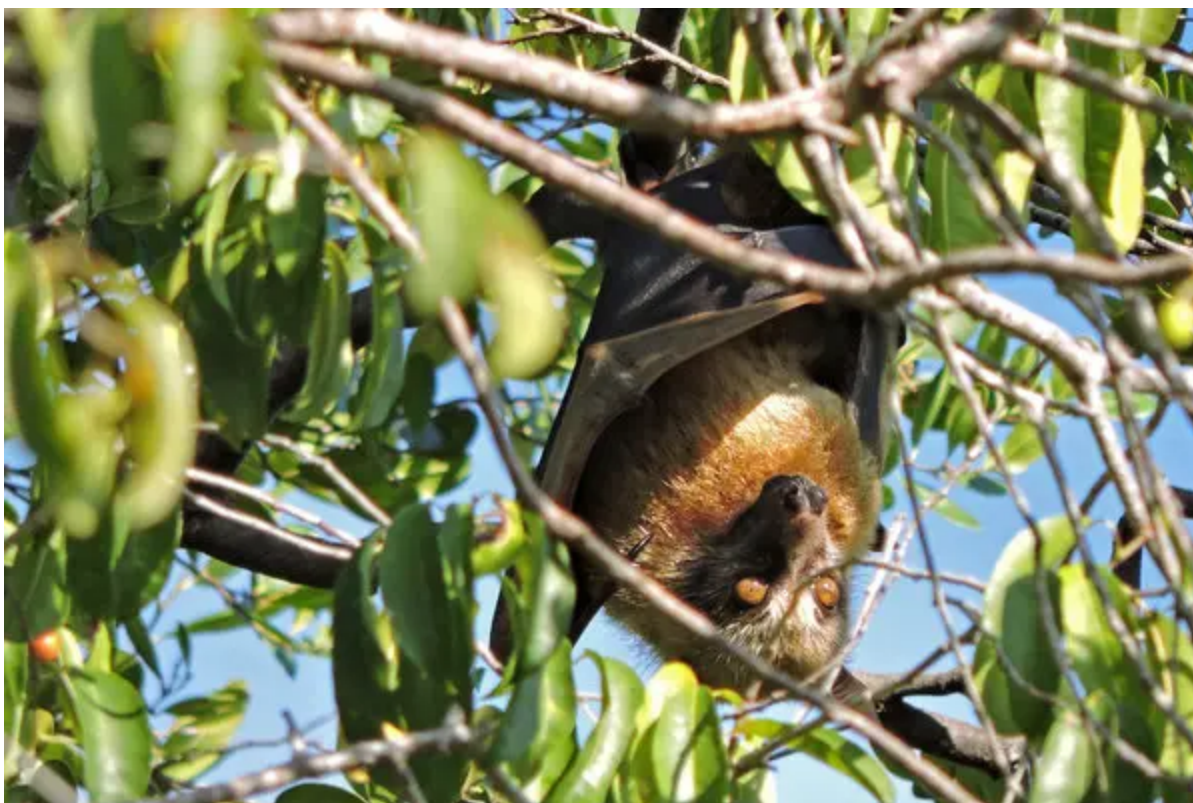


They're Smelly and Spiky, and They Need Bats to Pollinate Them

 [nytimes.com/2019/12/04/science/bats-durians-indonesia.html](https://www.nytimes.com/2019/12/04/science/bats-durians-indonesia.html)

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Known as the world's smelliest fruit, durians are also essential to the farming economy of Indonesia. Although repulsive to many Western noses — some compare the smell to rotting trash — durians command the highest unit price of any fruit in Indonesia, with an export value of more than \$250 million in 2013.

Hoping to help improve the yield of small-scale farmers, three researchers decided to figure out what kind of creatures pollinate the durians in Sulawesi, a large island at the center of Indonesia.

In a three-step process, the team first tested the plants to figure out what time of day pollination usually occurred. Evenings, they discovered, were prime time, as each flower opens for a single night and produces pollen only that one night.

Then the researchers put bags on some of the flowers. Some bags had holes big enough for bugs but not larger creatures, and some had no holes at all. The bagged plants did not yield fruit, suggesting that something bigger than a bug was responsible for pollination.

Finally, the researchers set up nighttime cameras to figure out which species of birds or bats was most responsible for the pollination. They reported Nov. 19 in the journal *Biotropica* that they caught three species of bats in the act, including a cave nectar bat and two types of flying foxes.

The last two were a surprise, said Holly Ober, an associate professor and extension specialist at the University of Florida in Quincy. Flying foxes are known to eat fruit smaller than durians and are often killed by farmers trying to protect their mango crop.

Image



A durian vendor in Bangkok. Thailand is another large exporter of durian. Credit...Diego Azubel/EPA, via Shutterstock

Showing that the flying foxes are crucial for durian pollination suggests farmers would be better off finding another way to protect their mangoes, Dr. Ober said.

Some people also kill bats to sell as bush meat. “Now that we know that these bats are important to helping farmers produce more durians, we can start getting the message out that folks should not be causing harm to these bats,” she said.

One of the co-authors, a local scientist with the Wildlife Conservation Society, who goes by the single name Sheherazade, conducted the actual experiments. Dr. Ober, who visited at the beginning of the study to help guide the research, said she hoped Sheherazade would use the findings to “have a very strong voice” to help persuade policymakers to add new protections for bats.

Joseph Walston, senior vice president for global programs at the Wildlife Conservation Society and Sheherazade's boss, said that bats were often overlooked as key contributors to an ecosystem.

"There is probably not a group of species in the world where the gap between how important they are and how much they're cared for is so great," said Mr. Walston, who describes himself as a "bat guy."

Bats come out at night and inspire horror stories, but "they are so utterly fundamental to our ecosystems, to our economies and to our health," Mr. Walston said. And yet, they are rarely offered support and protection, he said.

"This study really is trying to provide empirical evidence for why we as a community should do more for bats," he said.