**Saving Stingless Bees**

“The Amazon is home to hundreds of species of stingless bee, but as deforestation converts the tropical landscape into farms and ranches, these and other native pollinators are in danger of disappearing. Pesticides, climate change and competition with the honeybee, which is better adapted to agricultural areas than the stingless bee, introduces more strain.

“Mr. Vela’s family is among the few who keep stingless bees and live off the income they provide. César Delgado, an entomologist at the Peruvian Amazon Research Institute who helped Mr. Vela refine his practice, wants to widen the appeal. ‘Beekeeping is a very good way for the forest and communities to adapt to climate change,’ he said.

“’Building an economy around stingless bees, which pollinate much of the Amazon’s native flora, is a creative way to fight deforestation,’ said Rosa Vásquez Espinoza, a chemical biologist and founder of Amazon Research Internacional. But for the effort to work, Dr. Vásquez Espinoza stressed, it must incorporate the knowledge and ways of life of the Indigenous peoples who call the rainforest home. It must be ‘a process that is self-sustaining, and aligned with the culture of the communities,’ she said.

“’We are losing species that have never even been documented,’ said Adrian Forsyth, a tropical ecologist who founded the Andes Amazon Fund and is not involved in the beekeeping effort. ‘It’s not just that we’re burning the book of life,’ he added. ‘It’s that we haven’t even read the first few pages.’

“A sustainable conservation program requires funding, government backing, and the integration of local knowledge and practices, Dr. Forsyth said. There also needs to be some incentive beyond basic conservation.

“’People don’t value biodiversity for its own sake,’ said Dr. Forsyth, adding that to get the message through, conservationists need to highlight how the goal relates to the general public. ‘Without pollination, you don’t get good crop yields. Without honey, you don’t have a good cup of tea.’

“According to Dr. Vásquez Espinoza, stingless-bee honey grew in popularity during the Covid-19 pandemic among Indigenous residents in Peru. It became a favored ingredient in alternative treatments for upper respiratory infections at a time when the country was hard hit by the virus. Selling the honey also provided economic relief for families in remote areas who could not take advantage of government support because they did not have bank accounts.

“Dr. Delgado and Dr. Vásquez Espinoza hope to use these incentives to promote the practice of keeping stingless bees in artificial nests. They are also working with Indigenous communities to develop more sustainable methods of collecting stingless-bee honey in the wild.

“The honey’s benefits might come from the resin of Amazonian trees that the stingless bees are pollinating, according to Claus Rasmussen, an entomologist at Aarhus University in Denmark who was not involved in the work. ‘Those resins are what different trees use for protection when they have a wound,’ he said. While the trees are limited to only what they can produce, the bees have their pick of the forest — meaning a variety of beneficial properties can imbue their honey.

“As stingless beekeeping spreads, entire families are taking a more active role. ‘We are all involved,’ said Mechita Vásquez, an Indigenous beekeeper in San Martín. ‘Women, men, even children — they really like it.’ She has noticed a particular enthusiasm for the practice among mothers, who usually stay at home to tend to their children. To Dr. Vásquez Espinoza, this reflects a bigger shift toward the empowerment of women in remote Indigenous communities.”

Katrina Miller and Rosa Chávez Yacila, “In Peru, a Mission to Save the Stingless Bee,” *The New York Times*, Jan. 30, 2024, <https://www.nytimes.com/2024/01/30/science/amazon-stingless-bees-honey.html>.

Photo by Ana Elisa Sotelo for National Geographic.