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An Emblem for Puerto Rico's Climate Fight

By JON HURDLE



A coquí in El Yunque forest in Caimito, P.R.
Photo by Associated Press

More on amphibians as a bellwether:

Advocates for action on climate change in Puerto Rico have a mascot: the coquí, a tiny tree frog.

Named for its high-pitched calls, a familiar evening serenade, the coquí is the generic name for some 14 species of frog, some only half an inch long, that long inhabited the island archipelago. Three of the species have gone extinct since the 1970s because of a warming climate and habitat loss in the densely populated territory; scientists fear that the remaining 14 will also disappear unless the authorities take quick action to preserve more land and to slow rising temperatures.

Yet, as Rachel Nuwer [reported here](#) on Wednesday, the principal threat to frogs like the coquí is the fungus [Batrachochytrium dendrobatidis](#), an organism that causes fatal skin infections in the frogs and that becomes more prevalent as temperatures rise.

“Climate change is making things better for the fungus and worse for amphibians,” said Rafael Joglar, a professor of biology at the [University of Puerto Rico](#) and an expert on coquis and other amphibians. “The fungus infects the skin of the frogs and will eventually kill them.”

Loss of the coquí would be unsettling for Puerto Rico, where the frogs’ image can be found on everything from T-shirts to key rings to rock engravings. Because the frogs feed on mosquitoes, the decline of the tiny amphibians will mean that humans will be more exposed to mosquito-borne diseases like malaria and dengue fever, Dr. Joglar said.

On Thursday, scientists led by [El Puente](#), a community action group in Brooklyn, will issue [a report](#) calling on the federal government and the governor of Puerto Rico to combat climate change and to quadruple the amount of land shielded from development on the island to around 32 percent.

In a statement accompanying the report, Archbishop Roberto González Nieves of the Archdiocese of San Juan echoes the plea for action on global warming and fossil fuel emissions. “Congress must limit greenhouse emissions before climate change forever silences the evening symphony of the coquí,” he writes.

More broadly, global action would help to slow the rise in sea levels. Along Puerto Rico’s coastlines, tides are expected to continue rising 1.4 millimeters a year, which is contributing to coastal retreat of as much as one meter a year, according to the report, which is being issued in tandem with [a meeting](#) in San Juan of Latino leaders addressing climate change.

Other species like sea turtles, shorebirds, and coral reefs are also threatened by rising temperatures, higher seas, and more frequent and severe storms, the study observes.

The report notes that in 2010 and 2011, the island experienced about 100 days when temperatures rose to 90 degrees Fahrenheit or more, equaling the number of 90-degree days recorded for the entire half-century between 1900 and 1949. Puerto Rico's overall temperature has risen by about one degree in the last 30 years, and while that may not sound like much, "it's causing real problems for the frogs, Dr. Joglar said. "It's critical for the coquí."

Beyond more aggressive national action to reduce national dependence on fossil fuels and to preserve habitat; the report calls for creating a network of ecological corridors that would connect Puerto Rico's current patchwork of isolated reserves and steps to eradicate invasive species, including the frog-killing fungus and some nonnative frogs and toads.

Without concerted action, Dr. Joglar warns, the island could lose a class of creatures that are viewed as barometers of environmental health. "Amphibians in general are bio-indicators," he said. "What we are really worried about is what's going to happen next."

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