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Boy finds ‘extinct’ frog in Ecuador and helps revive species

Back on the radar
LuisA. Coloma/Centro Jambatu

By **Lou Del Bello**

A school-age boy has rediscovered an Ecuadorian frog considered extinct for at least 30 years. The animal has now successfully bred in captivity.

The colourful Jambato harlequin frog (*Atelopus ignescens*) was once so widespread in Ecuador that it turned up in people’s homes, was something children played with and was used as an ingredient in traditional medicine. Then it was suddenly wiped out, probably by a combination of climate change and fungal disease.

“It was such a long-standing presence in the Ecuadorian community that we would have never conceived it could disappear,” says Luis Coloma of the Jambatu Center for Research and Conservation of Amphibians.

But it did. Until now, that is.

In 2016, the centre offered a $1000 cash prize for anyone able to find the lost frog, not expecting success but hoping to raise awareness of amphibian conservation.

Against the odds, a young boy and his family found a small colony of Jambato harlequins, securing the survival of the species and funds for the boy's education.

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The researchers then faced the huge task of getting the 43 individuals rescued from the wild to reproduce in the lab.

"For several months, the frogs would mate but never lay eggs," Coloma recalls. "So we decided to move them to an outdoor enclosure.

"When we finally discovered the eggs, we felt like Thomas Edison must have felt seeing an electric bulb lighting for the first time. It was extraordinary," says Coloma.

The resulting tadpoles are strong and feeding well. Alessandro Catenazzi at Southern Illinois University says that the rediscovery of frogs thought extinct has been an encouraging trend over the past few years. However, "the population is always small, and this naturally puts its survival at risk", he says.

He says that despite being a painstaking and expensive job, lab breeding can be the "last resort" against extinction.

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Andrew Gray at the University of Manchester, UK, says captive breeding is critical for preventing vulnerable amphibians being wiped out by the next wave of disease or the tiniest change in their natural environment. "These frogs could disappear at any time, so if scientists manage to aid their reproduction, that's a safety net for the future."

Gray says that the team's achievement of breeding these frogs is significant and will bolster similar work on endangered frog species all over the world. "Coloma has been testing different types of tadpole food," says Gray. "Learning from their results, we are now able to feed our captive tadpoles, which are also at risk of extinction, with great success."