

Biologists Find “Extinct” Andean Toad Alive and Well

A toad from the Andes mountains that had long been thought extinct and was known only from a single museum specimen collected in 1970 has resurfaced in Ecuador. After the initial discovery of the Tandayapa Andean toad in Ecuador’s Pichincha Province (map) more than four decades ago, scientists searched time and again for more of..

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A baby Tandayapa Andean toad, otherwise known as a toadlet, perches on some vegetation. Biologists thought the species extinct until its recent rediscovery in a rain forest in Ecuador. Photograph by Santiago Ron, FAUNAWEBECUADOR

A toad from the Andes mountains that had long been thought extinct and was known only from a single museum specimen collected in 1970 has resurfaced in Ecuador.

After the initial discovery of the Tandayapa Andean toad in Ecuador's [Pichincha Province \(map\)](#) more than four decades ago, scientists searched time and again for more of the elusive species, but found none. They assumed it was gone for good.

But in November 2012, biologists surveying the cloud forests of Rio Manduriacu, in the [Imbabura Province \(map\)](#) in northwest Ecuador, came upon two adult female toads perched on leaves above a gurgling stream.

"At first sight I couldn't identify the species—it wasn't even on my radar, being that they hadn't been seen in 43 years," says Ryan Lynch, of [the nonprofit the Biodiversity Group](#), who discovered the pair. "But I knew that it was something very rare." (See also ["Missing 'Rain Frog' Resurfaces in Honduras."](#))

Back From the Ashes

Scientists at the Catholic University of Ecuador, in Quito, later identified the animals as Tandayapa Andean toads, confirming the importance of the find. "I was absolutely ecstatic and a little shocked at how lucky we were," Lynch says.

Their discovery is [described in the current issue](#) of the online journal *Amphibian & Reptile Conservation*.

Later, the team discovered 16 more of the toads, whose scientific name is [Andinophryne olallai](#). The finds included two babies, called toadlets—which look like little gems in mottled copper and gold, with snaking white lines on their bellies—and five juveniles. The adults are brown and patternless.

Together, the mix revealed a dramatic color and pattern change over time more extreme than is typical in toads.

There are three species in the toad genus *Andinophryne*, and all have been elusive despite hundreds of hours of searching by trained scientists.

The Tandayapa Andean toad was the least known of all.

Now, biologists have taken the [first color photos of live individuals](#) and have provided the first information on the species' natural history, range, development, and status in the wild. (For another rise from the amphibian ashes, see ["Frog Long Thought Extinct Is Discovered in Israel."](#))

Give It Shelter

While celebrating the toad's reemergence, the biologists worry for its future. The animal seems to have disappeared from where it was originally collected more than 40 years ago, in an area that's been extensively broken up by human activity. That could raise doubts about its fate in other developed areas.

Parts of Manduriacu remain pristine, with small sections protected through a government program called [Socio Bosque](#), which pays landowners to leave forest intact. But the area is hemmed in by logging, mining, and hydroelectric development.

"I'm hoping this toad might be our golden ticket to bringing real conservation attention to these forests," Lynch says.

Santiago Ron of the [Catholic University](#) points out that Manduriacu sits between two [hot spots of biodiversity](#), "so it has peculiar animal and plant communities.

"Just among amphibians, we found that almost half the species are threatened with extinction," he says. "This place should be a conservation priority."

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MEET THE AUTHOR

Jennifer S. Holland

Degrees in English and Conservation Biology Contributing Writer, National Geographic magazine Regular Contributor, NG News Author of bestselling books *Unlikely Friendships* (2011) and *Unlikely Loves* (2013)