

Expedition scientists in Bolivia discover seven animal species in world's most biodiverse protected area

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A new species of lizard from the *Liolaemus* genus, one of several new animal species discovered by scientists on an expedition through Madidi National Park. Credit: Mileniusz Spanowicz-WCS

Scientists on an expedition through Madidi National Park—the world's most biologically diverse protected area— have now discovered seven animal species new to science, finds that were made in 2015 and recently confirmed through careful comparisons with known species, according to the WCS (Wildlife Conservation Society) and local partners.

In total, Bolivian scientists have discovered three frogs, one lizard, and three catfish that are [new species](#) to science, with ten plant species under investigation as potentially new species.

"New species for science are of course wonderfully exciting for the team, but Identidad Madidi is as much about connecting Bolivians and others to this natural wonder as it is about gathering knowledge about biodiversity in this record-breaking park and increasing the number of confirmed species for

Madidi," said expedition leader Rob Wallace of WCS.

The new species are the latest in a string of discoveries made by researchers with Identidad Madidi, a multi-institutional effort to find and describe unknown species and to showcase the natural wonders of Bolivia at home and abroad.

The most recent discoveries include two new frogs from the same genus (*Psychrophrynella*) in the Andean valleys of Madidi and a new high-altitude lizard, according to James Aparicio and Mauricio Ocampo, two herpetologists from the Bolivian Faunal Collection and the National Natural History Museum.



One of the frog species new to science discovered in Madidi National Park. The frog belongs to the *Psychrophrynella* genus. Credit: Robert Wallace-WCS

"This genus of frog shows extreme endemism [found nowhere else on Earth] with several new species described in the last couple of decades

across the Andean valleys of northern Bolivia and southern Peru, so we were hopeful of at least one discovery," said Aparicio. "Much more surprisingly, on this same high altitude trip I was also lucky enough to discover a new *Liolaemus* iguana lizard in a valley at 4,500-meters of altitude."

Last year, researchers announced the discovery of a new species of robber frog from the *Oreobates* genus, a find made during the first months of the expedition.

Meanwhile, Identidad Madidi ichthyologists have discovered two new species of three-barbled *Cetopsorhamdia* catfish (one previously announced) and a new species of banjo catfish from the *Aspredinidae* family (and possibly from the *Ernstichthys* genus) from the two lower sites sampled in 2015, the Tuichi River in the montane dry forests of Apolo, and the Madidi River itself at the stunning Alto Madidi rainforest location. According to Jaime Sarmiento and Soraya Barrera of the National Museum of Natural History, both of the three-barbled catfish have significant differences to previously known species in a series of key measurements.



A fish species new to science: a banjo catfish of the *Aspredinidae* family and possibly from the *Ernstichthys* genus. Credit: Mileniusz Spanowicz-WCS

Scientist Guido Miranda of WCS added: "This kind of *Aspredinidae* banjo catfish has never even been

registered in Bolivia before and so was not even on our list of possible species for the park. Together these discoveries highlight the incredible diversity of Amazonia, but at the same time they draw attention to how little is known of some of the most crucial watersheds such as the Madeira."

In addition to the animal discoveries, the research team may have found as many as ten new plant species during the expedition efforts during 2015. It will take a while to confirm these new [species](#) candidates that come from a number of diverse families and genera, ranging from *Puya* bromeliads, *Aulonemia* bamboo, *Aa* orchids, *Hippeastrum* flowers, *Piper* vines, and *Chrysophyllum*, *Persea*, *Pourouma*, *Pouteria* and *Tachigali* trees.

"This park is simply amazing," said Freddy Zenteno of the National Herbarium of Bolivia. "As Bolivian scientists we are committed to generating knowledge that will help promote its importance to Bolivian and international audiences, as well as provide detailed data that will help guide its management into the future."

Identidad Madidi officially began on June 5th, 2015 and will eventually visit 15 sites over a period of 26 months as the team of Bolivian scientists works to expand existing knowledge on Madidi's birds, mammals, reptiles, amphibians, and fish along an altitudinal pathway descending more than 5,000 meters (more than 16,000 feet), from the mountains of the high Andes into the tropical Amazonian forests and grasslands of northern Bolivia.

The next leg of the expedition will explore the stunningly picturesque Andean foothill forests of the Hondo River in April 2016, before moving on to the mysterious and logistically challenging cloud forests farther up the Andes in June and July. In late August the team will make a 6-week visit to the lowland tropical natural grasslands and true Amazonian forest along the Heath River.

More information: The expedition can be followed online at www.Facebook/IdentidadMadidi or www.identidadmadidi.org, #IDMadidi.

Provided by Wildlife Conservation Society

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