

Newly described species have higher extinction risk

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Newly discovered species are at a higher risk of extinction than those first described long ago, according to a new study involving researchers at The Australian National University (ANU).

The researchers have uncovered that undescribed, or recently described



<u>species</u>, face a higher risk of <u>extinction</u> compared to known species, adding another layer to the already developing biodiversity crisis.

"There's been lots of recent discussions about extinction rates, but there's a whole lot of undescribed biodiversity out there," study author Professor David Lindenmayer said.

"Once you start looking into the description and discovery of new species, it turns out that they are the ones most at risk of extinction.

"This suggests that there's going to be a lot of biodiversity lost before it is even described."

Using data compiled from the International Union for Conservation of Nature (IUCN) Red List, the researchers analyzed 53,808 species across five vertebrate groups.

The findings show that for species described between 1758 and 1767, the proportion of threatened species sits at 11.9%.

However, this has increased to 30% for species described between 2011 and 2020. The analysis further predicts that this could increase to 47.1% by 2050.

"Newly described species are at a higher risk of extinction for a few reasons, one of which being that they often have smaller population numbers and restricted ranges, leaving them vulnerable to habitat loss and fragmentation," Professor Lindenmayer said.

"As these newly described species are often rare, there is also a strong black market in <u>illegal wildlife trade</u>, leaving these species at a high risk of poachers."



Despite the increased risks, in many cases these species receive substantially less conservation efforts than their longer established counter-parts.

"Current conservation efforts are primarily focused on older, more iconic species that were discovered a long time ago," Professor Lindenmayer said.

"Because of really good interventions, some high-profile species like the Giant Panda have started to recover, however, newly described species are often not granted the same treatment."

To help undiscovered species remain viable, the researchers suggest intensive surveys targeting areas with high biodiversity are urgently required.

"This particularly relates to <u>tropical areas</u> and other <u>biodiversity hotspots</u>, which home a number of threatened species, both discovered and undiscovered," Professor Lindenmayer said.

"In Australia it is particularly important to conserve <u>biodiversity</u> as the vast majority of species in our terrestrial ecosystems don't occur elsewhere.

"This means more field surveys are required to discover these species, followed by extra <u>conservation</u> efforts to aid their battles against extinction."

The research has been published in Conservation Letters.

More information: Jiajia Liu et al, Undescribed species have higher extinction risk than known species, *Conservation Letters* (2022). <u>DOI:</u> <u>10.1111/conl.12876</u>



Provided by Australian National University

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