University of Pretoria-led study disputes 73% wildlife decline claim

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A new international study is pushing back against one of the most widely cited claims in global environmental debates—that wildlife populations have declined by more than 70% over the past half-century.

Drawing on detailed data from sub-Saharan Africa, researchers argue that the narrative of *catastrophic biodiversity collapse* does not hold up—and may even undermine effective conservation.

Elephants observed by the Conservation Ecological Research Unit (CERU). Photo: Prof Rudi van Aarde / © CERU

Published in the leading scientific journal *Science Advances*, *Out of Africa comes no support for global biodiversity catastrophes* examines long-term wildlife population data from across Africa and finds that many wildlife populations often portrayed as emblematic of global decline are in fact stable or increasing where they are properly protected and managed.

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Professor Stuart Pimm

Referring to the headline claim of a roughly 70% global wildlife decline, the study's lead author, Professor Stuart L. Pimm said, "It's not even remotely true. For example, in the [Worldwide Fund for Nature's] Living Planet Report 2024, the graph showing the supposed year-by-year inexorable decline in wildlife uses a little elephant as the symbol to plot the data. In fact, southern Africa—by which we mean the middle of Tanzania southwards—holds 75% of savannah elephants, and they are slightly more numerous than they were 25 years ago. This was shown by a major paper from CERU a year ago."

Professor Pimm, whose work at the University of Pretoria's Conservation Ecology Research Unit (CERU) is supported by IFAW, added that the debate in southern Africa is increasingly about managing abundance rather than preventing extinction.

"As we all know, the problem we face in this area is that some think we have too many elephants. Kruger [National Park] may consider culling them, those in Addo [Elephant Park] are on contraceptives, and for those in Botswana, there was the threat to ship thousands of them to Germany in protest over that country's complaints about hunting."

Professor Stuart Pimm. Photo: Prof Rudi van Aarde / © CERU

Rethinking false claims

Pimm describes claims about large-scale global declines in wildlife populations —especially those concerning sub-Saharan Africa—as "harmful".

"They overlook substantial conservation success stories, including that of the black wildebeest, which South Africans brought back from near extinction. So, what these claims do is to impugn the striking successes that South Africa and

its neighbours have achieved in protecting biodiversity. The claims are deeply offensive."

The new study uses Africa as a stress test for global claims of ecological tipping points and irreversible collapse. If biodiversity were collapsing everywhere, the authors argue, it should be especially evident in sub-Saharan Africa region where the human population has more than tripled since the 1970s, and where poverty and land-use pressures are acute.

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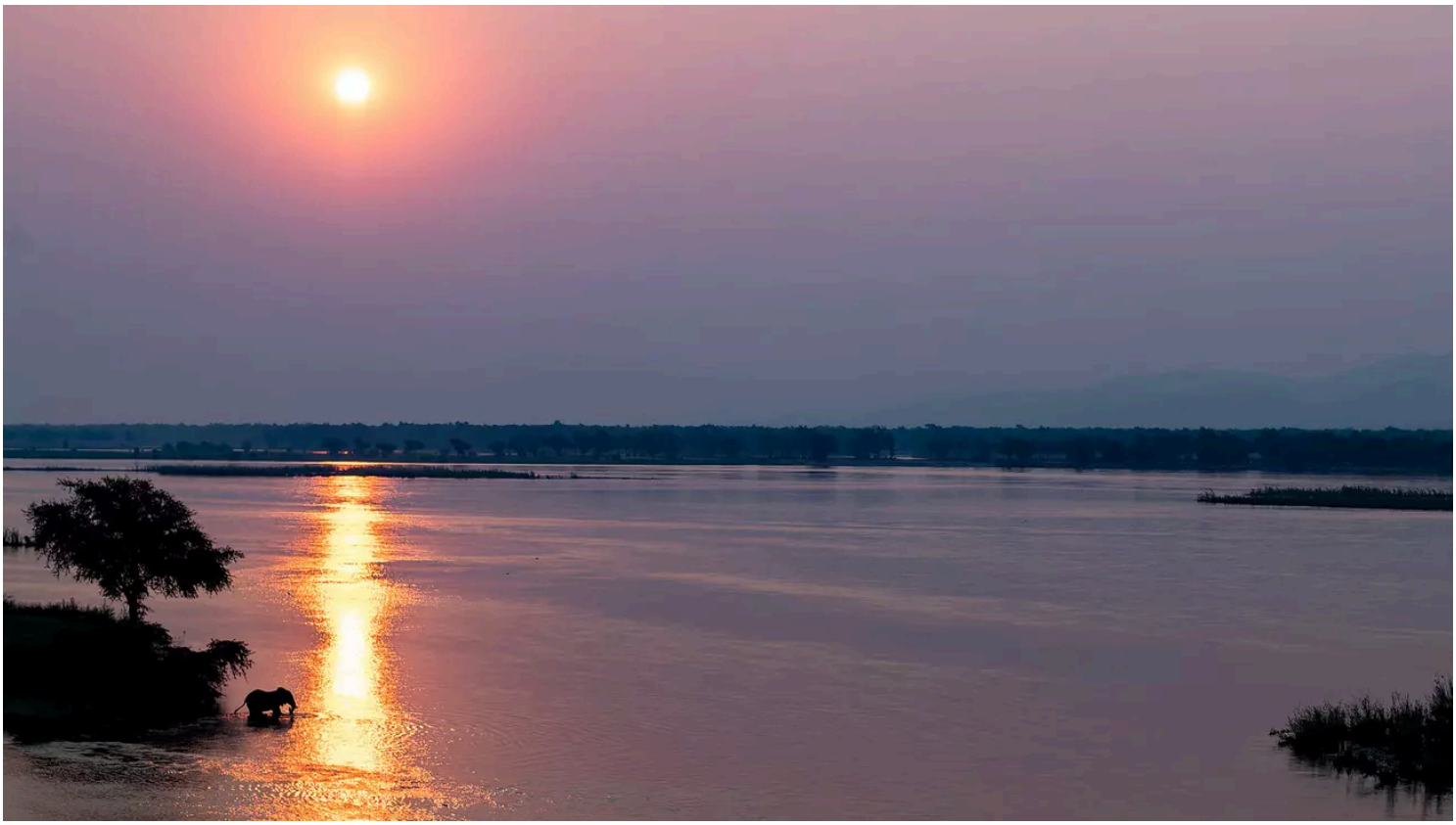
"If there were a place where biodiversity 'should' collapse, it would be here. The human population has increased 3.5 times in 50 years, and many areas are among the poorest on the planet." Pimm said that his extensive experience in the region meant he was not surprised by the research results. "But others should be," he said.

A closer look at the numbers

The researchers re-analysed wildlife population time-series data, arguing that widely cited global indices can be distorted by short or statistically weak datasets. When longer, more robust datasets are examined, the picture is more nuanced, they say. While some species are in serious decline, particularly where poaching and habitat loss remain intense, others are stable or recovering under active conservation management.

Pimm and his colleagues argue that dramatic global narratives overstating biodiversity decline undermine public trust and can hamper practical conservation work.



Sunsets over the Zambezi River as an elephant stops to drink. Photo: Prof Rudi van Aarde / © CERU

"The challenges we face at CERU are difficult. Having large, non-African-based groups telling the world that Africa has made a mess of things undermines trust, when it's much more complicated than that. We are doing some things very well. We must tackle tough problems, make mistakes, and celebrate success".

The paper forms part of a broader body of work examining how biodiversity is measured under the Kunming-Montreal Global Biodiversity Framework. In a review published in the Proceedings of the Royal Society, the authors argue that conservation science must shift from broad, sometimes alarmist narratives to measurable, evidence-based outcomes.

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In a related paper published recently in the journal Proceedings of the National Academy of Sciences (PNAS), Professor Pimm and co-author Professor John Gittleman, argued that the valuable lessons from conservation science must be

applied more rigorously under the global framework. “Progress—and failures—should be tested against clearly defined targets,” Professor Gittleman urged.

CERU Director Dr. Bernard Coetzee, who was not involved in the study, said: “I welcome research that advances evidence-based conservation metrics, which is sorely needed globally, but especially so in Africa,” he said, adding that CERU is committed to strengthening conservation science capacity in Africa and contributing to global biodiversity policy debates.

The real lesson

According to Professor Pimm, the real lesson from the African data is not complacency but clarity.
“We need to be smart in protecting more areas, connecting populations where possible, and avoiding having animals in small areas behind fences. None of those options is easy, but explaining the problems and getting support for their solutions is the way forward. Let’s celebrate our successes.”

As governments and conservation organisations move to implement global biodiversity targets, the study serves as a reminder that how decline is measured—and how it is communicated—may shape not only public perception, but the future of conservation itself.

Stuart L Pimm is Extraordinary Professor at the University of Pretoria’s Conservation Ecology Research Unit (CERU) and Doris Duke Professor of Conservation at the Nicholas School of the Environment at Duke University in North Carolina, US.

IFAW has partnered with CERU for more than 20 years. The accumulation of this scientific knowledge, together with engagement with local communities, is the foundation of IFAW’s visionary Room to Roam initiative to secure and connect habitats, creating safe passages for elephants and other wildlife to travel freely

through their home ranges in East and southern Africa. The positive outcomes of this far-reaching program are greater biodiversity, natural resilience to climate change, and a future where animals and people can coexist and thrive.

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