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Dr Ryan Huang



Prof Rudi van Aarde

"The maps tell us how and where elephants use a landscape, where they want to go and what they prefer," Prof Van Aarde

explains. “They also help to visualise how fences restrict the movement of elephants on a local scale.”

Prof Van Aarde adds that [protected areas](#) have played a huge role in increasing African elephant numbers. However, he is increasingly worried that the compression of elephants into designated conservation areas might also create problems.

“Confinement to protected areas and the fragmentation of the once continuous population have adverse demographic and genetic consequences for elephants; this goes against the first principles of conservation,” Prof Van Aarde and his collaborators wrote. “We urgently need a solution.”

Reconnecting natural areas and enlarging protected estates are possible solutions, and align with the guiding principles of the [Global Deal for Nature](#), a plan proposed by researchers that outlines what it will take to maintain a liveable planet. Connecting existing protected areas with one another could ensure the viability and continued existence of populations of large-bodied herbivores, including elephants.



Elephants 1 Rudi van Aarde



Elephants 2 Rudi van Aarde

The research team realises that great effort and socio-political will is needed to make such connections.

“The effort will be worthwhile, as it will help to resolve many issues that people have with elephants as so-called ‘problem animals’,” Prof Van Aarde notes. “This includes degradation of the landscape in certain areas.”

“Our current network of protected areas provides a foundation, but long-term population stability will be difficult if elephants cannot disperse into other suitable areas,” Dr Huang says. “Therefore, we must protect the connections that we have identified in cooperation with local communities and governments, so that the animals can do so. That’s among our best chances at a sustainable future for elephants.”

Prof Van Aarde says the effort is about more than elephant conservation, and that the giants of the African bushveld are so-called “umbrella species” for the conservation of Southern African wildlife at large.



Elephants 3 Rudi van Aarde

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