

Wildlife Poaching Detection: Protecting Africa's Most Endangered Species

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Rhino Crisis

- 96% of Black Rhinos were poached between 1972 and 1996.
- There are less than 20,000 white rhinos left.
- The western black rhino is extinct as of 2011.
- 3 rhinos are poached every day.



Problem:

Why Poaching is Successful



- Lack of economic opportunity: one elephant ivory poaching can change the trajectory of one family.
- Not enough policies on trade bans internationally.
- More public education with young students and tribes about the harmfulness of old traditions and why it's important to protect wildlife.
- Rhino horn value rivals gold between \$65,000-\$75,000 per kilogram.



A Kenyan ranger guards poached elephant tusks in preparation for the destruction of 105 tons of ivory and a ton of rhino horn in April. Photo by [Mwangi Kirubi](#) via Flickr (CC BY-NC 2.0)



Elephant Crisis



34.7 million granted towards the protection of elephants.



- 10,000 elephants were killed from 2009-2012 across Africa.
- Over 105 tons of ivory was burned in 2016 representing around 8,000 elephants killed.
- In 2018 China banned ivory trade within the borders, the largest market.

Solution:

Multi-Stage AI Detection



Real-Time Wildlife Protection

- Footsteps: Early Warning Alert on Human activity.
- Gunshots: Immediate Threat Detection where anti-poachers can be dispatched and medical professionals.
- Natural Elements: A False Positive Filter- no unnecessary alerts.
- Wildlife Calls: Ecosystem monitoring for healthy animal monitoring and for any severe distress.

Cheetah Crisis

- There are only 7,100 cheetahs left in the wild.
- 90% of Cheetahs have vanished from Africa.
- Only 33% of Cheetah population are protected.

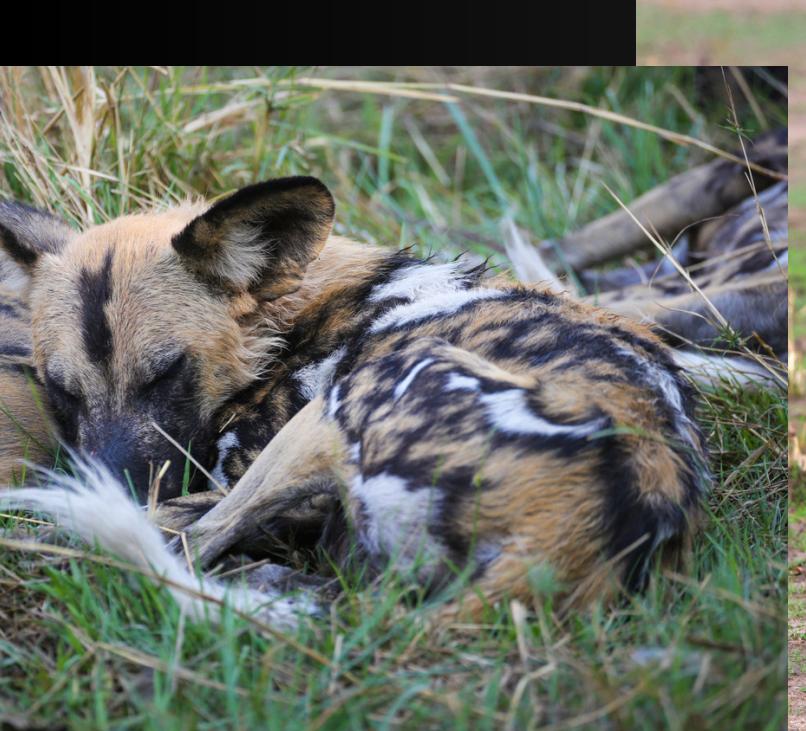


My Time in South Africa



African Wild Dog/ Painted Wolves Crisis

- There are only 1,400 mature African Wild Dogs left.
- The second most endangered animal after the Ethiopian Wolf.
- There are only 14 African countries with African Wild Dogs (there used to be 39).
- There are 660 packs left.



Impact: How AI Detection Changes the Game

Always Listening:

- No fatigue, no breaks, no blind spots.
- Monitors 24/7 in areas humans can't reach.



Pattern Recognition at Scale:

- Distinguishes gunshot from thunder in milliseconds
- Identifies species by vocalization alone
- Learns and improves over time

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