

Serengeti Health Initiative



Above: Lions are one of many predators seen in the dynamic Serengeti ecosystem. The Serengeti Health Initiative, led by Lincoln Park Zoo, aims to protect these predators against disease by vaccinating domestic dogs in the region.

Safeguarding an Ecosystem

The Serengeti ecosystem encompasses the diversity of the African plains. Herds of wildebeest, zebras and gazelles sustain themselves on the area's rich grasslands. Predators such as lions and African wild dogs hunt along the savanna, preying on herbivores as they follow the Serengeti's rainfall. Elephants and rhinos charge over the plains; crocodiles and hippopotamuses make their home in the waters.

But while protected areas, such as Tanzania's Serengeti National Park and Kenya's Masai Mara National Park, provide a haven for the area's wildlife, habitat loss, climate change and, in particular, disease continue to threaten this unparalleled ecosystem. Rabies and canine distemper have drastically impacted park predators. One-third of the lion population has succumbed to these diseases, and African wild dogs were once locally driven to extinction.

The Serengeti Health Initiative, led by Lincoln Park Zoo, aims to preserve this rich wildlife while also benefiting local villagers. By vaccinating domestic dogs against rabies and distemper, the project endeavors to stem the spread of these diseases into the park. These vaccinations also safeguard the health of people and pets, producing an end result that is beneficial for the entire ecosystem.

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For more information on the Serengeti Health Initiative or other Lincoln Park Zoo research programs, contact the Conservation & Science Department at conservation@lpzoo.org.



The Serengeti in Summary

The Ecosystem

The Serengeti region encompasses grasslands and plains, rivers and forests, active volcanoes and rocky outcroppings known as kopjes. The entire ecosystem stretches across more than 6 million acres and is home to some of the largest grazing herds in the world.

The Great Migration

Serengeti National Park and surrounding areas are home to one of nature's most awe-inspiring displays. Vast herds of hoofstock thunder over the plains, with more than 2 million wildebeest, half a million gazelles and a quarter-million zebras migrating with the rains in search of fresh food and water. These large numbers of migrating animals support a wide range of carnivores, including lions, African wild dogs, jackals, cheetahs, servals, mongoose and more.

The People

While Serengeti National Park is reserved solely for animals, many people make their homes in villages on the outskirts of the park. Foragers, farmers and pastoralists from a variety of groups—Hadzabe, Iraqw, Kuria, Maasai, Sukuma—share this space, using the land to feed themselves and their families.



Left: The Serengeti ecosystem stretches across more than 6 million acres of forests, grasslands and other terrain. Above: By vaccinating domestic dogs against diseases such as rabies and canine distemper, the Serengeti Health Initiative benefits wildlife and villagers alike. Zoo support ensures broad mobility for researchers and vaccination teams.

A Shared Ecosystem

While millions of acres of protected land lie at the heart of the Serengeti, areas bordering the park provide homes to millions of people and domestic animals. Fluid boundaries between savanna and village and close contact between domestic animals and wildlife enable the spread of disease.

Vaccination as a Solution

Lincoln Park Zoo is leading a project to vaccinate domestic dogs against rabies and distemper, protecting dogs and wildlife against these diseases. Tanzanian veterinarians and field staff inoculate dogs in villages bordering the park. These local ambassadors also educate the communities they visit, explaining the importance of the vaccination program and collecting data on rabies and other health issues.

A Healthy Future

Lincoln Park Zoo scientists and collaborators will continue to investigate the impact of the vaccination program, studying the abundance of wildlife as well as rates of disease among people, domestic animals and park predators. The ultimate impact of the Serengeti Health Initiative will be seen across the entire ecosystem as the project enlists scientists, public-health experts, veterinary researchers and wildlife managers to conserve the area's amazing wildlife.

Project Partners & Tanzania Field Team Members

- Partners: Sarah Cleaveland (University of Glasgow), Andy Dobson (Princeton University), Craig Packer (University of Minnesota), Tanzania Wildlife Research Institute, Tanzania National Parks Authority, University of Illinois, Chicago School of Public Health

- Tanzania Field Team: Tiziana Lembo (health ecologist), Iddi Lipende (field coordinator), Paulo Charles Tango (vehicle manager and field research assistant), Machunde Bigambo (data and laboratory coordinator), Israel Silaa (driver and field research assistant), Kaneja Ibrahim Mangaru (field research assistant)