Giant pangolin rediscovered in Senegal

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After more than two decades, a giant pangolin (Smutsia gigantea) has been rediscovered and photographed in Niokolo-Koba National Park. Credit: Panthera NGO–Senegal National Parks, Author provided

In March 2023, temperatures in eastern Senegal soared to 40°C, with the cooling rains still months away. Yet, for the dedicated field team from the NGO Panthera—committed to global feline conservation—and the Direction des parcs nationaux du Sénégal (DPN) (Senegal National Parks team), led by Mouhamadou Ndiaye, the work continued unabated.

On foot, the field team criss-crossed the Niokolo-Koba National Park,

with the mission of surveying the populations of large carnivores and herbivores.

As the west and central Africa regional coordinator for wildlife surveys at Panthera, I'm relaying the great work of the field team.

Several months into the research, the field team made a remarkable discovery in the heart of the park: the giant pangolin (Smutsia gigantea), a species believed to be entirely extinct in Senegal. The field team photographed the animal for the first time since 1967.

This thrilling find has sparked great excitement and revives hopes for the species' survival in west Africa.

Scarce giant pangolins

Niokolo-Koba National Park is one of the national parks in west Africa. Located in eastern Senegal along the road between Tambacounda and Kédougou, it covers over 9,130km^2 of diverse ecosystems. From wooded savannahs to Guinean forests, these environments provide essential habitats for the region's last remaining populations of leopards, lions and wild dogs. The park's management team, supported by the NGO Panthera, oversees the conservation efforts, with a particular focus on monitoring these key species.

It's a challenging task. Mouhamadou Ndiaye and the national parks team set up over 200 camera traps to tackle it. These valuable devices operate around the clock in all weather conditions to capture wildlife activity. Every time an animal passes by, the camera clicks and automatically saves the image. Researchers are usually very enthusiastic when it's time to collect the cameras, eager to discover what species and behaviors have been photographed. Real treasures sometimes lie hidden in the heart of these parks.

Pangolins, including the giant pangolin, are becoming increasingly scarce and are classified as endangered in both Africa and Asia. They are heavily targeted by illegal hunters for their meat and scales, which are sought after in traditional medicine, especially in Asia. This has led to a dramatic decline in their populations. Despite its vast distribution—stretching from Senegal to western Kenya—the giant pangolin is considered "endangered" on the IUCN Red List, with populations declining sharply across its habitat.

The historical factors contributing to the giant pangolin's population decline in Senegal are challenging to pinpoint precisely. While no studies were conducted at the time, it's likely that poaching, habitat loss, and fragmentation—factors that cause the decline of pangolins elsewhere—contributed to their decline.

Pangolin discovery

On 28 December 2023, Mouhamadou Ndiaye inserted a memory card from one of the cameras into his computer. He expected to see images of a warthog, leopard or lion. Instead, he was surprised to find a large animal with scales, a long tail, and a thin snout. "It's a giant pangolin!" he exclaimed.

It was clear that it was a giant pangolin. There are eight pangolin species worldwide (four in Asia, four in Africa). Giant pangolins are much larger than the other species. They're about 12 to 20 times heavier than west African tree pangolins. The ID was verified by the rest of the team and by members of the IUCN pangolin specialist group.

The giant pangolin (Smutsia gigantea) is the only species historically found in Senegal. Weighing up to 30 kg and measuring between 1.40 meters and 1.80 meters in length, it resembles a prehistoric creature with its body covered in keratinous scales. Despite its size, the giant pangolin

is an insectivore, feeding exclusively on termites and ants with its long, sticky tongue. It is nocturnal and shy, making it a rare sight.

In fact, the species had not been documented in Senegal since 1999, and no photographic evidence had been captured since 1967. Researchers had considered it locally extinct, especially since five extensive surveys conducted in the park between 2019 and 2022 had failed to detect its presence.

Rising human populations are driving a growing demand for wildlife products, placing immense pressure on pangolin populations. Coupled with habitat loss, this over-exploitation makes it challenging for pangolins to survive. Despite their exploitation, giant pangolins are protected in Senegal and their hunting and use are strictly prohibited.

A discovery that inspires hope

The rediscovery of the species in Senegal is wonderful news. It could benefit conservation efforts, scientific research, the economy, society, and conservation policies.

From a scientific and ecological point of view, this rediscovery enhances our understanding of the park's biodiversity. It presents new opportunities for research into the species' ecology, behavior and genetics, while also invigorating conservation initiatives.

From an economic perspective, this discovery may lead to increased subsidies and funding for the park to protect the species. It could result in new laws or regulations aimed at safeguarding the rediscovered species and its habitat.

Finally, from a social and cultural standpoint, the rediscovery may boost local pride and foster greater interest in conserving their natural

environment.

Other species detected

Alongside the giant pangolin, the camera tracking expedition identified 44 additional wildlife species, including rare west African lions. These critically endangered lions are slowly recovering in the park due to the collaborative efforts of Panthera and DPN.

These findings underscore the crucial role of large protected areas in west Africa. Niokolo-Koba National Park maintains the largest habitat suitable for the giant pangolin at the north-western edge of its range.

The park also serves as one of the few remaining refuges for several west African species, including wild dogs, chimpanzees and Derby elands. Without the systematic wildlife inventories conducted by the Panthera and national park teams in 2023, the giant pangolin might have remained undetected. We can now implement targeted protection and dedicated monitoring efforts for this rare and significant species.

The strategies planned to safeguard pangolins will align with those for the rest of the park's wildlife. This includes enhanced protection through increased, more frequent, and better-equipped anti-poaching patrols.

Poaching has been a significant issue for the park, leading to sharp declines in many species until the park's team and Panthera partnership was established in the 2010s. Although financial and human resources for park protection have recently increased, they remain insufficient.

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