



African Elephant: Zakouma National Park, Chad

Migration Description

Chad's elephant population in Zakouma National Park suffered a dramatic decline from the 1970s to 2013, largely due to intense illegal killing by armed poachers from neighboring Sudan. Illegal killing declined after 2010 through a comprehensive law enforcement program initiated by African Parks, primarily for Zakouma National Park. Since then, the population has rebounded, now exceeding 550 individuals, making Zakouma home to one of Central Africa's largest elephant herds.

Elephant movement patterns have historically reflected both the threat of poaching and natural factors like rainfall. The eastern half of the park is lower in elevation and floods heavily during the wet season. This seasonal flooding prompts elephants and other wildlife to migrate to areas north and west of the park. From 2013-2018, elephants largely stayed within park boundaries, moving west to escape flooding. In 2017, the Greater Zakouma Ecosystem, which includes key reserves surrounding the park, came under more robust conservation management. As the population recovered, elephants began traveling longer distances in response to seasonal rainfall. In 2019, elephants once again ventured west 70km beyond the park boundaries during the wet season, returning shortly after. Today, they typically migrate from habitats in the eastern part of Zakouma towards wet season refuge

outside the park in August – presumably to avoid heavy floods – before returning to the park's eastern section.

Threats to Migration

Though conservation and law enforcement efforts have successfully reduced illegal killing in Chad, elephants across West and Central Africa remain at risk of local extinction due to illegal killing and habitat loss. The poaching crisis was originally driven by the demand for ivory, however political instability in neighbouring countries may lead to increased or resumed illegal killing.

When elephants migrate west during the wet season, they leave the national park and enter the Bahr Salamat Faunal Reserve, with some individuals venturing into the neighboring hunting reserve. As their movements have expanded along with rebounding population numbers, more elephants may come into contact with growing numbers of pastoralists and new human communities, increasing the potential for human-elephant conflicts to develop outside the park. Further south, the Siniaka Minia Reserve was recently designated as a national park, and the land uses permitted in and around the area may therefore change. If elephants continue to expand their range, they could initiate new movements into this area and face growing human activity.

Local Population Facts

Migration

Seasonal 
Long 85.6 km (avg.)

Threats



Species Facts

Common name: African savannah elephant

Species name: *Loxodonta africana*

Range: Africa

Diet: Mixed-feeder herbivore

Global population: 352,000 (2016 Great Census)

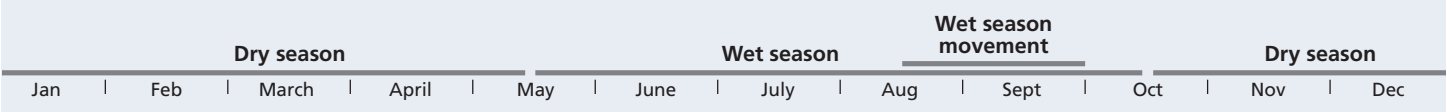
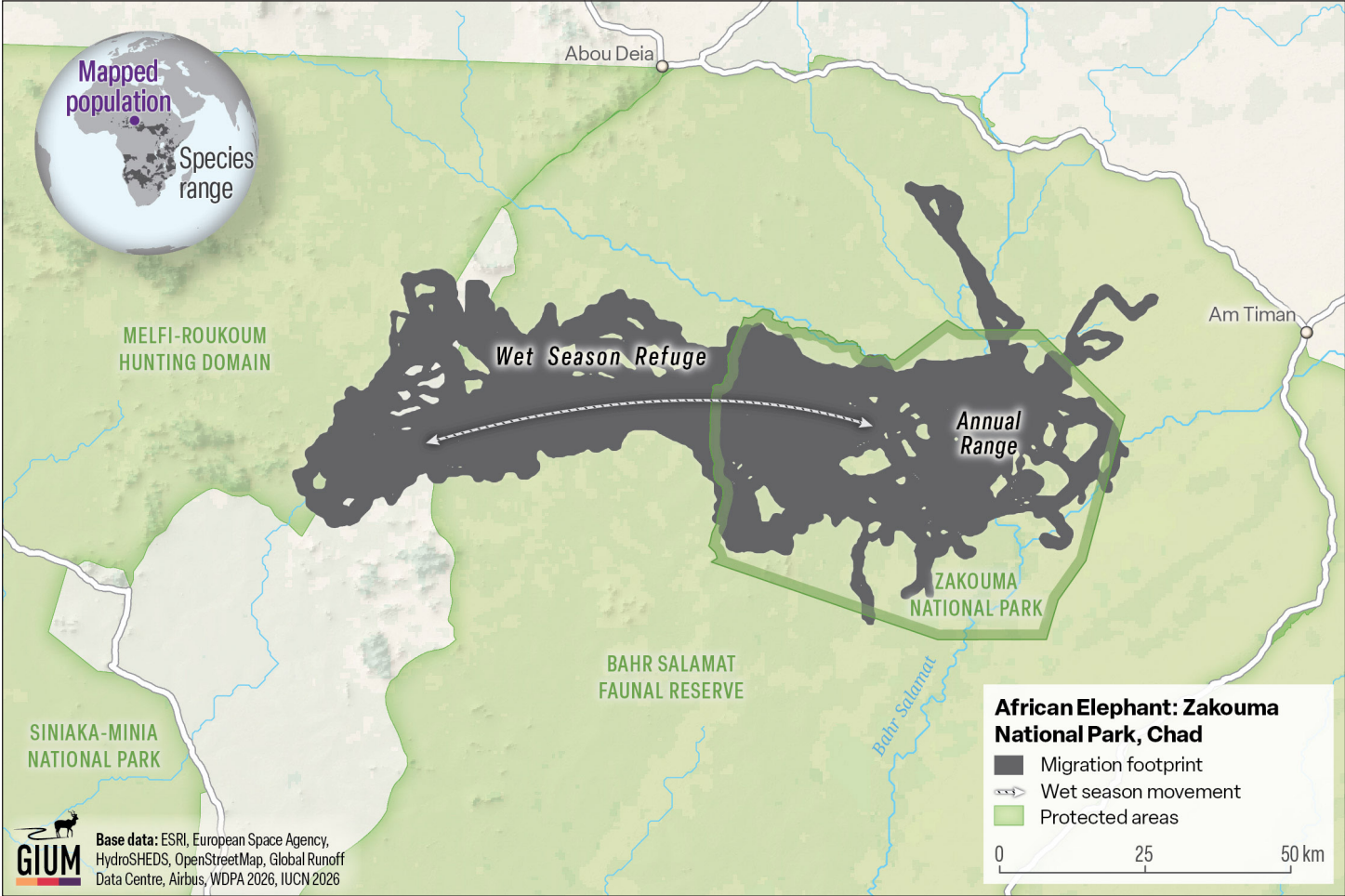
IUCN Conservation Status

EN Endangered

CMS Status

Appendix II Migratory species conserved through agreements

African Elephant Migration



Study Information

Relocation frequency
4hr GPS; recent data 1hr GPS

Project duration
12 years (2013–2024)

Data Analysis
Migratory individuals mapped
72

Delineation of migration periods
Net squared displacement (Bunnfeld and others 2011)

Models derived from
Brownian Bridge Movement Model

Route Summary

Migration start and end date (median)

- Migration at the start of seasonal floods: August 14–August 28
- Return migration after flooding: September 10–September 25

Average number of days migrating

- Migration at the start of seasonal floods: 14 ± 6 days
- Return migration after flooding: 11 ± 6 days

Migration route length

- Min: 4.2 km
- Mean: 85.6 km
- Max: 134.5 km

Data Providers

Data were collected and provided by the African Parks Network in 2023.

In partnership with:



Elephant Crisis Fund



The Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, is an environmental treaty of the United Nations that provides a global platform for the conservation and sustainable use of terrestrial, aquatic and avian migratory animals and their habitats.



The Global Initiative on Ungulate Migration (GIUM) was created in 2020 to work collaboratively to: 1) create a Global Atlas of Ungulate Migration using tracking data and expert knowledge; and 2) stimulate research on drivers, mechanisms, threats and conservation solutions common to ungulate migration worldwide.



View and Download Map Data from the GIUM Migration Atlas
All fact sheets, maps, and geospatial products are made available under a CC-BY 4.0 license.

African Parks, & Boyers, M. (2026). African elephant: Zakouma National Park, Chad (Version 1). Atlas of Ungulate Migration. Global Initiative on Ungulate Migration (eds). Convention on the Conservation of Migratory Species of Wild Animals. <https://doi.org/10.5281/zenodo.21724261>