

## Twiga Tracker Initiative: Giraffe Tagging Report

Masai Mara Ecosystem, Kenya

16-20 September 2023

### Background

The Masai Mara ecosystem has long been celebrated for its remarkable assemblage of wildlife. The ecosystem comprises the 1,510 km<sup>2</sup> Masai Mara National Reserve that is contiguous with the Serengeti National Park of Tanzania to the south and ~1,700 km<sup>2</sup> of community conservancies. However, in recent years, the landscape has undergone significant changes, characterised by increased fragmentation evidenced by upcropping of fences and human settlements as well as changes in land use. Consequently, vast swaths of once open landscapes have been converted into fenced-off properties raising concerns about the future of the ecosystem and its impact on wildlife.

According to a recent photographic survey by the Giraffe Conservation Foundation (GCF), the Masai Mara ecosystem is home to ~3,290 Masai giraffe (*Giraffa tippelskirchi tippelskirchi*), most of which occur in the community conservancies. Their ability to roam freely throughout the landscape has gradually been curtailed by land fragmentation, restricting access to essential resources which are spatially and temporally dynamic. This fragmentation and corresponding habitat loss, coupled with poaching, contributes to the list of threats Masai giraffe are facing.

Understanding how increased occurrence of fences and human population growth affect the spatial patterns of Masai giraffe will provide valuable insights for enhancing landscape-level strategies. Additionally, it will contribute to the understanding of multi-species connectivity on the viability of all wildlife populations in the Masai Mara and Serengeti ecosystems.

### Objective

Our main objective was to tag Masai giraffe across a gradient of human land-use in the Masai Mara ecosystem using Savanna Tracking GPS satellite tail units. We aim to better understand how giraffe respond to fencing and other anthropogenic developments, as well as how they navigate this increasingly fragmented landscape.

Specific research goals include:

- Assessing giraffe behavioural responses to fencing and fragmentation.
- Examining giraffe space use patterns and resource selection in the Masai Mara ecosystem.
- Assessing connectivity in an increasingly fragmented landscape.

Data from this project will help to better inform conservation and management strategies for giraffe.

### Results

The tagging exercise took place from 16 to 20 September 2023 and a total of 21 Masai giraffe (13 female and 8 male) were tagged in the following areas: Enonkishu Conservancy (n=1), Olare Motorogi Conservancy (n=2), Naboisho Conservancy (n=3), Lemek Conservancy (n=3), Masai Mara National Reserve (n=3), Pardamat Conservancy (n=4), and Mara North Conservancy (n=5).

### Acknowledgements

