Conservation Science Data Coordinator

Background

Giraffe are one of Africa's most iconic animals. Once numbering more than a million and roaming throughout sub-Saharan Africa, the total giraffe population in Africa is estimated at just 117,000 individuals today. There is only one giraffe for every 3 to 4 African elephant and their numbers have declined by almost 30% since the 1980s alone. To better conserve all four species of giraffe and the habitats necessary for their survival, the Giraffe Conservation Foundation (GCF) has become a leader in applications of science-based giraffe conservation. Conservation efforts should be built on a solid foundation of quality data that is curated, maintained, and analysed by experts. Among three of GCF's flagship conservation science programmes are the Twiga Tracker Initiative, translocations and conducting giraffe population surveys throughout the continent. Together with local and international partners, GCF has fitted over 300 GPS satellite units to track and assess the movement ecology of resident and (re-)introduced giraffe in various African countries. Most of the data collected by GPS units are integrated in near-real time into the EarthRanger platform, providing a valuable tool to manage the vast quantity of data, visualise movement patterns, and respond to potential threats. New data streams are also utilised with alternative GPS units and the time and complexity to coordinate these requires GCF to re-think our systems. GCF is also at the forefront of developing new platforms and applying innovative technology to population surveys including the GiraffeSpotter online portal.

With all this in mind, we now seek a dedicated data specialist to assist with the day-to-day management and analysis of data to advance GCF's science and conservation missions. In addition, we aim to build upon the capabilities of the EarthRanger system, and/or other systems, in refining and implementing a semi-automated workflow to generate monthly, quarterly and/or bi-annual reports to showcase the movement of individually tracked giraffe to better understand their movements and to improve our ability to engage with our partners and donors.

Scope of Work

The main objective of this position it to further establish and provide data management support for all GCF's conservation science initiatives. This work will largely focus on data from giraffe population surveys, GPS tracking data from the Twiga Tracker Initiative and translocations, and the Conservation Health Initiative. Responsibilities will include adding new tags to the EarthRanger system, managing device communications, providing authenticated users with access to the data for visualisation and/or analysis purposes, GCF analysis, and more. This position will also focus on pattern recognition systems for streamlining individual-based surveys for giraffe population monitoring and rapid abundance estimates. The candidate will organise spatial databases for raw data and data products generated from these research activities to be made accessible to GCF affiliated researchers and partners, as well as produce internal reporting for the organisation.

The ideal candidate will have solid coding/programming skills to implement, adapt, and potentially further develop a semi-automated workflow using R and GIS to summarise the movements of individual giraffe fitted with GPS devices on a monthly, quarterly and/or bi-annual basis. Reports will vary but include details

about tagged giraffe populations and their movements in graphical and engaging ways, as well as reporting for survey reports.

Specific Tasks
- Add newly deployed GPS satellite tags (e.g. CERES, Savannah Tracking, African Wildlife Tracking) to the EarthRanger platform and/or other systems, providing automated ingestion of the data into the database.
- Establish individual study populations in EarthRanger and/or Mapipedia with unique sets of authenticated users to view and/or access available data.
- Provide general data management of all tags, edit end dates and update animal status (e.g. alive, dead, unknown).
- Develop and maintain spatial databases for raw data and data products generated in GCF affiliated research
- Work with GCF conservation team to develop and adapt semi-automated reports, summarising the movements of individual animals and populations on a monthly, quarterly, and bi-annual basis.
- Provide data management support to various GCF projects, including but not limited to the Twiga Tracker Initiative and population surveys.
- Day to day data management
  - Sort and store data
  - Review any issues and manage alerts
  - Add new devices to system
  - Provide authenticated user (GCF/partner/donor) access
  - Manage data layers
  - Communicate with system partners
- Reporting – internal and conservation partners
  - Use and/or adapt current R scripts
  - Develop new R scripts as appropriate
  - Provide regular updates on deployed units status to GCF Conservation Team (and partners)
- Analysis – internal, conservation partners, students, supporting ongoing research
  - Focus on data output and accessibility
  - Support collaborative analysis and reporting by GCF and with partners such as Smithsonian Conservation Biology Institute (SCBI), African Parks Network, etc.
  - Facilitate data access and management of student involvement and supervision through select University/institutional partnerships
  - Appropriate mapping of data for reporting, social media, partners, etc.

Knowledge/Skills
- GIS
- MS Office including Excel, and other
- R – preferable understanding or willingness to learn other programming as required
- Report writing
- Efficiency
- Attention to detail
- Ability to work independently

- Excellent time management
- Ability to meet reporting deadlines
- Excellent communication skills

Contract

This local position will initially be on a contract basis for 12 months, with the potential for a full-time position dependent on capacity and donor funding. Remuneration will be a fixed term local contract and costs included.

Location

As the position is desktop-based, the successful candidate can work from anywhere in the world in support of the GCF team and our partners throughout Africa and internationally.

Applications

There is no firm deadline for applications, however, we hope to fill the role in the second half of 2022. A cover letter with a brief outline of relevant qualifications and experiences, expected remuneration and contact details of referees, as well as a detailed CV should be submitted to admin@giraffeconservation.org