

# JAMES RENNIE BEQUEST

## REPORT ON EXPEDITION / PROJECT / CONFERENCE

**Expedition/Project/****Conference Title:** Kyambura Lion Monitoring Project**Travel Dates:** 15<sup>th</sup> June – 7<sup>th</sup> July 2025**Location:** Queen Elizabeth National Park, Uganda**Group member(s):** Charlie Gould**Aims:**

- To work as a research assistant on the Kyambura Lion Monitoring Project which supports the protection of Uganda's carnivore populations and improves the livelihoods of local people living around the park. This is done by continuous monitoring of African lion, leopard and spotted hyena populations within the park, using both vehicles and remote camera traps.
- To support the project through photography and videography, providing the team with important marketing photos and promotional videos to increase social media presence
- To provide scientific data analysis help to the team, helping the researchers to better collate and analyse data, particularly camera trap data

**Photography consent form attached:**  
(please refer to your award letter)☒ Yes  
☐ No**OUTCOME (a minimum of 500 words):-****Acknowledgements:**

This work was made possible through the generous support of the James Rennie Bequest Fund, which enabled me to spend three weeks as a research assistant with the Kyambura Lion Monitoring Project in Queen Elizabeth National Park (QENP), Uganda. The Travel Fund gave me the opportunity to contribute directly to wildlife research and conservation while also gaining invaluable practical experience. The Kyambura Lion Monitoring Project focuses on the conservation and monitoring of the predator populations in Uganda, particularly lions, but also leopards and hyena. The project also plays an important role in addressing human-wildlife conflict with surrounding communities, and recently, has contributed a significant epidemiological finding with implications for disease ecology. During my time with the project, I was actively involved in field monitoring, community engagement, data collection and analysis, and visual documentation through photography and videography.

**Field monitoring of Lions:**

A major focus of my work was the daily monitoring of lions and leopards across QENP. Most individuals are fitted with satellite collars, allowing the project team and the Uganda Wildlife Authority (UWA) to track their movements. I was particularly involved in monitoring Jacob, an older male lion who has been followed by the project since he was a cub. Jacob is well known for overcoming remarkable challenges. Alongside his brother Tibu, he completed one of the longest documented lion swims - over a mile across the Kazinga Channel. Jacob's

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story also reflects the dangers faced by lions in this landscape. After becoming caught in a wire snare, he required the amputation of his left hind foot. He has also lost sight in one eye following a fight with a rival male. Despite these setbacks, he continues to survive with just three legs and one eye, aided by a radio collar that provides updates on his movements every three hours.

Each morning began by checking Jacob's signal and assessing whether he was in an accessible location. Tracking often meant navigating dense thickets of Sickle Bush (locally known as Kalamanjovo), which can be nearly impenetrable. Using VHF telemetry, I helped locate lions and we carried out health assessments, checking for signs of injury, disease, or changes in condition. I also photographed whisker spot patterns, which provide a reliable, non-invasive method of individual identification and are vital for long-term monitoring. This hands-on work gave me direct experience in large carnivore field techniques while contributing important data for the project's ongoing research.

### **Responding to Human-Wildlife Conflict:**

I also joined the team in responding to human-wildlife conflict, one of the most complex conservation challenges in QENP. The primary issues involved addressing situations such as lions or leopards entering livestock areas or animals becoming trapped in wire snares.

My role included:

- Liaising with community members to assess the situation and ensure safety
- Accompanying wildlife veterinarians in locating and treating injured or snared animals
- Recording details of each event to support the Uganda Wildlife Authority in improving management responses

Through these experiences, I saw first-hand the difficulties of balancing wildlife conservation with community livelihoods, and I gained practical insight into conflict mitigation strategies that are so important for conservation success.

### **Camera Trapping:**

I was also directly involved in camera trapping, which is one of the most effective and minimally invasive methods for monitoring predator populations over time. In QENP, these cameras are primarily used to study leopards, which can be individually identified by their rosette patterns.

As part of this work, I assisted in setting up a new survey in Maramagambo Forest, a distinctive area of the park that includes Python Cave. This site is of particular scientific interest because of its unique structure and its population of Egyptian fruit bats, known carriers of Marburg virus.

My responsibilities included:

- Selecting and preparing camera trap sites
- Retrieving cameras and downloading data
- Analysing images to identify species, frequency of detections, spatial patterns, and behaviours such as foraging, predation, and interspecific interactions

The data collected contributes directly to ongoing research. I am proud to be a co-author on a paper titled *Predators at the Viral Gate* (currently under review in *Current Biology*) and to have contributed to research highlighted in *Nature Africa*, with further papers in preparation. This experience provided valuable exposure to both field methods and the process of producing publishable scientific work

### **Media:**

In addition to my research responsibilities, I served as the project's photographer and videographer. My work included:

- Documenting daily fieldwork activities
- Producing images for educational and outreach purposes

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- Creating social media content to engage wider audiences
- Filming for an upcoming short documentary on the Kyambura Lion Monitoring Project, currently in post-production

This aspect of my role gave me the opportunity to develop conservation storytelling skills and demonstrated the importance of visual media in raising awareness, building public engagement, and attracting funding. The project solely relies on the support of partners including Volcanoes Safaris Partnership Trust, Denver Zoo, Solaris Trail Cameras, Lion Recovery Fund, Adventure Travel Conservation Fund, and the Uganda Wildlife Authority. Any additional media coverage is incredibly valuable in helping the project grow.

### **Skills and Knowledge Gained:**

Over the course of my time with the project, I gained practical experience in:

- Field tracking and monitoring techniques for large carnivores
- Camera trap deployment and behavioural data analysis
- Human-wildlife conflict mitigation
- Wildlife photography and conservation filmmaking
- Collaborative research in a hands-on field team

These skills are directly applicable to my future career in wildlife research and conservation, and the experience has provided me with technical skills and an insight into real-world conservation.

### **Impact of the James Rennie Bequest Fund Support:**

The James Rennie Bequest Fund made it possible for me to travel to Uganda and fully focus on field and research work. This experience has strengthened my research skills, expanded my professional network, and provided me the opportunity to be a co-author on a published scientific paper while still an undergraduate. Most importantly, I have gained first-hand experience of applied, in-situ conservation - an invaluable step in my development as a wildlife and conservation biologist.

### **Images:**

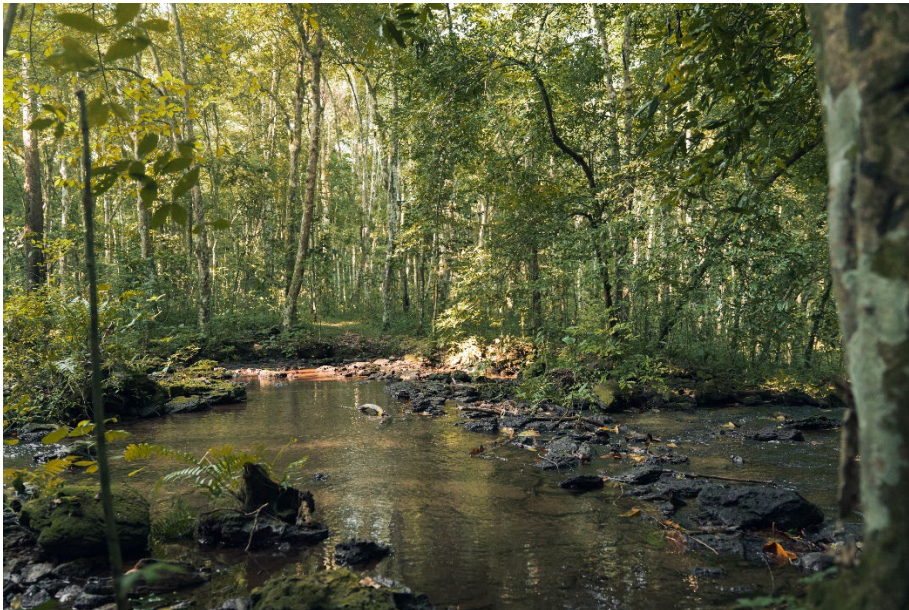


Figure 1. Winnifred Nsabimana uses VHF to track Jacob. Photo credit: Charlie Gould

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*Figure 2. Bosco Atukuwatse films Tibu, who had just been mating with a female, known to the team as Jill. Photo credit: Charlie Gould*



*Figure 3. Maramagambo Forest - a site in QENP where we set camera traps. Photo credit: Charlie Gould*



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*Figure 4. Jacob the lion. You can see the damage to his left eye that resulted in blindness in that eye. Photo credit: Charlie Gould*



*Figure 5. Johnson Muhereza and Yahaya Ssemakula walking through Maramagambo Forest to set camera traps. Photo credit: Charlie Gould*



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*Figure 6. Me checking on one of the camera traps in Maramagambo Forest.*



*Figure 7. Me filming footage of Jacob*

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*Figure 8. Johnson Muhereza checking on a camera trap in Maramagambo Forest*