



INTERIM REPORT CONSERVATION GRANT

April 2025

Tracking European Rollers (Coracias garrulus) within the East Atlantic Flyway

This interim report is reporting on the following timelines -

Timeline:

- 1. January 2024 (Phase 1): Prepare for February 2024 tracker deployment, become familiar with tracker, harness method and test the efficiency of the trackers.
- End February 2024 (Phase 2.1): Fitment of tracking devices on 2 individuals, ring individuals and collect biosamples.
- February 2024 26 (Phase 2.2): Track birds, monitor tracking results, data collation and processing [tag are predicted to last for 2 years].
 - a. Investigate the flight paths of the tagged birds to determine their migratory path back to their breeding sites in Europe. Investigate key stopover sites during that migration.
 - Investigate when the migration back to overwintering sites in South Africa commences.
- June October 2024: Submission of funding proposals to obtain funding for additional tracking devices and data.
- November 2024/5 March 2025/6 (Phase 2.2): Commence with the fourth season of ground monitoring using BirdLasser, including logging the sightings of ringed birds.

Short media articles will be posted throughout the 2 year project to gain support for the project and advocate for the plight of migratory birds. By showcasing the success of the project, we will also gain more support from private landowners to get involved in the ground monitoring. Additionally, through the tracking data, we will be able to involve our southern African regional partners to help monitor the birds in their respective countries.

SUMMARY

The African Bird Club Conservation Grant interim report outlines the progress and activities of BirdLife South Africa's European Roller Monitoring Project from February 2024 to March 2025. Significant field activities in 2024 included the deployment of two satellite trackers and the colour-ringing of European Rollers in Thornybush Private Nature Reserve. Annual monitoring in Kruger National Park involved extensive drive transects to gather data on the species. In early 2025, the project expanded with the ringing of 18 additional individuals and the deployment of five more satellite trackers in both Thornybush and Timbavati Private Nature Reserves. Data collection efforts, including blood samples for genetic analysis, are central to understanding the species' migration. The project has continued to make strides in its monitoring and research efforts, with updates shared via media coverage and a dedicated WhatsApp group to engage supporters and stakeholders.

Despite these successes, the project faced several challenges. The lowest recorded reporting rates in the 2023/4 season made it difficult to trap more than two individuals for colour-ringing. Technological issues also arose, with transmissions from tagged individuals, including Royal Wasi and Hera, being interrupted or lost. Efforts are ongoing to resolve these issues and improve tracker functionality. Additionally, there has been limited involvement from private stakeholders in monitoring compared to previous seasons. Funding has been a challenge, particularly as the species is listed globally as Least Concerned but regionally as Near Threatened. The project has also struggled without a dedicated field vehicle, and despite concerted efforts to secure sponsorships, no luck has been found. A renewed effort will be made in 2025 to address these gaps.

FIELD ACTIVITIES

2024

- 1. February 2024 Annual monitoring in Kruger National Park, South Africa
 - **a. Outcome:** Conducted 51 drive transects over one and a half weeks, covering the full length of Kruger National Park.
- 2. March 2024 Deployment of Satellite Trackers and Colour-Ringing in Thornybush Private Nature Reserve, South Africa
 - a. Outcome: Two individuals colour-ringed and fitted with solar-powered satellite trackers





Image 1, left – the first European Roller tracked in South Africa, a female named Hera. The other individual, a male, was named Royal Wasi.

Image 2, right – The Royal Malewane team who assisted us in finding the individuals, Bart Gazendam, the wildlife vet, and Craig Nattrass, the bird ringer.

2025

- 3. January 2025 Colour-Ringing in Thornybush Private Nature Reserve, South Africa
 - Outcome: Successfully trapped and ringed five individuals over two days.





Image 3-4: Images taken of the individuals trapped during the January 2025 ringing event.

4. February-March 2025 - Annual monitoring in Kruger National Park, South Africa

 Outcome: Conducted 52 drive transects over two weeks, covering the full length of Kruger National Park.

5. March 2025 – Deployment of Satellite Trackers and Colour-Ringing in Thornybush and Timbavati Private Nature Reserves, South Africa

• Outcome: Five solar-powered satellite trackers deployed:

o Thornybush Private Nature Reserve: 3 trackers

Timbavati Private Nature Reserve: 2 trackers

Outcome: Colour-ringing of 18 individuals:

• Thornybush Private Nature Reserve: 12 individuals

• Timbavati Private Nature Reserve: 4 individuals

Near Orpen (Kruger National Park Gate): 1 individual

Gravelotte: 1 individual

• Additional Data Collection: Blood samples were collected from all individuals and submitted to the South African Biodiversity Institute (SANBI) for genetic analysis and sexing.

A key observation from our tracking efforts was the significant weight difference between individuals trapped in January and March 2025, with an average increase of 30 grams over three months. Despite the presence of insects in January, it appears that European Rollers only prioritise weight gain just before migration. This highlights the importance of deploying trackers as close to departure as possible to ensure adherence to the ethical 3% body mass-to-device weight ratio.

DATA MANAGEMENT & REPORTING

 The monitoring data collected during the 2023/4 season was compiled into the annual monitoring report, which was shared with stakeholders and participants involved in the project. The report is also available on the project's webpage: <u>European Roller Monitoring Project</u>.

For the first time, the study integrated data from the Southern African Bird Atlas Project (SABAP2) to estimate the population size, predicting a South African overwintering population between 9,000 and 45,780 individuals. However, 2024 saw the lowest SABAP2 reporting rate for the species since monitoring began, underscoring the need for continued monitoring, the integration of citizen science data, and the protection of critical overwintering habitats.

Additionally, the collected data contributed to the 2025 Regional Red List Assessment for the species. The final report, which will include these findings, is scheduled for release in May 2025.

- The monitoring data collected during the 2024/5 season will be used to update the annual monitoring report, which will be shared with stakeholders and project participants. The report is scheduled for release in November 2025 after the analysis is completed.
- All collected data is stored on the South African National Parks (SANParks) Database for longterm conservation planning.
- The team continue to report on the project during the East Atlantic Flyway Initiative Coordination Group meeting.
- The team reported on the project during Friday4Birds webinar with Dr Alan Lee. Friday4Birds is an African-Eurasian Migratory Landbirds Action Plan (AEMLAP) initiative coordinated by the Swiss Ornithological Institute.
- A WhatsApp group has been established for anyone to join, where I share regular updates on the movements of the tracked individuals and anecdotal insights into the project.
- The project has received widespread media coverage, including but not limited to -

Media articles

- 1. Daily Maverick, 10 June 2024: https://www.dailymaverick.co.za/article/2024-06-10-miniature-backpack-traces-remarkable-journey-of-the-goddess-of-the-skies-the-european-roller/
- Network24, 16 June 2024: <a href="https://www.netwerk24.com/netwerk24/nuus/omgewing/troupant-van-sa-met-rugsakkie-asie-toe-20240615?fbclid=lwZXh0bgNhZW0CMTAAAR1YqHvbpjSKANV9GVEjMktp5UVInI9n40DP4tr2Cxwz9hdI-0kiBl-ZEx4_aem_dtfxLwD64OmaCSAYPvV2Qw
- 3. WellBeing International, 18 June 2024: https://wellbeingintl.org/a-roller-bird-gathers-no-moss/
- 4. Africa Geographic, 1 August 2024: <a href="https://africageographic.com/stories/saving-european-rollers-flyway-conservation-how-you-can-help/?fbclid=lwY2xjawEdbdxleHRuA2FlbQlxMQABHcE7gwoVR6Gd6CPgm1Fuf5FFEK3ur-l2D7eUA2QuZHDWBJSlqGsy79YS4g_aem_NKLKY8h7U4NzEfZKwxmEmA
- 5. The Mail & Guardian, 14 October 2024: <u>Hera the European roller's epic migration uncovers new flight paths for bird conservation</u>
- The Witness, 06 November 2024: <a href="https://www.pressreader.com/south-africa/the-witness-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-south-africa-sou
- 7. SuperKids Magazine, November 2024 Feature

BirdLife South Africa Mailers

- 8. Fueling Future Discoveries: https://mailchi.mp/birdlife.org.za/unravlling-european-roller-migration-9066497?e=0039d77f32
- 9. World Migratory Bird Day: https://mailchi.mp/birdlife/unravlling-european-roller-migration?e=7d1efc8aa3

Birdlife South Africa e-newsletters

10. March 2024: Tagged European Rollers take flight: https://www.birdlife.org.za/march-2024-newsletter/

- 11. April 2024: European Rollers: where do they go: https://www.birdlife.org.za/april-2024-newsletter/
- 12. October 2024: Protecting insects to help migratory birds: https://www.birdlife.org.za/october-2024-newsletter/
- 13. November 2024: Hera is coming home: https://www.birdlife.org.za/november-2024-newsletter/
- 14. February 2025: Unravelling the mysteries of European Roller migration: https://www.birdlife.org.za/january-2025-newsletter-2/

Conservation Conversations Webinar, on Zoom and YouTube:

15. Unravelling the Mysteries of European Roller Migration:
https://www.youtube.com/watch?v=rystfDHri50&list=PLNC61qX8pr_XIEXy3ceee3p9xK4l3jE18
&index=2&pp=iAQB

CHALLENGES

- Lowest recorded reporting rates of European Rollers in the 2023/4 season: this made it difficult to trap more than two individuals for the season. It was also a learning curve for the team as this was the first time BirdLife South Africa and the bird ringer have actively trapped for the species. The technique has since been refined.
- Technological Issues: Royal Wasi's transmission was lost upon reaching the Horn of Africa. Hera's tracker, covered by this grant for data fees, has experienced irregular transmissions since July 2025 and stopped transmitting completely on 22 December 2024. Efforts to locate her are ongoing, but without recent data, we are relying on chance. There is a possibility that transmission may resume once she begins migrating, as movement could shift her feathers and allow for sufficient solar charging. No analysis has taken place yet. This will only be scheduled for year 2 of each individual's movement data.
 - The budget line originally allocated for data fees has been reallocated to partially cover the costs of one of the trackers deployed in March 2025.
- Private Stakeholder Capacity: There has been limited involvement from private stakeholders
 in monitoring European Rollers, with little expansion in monitoring sites this season.
 Additionally, some stakeholders have dropped off due to capacity constraints or shifting
 priorities. To address this, a concerted effort will be made to personally visit each monitoring
 area, build relationships with stakeholders, and encourage their sustained participation in
 monitoring efforts.
- Fundraising: Difficulty in securing funding to expand the project, including funds to source a
 Flyway and Migrants Project Manager vehicle.

PRIORITIES FOR 2025/6 SEASON

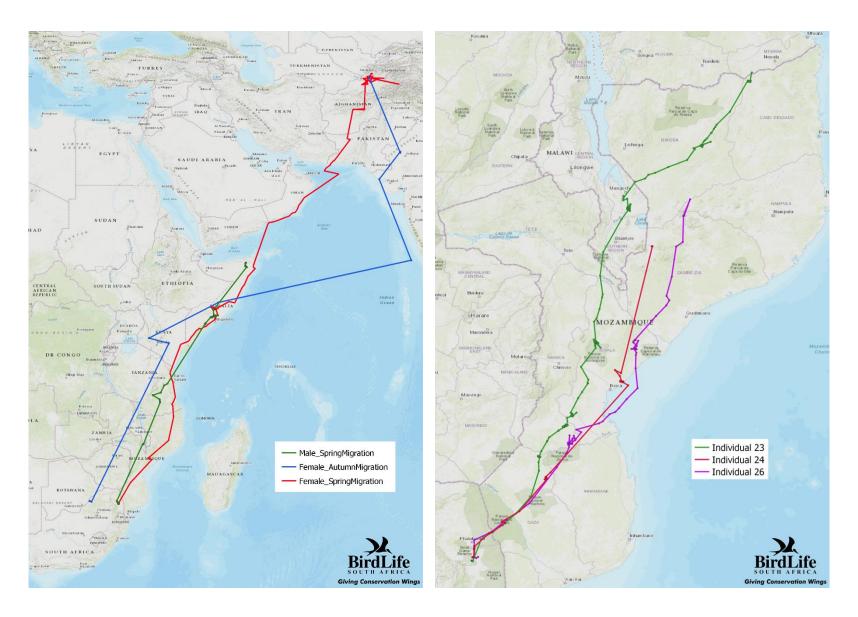
- Expand key monitoring sites throughout South Africa to ensure additional sites are secured for effective monitoring.
- Finalise the development of a short video showcasing the project and its conservation objectives.

- Secure a field vehicle to support field operations and data collection.
- Analyse data from the 2024/5 and 2025/6 seasons, publish a scientific paper based on the findings in 2026, and expand analyses to better understand habitat preferences within the key monitoring areas.
- Continue using European Rollers as a flagship species for migratory bird conservation, raising awareness and support for migratory bird initiatives.





Image 5-6: Photos captured during the March 2025 fieldwork..



Map 1 – Tracks of the two individuals tagged in March 2024. The green line is for the male whose transmission was lost in April 2024. The blue line is Hera's autumn migration, while the red is her spring migration.

Map 2 – Tracks of the five satellite trackers deployed on 16–17 March 2025. Individual 23 began migration on 28 March, while Individuals 24 and 26 departed on 31 March. The remaining two individuals have yet to start their northward migration.