Monthly Report

May 2025

Ethiopian epauletted fruit bat *(Epomophorus labiatus)*

Contents

Alfredo Joins the ABC Team!

By Alfredo Ortega Gonzalez, Research Assistant

Figure 1. ABC Research Assistant Alfredo.

Alfredo is a biologist with a strong interest in ecology, evolution, and conservation. He holds a BSc in Biology (cum laude) from the National Autonomous University of Mexico (UNAM). A curiosity-driven person by nature, Alfredo has a wide range of interests within biology. During his studies, he completed several placements and internships in diverse laboratory settings, ranging from biomedical and immunological research to applied ecology and bat conservation in Mexico. He was also a member of the Social Studies of Science and Technology Lab at the Faculty of Science, where he developed his undergraduate thesis on the philosophical and historical dimensions of contemporary debates in evolutionary theory.

His passion for African ecosystems deepened when he was awarded a fully funded scholarship to spend a semester at the University of the Witwatersrand in Johannesburg as an exchange student in 2023. There, he was invited to take part in fieldwork projects in both South Africa and Eswatini, collaborating with an international team of students and researchers. During his time there, he gained experience working with camera traps, other species of small mammals, and assisted a project that aims to understand better the effects of the loss of megafauna in African savannas. After this experience, he set his sights on finding every possible opportunity to return to the continent and further explore its remarkable fauna, people, and ecosystems.

Alfredo's work with bats began when he became a research intern at the Ecology and Conservation of Terrestrial Vertebrates Lab. He contributed to various projects, including the first monitoring program of hibernating bats in Mexico, as well as a PhD study focused on populations of *Tadarida brasiliensis* in the arid ecosystems of northern Mexico. Following this, he co-led a bat

conservation project in a tropical rainforest reserve in southern Mexico, aimed at assessing bat diversity, delivering environmental education programs to local communities, and studying seed dispersal to support the potential restoration of fragmented landscapes.

Alfredo is excited to join African Bat Conservation, where his love and interest in bats and African ecosystems join perfectly together!

ABC Back at the Farmer's Market

By Luisa Auletta, Senior Research Assistant

Following an intensive fieldwork season supporting Felix's PhD research, the ABC team resumed its public engagement efforts by participating in the Lilongwe Farmers' Market. The aim of this outreach activity was to raise awareness about bat conservation and the ongoing research being conducted across Malawi.

The event provided a valuable platform for knowledge exchange and community engagement, allowing ABC to disseminate information on the ecological importance of bats and the role they play in pest control and ecosystem functioning (Figure 2). It also served as a practical training opportunity for new research assistants, Lusungu and Alfredo, who gained experience in communication and public outreach.

Figure 2. Harp trap with bat species pictures displayed at the farmer's market.

Over the course of the morning, 12 individuals engaged with the ABC stall. Some sought general information or educational materials, while others expressed interest in supporting conservation efforts directly. Notably, all three bat boxes constructed by the team were sold, with proceeds being reinvested into the production of additional boxes. These sales not only promote the provision of artificial roosting sites for bats but also contribute to ABC's broader conservation and awareness objectives.

ABC Joins the CRM Team for a Hyaena Capture

By Luisa Auletta, Senior Research Assistant

Some members of the ABC team, Luisa, Lusungu, and Alfredo, were invited to support an exciting and important wildlife monitoring initiative led by Carnivore Research Malawi (CRM). The event involved the live capture and collaring of a spotted hyaena (*Crocuta crocuta*) in the Kumbali area on the outskirts of Lilongwe, where a small urban clan of four individuals has been observed.

The individual targeted during this operation, designated URBHY25, was selected for collaring as part of CRM's ongoing research to better understand the movement ecology, stress physiology, and health of urban-adapted carnivores in Malawi's capital. As Lilongwe continues to experience rapid urban expansion and major road development projects, understanding how species such as spotted hyaenas navigate fragmented and human-dominated landscapes is critical for both conservation and human-wildlife coexistence planning.

The objectives of the capture included the collection of biosamples, such as blood, hair, and faecal, for health assessments, including parasite load and disease screening, as well as cortisol analysis to investigate stress levels in urban-dwelling individuals. Most importantly, a GPS collar was fitted to the animal, which will allow researchers to monitor the hyaena's spatial behavior over time. This includes identifying where the clan rests during daylight hours and mapping the corridors they use to move through the city at night.

Figure 3. ABC Team with RM Paula and Dr. Hezy during the spotted hyaena capture.

The capture operation was successfully executed using best-practice animal welfare and sedation protocols. Once the hyaena was fully sedated, the CRM team, led by Research Manager Paula and Senior Research Assistant Andoni, carefully fitted the GPS collar. During the procedure, ABC team members

assisted by recording biometric measurements and supporting the veterinarian, Dr. Hesse, in monitoring the animal's vital signs, including heart rate, respiratory rate, and core temperature.

The entire process was completed efficiently and safely, and after all necessary data had been collected, the hyaena was administered a reversal agent. The animal regained mobility quickly and returned to its environment without incident.

This experience was not only a unique learning opportunity for ABC's research team but also a valuable example of inter-organisational collaboration in wildlife research and conservation.

The ABC team is deeply grateful to CRM for the chance to contribute to this vital work and looks forward to supporting future initiatives aimed at understanding and conserving urban hyaena clan.

ABC Talk and Bat Trapping Demonstration at Bishop Mackenzie

By Kieran O'Malley, Research Manager

The ABC team were recently invited to Bishop Mackenzie International School in Lilongwe to deliver a talk on bats and undertake a bat trapping demonstration for students and staff. The event provided a unique opportunity for students to learn more about Malawi's fascinating and ecologically important bat species.

The session began with a presentation by Kieran, who introduced the incredible diversity of bats found across Malawi and their vital roles in ecosystems, from controlling insect populations to pollinating plants and dispersing seeds. The talk finished with some enthusiastic questions from students, who expressed curiosity about bat behaviour, echolocation, and the benefits bats provide to both people and the environment.

Following the presentation, students had the opportunity to join the ABC team for a bat survey, which included using harp traps and mist nets to safely catch bats for study. The team demonstrated how captured bats are handled, identified, and processed, explaining how data on species, sex, age, and health are recorded before the animals are released unharmed. A total of eight bats were captured and processed during the survey, providing attendees with the opportunity to observe both fruit bats (*Epomophorus*

labiatus) and insectivorous species, including *Scotophilus dinganii*, *Afronycteris nana*, and *Laephotis capensis*, up close.

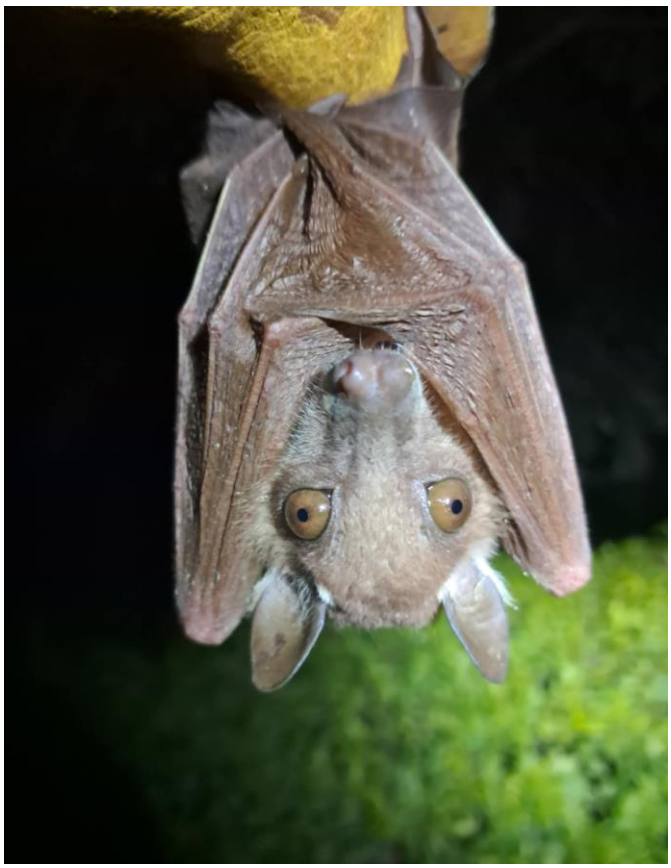

Figure 4. Ethiopian epauletted fruit bat (*Epomophorus labiatus*) captured during the trapping survey at Bishop Mackenzie.

Events like this are central to ABC's mission to inspire the next generation of conservationists and raise awareness of the importance of bats to biodiversity and human well-being. The ABC team was impressed by the level of interest and engagement shown by the students, many of whom were seeing bats up close for the first time.

ABC would like to thank Bishop Mackenzie for their warm welcome and continued support for conservation education.

Summary of Work

Bat surveys carried out in May 2025

Date	Type	Site code	Location	Total bats caught	Species caught / encountered
06/05/2025	PhD project	LLWKU10	Lilongwe	9	*Chaerephon pumilus*, *Epomophorus labiatus*, *Hipposideros* (A), *Scotoecus hindei*
08/05/2025	PhD project	LLWO40	Lilongwe	17	*Afronycteris nana*, *Epomophorus wahlbergi*, *Laephotis* (A), *Rhinolophus hildebrandtii*, *Scotoecus hindei*, *Scotophilus dinganii*, Vesper (A)
13/05/2025	Opportunistic	LLWO13	Lilongwe	8	*Afronycteris nana*, *Epomophorus labiatus*, *Laephotis* (A), *Laephotis capensis*, *Scotophilus dinganii*, Vesper (A)
15/05/2025	Opportunistic	LLWO37	Lilongwe	13	*Afronycteris nana*, *Epomophorus* (B), *Epomophorus crypturus*, *Epomophorus labiatus*, Vesper (A)
20/05/2025	Opportunistic	LLWO41	Lilongwe	14	*Afronycteris nana*, *Epomophorus labiatus*, *Mops* (A), *Rhinolophus hildebrandtii* Complex, *Scotophilus dinganii*
21/05/2025	Opportunistic	LLWO08	Lilongwe	23	*Afronycteris nana*, *Epomophorus* (A), *Epomophorus labiatus*, *Scotoecus hindei*, *Scotophilus dinganii*
22/05/2025	Opportunistic	LLWKU01	Lilongwe	17	*Afronycteris nana*, *Hipposideros* (A), *Rhinolophus fumigatus*
27/05/2025	Opportunistic	LLWO17	Lilongwe	13	*Afronycteris nana*, *Chaerephon pumilus*, Vesper (A)
29/05/2025	Opportunistic	LLWKU09	Lilongwe	6	*Epomophorus crypturus*, *Epomophorus labiatus*, *Epomophorus wahlbergi*, Vesper (A)

Biosamples collected May 2025

Date	Survey type	Sample type	Site code	Location	No. samples	From which species
06/05/2025	PhD project	Wing punch	LLWKU10	Lilongwe	9	*Chaerephon pumilus*, *Hipposideros* (A), *Epomophorus labiatus*, *Scotoecus hindei*
06/05/2025	PhD project	Hair	LLWKU10	Lilongwe	9	*Chaerephon pumilus*, *Epomophorus labiatus*, *Hipposideros* (A), *Scotoecus hindei*
06/05/2025	PhD project	Faecal	LLWKU10	Lilongwe	5	*Epomophorus labiatus*
08/05/2025	PhD project	Wing punch	LLWO40	Lilongwe	13	*Afronycteris nana*, *Epomophorus wahlbergi*, *Rhinolophus hildebrandtii* Complex, *Scotoecus hindei*, *Scotophilus dinganii*, Vesper (A)
08/05/2025	PhD project	Hair	LLWO40	Lilongwe	13	*Afronycteris nana*, *Epomophorus wahlbergi*, *Rhinolophus hildebrandtii* Complex, *Scotoecus hindei*, *Scotophilus dinganii*, Vesper (A)
08/05/2025	PhD project	Faecal	LLWO40	Lilongwe	5	*Afronycteris nana*, *Scotoecus hindei*, *Scotophilus dinganii*, Vesper (A)
08/05/2025	PhD project	Parasite	LLWO40	Lilongwe	1	*Laephotis* (A)
13/05/2025	Opportunistic	Faecal	LLWO13	Lilongwe	3	*Laephotis* (A), *Laephotis capensis*, *Scotophilus dinganii*
15/05/2025	Opportunistic	Wing punch	LLWO37	Lilongwe	10	*Afronycteris nana*, *Epomophorus* (B), *Epomophorus crypturus*, *Epomophorus labiatus*, Vesper (A)
15/05/2025	Opportunistic	Hair	LLWO37	Lilongwe	10	*Afronycteris nana*, *Epomophorus* (B), *Epomophorus crypturus*, *Epomophorus labiatus*, Vesper (A)

15/05/2025	Opportunistic	Faecal	LLWO37	Lilongwe	5	*Afronycteris nana*, *Epomophorus* (B), *Epomophorus crypturus*, *Epomophorus labiatus*, Vesper (A)
15/05/2025	Opportunistic	Parasite	LLWO37	Lilongwe	1	*Afronycteris nana*
20/05/2025	Opportunistic	Wing punch	LLWO41	Lilongwe	11	*Afronycteris nana*, *Epomophorus labiatus*, *Scotoecus hindei*, *Scotophilus dinganii*, *Mops* (A), *Rhinolophus hildebrandtii* Complex, Vesper (A)
20/05/2025	Opportunistic	Hair	LLWO41	Lilongwe	11	*Afronycteris nana*, *Epomophorus labiatus*, *Mops* (A), *Scotoecus hindei*, *Scotophilus dinganii*, *Rhinolophus hildebrandtii* Complex, Vesper (A)
20/05/2025	Opportunistic	Faecal	LLWO41	Lilongwe	8	*Afronycteris nana*, *Epomophorus labiatus*, *Mops* (A), *Scotophilus dinganii*, *Rhinolophus hildebrandtii* Complex, Vesper (A)
21/05/2025	Opportunistic	Wing punch	LLWO08	Lilongwe	15	*Afronycteris nana*, *Epomophorus crypturus/dobsonii*, *Epomophorus labiatus*, *Scotoecus hindei*, *Scotophilus dinganii*
21/05/2025	Opportunistic	Hair	LLWO08	Lilongwe	15	*Afronycteris nana*, *Epomophorus crypturus/dobsonii*, *Epomophorus labiatus*, *Scotoecus hindei*, *Scotophilus dinganii*
21/05/2025	Opportunistic	Faecal	LLWO08	Lilongwe	5	*Afronycteris nana*, *Epomophorus labiatus*, *Scotophilus dinganii*
22/05/2025	Opportunistic	Wing punch	LLWKU01	Lilongwe	16	*Afronycteris nana*, *Hipposidero* (A), *Rhinolophus fumigatus*, *Scotoecus hindei*
22/05/2025	Opportunistic	Hair	LLWKU01	Lilongwe	16	*Afronycteris nana*, *Hipposidero* (A), *Rhinolophus fumigatus*, *Scotoecus hindei*
22/05/2025	Opportunistic	Faecal	LLWKU01	Lilongwe	9	*Afronycteris nana*, *Scotoecus hindei*
22/05/2025	Opportunistic	Parasite	LLWKU01	Lilongwe	2	*Afronycteris nana*, *Hipposideros* (A)

27/05/2025	Opportunistic	Wing punch	LLWO17	Lilongwe	*9*	*Afronycteris nana, Chaerephon pumilus, Epomophorus labiatus,* Vesper (A)
27/05/2025	Opportunistic	Hair	LLW017	Lilongwe	9	*Afronycteris nana, Chaerephon pumilus, Epomophorus labiatus,* Vesper (A)
27/05/2025	Opportunistic	Faecal	LLW017	Lilongwe	5	*Afronycteris nana*, *Chaerephon pumilus*, *Epomophorus labiatus*
27/05/2025	Opportunistic	Parasite	LLW017	Lilongwe	1	*Afronycteris nana*
27/05/2025	Opportunistic	Saliva swab	LLW017	Lilongwe	7	*Afronycteris nana*, *Chaerephon pumilus*, *Epomophorus labiatus*
27/05/2025	Opportunistic	Skin swab	LLW017	Lilongwe	7	*Afronycteris nana*, *Chaerephon pumilus*, *Epomophorus labiatus*
29/05/2025	Opportunistic	Wing punch	LLWKU09	Lilongwe	6	*Epomophorus crypturus*, *Epomophorus labiatus*, *Epomophorus wahlbergi*, Vesper (A)
29/05/2025	Opportunistic	Hair	LLWKU09	Lilongwe	6	*Epomophorus crypturus*, *Epomophorus labiatus*, *Epomophorus wahlbergi*, Vesper (A)
29/05/2025	Opportunistic	Faecal	LLW	Lilongwe	2	*Epomophorus wahlbergi*, Vesper (A)
29/05/2025	Opportunistic	Saliva swab	LLWKU09	Lilongwe	6	*Epomophorus crypturus*, *Epomophorus labiatus*, *Epomophorus wahlbergi*, Vesper (A)
29/05/2025	Opportunistic	Skin swab	LLW	Lilongwe	6	*Epomophorus crypturus*, *Epomophorus labiatus*, *Epomophorus wahlbergi*, Vesper (A)

Acoustic samples collected May 2025

Date	Survey type	Site code	Location	Total no. recordings	Species caught / encountered
06/05/2025	PhD project	LLWKU10	Lilongwe	3	*Chaerephon pumilus*, *Hipposideros* (A) *Scotoecus hindei*
08/05/2025	PhD project	LLWO40	Lilongwe	9	*Afronycteris nana*, *Epomophorus wahlbergi*, *Laephotis* (A), *Rhinolophus hildebrandtii* Complex, *Scotoecus hindei*, *Scotophilus dinganii*, Vesper (A)
13/05/2025	Opportunistic	LLWO13	Lilongwe	4	*Afronycteris nana*, *Laephotis* (A), *Scotophilus dinganii*, Vesper (A)
27/05/2025	Opportunistic	LLWO17	Lilongwe	2	Vesper (A)

Helpline calls received May 2025

Date	Type	Location	Details
15/05/2025	WhatsApp	Lilongwe – Area 3	Homeowner reported that there were bats in the roof of their office building in area 3 and asked whether we could undertake an exclusion. The ABC team have arranged to visit the office to undertake an external and internal inspection of the building and determine possible solutions.

Total events / leaflets distributed May 2025

Date	Type	Location (incl. district)	Total people	Materials distributed	Outcomes
13/05/2025	Talk	Lilongwe – Bishop Mackenzie	10	-	Talk about bat biology followed by a bat survey to show some of the bat species living in Lilongwe urban area.
23/05/2025	Questionnaire	Lilongwe – Area 3	1	5	Questionnaire submitted to house owner about perception of wildlife as well as opinion regarding bats
27/05/2025	Questionnaire	Lilongwe – Kumbali	1	10	Questionnaire submitted to house owner about perception of wildlife as well as opinion regarding bats
31/05/2025	Farmer's market	Lilongwe – Woodlands	12	21	We engaged with the local community at the Farmers Market, which takes place on the last Saturday of each month, to showcase ABC's research and conservation efforts focused on African bat species. We were also able to sell one bat box during the event.

ABC Project Species List

Latin Name	Common Name	Liwonde NP	Lilongwe City	Nyika NP	Vwaza Marsh	Kasungu NP	Kuti WR & Salima	Other
Afronycteris nana	Banana bat	X	X	X	X		X	X
Chaerephon sp.	Free-tailed bats	X	X		X	X	X	X
Chaerephon ansorgei	Ansorge's free-tailed bat	X						
Chaerephon pumilus	Little free-tailed bat	X	X		X	X	X	X
Eidolon helvum	Straw-coloured fruit bat		X					X
Epomophorus crypturus	Peters's epauletted fruit bat	X	X		X	X	X	X
Epomophorus sp.	Epauletted bats	X	X		X	X	X	X
Epomophorus dobsonii	Dobson's epauletted fruit bat		X		X			
Epomophorus labiatus	Little epauletted fruit bat	X	X		X	X	X	X
Epomophorus wahlbergi	Wahlberg's epauletted fruit bat	X	X		X		X	X
Eptesicus hottentotus	Long-tailed serotine	X						
Glauconycteris variegata	Variegated butterfly bat	X	X		X		X	X
Hipposideros sp.	Roundleaf bats	X	X		X	X	X	X
Hipposideros caffer	Sundevall's leaf-nosed bat	X	X		X	X	X	X
Hipposideros ruber	Noack's leaf-nosed bat	X						
Kerivoula lanosa	Lesser woolly bat				X			
Laephotis sp.		X	X		X	X	X	X
Laephotis botswanae	Botswana long-eared bat	X	X		X	X	X	X
Macronycteris gigas	Giant leaf-nosed bat		X					X
Macronycteris vittatus	Striped leaf-nosed bat						X	
Mimetillus thomasi	Thomas's flat headed bat	X			X			
Miniopterus sp.	long-fingered bats	X			X			X
Miniopterus inflatus		X						
Miniopterus natalensis		X						X
Mops sp.	Free-tailed bats	X	X		X	X	X	X
Mops condylurus	Angolan free-tailed bat	X	X		X	X	X	X
Mops niveiventer	White-bellied free-tailed bat	X	X		X			X
Myonycteris angolensis	Angolan Rousette							X
Myopterus whilteyi		X						

Myotis bocagii	Rufous myotis	X	X		X			X
Myotis tricolor	Temminck's myotis	X			X			X
Myotis welwitschii	Welwitsch's myotis	X	X					
Neoromicia sp.	Pipistrelles	X	X		X	X	X	X
Neoromicia capensis		X	X					
Neoromicia rendalli	Rendall's serotine	X			X			
Neoromicia zuluensis						X		
Nycteris sp.	Slit-faced bats	X	X		X		X	X
Nycteris arge	Bates's slit-faced bat				X			
Nycteris grandis	Large slit-faced bat	X						
Nycteris hispida	Hairy slit-faced bat				X		X	
Nycteris macrotis	Large-eared slit-faced bat	X	X				X	
Nycteris nana		X						
Nycteris thebaica	Egyptian slit faced bat	X	X		X		X	
Nycticeinops schlieffeni	Schlieffen's twighlight bat	X	X		X	X	X	X
Otomops martiensseni	Large-eared free-tailed bat							X
Pipistrellus sp.	Pipistrelles	X	X	X	X			X
Pipistrellus anchietae			X					
Pipistrellus grandidieri		X						X
Pipistrellus hesperidus		X						
Pipistrellus rueppellii	Ruppell's pipistrelle	X			X		X	
Rhinolophus sp.	Horseshoe bats	X	X		X	X	X	X
Rhinolophus blasii	Blasius horseshoe bat							X
Rhinolophus clivosus	Geoffroy's horseshoe bat		X					X
Rhinolophus darlingi	Darling's horseshoe bat							X
Rhinolophus fumigatus	Ruppell's horseshoe bat	X	X			X	X	
Rhinolophus hildebrandtii	Hildebrandt's horseshoe bat	X	X		X		X	
Rhinolophus lobatus	Lander's horseshoe bat						X	
Rousettus aegyptiacus	Egyptian rousette	X						
Rousettus lanosus	Hairy rousette			X				
Scotoecus albofuscus	Light-winged lesser house bat	X						
Scotoecus hirundo	Dark-winged lesser house bat	X	X		X		X	X
Scotophilus sp.		X	X		X	X	X	X
Scotophilus dinganii	Yellow-bellied house bat	X	X		X	X	X	X
Scotophilus leucogaster	White-bellied house bat	X	X			X		X
Scotophilus nigrita	Giant yellow house bat	X						

Scotophilus viridis	Green house bat	X	X				X	
Tadarida aegyptica	Egyptian free-tailed bat		X					X
Tadarida ventralis	Giant free-tailed bat							X
Taphozous mauritianus	Mauritian tomb bat	X	X		X	X	X	
Triaenops persicus	Persian trident bat	X	X					X

Our Partners and Sponsors