

Options for MSc or MRes Studies with African Bat Conservation and 2025-2027 in Malawi

www.africanbatconservation.org



Contact Dr Emma Stone to discuss your project options:
Els201@bath.ac.uk

1. Roosting ecology of Mops bats in urban/suburban areas of Malawi (MSc or MRes).

This study requires the student to pay for their own flight, accommodation and subsistence during the field season. Accommodation is provided at the ABC Conservation Research Centre in Lilongwe, Malawi.

The project involves assessing the roosting preferences of Mops bats in urban areas using a range of methods from radio telemetry, community surveys, tagging and direct observation techniques. These bats are found in houses in communities in Malawi and are common agents of Human bat conflict. This study aims to provide critical information to inform conflict management and develop mitigation strategies for conservation. Ideally you will need to have some radio tracking experience and you will need to use QGIS/R analysis of landscape level roost predictors.

2. Impacts of lighting on bats in Malawi (MSc or MRes)

This project requires the student to pay for their own flight, accommodation and subsistence during the field season, based at the ABC Conservation Research Centre (ABC CRC) in Lilongwe, Malawi.

Very little is known about the impacts of lighting on African bats. The field based Malawi project would involve conducting a novel experiment at bat roosts and or foraging areas using a lighting remote lighting unit to assess the impacts of different light types on bat emergence and foraging activity of Mops bats, Tomb bats and Nycteris bats.

3. Roosting and behavioural ecology of banana bats (*Neoromicia nana*) in Malawi (MSc/MRes)

The student will need to pay for their own flight, accommodation and subsistence during the field season, based at the ABC Conservation Research Centre (ABC CRC) in Lilongwe, Malawi.

Very little is known about the behavioural ecology (specifically spatial and foraging behaviour) of most bat species in Malawi and this information is needed to inform conservation management. This study will involve radio tracking Banana bats (*Neoromicia nana*) from known roosts within a banana plantation in Malawi at the ABC field station in either Lilongwe. The student will also conduct regular counts of the banana plants in the plantation to record roosting frequency of bats, as well as roosting height, plant height, etc. to determine predictors of roost occupancy. Funding would be needed for tags and fuel. ABC has radio tracking equipment and a vehicle. You will need to use QGIS/R to conduct home range and compositional analysis of habitat use by bats.

4. Behavioural Ecology (Foraging and spatial behaviour) of *Nycteris* bats in Malawi (MSc or MRes)

This study requires the student to pay for their own flight, accommodation and subsistence during the field season. The field work will take place in Malawi at any of our field sites.

Very little is known about the behavioural ecology (specifically spatial and foraging behaviour) of most bat species in Malawi and this information is needed to inform

conservation management. This study will involve radio tracking specific bat species from known roosts in Malawi at the ABC field stations located in either Lilongwe or Kuti Wildlife Reserve. Funding would be needed for tags and fuel. ABC has radio tracking equipment and a vehicle. You will need to use QGIS/R to conduct home range and compositional analysis of habitat use by bats.

5. Diversity and genetics of bats in Mulanje Mountain Malawi (MSc or MRes)

This study requires the student to pay for their own flight, accommodation and subsistence during the field season. The field work will take place in Malawi at any of our field sites.

Very little is known about the bat diversity, roosting ecology and genetics of bats in [Mulanje Mountain](#) in Malawi and this information is needed to inform conservation management. This study will involve conducting standardised harp trapping, mist netting, and acoustic surveys on Mulanje Mountain in southern Malawi in collaboration with Mulanje Mountain Conservation Trust (MMCT). The student will need to have some experience of bat trapping and surveys and will be based at the MMCT research station in Mulanje Mountain in Southern Malawi near Thyolo. Funding would be needed for fuel and travel as the site is located around 8 hours drive from the main ABC research station in Lilongwe. ABC staff can join the student at the research station to assist in surveys. The student will need to use acoustic analysis to identify bat echolocation calls.

6. Diet of bats in Malawi across habitats (MSc or MRes)

This study has the option for work in Malawi or can be solely based in the UK. The Malawi option requires the student to pay for their own flight, accommodation and subsistence during the field season, based at the ABC Conservation Research Centre (ABC CRC) in Lilongwe, Malawi.

Very little is known about their diet of most bat species in Southern Africa as a whole. The field based Malawi option would involve trapping bats at roosts and during free flight using harp traps and mist nets during field surveys with ABC. Fecal samples can then be analysed both in Malawi in ABC lab at the ABC CRC using a microscope or can be taken to the UK for lab and/ or genetic analysis (subject to funding for the genetic work).

For the non field-based option samples will be sent to the UK for analysis at the host university lab.

7. Abundance and diversity of bat parasites in Malawi (Species and site comparisons) (MSc or MRes)

This study requires the student to pay for their own flight, accommodation and subsistence during the field season. Students can be based in the UK or Malawi. If based in Malawi the student needs to pay for their own flight, accommodation and subsistence during the field season. Accommodation is provided at the ABC Conservation Research Centre in Lilongwe, Malawi.

Very little is known about the body parasites of bats in Africa, let alone Malawi. This information is needed to inform human wildlife conflict management and bat conservation management in Malawi. This study will involve lab based analysis of body parasites of bats, as well as trapping of bats at roosts and in free flight (using harp traps, mist nets) to collect body and wing parasites. Students can be based at any of the ABC field stations located in either Lilongwe, Kuti Wildlife Reserve. ABC has lab facilities with microscopes, so that analysis can be conducted in Malawi or samples taken to the UK if required. Students will need to learn lab based parasite identification.

8. Using drones to identify bat roosts in urban areas of Malawi (MRes)

The student will need to be registered at UWE for their MRes and will be part of the UWE Bat Lab. The student will need to pay for their own flight, accommodation and subsistence

during the field season, based at the ABC Conservation Research Centre (ABC CRC) in Lilongwe, Malawi.

This project aims to use a novel approach to identify and survey bat roosts in buildings using thermal drone technology. This option would involve conducting drone surveys over the city and suburban areas to identify roosting bats. Once roosts are located the student will then visit roosts and conduct roost counts (internal and external) to identify numbers and species of bats. Students will need to be registered at UWE to complete this project and be able to use the thermal drone.

9. Disturbance and predation effects on Eidolon helvum (Straw coloured fruit bat).

*This study requires the student to pay for their own flight, accommodation and subsistence during the field season. Accommodation is provided at the ABC Conservation Research Centre in Lilongwe, Malawi. This **project is only possible from November to March** each year as *E. helvum* are migratory.*

Little is known about the nature extent and effects of predation by birds on fruit bat colonies. This project aims to assess the nature and extent of predation by pied crows on the threatened *E. helvum* colonies in Lilongwe City. Colony observations will be conducted using scan and ad libitum sampling to quantify rates, patterns and outcomes of predation events on colony numbers and activity. This project forms part of the ABC Eidolon Ecology Project in Malawi. Students will be based at the Urban Conservation Research Centre in Lilongwe, and supported by the ABC Urban Research Team. Field work is restricted to Oct – March each year as the colony is migratory and only present at this time.

10. Acoustics of Malawian bats

The student needs to pay for their own flight, accommodation and subsistence during the field season. Accommodation is provided at any of our research sites (e.g. ABC Conservation Research Centre in Lilongwe, or Kuti Wildlife Reserve, Mulanje Mountain. Students may be able to choose to spend time at some, one or all of our sites.

This project forms part of the long term ABC Bat Acoustics Project which aims to assess and describe the acoustics of bats Malawi. Students will collect acoustic recordings to assess species and collect hand recordings from trapped bats to confirm ID. Students will quantify call characteristics using acoustics software (R, Bat Classify, Batexplorer or KaleidoscopePro). Data will be used to inform conservation management, and augment the ABC call library and bat population monitoring in Malawi.

11. Behavioural and roosting ecology of Epauletted fruit bats in Malawi (MSc or MRes).

This study requires the student to pay for their own flight, accommodation and subsistence during the field season. This project is based at the urban research site in Lilongwe and /or Kuti Wildlife Reserve.

This would involve GPS tracking of Epauletted fruit bats in Lilongwe and or/Kuti Wildlife Reserve. Little is known about the behaviour and ecology of fruit bats in urban areas. This study will involve GPS and Radio tracking specific fruit bat species from known roosts in Malawi at the ABC field stations located in either Lilongwe or Kuti Wildlife Reserve. Funding would be needed for tags and fuel. ABC has radio tracking equipment and a vehicle. You will need to use QGIS/R to conduct home range and compositional analysis of habitat use by bats.

12. Behavioural and roosting ecology of bushbabies in Malawi (MSc or MRes).

This study requires the student to pay for their own flight, accommodation and subsistence and fuel costs during the field season. This project is based at the urban research site in Lilongwe and /or Kuti Wildlife Reserve.

This would involve conducting spotlight counts of Galagos/Bushbabies in Lilongwe and or/Kuti Wildlife Reserve and other field sites where possible. Little is known about the behaviour and ecology of bushbabies in Malawi, especially in urban areas. This study may involve GPS / Radio tracking specific species subject to funding. Funding would be needed for tags and fuel. ABC has radio tracking equipment and a vehicle. You will need to use QGIS/R to conduct home range and compositional analysis of habitat use by bushbabies. ABC has been monitoring bushbabies in their bat boxes in Lilongwe so these sites could be used as part of the study.