

**Options for MSc or MRes Studies with African Bat Conservation and 2018-2019 in Malawi**

[www.africanbatconservation.org](http://www.africanbatconservation.org)



Contact Dr Emma Stone to discuss your project options contact  
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**1. Roosting ecology of Mops bats in urban 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.

**2. Behavioural and roosting ecology of *Lissonycteris* 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. The field work will take place in Malawi in collaboration with [www.africanbatconservation.org](http://www.africanbatconservation.org).*

This would involve VHF/GSM tracking of *Lissonycteris* fruit bats at Satemwa tea estate in the Thyolo highlands in southern Malawi. *Lissonycteris* fruit bats have only just been recorded in Malawi by ABC and nothing is known about their roosting, foraging, diet and breeding habits in Southern Africa as a whole.

**3. 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.

**4. Behavioural Ecology (Foraging and spatial behaviour) of 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 Vwasa Marsh

Wildlife Reserve. Funding would be needed for tags and fuel. ABC has radio tracking equipment and a vehicle.

#### **5. 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, Nyika NP, or Vwasa Marsh 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.

#### **6. 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.

#### **7. Bat box occupancy in urban areas 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.*

This project forms part of the ABC Urban Bat Project which aims to assess the ecology of bats in urban Africa. Students will conduct regular bat box checks to assess species occupancy and co-occurrence of bat boxes in established bat box schemes in Lilongwe city. The student will assess age and sex related levels of occupancy and co-habitation, bats will be uniquely identified using rings to assess patterns of co-occupancy. Data will be used to inform conservation management and bat population monitoring in Lilongwe. Boxes can be added to sites, and experimental projects testing different locations, box types etc are also possible.

#### **8. 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, Lifuwu Lake Shore Camp, or Vwaza Marsh*

*Wildlife Reserve Malawi. Students can 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 (Batexplorer or KaleidoscopePro). Data will be used to inform conservation management, and augment the ABC call library and bat population monitoring in Malawi.