

BAOBAB BLITZ 2016 REPORT  
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First of all, thank you so much for your participation in this project. It has turned up some very interesting observations which has prompted some wonderful discussions of future projects among the team. This event first originated when I had planned a project involving bat pollination behavior to take place in South Africa with my collaborators stating that they had never seen a bat visit a baobab there. The first thing we needed to accomplish was discovering what is actually visiting the trees and flowers and we couldn't have done all of this work without your help!

Despite two stormy nights on the originally scheduled Baobab Blitz dates of November 18<sup>th</sup> and 19<sup>th</sup>, the turnout and interest was spectacular! We had participants up until the 3<sup>rd</sup> of December, resulting in a total of 18 different trees being observed from all across northern South Africa and Zimbabwe.

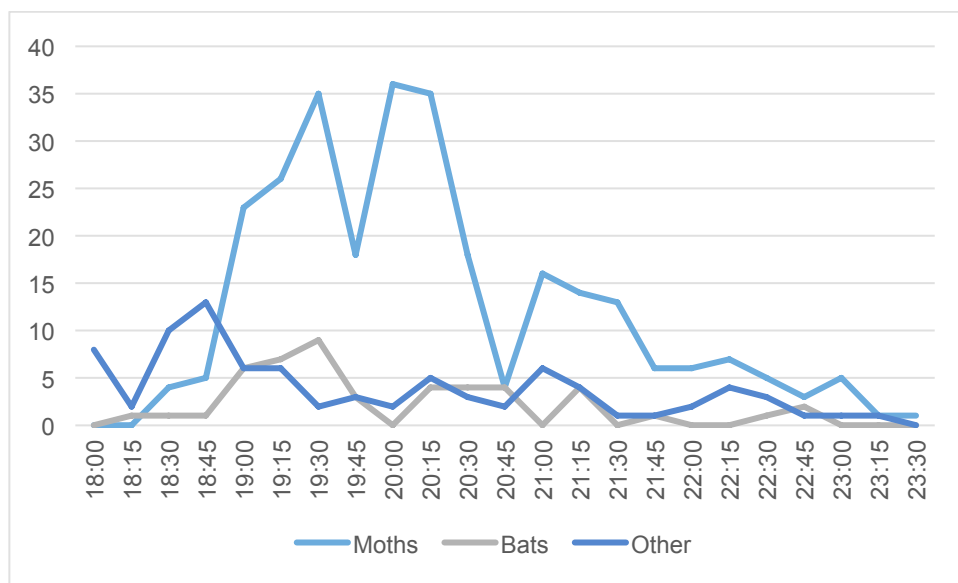


Figure 1. The sum of all visitors to the trees for each time interval over all nights of observations. Light blue is moths, grey bats, and all others in dark blue.

Our visitors to the trees ranged from hawk moths, to bats, to bushbabies, birds, and all sorts of other insects. We can see a peak in all moths just after it began to get dark at about 19:00 and activity falling just after 20:30. Moths dominated the observations of visitors to trees! The peak in bat activity just after dark, which is characteristic of insectivorous bats. We did our best to not include those insectivorous bat observations, but some remain.

There were a few fruit bat observations! These occurred at Goro Research Camp, Mogalakwena Research Centre, and Pafuri River Camp. These are particularly exciting and

demonstrate that bats are in the areas and at least visiting the trees even if not the flowers (Figure 2).

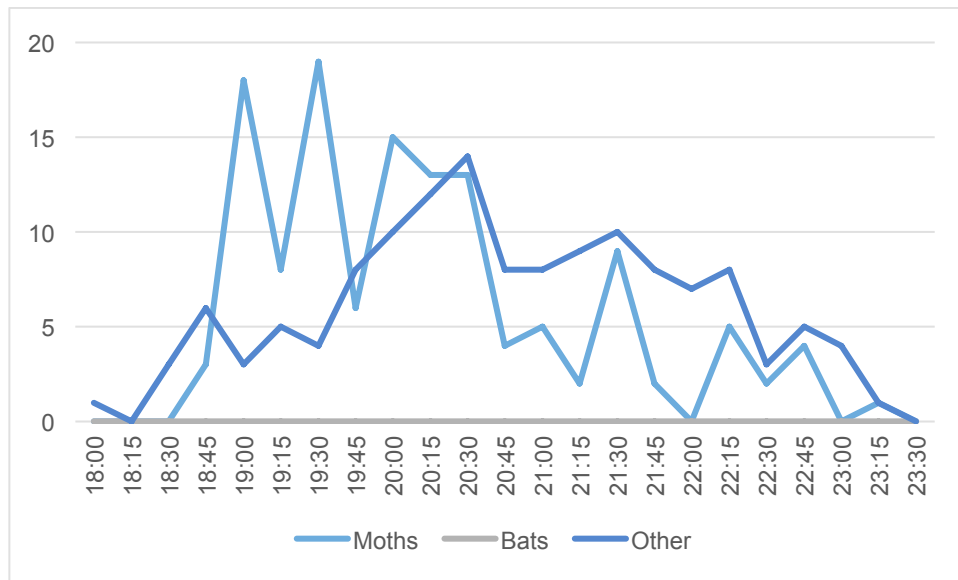


Figure 2. The sum of all visitors to flowers for each time interval over all nights of observations. Light blue is moths, grey bats, and others in dark blue (no bats to flowers).

While there were many moth visitors, not all of these moths were seen visiting the flowers (Figure 2). The other visitors rivaled them in their flower visitations, but their effectiveness as pollinators is questioned. Most of these other visitors were often the Christmas or rose beetles and sometimes bushbabies. The bushbabies were observed moving from tree to tree, but a majority of the beetles appeared to remain on the same flower. They seemed more interested in the anthers and pollen of a single flower instead of moving about the tree, let alone to another tree.

The most exciting observation was not actually captured in our data, but from participants at Chilo Gorge Lodge in Zimbabwe comes sightings of fruit bats visiting flowers at baobabs just outside their roost! To our knowledge, this is the southernmost observation of a fruit bat visiting a baobab flower.

Some may know that the Baobab Blitz Team was split on what we believed was pollinating the trees; some thought hawk moths and others bats. I was definitely wishing for bats, but these conversations and events made us all believe a little bit in the other.

The conversations that occurred via email and Whatsapp both before and after revealed some observations. Some from BirdLife Zimbabwe said that the best time for seeing bats at flowers was at 3am, well outside of the Blitz's observation times, but we would not be deterred! We had some observations throughout the night, but it can take some time for fruit bats to commute to foraging spots from their roosts, which may explain the 3 am observations.

Finally, another interesting observation was the lack of hawk moths at trees. From previous years the few moth observations are unusual. For example, after the rains in early December, I was at the baobab trees in Venda and observed within a half hour about 20 hawk moths in one tree and even more visits to flowers.

We're hopeful to follow up this Baobab Blitz with another one this coming year so that we can have comparison across years; this will help us know if the lack of hawk moths was due to drought conditions this year.

