

Project Update: September 2018

Since September 2017 I have been creating important partnerships to facilitate my research. The Trident Foundation, a conservation organisation based in Zambia's North Western Province (NWP), has committed logistical support and a small amount of travel funding for the project. Additionally, I submitted a permit application in early 2018, and only received permission for the research from the Zambian Forestry Department in early August 2018.

In July 2018, I moved to my NWP study site. I started data collection for the biological aspects of the study as well as pilot studies on forest product exploitation in August 2018. The socio-economic aspects of the work will commence in October 2018 and I am currently structuring and preparing questionnaires for this. Recently, I secured a travel grant to attend the 32nd Annual Meeting of the Scandinavian Association of Pollination Ecologists (SCAPE) in October, where I will present my research to date.



Aerial photo showing regionally endemic *Cryptosepalum exfoliatum* ssp. *pseudotaxus* trees (white) in flower. These are characteristic mavunda (Zambeziian dry evergreen forest) species. The primary flowering season commenced in July-August.



A) Traditional bark hive found during a pilot study on the exploitation of forest products. These are popular in Zambia's North Western Province. B) Discarded bark hive. C-D) There are significant impacts to woodlands as a result of traditional bark hive construction, which requires ring-barking mature trees. E) Trialling clay pots as alternatives to bark hives.



Figure 1: The flowering season commenced in August and pollinating insects have been busily visiting flowers in the miombo woodland. A-B) Flowers of the regionally endemic *Cryptosepalum exfoliatum* ssp. *pseudotaxus* tree being visited by stingless bees. Photographs were taken during 30 minute floral observations to gather information on plant-pollinator visitation networks, vital for understanding the importance of woodland species for pollinators and vice-versa. C) A honeybee visiting flowers of a *Burkea africana* tree. D) Sweetly scented flowers of the *Syzigium*

guinense tree, an important source of nectar. E) The striking flowers of the pink jacaranda *Stereospermum kunthianum*. F) Stingless bees collecting pollen from the vibrant flowers of a *Senna singueana* tree.



Using the double-rope technique to climb trees for floral observations in the forest canopy.