LIVING WITH HUMANS

HOW DISTURBANCE AFFECTS THE ZANZIBAR RED COLOBUS

Zanzibar Red Colobus Project

PRIFYSGOL BANGOR UNIVERSITY

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Physiological markers can give us an insight into the detrimental effects of anthropogenic disturbance on wildlife. Oxidative stress is one marker that reflects how animals both respond and adapt to their environment, making it a useful conservation tool. I will investigate the effect of 4 human-induced threats on oxidative stress of the endangered Zanzibar red colobus in Jozani-Chwaka Bay National Park. This will contibute to conservation planning for this species.

AGRICULTURE

Fifty percent of the Earth's land has been modified by human activities. Conversion of land to agriculture changes food availability for primates. This can deprive them of natural antioxidants and reduce food availability, potentially leading to increased oxidative stress.

I will test whether colobus living in agricultural areas have higher oxidative stress than those living in the forest.

TOURISM

Jozani-Chwaka Bay National Park receives 60,000 tourists per year. Tourism is a great source of income for conservation however excess exposure to close-proximity humans can generate anxiety in wildlife, possibly elevating oxidative stress.

I will compare oxidative stress across groups exposed to different levels of tourism and test whether high numbers or close proximity of tourists have the biggest influence.

TRANSPORT

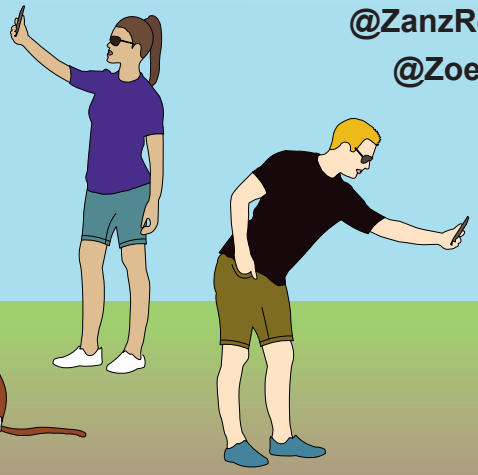
In Zanzibar, road pose a mortality risk to colobus through traffic collisions. It is likely that colobus living near roads will have higher levels of stress because of this.

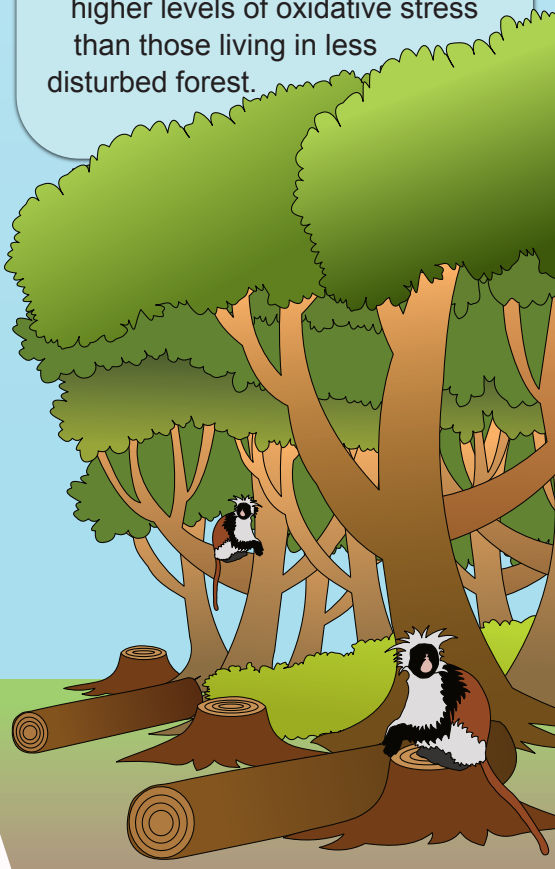
I will test whether groups living near roads have higher oxidative stress than those living away from them and whether groups that live near the road have higher oxidative stress in seasons when they cross more frequently.

DEFORESTATION

Deforestation places colobus monkeys under a multitude of pressures, including restricted food availability, limited home range size and increased contact with neighbouring groups.

I will test whether groups living in more disturbed forest experience higher levels of oxidative stress than those living in less disturbed forest.





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@ZanzRedColobus

@Zoe_Melvin