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The red fox's diet and impacts on game, livestock, and endangered species in Cyprus, May 2024

The purpose of my travel was to collect data for my master thesis which will define the diet of the red fox (V*ulpes vulpes*) in Cyprus. I went to Cyprus for the month of May and analysed the contents of around two hundred red fox stomachs which had been collected by the Cyprus Game and Fauna Service (GFS) in 2023. I organised the stomachs into location, date, and habitat. This will allow me to determine whether these factors cause variation in the diet once I move onto the data analysis. I also identified whether the red fox consumed any domestic, endangered or game species. On the side of my stomach analysis, I also assisted in scat transects and camera trapping surveys. This study is a part of a larger PhD project, created by Konstantinos Perikleous, that aims to fill the current gaps in knowledge on the ecology of the red fox in Cyprus. This information will then be used to inform officials when making management decisions.

For the stomach analysis, I examined the contents in a white tray using forceps. PPE was used during the analysis to avoid direct contact with the stomach contents and ethanol used to preserve the samples. Contents were split into categories starting from class e.g. Mammalia, to order e.g. rodent, family e.g. Muridae, and then finally to species if this could be determined e.g. *Rattus rattus*. When items could not be identified down to at least class level, I took a sample so that I can determine them later with the aid of an identification key. Mammal species have unique 'scale patterns' on their hairs and so distinct species can be identified by looking at the hairs under a high-resolution microscope. As hair samples cannot be imported into the UK due to biosecurity reasons, I took imprints of the scale patterns on microscope slides, and I will be taking these back to the UK for analysis. Once the stomach contents had been split and identified, I noted down the volume of each food item. This will allow me to determine the red foxes diet composition.

I was also lucky enough to assist in some scat transects and camera trapping surveys. This involved walking a 2km line and placing camera traps every five hundred metres whilst we also looked for fox scats. The camera traps along with the scats will allow us to see how many red foxes inhabit the area allowing the PhD student to estimate the abundance of foxes nearby. The camera traps will also show other species such as hares, game birds and mouflon (Cyprus sheep) allowing us to see the type of prey available to foxes within the area. The PhD student plans to place transects in different habitats across Cyprus to get an accurate abundance of red foxes.

I thoroughly enjoyed my trip to Cyprus. I wish to research carnivores in the future and therefore the fieldwork skills I have gained will be extremely valuable to me. Furthermore, having had the chance to collaborate with Konstantinos and other enthusiastic researchers and conservationists in-person has been an insightful and valuable networking experience.

Left: Red fox on a trail camera. **Middle:** Me out on a transect. **Right:** Our camera trap setup.

Left: Picking up scats. **Middle**: Sorting stomach samples. **Right:** Analysing stomach samples.

Left: Me getting immersed in Cyprian cooking. **Middle:** Finding our inner fox. **Right:** Maya our mascot!