

The diet of a small carnivore in a recovering semi-arid landscape



Cape grey mongoose, *Galerella pulverulenta*, an endemic mesocarnivore of southern Africa and potential bioindicator

Background

The Nama-Karoo is a dry region on the central plateau of southern Africa, with extreme temperatures and unpredictable rainfall (Mucina et al. 2006). It is threatened by over-grazing, mining and climate change (Mucina et al., 2006).

This habitat has a wide range of plants and animals, (Woodgate, Distiller and O’Riain, 2018) which are highly adapted to the variable conditions (Dean and Milton, 1999). Small carnivores are abundant and, as opportunistic foragers, analysis of their diet could offer a simple way to collect occurrence data on a wide range of more difficult to survey prey species, like rodents (Torre, 2004).

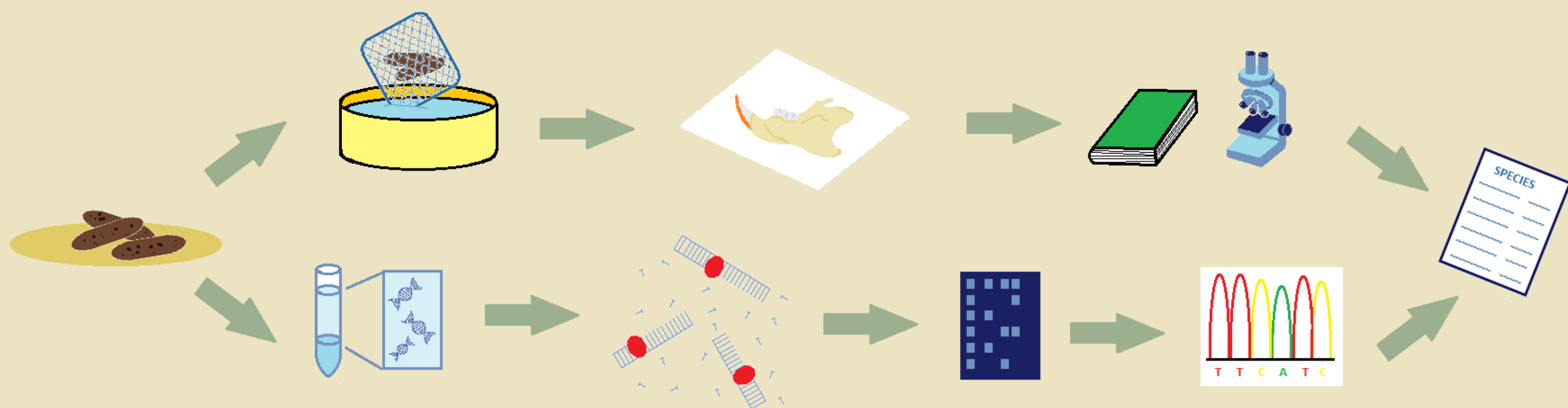
Why?

- Discover what cape grey mongooses feed on in the study area, and establish a methodology for future monitoring.
- Evaluate whether small carnivore diet can be used to monitor prey species in this area.
- Add to knowledge about diet flexibility in desert biome communities.

Method

I expect to collect and analyse up to 200 scat samples from a site in southwest Namibia to identify prey species and assess their relative dietary importance.

Morphological analysis - using remains



Molecular analysis - using DNA

Results

The record of prey species will create a baseline dietary ‘reference index’, and establish a procedure for long term monitoring. The DNA analysis should identify under-recorded, soft-bodied prey, such as amphibians. This will add to knowledge of the species communities and interactions in a recently restored area of one of the least studied biomes (Trimble and van Aarde, 2012).

A semi-arid, or xeric, landscape in Namibia



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