



Small Mammal Demography: Trapping procedure

1. Traps are set up 3 hours before and after sunrise and sunset. This schedule increases the probability to trap diurnal and nocturnal species (Keller 2008). Traps are controlled every 3 hours in order to avoid trap death and increase capture rate.
2. Pre-baiting of small mammals is done for two days before a three-day trapping period starts, where we leave traps open. Pre-baiting serves to habituate small mammals to the trap environment and is set up 3 hours before and after sunset. Bait is a mixture of peanut butter, apple and seeds (earthworms for shrews).
3. In total, on each transect 16 Procter trip traps and eight Sherman traps are placed in alternating order. Traps should be placed in proximity (within 5m) of the transect line in a shaded place, preferentially near holes. During trapping, researchers get up 3 hours before sunrise (sunrise at ~6:30 AM) and open traps ready for capturing. After that researchers control traps every 3 hours.
4. Trapped animals are placed in a plastic bag and the animal released. The animal is then sedated with one or two drops of ether on cotton wool and we wait until the animal is drowsy. Care should be taken to avoid ether comes in contact with the nose and mouth of the animal. The animal is then weighed, identified, photographed, measured, sexed and marked with a marker pen (alternatively individuals can be marked by hair cutting). Note that all the animal capturing and handling procedures follow the guidelines of the American Society of Mammalogists (Gannon, 2007).
5. Notes on trap location and trap type are also taken. All data will be collected taking notes in a notebook with given guidelines. Handling time (wearing cotton or rubber gloves) is short and as efficient as possible and if possibly done when the animal is still in the plastic bag. After the animal is fully awake again, it is released and the trap is re-baited and opened for further trapping.
6. We describe our results by looking at the trapability of small mammals, trap deaths etc. Diversity ($H = -\sum p_i \ln p_i$), evenness and richness can be compared between different habitat types (vegetation survey not outlined). We can look at correlations between small mammal richness and vegetation height, perennial grass species.

- Caro TM (2001) Species richness and abundance of small mammals inside and outside an African national park. *Biological Conservation* 98: 251-257
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- Gannon WL (2007) Guidelines of the American Society of mammalogists for the use of wild mammals in research. *Journal of Mammalogy* 88: 809-823
- Keller CS (2008) Plant and small mammal richness correlate positively in a biodiversity hotspot. *Biodiversity Conservation*.