

Two-step storage of feces for DNA analysis

Materials needed:

1. Ethanol (buy at a pharmacy in country, 97% is best but 90% or even 70% will work, make sure to make notes about what % was used) [BUY IN COUNTRY]
2. Empty 50 mL tubes [SENT FROM MPI]
3. 50 mL tubes containing silica gel beads and topped with a kimpwipe/tissue [SENT FROM MPI]
4. Gloves [SENT FROM MPI]
5. Data collection sheet (paper copy (see below) and electronic version)



Preparation:

1. Wear gloves
2. Pour approximately 30 ml of ethanol into each of the **empty tubes** for sample collection.



Collection:

1. Wear gloves
2. Collect each fresh feces sample (approx 5 g – approximately the size of a small walnut, 3cm wide) into a tube containing ~ 30 ml ethanol.
3. Label tube (but remember this tube will be discarded) with a unique identifier and date (GPS location, collector name, species collected, field site of collection if possible).
4. Fill out paper data sheet with collection and label information.



It is very rare, but occasionally a tube containing ethanol will leak and cause the writing to wear off itself and adjacent tubes. It is best to just put a few ethanol containing tubes together in any single plastic bag to minimize potential losses of information.

Processing:

Ideally this is done 24 hours after collection but can be done up to one week after collection

1. Wear gloves
2. The fecal sample will either have maintained its shape and structure (fecal bolus) or have dissipated into the ethanol and have formed a sludge. Carefully pour out as much ethanol as possible.
 - a. If the fecal bolus is intact, it should be simple to pour off all of the ethanol and then transfer the bolus **onto the kimpwipe** in the silica tube, close lid.
 - b. If a fecal sludge has formed, let the sludge settle to the bottom of the tube and then decant as much ethanol from the tube as possible (it is OK to lose some fecal sludge at this step). Then, transfer the sludge **onto the kimpwipe** in the silica tube, close lid.



!!! DO NOT REMOVE THE KIMWIPE/TISSUE !!!

3. The tube should be labelled again, with the unique identifier and date (GPS location, collector name, species collected, field site of collection if possible).
4. Store at ambient temperature.
5. All samples and associated information should be entered into an electronic spreadsheet and this spreadsheet should be sent with the samples.



Reference: Nsubuga AM, Robbins MM, Roeder A, Morin P, Boesch C and Vigilant L (2004) Factors affecting the amount of genomic DNA extracted from ape feces and the identification of an improved sample storage method. *Molecular Ecology* 13: 2089-2094.

