COLLECTION AND STORAGE OF MATERIAL FOR PHYLOGENETIC ANALYSES

Background
The South African National Biodiversity Institute (SANBI) is mandated to manage, control and maintain biodiversity collections.

Policy
Staff within the Biosystematics Research and Biodiversity Collections Division will routinely collect plant material for storage in a silica gel DNA bank and make this material available to SANBI staff or the external research community to support molecular phylogenetic studies.

Process
1. Collection
   - Small samples of plant material, usually young leaves, are stored with silica gel as a desiccant at -20°C. The samples may either be placed in tea bags (commercially available) and these stored in a container of silica, or placed together with the silica in a self-sealing plastic bag.
   - To ensure rapid desiccation, the cutting of large leaf material into smaller fragments using clean implements is encouraged.
   - For succulent taxa, the epidermis is peeled off and placed in the silica gel and the rest of the material discarded.
   - Silica gel must be checked quarterly for saturation at which time it should be replaced or regenerated by heating in an oven.

2. Vouchering
   Each sample is linked to a preserved voucher specimen deposited in one of SANBI’s three herbaria, with duplicates for own institutions and/or collaborators. The herbarium voucher label must clearly indicate in the notes section that it has an associated component stored in silica gel. The information applicable to that component is identical to, and available off, the voucher itself or from the specimen database.

3. Requisition
   Material from the silica gel DNA Bank collection is available on request.

Terms and conditions
The material may be stored in containers in a freezer at each herbarium and managed by the relevant collectors until a permanent facility and the necessary infrastructure to manage such collections is put in place within SANBI.