Explanation of fields for data collection

The collection of data associated with the species or populations from which seed is taken is a vital contribution to knowledge about these plants. Habitat information such as rainfall, altitude, slope, landform, aspect, geology, vegetation physiognomy, associated species and soil characteristics have important implications for restoration ecology and amelioration applications. Population characteristics (phenology, number of plants, % of population producing seed, pollination and dispersal mechanisms, predation etc.) are useful data for conservation authorities, and information about the plants themselves (form, height, flower/fruit morphology etc.) is required by taxonomists and systematists.

Bold and italicized fields must be completed, italicized only fields are optional

Location and Date Data

NRCS Plants Code four to 6 digit code for collected species http://plants.usda.gov/ Date seed collected/ date herbarium voucher collected The date of collection is very useful in phenological studies and should always be included. Collection number Generated at CBG. Do not fill *Collectors* All active participants should be recorded. *Country* No explanation necessary *Ecoregion* The Nature Conservancy created regions listed at http://www.nps.gov/plants/sos/species/ecoregion.htm#text Ex. Osage Plains/Flint Hills Prairie. Omernik ecoregions can be found at http://nationalatlas.gov/mld/ecoomrp.html *State* No explanation necessary *County* No explanation necessary *City* No explanation necessary Location/Site Name Directions to the locality, e.g. .211 km from Pretoria on N1 to Petersburg. This information helps relocate a population without the use of a GPS. *Latitude/Longitude* Lat/longs are determined with a portable Geographical Positioning System (GPS). RBG Kew usually uses the Garmin 12XL model, but not exclusively. Ideally, the GPS datum WGS84 should be used. If another datum is used, please state which in the box provided. GPS co-ordinates are generally accurate to 10-15 m.

GPS Datum All GPS units can be set to a myriad of different ones. Record the one that your GPS is set to

Elevation GPS units will provide

Landowner details Owner's name and if a permit is obtained. You should always have permission before collecting!

<u>Habitat Data</u>

Habitat description of where species is generally occurring. Ex. South slope of hill, ditch on the side of the road, disturbed area, etc.

Associated species using latin names List the most common species

Modifying factors Factors which may impact on the species collected. These may be the result of position (e.g. roadside), land use (e.g. browsing, wood cutting) or susceptibility to elements (fire, flooding etc.).

Land form The level of detail required here is at the collector's discretion. At the very least, a description of local topography should be provided (e.g. flat, undulating, mountainous etc.). *Slope* An estimate in degrees or an indication of steepness (e.g. 30°, slight slope etc.).

Aspect If a collection is made from a slope, the aspect (i.e. the direction the slope is facing) should be recorded. This information gives an indication of sun, shelter etc. experienced by the plant.

Land use No explanation necessary. Examples include: farming, protected area, timber etc. *Geology* The level of detail required here is at the collector's discretion

Soil colour, and texture Soil colour charts (e.g. Munsell) may be used if available. If not, an ocular estimate of soil colour is a useful record. Soil texture (sand/loam/clay) is best estimated by rolling a sample of soil between finger and thumb.

Collection Data

Family, genus, species, infra-specific No explanation necessary. This is a field identification. Verified herbarium identifications should be detailed in the spaces provided on the back of the form.

Number of voucher duplicates Two voucher specimens is a minimum; one

for the MSBP to be held at Royal Botanic Gardens, Kew and one for Chicago Botanic Garden. *Area sampled* No explanation necessary.

Number of plants sampled This information, together with the number of plants found, gives an idea of what percentage of the population has been sampled. This is important information in genotypic sampling.

Number of plants found i.e. an estimate of the size of the population.

Seeds collected from: No explanation necessary

Plant habit: No explanation necessary

Plant height: average or range is fine

Common Name(s) of Plants; Use USDA listed name

Voucher Data

Does the pressed specimen have the same reference as the seed collection: Not pertinent to CBG collectors Notes to assist ID of pressed specimen: note things that may change (or fall off) in the pressing process Photograph taken-optional Reference: leave blank Where image will be filed: CBG Number of Pressed Specimens-self explanatory

If you have four or more vouchers, please list which herbarium it should be sent to. A third herbarium always go to US National Herbarium

If identified by a specialist, give credit where credit is due!

<u>Pre-Collection Checklist</u>

Most of this self-explanatory, but for the estimate number of healthy seeds per fruit and number of fruits per individual know what are seeds and what are a fruits!