PROTOCOL: Preparation and Storage of Dry Vegetation

(i) **Equipment**

- Wiley Mill with 20 mesh (0.84 mm) openings
- Drying Oven (set to 65 °C)
- Compressed air hose

(ii) **Consumable materials**

- 4 oz. glass straight sided jars with rubber lined lids (for storage samples)
- 20 ml glass scintillation vials (for working samples)
- 16 oz. mason jars with lids
- Various sized brushes
- Denaturalized alcohol

(iii) **Sample preparation**

- Immediately upon arrival in the Spectranomics Laboratory, remove dried leaf samples from plastic vacuum sealed bags, place into paper bags and re-dry them at 65 °C for at least 24 hours.
- Once dry, place paper bags into large Tupperware storage boxes with desiccant packets and seal until grinding.
- Always keep samples out of direct light and large temperature extremes.
- Obtain a sample out of dry storage boxes.
- Double check that all petioles and stems are removed from leaves before grinding the sample.
- Grind sample in a Wiley mill fitted with a 20 gauge mesh and jar attachment.
- Homogenize large samples in 16 oz mason jars.
- Divide samples into 4 oz. jars and label with the sample code.
- Fill a 20ml glass scintillation vial halfway to create a “working sample” for each specimen.
- Between each sample, make sure to leave the mill without any residuals from the previous sample. To do so, blow directly to the mill with the Compressed air hose.
- Clean all the parts of the mill that have been in contact with sample with denaturalized alcohol.
- Place sample jars in their respective storage boxes (working and storage).
- Leave lids resting on jars, but not screwed and re-dry samples at 65 °C for at least 48 hours.
- Remove jars from oven and quickly seal them so moisture does not re-enter the sample.

(iv) **Storage procedure**

- Store ground working samples in labeled trays of 100 in secondary boxes in the lab to protect them from light.
- Store larger ground samples (4 oz. jars) in labeled boxes in the warehouse.
- Enter the information about the sample and its location in the “Dry sample tracking datasheet”, including the number of vials generated for the sample and the date the sample was processed and stored.