

### **Bulk Density and Human Impact**

**Purpose:** Using soil cores, total pore space will be determined from bulk density calculations at discrete locations\* on and off trails, ultimately correlating the outcomes to estimated impact of human foot-traffic.

**Hypothesis:** Percent total pore space will vary directly with intensity of foot-traffic.

**Methods\*\*:** Soil cores of a known volume will be acquired with the use of soup cans. Weight of samples will be determined both when hydrated and dehydrated. Samples will be dry-baked at low temperatures in order to evaporate water from pore spaces. Using hydrated weights, dehydrated weights along with soil volume, bulk density and particle density will be calculated. From these calculations percent total pore space will be determined. Human impact over a period of time will be estimated using log-book entries at the two studied trails.

**Possible Errors:** Sites will invariable consist of differing soil types and consequently different grain sizes, hence comparisons of pore space may be skewed.

\* Locations have yet to be determined.

\*\* Finer details of methods are still in discussion and open to suggestions!