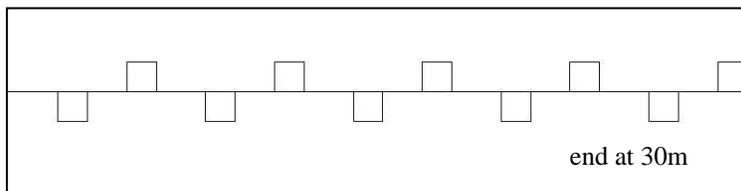


Vegetation Sampling using a 1-meter quadrat frame

1. Quadrat sampling the frequency of occurrence and estimated cover of plant species.

The quadrat technique is a rapid method for recording the number and percentage cover of different species. A quadrat sample frame is constructed of plastic PVC and is placed directly on top of the vegetation at specific intervals. A 1 x 1 meter plot is used to observe plant species and the percent cover of the understory plants only (excluding all woody plants) every 3 meters along a 30-meter long transect. The observer estimates the percentage of the quadrat covered by the plant species and the percentage bare soil.

Place the quadrat along the tape. Stretch the measuring tape between the two rebar posts that begin and end the transect location. Place the quadrat frame every 3 meters on alternating sides of the measuring tape starting on the right side of the tape at the three meter mark. Start by placing the first quadrat location at the 3 meter point on the tape (quadrat is aligned from 3-4 meters) on the right side and when finished recording



observations move the quadrat to the 6 meter mark on the left side of the tape. A total of 30 square meters are observed on each transect. The figure above shows how the quadrat frame alternates from right and left side.

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Make and record observations. Once the quadrat is placed on the ground, begin listing all the plants that are covering the space in the quadrat including any grasses, shrubs and trees on the Quadrat Sampling Form.



Use the four letter code of the species with the first two letters of the genus and first two letters of the species. For instance, Blue Grama grass would be recorded as "BOGR" for *Bouteloua gracilis*. As you record each species, use the Plant Code List to list the code, scientific name, and common name of each species. If you don't know the name of a species, assign it a temporary code such as PG1 for "perennial grass number 1", take a sample of the grass in a ziplock bag, and

record it on the Plant Code List. Every time you see the same kind of grass, record it on the Quadrat Sampling Form as PG1. You will press this plant within 48 hours and identify it to the best of your ability and give it a final code later.

When estimating the percent cover of plants look down on the quadrat from above and estimate the percent cover by each species. Then look up if there is a tree canopy and

estimate the percent cover by the trees. When sampling with two or more people, it is helpful to say out loud what your estimate is then come to agreement between the group before recording your estimate. Species often overlap and there may be several different layers of vegetation, The percentage cover may add up to over 100% for an individual quadrat.

As the final step observe and record the estimate of percent bare soil that has no vegetation cover. Bare soil is defined as any earth or rock that has no vegetation covering it. Record and moss as "M".

Reference: Sampling Vegetation Attributes by the Bureau of Land Management 1999.