GRASSY BALD (SEDGE SUBTYPE)

Concept: Grassy Bald (Sedge Subtype) is a natural high elevation meadow with dense herb cover dominated by species of *Carex*, though patches with grasses and forbs are also present and some examples now have extensive patches of shrubs or *Rubus*. The Sedge Subtype often occurs in a mosaic with other Grassy Bald subtypes. Sedge-dominated wetlands and areas resulting from recent forest clearing should not be included.

Distinguishing Features: Grassy Balds are distinguished from other natural communities by the natural dominance of dense herbaceous vegetation in high elevation upland sites that are not rock outcrops or glades. The Sedge Subtype is distinguished from the Grass Subtype by the dominance of *Carex* spp. It is distinguished from the Alder Subtype by the absence or only sparse presence of *Alnus crispa*. High Elevation Rocky Summit communities may contain some of the same species but have limited herbaceous vegetation and extensive bare rock. Northern Hardwood Forest (Beech Gap Subtype) has similar *Carex* dominated herbaceous cover but has a well-developed tree canopy.

Synonyms: *Carex pensylvanica* Herbaceous Vegetation (CEGL004094).
Ecological Systems: Southern Appalachian Grass and Shrub Bald (CES202.294).

Sites: The Sedge Subtype occurs in settings similar to the other subtypes, on gentle to moderate slopes, ridgetops, and broad domes at high elevation.

Soils: Most soils are mapped as the Burton series (Typic Haplumbrept).

Hydrology: Sites are high convex slopes and are well drained, though seeps may be embedded in them. They are mesic due to high rainfall, frequent fog, and low temperatures but are exposed to drying winds.

Vegetation: The Sedge Subtype has dense herbaceous vegetation dominated by species of *Carex*. *Carex pensylvanica* usually is the dominant species, and *Carex flexuosa* and *Carex brunnescens* var. *sphaerostachya* are frequent. *Danthonia compressa* and other grasses are often intermixed. Other high constancy species in CVS plot data include *Dennstaedtia punctilobula, Angelica triquinata, Rumex acetosella,* and *Anemone quinquefolia*. *Rubus canadensis* also is present in most plots. Species that are fairly frequent include *Houstonia serpyllifolia,* and *Erythronium americanum* ssp. *americanum*. Additional species in CVS plots include *Luzula echinata, Lysimachia ciliata, Nabalus* sp., and *Lilium grayi*. Additional species are noted in the NVC description, including *Carex debilis, Sibbaldia retusa, Fragaria virginiana, Ageratina altissima* var. *roanensis*, and *Bromus pubescens*. Some areas are invaded by woody species, which may include *Vaccinium* spp., *Rhododendron catawbiense*, *Fagus grandifolia, Aesculus flava, Abies fraseri*, and others, as well as *Rubus*.

Range and Abundance: Ranked G1. The Sedge Subtype is reported only from the Roan Mountain highlands of North Carolina and adjacent Tennessee and possibly from one additional site in Watauga County. Since it can occur in association with the Grass Subtype, a few more examples may be overlooked.

Associations and Patterns: The Sedge Subtype occurs in a mosaic with the Grass Subtype and Alder Subtype and may be bordered by Northern Hardwood Forest.

Variation: Variation is not well known, other than local variation with the transition to adjacent communities and the variation in the degree of woody species encroachment.

Dynamics: The uncertainties and controversies discussed for the dynamics of the Grass Subtype of Grassy Bald also apply to the Sedge Subtype.

Comments: The relationship between the Sedge Subtype and Grass Subtype is particularly poorly known. It may be related to subtle site differences but may equally easily be related to differences in successional state or to differences in degree of alteration by grazing. The subtypes are recognized based on the NVC, but they may be only marginally distinct. The widespread alteration of Grassy Bald communities by grazing, woody plant invasion, and later management make the distinguishing of appropriate herbaceous dominance problematic.

Rare species: *Agrostis mertensii, Alnus crispa, Sceptridium multifidum, Calamagrostis canadensis* var. *canadensis, Carex cristatella, Delphinium exaltatum, Dendrolycopodium dendroideum, Dendrolycopodium hickeyi, Geum geniculatum, Houstonia montana, Lilium grayi, Lilium philadelphicum, Mononeuria groenlandica, Monarda media, Packera schweinitziana, Phlox subulata, Platanthera grandiflora, Poa palustris, Spiranthes ochroleuca, Trisetum spicatum.*

References: