

Summary of Plant Species Composition Issue, from Standpoint of Wildlife

02-26-2019, Don DeLong

The biggest implication of implementing the proposed definition of desired plant species composition to wildlife is that it will allow greatly-reduced plant species composition (caused by historic sheep grazing practices) to persist across large portions of allotments, which will perpetuate negative impacts on a large number and wide variety of wildlife species (including mule deer, many migratory birds, several bat species, amphibians, and numerous pollinator species and other invertebrates).

Persistence of greatly-reduced plant species composition is mainly due to the following:

1. Reliance — in desired condition statement — on moderate or high value watershed species in 2209.21-2005-1 will allow continued domination by species such as:

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| <ul style="list-style-type: none">• Mule ears• Louisiana sagewort• Black coneflower | <ul style="list-style-type: none">• Cutleaf balsamroot• Smooth brome – a nonnative species• Kentucky bluegrass – possibly a nonnative species |
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Plant communities dominated by these species are of low value to vertebrate and invertebrate wildlife.

2. Reliance — in desired condition statement — on existing plant species richness measured by Gregory (1983) to represent desired plant species composition in tall forb communities.
 - a. Because desired conditions (DCs) = existing conditions (ECs), any comparison between ECs and DCs in the future will likely show no “gap” between, and no need to change grazing management.
 - b. This in turn will allow ECs to persist in the long term.
3. Moderate and high value watershed species in 2209.21-2005-1 provides a relatively-poor indicator of the suitability of plant species composition to wildlife, for the following reasons:
 - a. Of 323 grasses, sedges, rushes, and forbs rated as moderate or high for watershed value, about 30% were rated as low for mule deer and elk.
 - b. Of 101 forbs rated as moderate or high for watershed value, about 41% were rated as low for elk.
 - c. Of 235 grasses, sedges, rushes, and forbs rated as low for watershed value, 62% were rated moderate or high for mule deer.
 - d. Of 233 grasses, sedges, rushes, and forbs rated as low for watershed value, 50% were rated moderate or high for elk.
 - e. Several non-native species have high value for watershed protection (e.g., Kentucky bluegrass, smooth brome) or moderate value for watershed protection (e.g., Canada bluegrass, redtop, meadow foxtail), and dominance by these species signal deteriorated habitat conditions.
 - f. Numerous native herbaceous species important to vertebrate and invertebrate wildlife are not designated as moderate to high value for watershed protection. Their presence signals — erroneously — that a site is below desired conditions:
 - Numerous forb species and a portion of grass species with low watershed values provide seeds for many migratory bird and small mammal species.
 - Roughly half the plant species used by broad-tailed hummingbirds as a nectar source have low watershed value.
 - Numerous forb species and a portion of grass species with low watershed values provide leafy forage for insects which in turn are important to many migratory bird, bat, and shrew species.
 - Many forb species with low watershed value are important for pollinators (e.g., butterflies, moths, bees), and many of these pollinator species rely on specific plant species or genera.