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## SENTINEL PLANT SPECIES – LOOKOUTS FOR THE LAND

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Sentinel plant species are first to vanish with change to the evolutionary concert of ecological processes playing in a locale. The evolutionary concert of ecological processes is the combination of fire, hydrology, herbivory, and predation under which local flora and fauna first evolved. If first to vanish plant species populations are viable, other plant and animal species populations are likely to be viable also. Sentinels are lookouts for the beginning unraveling of connectivity within landscapes. Large recovery of ecological systems is linked with small recuperations of sentinel well being. Restoration of sentinels may be accomplished by the return of an evolutionary course of management. Sentinel plant species monitoring and management is not based on vegetation classification systems such as the National Vegetation Classification System or Ecological Site Classification. Classifications often do not change with the disappearance of management sensitive uncommon species (sentinel plants). Major declines in sentinel plant species critical to specific wildlife species can occur before classification systems will notice. Monitoring consists of demographic measurements of sentinel species at randomly selected locations. Resource selection modeling of these ‘used’ and of ‘unused’ locations may be accomplished with the demographic measurements and GIS layers such as soils, topography, and management history. The purpose of the modeling is to predict the presence and health of the species, as a function of management, using statistical methods like logistic regression.