

Blue Ridge

The Blue Ridge restoration project is located midway up the Ninemile Valley, about 30 air miles west-northwest of Missoula, Montana. The forest originated from a wildfire in 1925 and subsequent logging by the Anaconda Copper and Mining Company. The parcel was traded to the Lolo National Forest in the mid 1930's. Young men of the Civilian Conservation Corps (CCC) planted the area to ponderosa pine in 1937. Only a third of the planted trees survived, but natural regeneration of additional ponderosa pine, Douglas-fir, and in some places, western larch quickly occupied the remaining area. The planted pine came from seed collected in the Bitterroot National Forest, apparently too far south, as these trees have been more susceptible to insects (mountain pine beetle) and diseases (elytroderma needle cast). Beetle infested "off-site" pine were sustaining a local beetle epidemic as well as providing unnaturally high levels of elytroderma needle cast.



A restoration treatment was initiated using timber harvest to reduce the overcrowded conditions. This area would have been repeatedly thinned by frequent low to moderate intensity wildfires every 12 to 40 years. The harvest, commercial thinning, removed most of the "off-site" or planted ponderosa pine. Infection by elytroderma needle cast was used as an indicator of "off-site" pine. Additional trees were harvested in order to restore historical stocking densities had natural wildfires been allowed to occur. Many of the large old stumps of the original stand are still evident and give an indication of the size and more open grown conditions of the pre-1925 virgin forest.



The 450 acre project area was underburned in May, 2000. These photographs were taken the following October. Native understory plants quickly re-sprouted from undamaged root systems. Black char is visible around the bases of standing trees. Though the char does not penetrate beyond the bark surface, heat from the prescribed fire did penetrate to the sapwood layer. This basal heating will stimulate the build up of resin deposits which act as wood preservative. Ponderosa pine and western larch trees that experience this repeated basal heating throughout their life spans will remain standing for many decades after death. These long standing old growth snags are a vital ecological resource for many birds and mammals.



In a few more years succulent understory brush will be several feet in height. Natural regeneration of conifers will also begin to again fill-in the understory. In ten to twenty years another understory burn will be needed to replicate the pre-settlement conditions that existed prior to wildfire suppression.