

HABITAT ENHANCEMENT TO RESTORE BIODIVERSITY: RESULTS AFTER 10 YEARS

We have carried out habitat restoration activities to return biodiversity to hundreds of hectares in the Fraser River Headwaters of the Robson Valley and the Prince George Region for 10 years.

"Biodiversity-Planting" is where extirpated tree and shrub species are reintroduced to clearcuts, ranches, riparian zones, eroded, or other developed areas. Trees and shrubs that attract target wildlife species for food, cover, or nesting are packed into areas at high densities and wildlife species respond by packing themselves into smaller than normal territories and home ranges. Cross-valley wildlife corridors are created with landowners and communities.

"Biodiversity-Brushing" is where stand-tending retains ALL natural species while simultaneously enhancing growth of crop trees. Creation of temporary snags by girdling larger volunteer trees, creating species-diverse habitat clumps, and enhancing growth of ungulate browse brought more than 20 extirpated species of birds and three extirpated mammals back to clearcuts within one year. Brushing costs are 66% below normal costs per hectare due to leaving vegetation in clearcuts that is needed to enhance biodiversity, whereas crop tree release and employment opportunities are simultaneously increased.

Spruce/Douglas-Fir productivity beneath varying old growth canopy closures (25%-100%) exceeds growth of genetically identical crop trees on all plantations and clearcuts in the region and produces tighter-grained wood. Trees planted on the East of red-cedar over 250-years-old grow fastest due to increased moisture, shade, mycorrhizae fungi, and increased diversity of soil organisms.

Treatments have enhanced soils, habitats for fish, wildlife, insects, other plants, and other life, endangered and sensitive species included.