ESCI Field Camp

Research Project ideas: appropriate for Elwha riparian zone and restoration

Browse patterns -- vs. plant species
                     -- vs. locations
                     -- plantings vs. natural revegetation
                     -- vs. LWD
                     -- plant establishment, survival (Kiegley's 4 states)

Beaver sign distribution   -- vs. veg composition
                          -- vs. veg density
                          -- vs. reach characteristics
                          -- vs. dispersal barriers (Aldwell, middle reach, Mills, GV & above)

Butterfly composition, distribution
                     -- basic inventory
                     -- vs. plant spp
                     -- vs. plant phenology
                     -- vs. solar exposure
                     -- plantings vs. natural revegetation

Amphibians   -- vs. breeding patch area
                     -- vs. surrounding vegetation
                     -- vs. water source
                     -- vs. metapopulation structure

Riverbirds   (waterfowl, eagles, Osprey, Kingfisher, GB Heron, Dipper, Killdeer, Sp. Sandpiper)
                     -- abundances vs. reach characteristics
                     -- habitat selection; restoration sites vs. upper reaches
                     -- for details, see: https://qubeshub.org/publications/2238/1

Songbirds   -- spp comp. and density in Mills reservoir (restoration site) vs. Geyser Valley (model)
                     -- seed dispersal vs. LWD
                     -- seed dispersal vs. plant spp
                     -- seed dispersal vs. location (wrt forest sources)
                     -- spp composition vs. habitat, veg type
                     -- pop density vs. vegetation characteristics (height, density, comp)

Carnivores   -- distribution (tracks, scat)
                     -- seed dispersal (scat)
                     -- above vs. vegetation or reach

LWD   -- soil depth, sediment size, etc wrt LWD proximity, orientation, etc

Restoration   -- evaluate Elwha floodplains relative to "floodplain large-wood cycle hypothesis"
                         (c.f., Collins et al. 2012. *Geomorphology* 139-140:450-470. doi:10.1016/j.geomorph.2011.11.011
                               -- compare Geyser Valley vs. Mills valley
                     -- adaptations to revegetation design (planting distribution, LWD translocation)
                     -- adaptations to wildlife restoration (planting distribution, LWD translocation)