Summary Table: Characteristics of Ecoregions of Montana

15. NORTHERN ROCKIES

Level IV Ecoregion	Total Land Area (km²)	Physiography: Elevation (m) / Local Relief (m)	Geology: Surficial material and bedrock	Soil: Order (Great Group)	Soil: Common Soil Series	Soil: Temperature Moisture Regime	Climate: Precipitation Mean annual (mm/yr)	Climate: Mean Frost Free Period (days)	Climate: Mean Temperature Annual (°C)	Potential Natural Vegetation	Land Use and Land Cover
15a. Canada Lewis Range Nine Mile Divide	1040	Partially glaciated. Foothills - anabranch mountain forested mountains are mostly covered by deposits of volcanic ash and underlain by Precambrian Belt formations	Quaternary: colluvial ash, alluvial glacial drift, and glacial lake deposits. Precambrian argillite, argillaceous rocks, and quartzite of the Missoula Group, Revett Group, and Ravalli Formation, also some Precambrian Wallace Formation Rock outcrops.	Inceptisols (Cryochrepts, Eutrochrepts, Haplocryepts, Haplocryalfs, Haplocryolls); Alfisols (Haplocryalfs); Entisols (Cryorthents) - Other soils:	Ordeway, Evans, Winkler, Whitlash, Bowdoin, Bigg, Telo, Whitlash, Wahluke, Cruckton, Starbuck, Starbuck Variant, Pinu, Chelmsford	Cryic - Frigid/Udic, Aridic	375 mm	30-100	-2 deg. cold winters, moist springs	Subalpine fir, whitebark pine, and Douglas-fir with grassland and shrubland openings	Logging, mining, resource extraction, watershed, and recreation by the Clark Fork Valley residential activity
15b. Hilidown Woodshed-Boulder Batholith	1700	Partially glaciated. Mostly forested mountains and hills are underlain by massive rock intrusions and extensive rocks. Local, broader more topography composed of erosion-prone granitic and undercuts rocks occur. Straddles the Continental Divide.	Quaternary: colluvium, glacial drift, and alluvium. Cretaceous to Tertiary intrusive igneous and undercuts rocks; granite, Boulder batholith and undercuts rocks from the Elkhorn Mountains volcanic center are common. Rock outcrops.	Inceptisols (Cryochrepts, Dystrochrepts, Eutrochrepts); Alfisols (Haplocryalfs, Argicryolls); Andisols (Cryandepts, Haplocryands)	Cannon, Hunters, Cowan, Jocko, Cadis, Wrend, Pantal, Hunkadin, Macdonald, Southland, Lucrin Gradus, Dimon	Cryic - Frigid/Udic - Udic	1,2 in	30-100	-1 deg. cold winters, moist springs	Subalpine fir and Douglas-fir forests	Logging and copper, iron, lead, silver, and gold mining; related environmental degradation. Also, wildlife habitat, recreation, and watershed
15c. Swallowed Eastern Igneous-Core Mountains	3021	Extensive, mostly mountain; granitic core mountains long axis of the Rocky Mountain Front. Includes the Bearpaw Mountains, Little Rocky Mountains, Judith Gilcs Hills, Judith Mountains, South Moccasin Mountains, and the Highwood Mountains.	Quaternary: colluvium. Tertiary volcanic and intrusive igneous mountains; and intrusive and Paleozoic sedimentary rocks including carbonates. Rock outcrops.	Inceptisols (Cryochrepts, Haplocryepts); Alfisols (Haplocryalfs); Mollisols (Haplocryolls); Entisols (Cryorthents)	Shelburn, Bullock, Cloutier, Marmont, Whitecrow, Fairfield, Shelburn Variant, Bullock Variant, Pinu, Whitlash, Wapiti, Ardmad, Pinu, Wrentin, Rock Wrentin, Pinu, Wrentin, Fairfield, Telo	Frigid - Cryic/Udic	14-31	70-120	-4.5 deg. cold winters, moist springs	Douglas-fir, lodgepole pine, ponderosa pine, and Engelmann spruce forests	Logging, grazing, wildlife habitat, and recreation
15d. Flathead Hills and Mountains	417	Partially glaciated. Forested, sparsely wooded or treeless hills and mountains that are in the transitions of the Saint Mountains and typically rather dry.	Quaternary: colluvium, ash, and some glacial drift; argillite, argillaceous rocks, and quartzites of the Precambrian Revett Group and Pichard Formation. Rock outcrops.	Inceptisols (Cryochrepts, Haplocryepts); Alfisols (Haplocryalfs, Argicryolls); Mollisols (Haplocryolls); Entisols (Cryorthents)	Crazyhills, Wallbridg, Whitgate, Bitic, Half Moon, Calfcreek, Trimpont	Cryic - Frigid/Udic - Udic	20-70, many less on ridge tops	30-80	-2 deg. cold winters, moist springs	Subalpine fir, Douglas-fir, grand fir, and Engelmann spruce forests	Extensive logging, recreation, watershed, and wildlife habitat.
15e. Eastern Divide Mountains	461	Fragmented, mostly forested hills and mountains east of the Continental Divide are underlain by metasedimentary and volcanic rocks.	Quaternary: colluvium and alluvium. Precambrian Belt formations; also some Tertiary intrusives and Paleozoic carbonate. Rock outcrops.	Alfisols (Argiboralfs); Cryalfs; Haplocryalfs; Mollisols (Argiborolls); Argiborolls	Tobin, Silverstar, Cramer, Sample, Holecrik, Pinnel, Bonnidale	Frigid - Cryic/Udic - Udic	12-20	50-110	-3 deg. cold winters, moist springs	Subalpine fir, Douglas-fir, and ponderosa pine forests	Grazing, logging, resource extraction, and recreation
15f. Rattlesnake-Blackfoot-South Swan-Northern Garnet-Sapphire Mountains	1168	Partially glaciated. Forested hills and mountains east of the Continental Divide are underlain by various types of rock. Rights peaks are rounded by volcanic ash. Lakes occur in karst and water resources and ecologies.	Quaternary: ash, colluvium, ash, and alluvium. Precambrian Belt formations and Tertiary - Cretaceous igneous rock. Rock outcrops.	Inceptisols (Cryochrepts, Haplocryepts); Alfisols (Haplocryalfs); Mollisols (Haplocryolls); Entisols (Cryorthents)	Aeneas, Cryochrepts, Cryandepts, Haplocryalfs, Haplocryolls, Palehaplolls, Histosols (Cryofibrists)	Cryic - Frigid/Udic - Udic	30-80	30-80	-3 deg. cold winters, moist springs	Subalpine fir, Douglas-fir, grand fir, and ponderosa pine forests	Logging, recreation, wildlife habitat, and watershed
15g. High Alpine Zone	462	High, very glaciated mountains and cirques in the Northern Rockies (>2134 m) are characterized by cold/moist talus, and/or a mixed high elevation climate regimens.	Quaternary: glacial till, colluvium, and talus, boulder, pavement, and gravel; Precambrian argillite, argillaceous rock, quartzite, schist, and undercuts of the Ravalli Group, Piegan Group, and Wallace Formation. Rock outcrops.	Inceptisols (Cryochrepts, Cryumbrepts, Cryandepts, Haplocryepts); Entisols (Cryorthents); Other soils especially in the north:	Garrit, Lithgrade, Belmont, Pachic, Cirrical, Wrentin, Pachic, Cirrical, Wrentin, Pachic, Cirrical, Wrentin