

**US & Canada:
Rocky Mountains (Ch.14)**





What states and provinces are part of the region?



What regions does it border?

Overview

- Rugged
- Scenic
- Unpopulated

Physical setting

- Mostly mountainous with some peaks above 14,000 ft
- Relatively new
 - Complicated history, uplifted several times
- Regions
 - The Rocky Mountains themselves
 - The Wyoming Basin
 - The Rocky Mountain Trench
 - Inland British Columbia

US Rocky Mountains

- Generally run north-south
 - Uinta Mountains in Utah run east-west
- Highest peaks in the southern Rockies
 - Highest: Mt. Elbert, 14,433'
- Lower peaks, more disorganized north
- Sharp relief
 - “Front Range” rises up from Plain floor



Canadian Rockies

- Not as tall as US Rockies
- Parallel Ridges SE-NW
- Steep U-shaped valleys; waterfalls
- Columbia Icefield
 - Alpine glaciers snake downward



Rocky Mountain Trench

- Line from Montana to Yukon
- Wide valleys
- Many rivers begin here



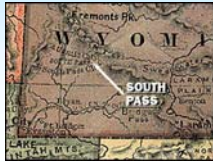
Wyoming Basin

- Significant gap in Rocky Mountains
- Mostly arid shrubland
- Key for westward travelers



South Pass, Wyoming

- Main route west
- “Discovered” in 1812
- Was used for Oregon Trail, ultimately crossed by 150,000 settlers



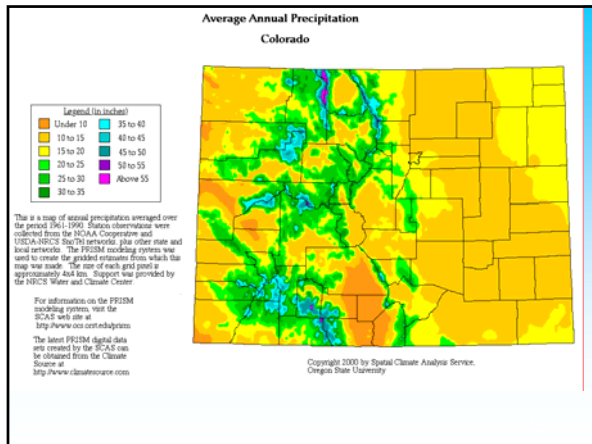
Interior B.C.

- North of highest mountains, rugged but less steep mountains and plateaus



Climate

- Variable from place to place
- Vertical zonation
 - Colder as you move upwards,
 - Also cold in valley floors and basins
- More precipitation in some areas than others
 - Windward sides get more precipitation
 - South-facing sides lose snow faster
- Windy





Climate comparison

	Akron	Prince George, BC	Jackson, Wyoming	Trinidad, Colorado
Jan Temp	33 / 17	20 / 7	28 / 5	47 / 13
Jul Temp	82 / 61	72 / 48	81 / 39	86 / 53
Rainfall	38 in.	23 in.	17 in.	16 in.
Snowfall	45 in.	85 in.	73 in.	43 in.

Natural vegetation: Forest

- Coniferous
 - Stunted in locations
 - Growth controlled by wind

Natural vegetation: Grasslands and Shrublands

- Grow in more arid parts of land



Treeline

- Elevation above which trees don't grow
 - Too cold
 - Too windy
 - Too little moisture
- Varies with latitude
 - New Mexico 12,000'
 - Wyoming: 10,000'
 - S. Alberta: 5,000'
 - Yukon line: 2,500'



Alpine vegetation

- Lichens
- Mosses
- Herbs
- Ground-hugging



Wildlife

- Elk
- Mountain lion
- Bighorn Sheep
- Antelope
- Bear



Settlement

- Sparse throughout history
- Natives used area as summer hunting ground
- Spanish explored southern sections
- French explored northern Rockies via Missouri River
 - Mostly as fur traders
- Early explorers sought routes west
 - Mackenzie 1793
 - Lewis and Clark 1803-4

Settlement

- Only settlements for fur trading through 1840s
- Gold Rush – California 1849
 - People had to pass through
- Gold rush – Rockies 1859
 - Barkerville, Cariboo Mountains, B.C.
 - Central City, CO – up to 100,000 prospectors
- Later attractions
 - Lumber
 - Tourism

Present population

- Mostly White
- Some resort towns with significant growth
- Large seasonal population due to parks
- Overall totals low

Population numbers

State/Metro Area	2000	1990	Change
Santa Fe, NM	147	117	+26%
Teton County, WY	18	11	+63%
Missoula, MT	95	77	+21%
Prince George, BC	85	85	+0%
Kelowna, BC	147	135	+8%
Jasper, AB	34	31	+11%
US & Canada	312,600	276,700	+13%

Mining

- Many products
 - Gold
 - Silver
 - Lead
 - Copper
 - Zinc
 - Molybdenum
 - Coal and natural gas
- Boom-bust cycle
- Most growth now in Coal and natural gas

Butte, Montana

- Copper mine
- “Richest Hill on Earth”
- 1900: 140,000 tons of ore and waste removed every 24 hours
- 7000 feet wide, 5600 feet long, 1800 feet deep
- Now 30 billion gallon lake, pH of 2.5



Forestry

- Small component
 - More in Idaho / Montana / B.C. / Alberta
 - Little in Southern Rockies
- Much of land protected

Livestock

- Sheep and cattle
- Graze on federal land
- Move higher up into mountains in summer, back to lower ground in winter

Agriculture

- Lesser importance than in other regions
- Mostly feed for livestock
 - Hay
- Ginseng
 - Significant cash crop in British Columbia
- Irrigation necessary in most locations
- Most farmland small, due to topography

Water Resources

- Relatively clean rivers flow out of Rockies in all directions
- Recent developments: reservoirs and hydroelectric dams
- Increasing water surface area
- Most rivers in Colorado that flow west have some diverted east for Denver and other cities

Tourism

- Tourism most dynamic of industries in region
- Variability between summer and winter tourism

Tourism

- Scenery
- Southwest Native culture
- Fishing
- Hunting
- Skiing

Santa Fe

- 400-year old settlement
- Major Arts community
- Southwestern cultural center



Colorado

- Pike's Peak
- Rocky Mountain National Park
- Many local Parks
- Numerous ski resorts in winter
 - Aspen, Vail, ...



Yellowstone - Tetons

- Yellowstone, Wyoming: First national park in world (1872)
- Much wildlife
- Geothermal activity
- 4 million visitors annually



Canadian Rocky parks

- Banff, Jasper, Yoho, Kootenay
- Spectacular scenery
- 3 million visitors



Transportation

- Roadways have made travel easier
- I-80 and Transcanada Hwy.
- Seasonal concerns



Outlook

- Economic activity based on mining and tourism
 - Mining is boom / bust
 - Tourism likely to grow
- Water resources will become scarcer
 - Growing demand from adjacent regions
- Significant seasonal and “second home” population
