Overthrust Mountains Section

Landscapes are characterized by minor mountain ranges and broad valleys. Mountain ranges include the Webster, Aspen, Portneuf, Bannock, and Bear River Ranges. Linear valleys and ridges are the products of thrust faults. Rivers are of 2 major drainage basins, flowing either into the Snake River or into the Great Salt Lake in Utah. Important rivers include the South Fork of the Snake River, the Portneuf River, and the Bear River. A few lakes and wet meadows are associated with higher elevations above 1500 m (5000 ft). Large waterbodies include Bear Lake and Palisades Reservoir. Elevation ranges from 1300–3000 m (4400 to 9900 ft). Sedimentary rock formations, such as limestones, siltstone, sandstones, and shales, are predominant.

Climate is influenced by prevailing winds and the general north–south orientation of the mountain ranges. Precipitation ranges from 40–100 cm (16–40 in) annually with most occurring during the fall, winter and spring. Precipitation occurs mostly as snow above 1800 m (6000 ft). The majority of precipitation falls as snow in the winter. Summers are dry. Annual average temperature is 2–10°C (35–50°F). The growing season lasts 80–120 days.

Population centers are primarily along the Portneuf and Bear Rivers and include Pocatello and Preston. Approximately 70% of the land is forested, and timber harvest, livestock grazing, and recreation are major land uses. Phosphate mining is an important land use in some areas.

Table 1. Overthrust Mountains land use and land ownership.

Land use	Area (ha)	Area (ac)	Percent
Dryland Agriculture	195,170	482,274	15
Timberland	558,545	1,380,188	42
Irrigated–Gravity Flow	62,632	154,766	5
Irrigated–Sprinkler	67,962	167,937	5
Rangeland	399,212	986,470	30
Riparian	23,317	57,617	23
Urban	8233	20,344	1
Water	6331	15,644	<1
Total	1,321,401	3,265,241	122

Land ownership	Area (ha)	Area (ac)	Percent
USDI Bureau of Land Management	72,134	178,247	5
USDI Bureau of Indian Affairs	25,535	63,099	2
USDI Bureau of Reclamation	5936	14,668	<1
USDA Forest Service	597,264	1,475,866	45
Open water	8853	21,877	1
Private	541,495	1,338,058	41

State of Idaho	65,489	161,826	5
USDI Fish and Wildlife Service	4871	12,037	<1
Total	1,321,578	3,265,677	100

Species of Greatest Conservation Need in the Overthrust Mountains

Fishes

Northern Leatherside Chub *Lepidomeda copei*[a]
Bluehead Sucker *Catostomus discobolus*[a]
Bonneville Cutthroat Trout *Oncorhynchus clarkii utah*[a]
Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*[a]

Amphibians

Northern Leopard Frog *Rana pipiens*[a]

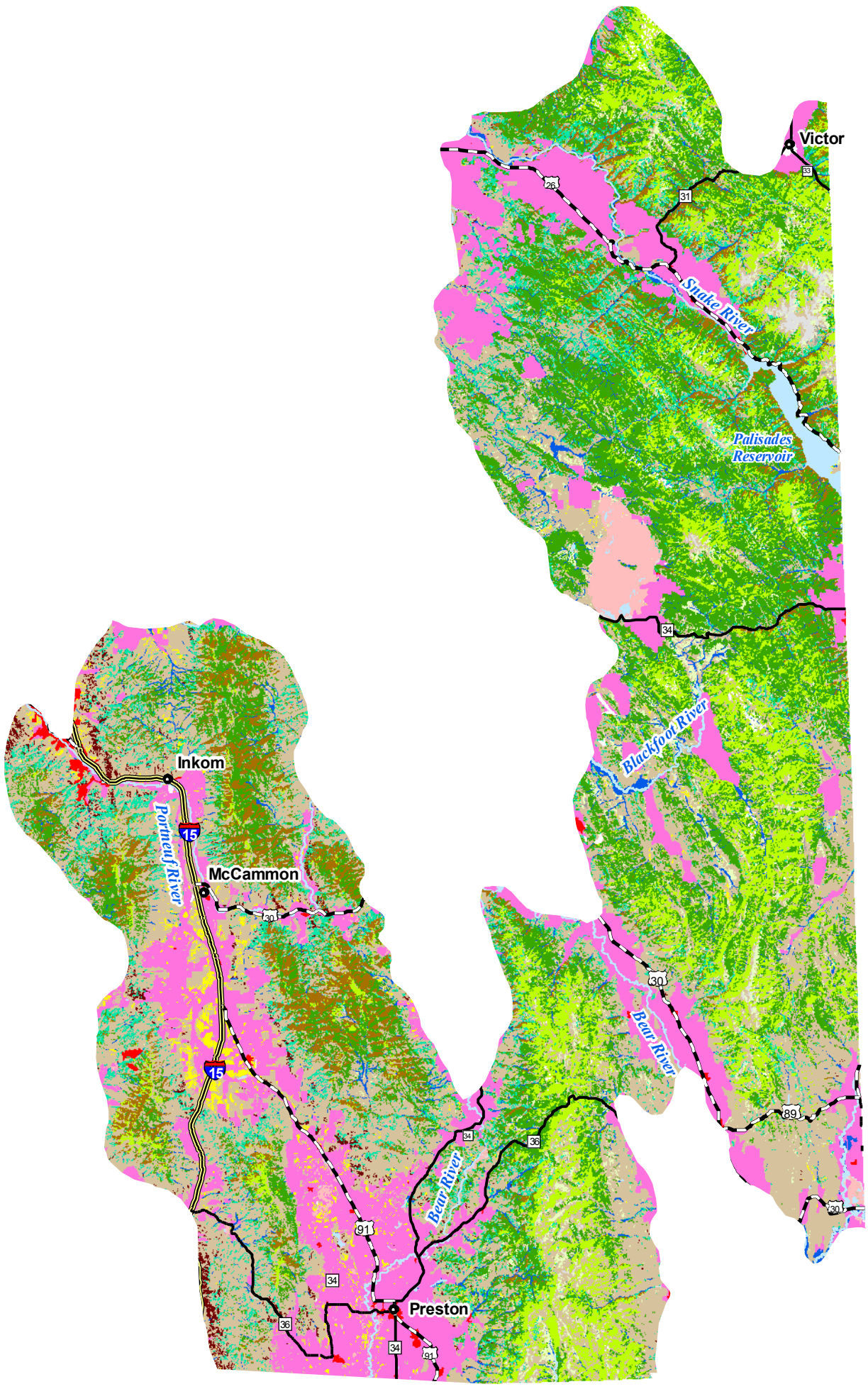
Reptiles

Ring–necked Snake *Diadophis punctatus*[a]

Birds

Trumpeter Swan *Cygnus buccinator*[a]
Northern Pintail *Anas acuta*
Lesser Scaup *Aythya affinis*
Harlequin Duck *Histrionicus histrionicus*
Hooded Merganser *Lophodytes cucullatus*
Greater Sage–Grouse *Centrocercus urophasianus*
Sharp–tailed Grouse *Tympanuchus phasianellus*[a]
Red–necked Grebe *Podiceps grisegena*
Western Grebe *Aechmophorus occidentalis*
Clark's Grebe *Aechmophorus clarkii*
American White Pelican *Pelecanus erythrorhynchos*
Great Egret *Ardea alba*
Snowy Egret *Egretta thula*[a]
Cattle Egret *Bubulcus ibis*[a]
Black–crowned Night–Heron *Nycticorax nycticorax*[a]
White–faced Ibis *Plegadis chihi*[a]
Bald Eagle *Haliaeetus leucocephalus*
Swainson's Hawk *Buteo swainsoni*
Ferruginous Hawk *Buteo regalis*
Merlin *Falco columbarius*
Peregrine Falcon *Falco peregrinus*
Sandhill Crane *Grus canadensis*[a]
Black–necked Stilt *Himantopus mexicanus*[a]
American Avocet *Recurvirostra americana*[a]
Long–billed Curlew *Numenius americanus*
Wilson's Phalarope *Phalaropus tricolor*[a]
Franklin's Gull *Larus pipixcan*[a]

Overthrust Mountains Ecological Section Habitats



Habitats

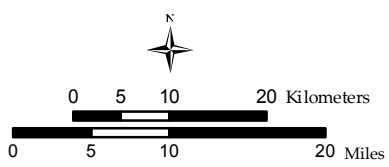
- Alpine
- Arableland
- Dry Conifer Forest
- Dry Grassland
- Dune, Canyon, and Rockland
- Mesic Deciduous Shrubland
- Non-native Herbaceous
- Northern Mesic Conifer Forest
- Open Water
- Riparian Woodland
- Southern Wetland
- Southern Woodland
- Southern Xeric Shrubland and Steppe
- Subalpine Forest
- Subalpine Grassland
- Upland Deciduous Forest
- Urban

Town Population

- 0 - 20,000
- 20,001 - 200,000

Highways

- Interstate
- U.S. Highway
- State Route



25 July 2005
Idaho Conservation Data Center, Idaho Department of Fish and Game.

Figure 22. Overthrust Mountains habitats.

California Gull *Larus californicus*
Caspian Tern *Sterna caspia*
Forster's Tern *Sterna forsteri*[a]
Black Tern *Chlidonias niger*[a]
Flammulated Owl *Otus flammeolus*
Burrowing Owl *Athene cunicularia*
Short–eared Owl *Asio flammeus*
Boreal Owl *Aegolius funereus*
Lewis's Woodpecker *Melanerpes lewis*
American Three–toed Woodpecker *Picoides dorsalis*
Pinyon Jay *Gymnorhinus cyanocephalus*[a]
Juniper Titmouse *Baeolophus ridgwayi*[a]
Virginia's Warbler *Vermivora virginiae*
Brewer's Sparrow *Spizella breweri*
Grasshopper Sparrow *Ammodramus savannarum*
Blue Grosbeak *Passerina caerulea*
Black Rosy–Finch *Leucosticte atrata*
Lesser Goldfinch *Carduelis psaltria*

Mammals

Merriam's Shrew *Sorex merriami*
Dwarf Shrew *Sorex nanus*
California Myotis *Myotis californicus*
Townsend's Big–eared Bat *Corynorhinus townsendii*
Pygmy Rabbit *Brachylagus idahoensis*
Cliff Chipmunk *Neotamias dorsalis*
Uinta Chipmunk *Neotamias umbrinus*
Wyoming Ground Squirrel *Spermophilus elegans*
Great Basin Ground Squirrel *Spermophilus mollis*
Rock Squirrel *Spermophilus variegatus*[a]
Idaho Pocket Gopher *Thomomys idahoensis*[a]
Townsend's Pocket Gopher *Thomomys townsendii*
Gray Wolf *Canis lupus*
Wolverine *Gulo gulo*
Canada Lynx *Lynx canadensis*
Mountain Goat *Oreamnos americanus*

Bivalves

Western Pearlshell *Margaritifera falcata*

Gastropods

Bear Lake Springsnail *Pyrgulopsis pilsbryana*
Mountain Marshsnail *Stagnicola montanensis*
Cloaked Physa *Physa megalochlamys*[a]
Thin–ribbed Mountainsnail *Oreohelix tenuistriata*[a]

Insects

A Mayfly *Ameletus sparsatus*
A Spur–throat Grasshopper *Melanoplus digitifer*
A Stonefly *Sweltsa gaufini*[a]
A Stonefly *Pictetiella expansa*
Relict Fritillary *Boloria kriemhild*[a]
Gillette's Checkerspot *Euphydryas gillettii*

[a] Vertebrate species for which the Overthrust Mountains represents a significant portion of their range.

Habitats in the Overthrust Mountains

Table 2. Overthrust Mountains habitats.

Habitat	Area (km²)	Area (ac)	Percent
Urban	62	15,377	<1
Arableland	2284	564,455	17
Non–native Herbaceous	150	37,122	1
Upland Deciduous Forest	2768	684,154	21
Southern Woodland	102	25,205	1
Dry Conifer Forest	619	152,981	5
Subalpine Forest	1379	340,712	10
Mesic Deciduous Shrubland	832	205,704	6
Southern Xeric Shrubland and Steppe	4059	1,002,941	31
Dry Grassland	8	1870	<1
Subalpine Grassland	300	74,144	2
Alpine	49	12,012	<1
Open Water	88	21,669	1
Southern Wetland	151	37,283	1
Riparian Woodland	332	82,168	3
Dune, Canyon, and Rockland	7	1835	<1
Total	13,190	3,259,632	100

Priority Habitats and Associated Vertebrate Species in the Overthrust Mountains

Arableland

Fishes

Bonneville Cutthroat Trout *Oncorhynchus clarkii utah*
Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*

Amphibians

Northern Leopard Frog *Rana pipiens*

Birds

Northern Pintail *Anas acuta*
Greater Sage–Grouse *Centrocercus urophasianus*
Sharp–tailed Grouse *Tympanuchus phasianellus*
Black–crowned Night–Heron *Nycticorax nycticorax*
White–faced Ibis *Plegadis chihi*
Merlin *Falco columbarius*
Long–billed Curlew *Numenius americanus*
Franklin's Gull *Larus pipixcan*
California Gull *Larus californicus*
Burrowing Owl *Athene cunicularia*

Mammals

Wyoming Ground Squirrel *Spermophilus elegans*
Townsend's Pocket Gopher *Thomomys townsendii*

Upland Deciduous Forest

Fishes

Northern Leatherside Chub *Lepidomeda copei*
Bonneville Cutthroat Trout *Oncorhynchus clarkii utah*
Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*

Amphibians

Northern Leopard Frog *Rana pipiens*

Birds

Harlequin Duck *Histrionicus histrionicus*
Sharp–tailed Grouse *Tympanuchus phasianellus*
Bald Eagle *Haliaeetus leucocephalus*
Merlin *Falco columbarius*
Peregrine Falcon *Falco peregrinus*
Boreal Owl *Aegolius funereus*
American Three–toed Woodpecker *Picoides dorsalis*
Lesser Goldfinch *Carduelis psaltria*

Mammals

Townsend's Big–eared Bat *Corynorhinus townsendii*
Rock Squirrel *Spermophilus variegatus*
Wolverine *Gulo gulo*

Subalpine Forest

Birds

Harlequin Duck *Histrionicus histrionicus*

Bald Eagle *Haliaeetus leucocephalus*
Peregrine Falcon *Falco peregrinus*
Boreal Owl *Aegolius funereus*
American Three–toed Woodpecker *Picoides dorsalis*

Mammals
Dwarf Shrew *Sorex nanus*
Wolverine *Gulo gulo*
Mountain Goat *Oreamnos americanus*

Southern Xeric Shrubland and Steppe

Fishes
Northern Leatherside Chub *Lepidomeda copei*
Bluehead Sucker *Catostomus discobolus*
Bonneville Cutthroat Trout *Oncorhynchus clarkii utah*
Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*

Amphibians
Northern Leopard Frog *Rana pipiens*

Reptiles
Ring–necked Snake *Diadophis punctatus*

Birds
Greater Sage–Grouse *Centrocercus urophasianus*
Sharp–tailed Grouse *Tympanuchus phasianellus*
Merlin *Falco columbarius*
Peregrine Falcon *Falco peregrinus*
Long–billed Curlew *Numenius americanus*
Yellow–billed Cuckoo *Coccyzus americanus*
Burrowing Owl *Athene cunicularia*
Pinyon Jay *Gymnorhinus cyanocephalus*
Juniper Titmouse *Baeolophus ridgwayi*
Virginia’s Warbler *Vermivora virginiae*
Grasshopper Sparrow *Ammodramus savannarum*
Lesser Goldfinch *Carduelis psaltria*

Mammals
Merriam's Shrew *Sorex merriami*
Townsend's Big–eared Bat *Corynorhinus townsendii*
Pygmy Rabbit *Brachylagus idahoensis*
Wyoming Ground Squirrel *Spermophilus elegans*
Great Basin Ground Squirrel *Spermophilus mollis*
Rock Squirrel *Spermophilus variegatus*
Idaho Pocket Gopher *Thomomys idahoensis*

Southern Wetland

Birds

Trumpeter Swan *Cygnus buccinator*
Northern Pintail *Anas acuta*
Hooded Merganser *Lophodytes cucullatus*
Western Grebe *Aechmophorus occidentalis*
Clark's Grebe *Aechmophorus clarkii*
American White Pelican *Pelecanus erythrorhynchos*
Snowy Egret *Egretta thula*
Cattle Egret *Bubulcus ibis*
Black–crowned Night–Heron *Nycticorax nycticorax*
White–faced Ibis *Plegadis chihi*
Black–necked Stilt *Himantopus mexicanus*
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Wilson's Phalarope *Phalaropus tricolor*
Franklin's Gull *Larus pipixcan*
California Gull *Larus californicus*
Forster's Tern *Sterna forsteri*
Black Tern *Chlidonias niger*