

## Snake River Basalts Section

The landscape comprises extensive plains, isolated buttes, and block-faulted mountains. The surface is a lava plateau with a thin windblown soil layer covering it. Lava flows prevalent throughout the area vary in thickness from less than 30 m (100 ft) to thousands of meters. Shield volcanoes, cinder cones, and lava ridges are common. Craters of the Moon National Monument is an example of the recent volcanic features. Elevation ranges from 900–2000 m (3000–6000 ft). The Snake River, American Falls Reservoir, Lake Walcott, and Mud Lake are major waterbodies, and few other perennial surface waterbodies are present.

Precipitation ranges from 12–30 cm (5–12 in) annually and is evenly distributed throughout the fall, winter, and spring, but is low in the summer. Precipitation during summer months is generally lost to evaporation. Average annual temperature ranges from 4–13°C (40–58°F). The growing season ranges from 60–165 days, decreasing from west to east and with elevation. Enough precipitation falls in some foothills for dry farming.

Population centers include Idaho Falls and Pocatello, and small communities are dispersed primarily along the Snake River corridor. Livestock grazing and dryland and irrigated farming are the major land uses. Recreation is also important.

Table 1. Snake River Basalts land use and land ownership.

| Land use               | Area (ha) | Area (ac) | Percent |
|------------------------|-----------|-----------|---------|
| Dryland Agriculture    | 190,303   | 470,247   | 6       |
| Timberland             | 39,429    | 97,432    | 1       |
| Irrigated–Gravity Flow | 517,322   | 1,278,325 | 16      |
| Irrigated–Sprinkler    | 581,625   | 1,437,220 | 18      |
| Rangeland              | 1,572,615 | 3,886,001 | 49      |
| Riparian               | 46,064    | 113,825   | 1       |
| Rock                   | 220,470   | 544,790   | 7       |
| Urban                  | 38,406    | 94,904    | 1       |
| Water                  | 25,940    | 64,098    | 1       |
| Total                  | 3,232,174 | 7,986,843 | 100     |

| Land ownership                 | Area (ha) | Area (ac) | Percent |
|--------------------------------|-----------|-----------|---------|
| USDI Bureau of Land Management | 1,196,424 | 2,956,416 | 37      |
| USDI Bureau of Indian Affairs  | 66,977    | 165,503   | 2       |
| USDI Bureau of Reclamation     | 16,844    | 41,623    | 1       |
| US Department of Energy        | 213,052   | 526,461   | 7       |
| USDA Forest Service            | 32,890    | 81,272    | 1       |
| US Department of Defense       | 574       | 1419      | <1      |
| USDI National Park Service     | 18,430    | 45,542    | 1       |

|                                |           |           |     |
|--------------------------------|-----------|-----------|-----|
| Open water                     | 36,841    | 91,037    | 1   |
| Private                        | 1,502,210 | 3,712,026 | 46  |
| State of Idaho                 | 138,180   | 341,450   | 4   |
| USDI Fish and Wildlife Service | 9751      | 24,095    | <1  |
| Total                          | 3,232,173 | 7,986,843 | 100 |

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### ***Species of Greatest Conservation Need in the Snake River Basalts***

#### Fishes

White Sturgeon (Snake River system) *Acipenser transmontanus*  
Northern Leatherside Chub *Lepidomeda copei*  
Bluehead Sucker *Catostomus discobolus*  
Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*<sup>a</sup>  
Inland Redband Trout *Oncorhynchus mykiss gairdneri*  
Bull Trout *Salvelinus confluentus*  
Shoshone Sculpin *Cottus greenei*<sup>a</sup>  
Wood River Sculpin *Cottus leiopomus*

#### Amphibians

Northern Leopard Frog *Rana pipiens*<sup>a</sup>

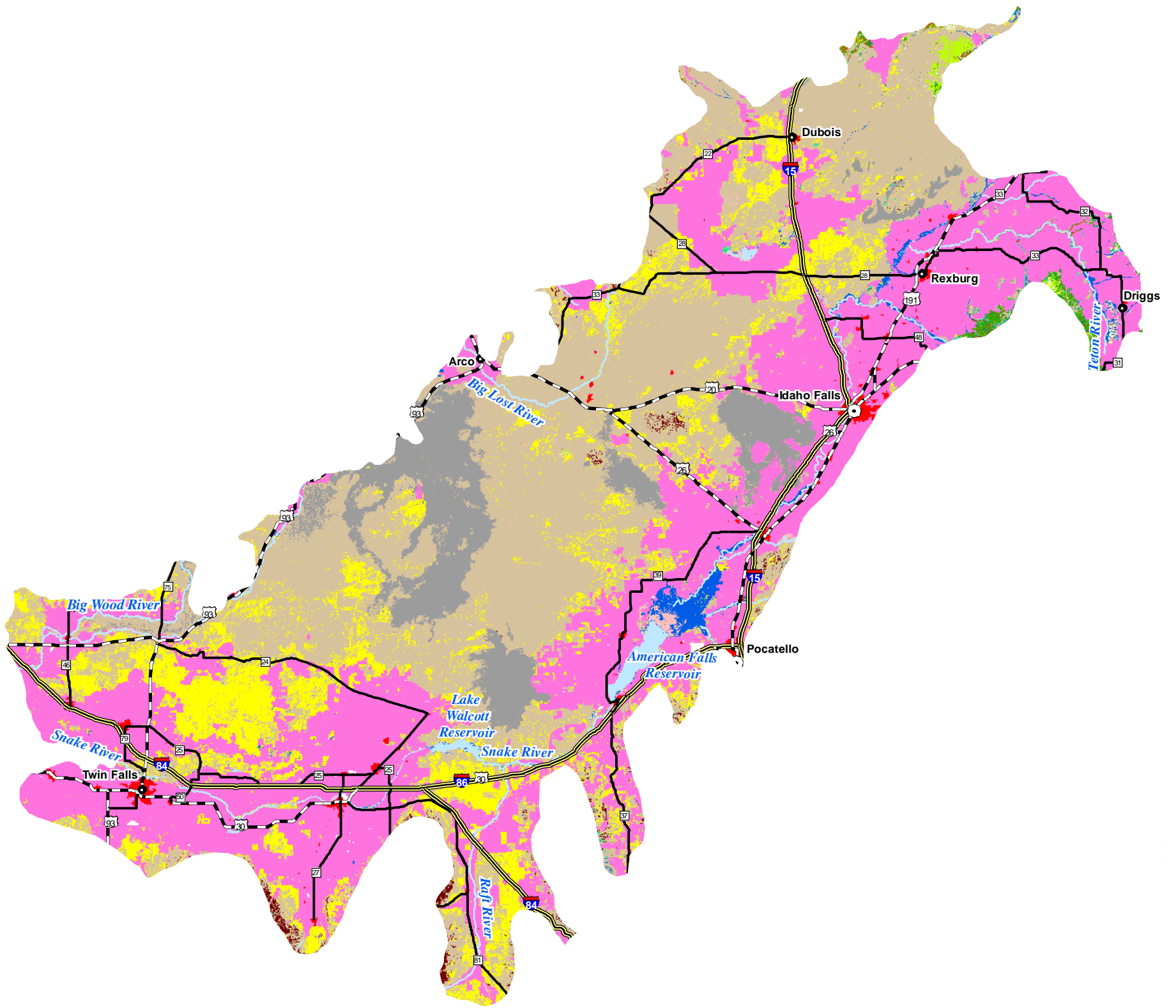
#### Reptiles

Ring-necked Snake *Diadophis punctatus*

#### Birds

Trumpeter Swan *Cygnus buccinator*<sup>a</sup>  
Northern Pintail *Anas acuta*<sup>a</sup>  
Lesser Scaup *Aythya affinis*  
Harlequin Duck *Histrionicus histrionicus*  
Hooded Merganser *Lophodytes cucullatus*<sup>a</sup>  
Greater Sage-Grouse *Centrocercus urophasianus*<sup>a</sup>  
Sharp-tailed Grouse *Tympanuchus phasianellus*<sup>a</sup>  
Western Grebe *Aechmophorus occidentalis*<sup>a</sup>  
Clark's Grebe *Aechmophorus clarkii*<sup>a</sup>  
American White Pelican *Pelecanus erythrorhynchos*<sup>a</sup>  
Great Egret *Ardea alba*  
Snowy Egret *Egretta thula*<sup>a</sup>  
Cattle Egret *Bubulcus ibis*  
Black-crowned Night-Heron *Nycticorax nycticorax*<sup>a</sup>  
White-faced Ibis *Plegadis chihl*<sup>a</sup>  
Bald Eagle *Haliaeetus leucocephalus*  
Swainson's Hawk *Buteo swainsoni*  
Ferruginous Hawk *Buteo regalis*

# Snake River Basalts Ecological Section Habitats



## Habitats

- Alpine
- Arableland
- Dry Conifer Forest
- Dry Grassland
- Dune, Canyon, and Rockland
- Mesic Deciduous Shrubland
- Non-native Herbaceous
- 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

I D A H O



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

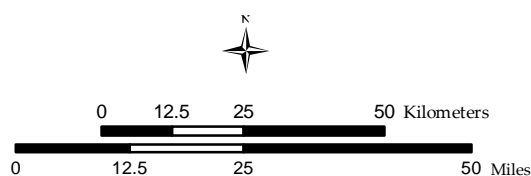


Figure 20. Snake River Basalts habitats.

Merlin *Falco columbarius*<sup>a</sup>  
Peregrine Falcon *Falco peregrinus*<sup>a</sup>  
Sandhill Crane *Grus canadensis*  
Black-necked Stilt *Himantopus mexicanus*<sup>a</sup>  
American Avocet *Recurvirostra americana*<sup>a</sup>  
Long-billed Curlew *Numenius americanus*<sup>a</sup>  
Wilson's Phalarope *Phalaropus tricolor*<sup>a</sup>  
Franklin's Gull *Larus pipixcan*<sup>a</sup>  
California Gull *Larus californicus*<sup>a</sup>  
Caspian Tern *Sterna caspia*<sup>a</sup>  
Forster's Tern *Sterna forsteri*<sup>a</sup>  
Black Tern *Chlidonias niger*<sup>a</sup>  
Yellow-billed Cuckoo *Coccyzus americanus*<sup>a</sup>  
Burrowing Owl *Athene cunicularia*<sup>a</sup>  
Short-eared Owl *Asio flammeus*  
Boreal Owl *Aegolius funereus*  
Lewis's Woodpecker *Melanerpes lewis*  
American Three-toed Woodpecker *Picoides dorsalis*  
Pinyon Jay *Gymnorhinus cyanocephalus*  
Juniper Titmouse *Baeolophus ridgwayi*  
Virginia's Warbler *Vermivora virginiae*  
Brewer's Sparrow *Spizella breweri*  
Grasshopper Sparrow *Ammodramus savannarum*<sup>a</sup>  
Blue Grosbeak *Passerina caerulea*  
Lesser Goldfinch *Carduelis psaltria*

#### Mammals

Merriam's Shrew *Sorex merriami*  
Dwarf Shrew *Sorex nanus*  
California Myotis *Myotis californicus*  
Spotted Bat *Euderma maculatum*  
Townsend's Big-eared Bat *Corynorhinus townsendii*<sup>a</sup>  
Pygmy Rabbit *Brachylagus idahoensis*<sup>a</sup>  
Cliff Chipmunk *Neotamias dorsalis*  
Wyoming Ground Squirrel *Spermophilus elegans*<sup>a</sup>  
Great Basin Ground Squirrel *Spermophilus mollis*<sup>a</sup>  
Idaho Pocket Gopher *Thomomys idahoensis*<sup>a</sup>  
Townsend's Pocket Gopher *Thomomys townsendii*<sup>a</sup>  
Little Pocket Mouse *Perognathus longimembris*<sup>a</sup>  
Gray Wolf *Canis lupus*  
Grizzly or Brown Bear *Ursus arctos*  
Fisher *Martes pennanti*  
Wolverine *Gulo gulo*  
Canada Lynx *Lynx canadensis*  
Bighorn Sheep (populations south of the Snake River) *Ovis canadensis*

Bivalves

- California Floater *Anodonta californiensis*
- Western Ridged Mussel *Gonidea angulata*<sup>a</sup>
- Western Pearlshell *Margaritifera falcata*

Gastropods

- Bliss Rapids Snail *Taylorconcha serpenticola*
- Desert Valvata *Valvata utahensis*<sup>a</sup>
- Mountain Marshsnail *Stagnicola montanensis*
- Shortface Lanx *Fisherola nuttalli*
- Snake River Physa *Physa natricina*

Arachnids

- A Cave Obligate Harvestman *Speleomaster lexi*<sup>a</sup>

Insects

- A Mayfly *Centroptilum selanderorum*<sup>a</sup>
- A Mayfly *Parameletus columbiae*
- A Spur-throat Grasshopper *Melanoplus digitifer*
- Idaho Point-headed Grasshopper *Acrolophitus pulchellus*
- A Spring Stonefly *Malenka tina*
- St. Anthony Dune Tiger Beetle *Cicindela arenicola*<sup>a</sup>
- A Tiger Beetle *Cicindela plutonica*
- Blind Cave Leiodid Beetle *Glacicavicola bathyscioides*<sup>a</sup>

<sup>a</sup> Vertebrate species (except fishes) for which the Snake River Basalts represents a significant portion of their range.

**Habitats in the Snake River Basalts**

Table 2. Snake River Basalts habitats.

| Habitats                            | Area (km <sup>2</sup> ) | Area (ac) | Percent |
|-------------------------------------|-------------------------|-----------|---------|
| Urban                               | 293                     | 72,610    | 1       |
| Arableland                          | 12,372                  | 3,057,126 | 38      |
| Non-native Herbaceous               | 3799                    | 939,030   | 12      |
| Upland Deciduous Forest             | 117                     | 29,037    | <1      |
| Southern Woodland                   | 139                     | 34,320    | <1      |
| Dry Conifer Forest                  | 47                      | 11,475    | <1      |
| Subalpine Forest                    | 84                      | 20,755    | <1      |
| Mesic Deciduous Shrubland           | 43                      | 10,629    | <1      |
| Southern Xeric Shrubland and Steppe | 12,361                  | 3,054,141 | 38      |
| Subalpine Grassland                 | 32                      | 7940      | <1      |
| Open Water                          | 246                     | 60,884    | 1       |
| Southern Wetland                    | 124                     | 30,523    | <1      |

|                            |        |           |     |
|----------------------------|--------|-----------|-----|
| Riparian Woodland          | 362    | 89,629    | 1   |
| Dune, Canyon, and Rockland | 2287   | 565,213   | 7   |
| Total                      | 32,306 | 7,983,312 | 100 |

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**Priority Habitats and Associated Species in the Snake River Basalts**

Arableland

Fishes

- White Sturgeon (Snake River system) *Acipenser transmontanus*
- Northern Leatherside Chub *Lepidomeda copei*
- Yellowstone Cutthroat Trout *Oncorhynchus clarkii bouvieri*
- Inland Redband Trout *Oncorhynchus mykiss gairdneri*
- Bull Trout *Salvelinus confluentus*
- Shoshone Sculpin *Cottus greenei*
- Wood River Sculpin *Cottus leiopomus*

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*
- Blue Grosbeak *Passerina caerulea*

Mammals

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

Non-native Herbaceous

Fishes

- White Sturgeon (Snake River system) *Acipenser transmontanus*
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Amphibians

Northern Leopard Frog *Rana pipiens*

Birds

Sharp-tailed Grouse *Tympanuchus phasianellus*

Merlin *Falco columbarius*

Peregrine Falcon *Falco peregrinus*

Long-billed Curlew *Numenius americanus*

Burrowing Owl *Athene cunicularia*

Juniper Titmouse *Baeolophus ridgwayi*

Grasshopper Sparrow *Ammodramus savannarum*

Mammals

Merriam's Shrew *Sorex merriami*

Townsend's Big-eared Bat *Corynorhinus townsendii*

Wyoming Ground Squirrel *Spermophilus elegans*

Idaho Pocket Gopher *Thomomys idahoensis*

Townsend's Pocket Gopher *Thomomys townsendii*

Little Pocket Mouse *Perognathus longimembris*

Gray Wolf *Canis lupus*

Bighorn Sheep (populations south of the Snake River) *Ovis canadensis*

Southern Xeric Shrubland and Steppe

Fishes

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Shoshone Sculpin *Cottus greenei*

Wood River Sculpin *Cottus leiopomus*

Amphibians

Northern Leopard Frog *Rana pipiens*

Reptiles

Ring-necked Snake *Diadophis punctatus*

Birds

Greater Sage-Grouse *Centrocercus urophasianus*

Sharp-tailed Grouse *Tympanuchus phasianellus*

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Dune, Canyon, and Rockland

Birds

Peregrine Falcon *Falco peregrinus*

Mammals

Townsend's Big-eared Bat *Corynorhinus townsendii*