

Section 1: Introduction to Rangeland

1. Introduction-What is Rangeland? 20-25 minutes
2. Skills Challenge: Describe Rangeland; 15-20 minutes
3. Rangeland Stewardship, Can You Have it All? Uses and Values of Rangeland; 30-35 minutes

Key Learning Objectives:

- Use a map legend to evaluate rangeland around the world and rangeland characteristics.
- Describe rangeland
- Understand that rangeland is managed for multiple uses to meet the desires and needs of society

State Standards: LS2-5-3, LS2-5-4, ESS3-5-1, LS2-MS-1, ESS3-MS-3

1. What is Rangeland?

Introduction:

What is rangeland, and why does it matter? Although rangeland covers more than 40% of the earth's land area, most people do not know much about these unique and valuable landscapes.

Time: 30-35 minutes

Supplies: "What is Rangeland" quiz for each student, maps (PowerPoint)

Do:

Take the "What is Rangeland" quiz*

*The "What is Rangeland" quiz should serve as a discussion tool and be used when exploring the map, pictures, and describing major rangeland characteristics. Answers are provided at the end of the section. Printable quiz and maps (PowerPoint) can be found at <https://idrange.org/education-2/iroam/>.

Reflect/Apply: (Description for each map can be found below).

- Using the "Rangelands of the World" map, have students describe what rangeland is (use the map legend for a general description). This will be discussed further in the *Skills Challenge: Describe Rangeland* activity below. Discuss "What is Rangeland" quiz questions 1-3.
- Using the "Rangelands of the U.S." map, have students identify what rangeland vegetation type(s) are found in Idaho. Discuss "What is Rangeland" quiz question 4.
- Using the "Variation in Annual Precipitation across the U.S." map, have students identify the precipitation range where they live. Determine the average annual precipitation that most rangeland receive. Discuss "What is Rangeland" quiz question 5.
- Using the "Who Owns the West" map, have students identify how much land the federal government manages in the state they live. Use the map to discuss "What is Rangeland" quiz question 6.
- Using the "Land Cover in Idaho" map, discuss "What is Rangeland" quiz question 7.
- Using the "Rangeland Stewardship" map, have students identify the primary management agencies/ownerships in Idaho. Discuss quiz questions 8.
- BONUS: Describe the difference between public and private lands, how can YOU be a better steward of public land? Public lands are generally described as lands that are open to the public and managed by the government.

What is Rangeland?

Rangeland Quiz

1. What is rangeland?

Check all that apply

- Shrublands
- Dense Forests
- Woodlands and Savannas
- Barren Desert
- Tundra
- Grasslands
- Irrigated Pastures
- Deserts

2. How much of the earth's land area is rangeland?

- Less than 20%
- 21 to 40%
- 40 to 50%
- More than 51%

3. Which continent has the greatest % of land classified as rangeland?

- Africa
- South America
- Australia
- Asia

4. What are the types of rangeland found in Idaho? *Check all that apply*

- Sagebrush Steppe
- Oak Woodland
- Pinyon-Juniper Woodlands
- Salt Desert Shrublands
- Tallgrass Prairie
- Intermountain Grassland

5. What is the average annual precipitation that most rangeland receives?

- Less than 6 inches
- 6 to 28 inches
- 29 to 48 inches
- More than 48 inches

6. Which state has the highest % of its land managed by federal land management agencies?

- Texas
- Nevada
- Wyoming
- Montana

7. How much of Idaho is rangeland?

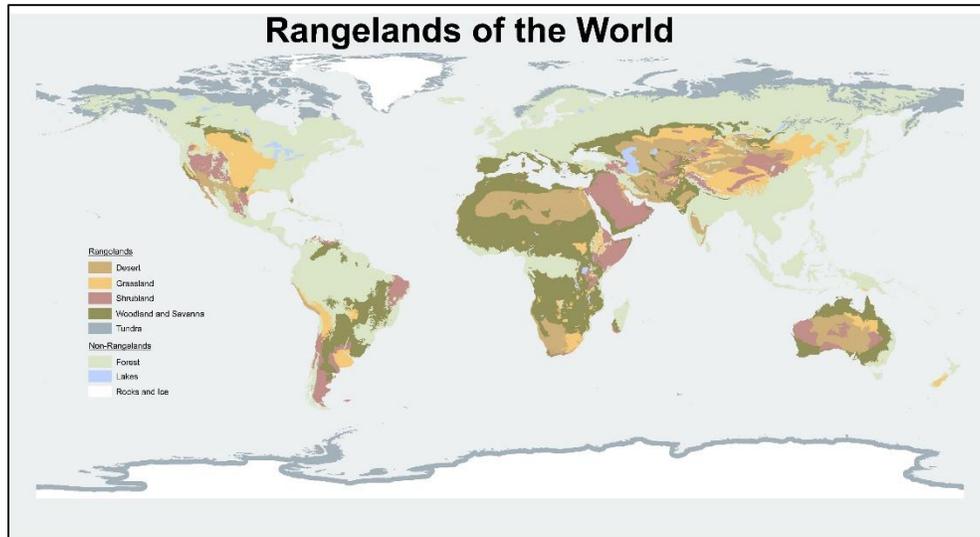
- Less than 20%
- 21-40%
- 40-50%
- More than 51%

8. Rangeland in Idaho are primarily managed by what federal agency?

- Bureau of Land Management (BLM)
- U.S. Forest Service (USFS)
- National Park Service (NPS)
- Bureau of Indian Affairs (BIA)

Answer Guide:

1. Shrublands, Woodlands and Savannas, Tundra, Grasslands, Deserts
2. 40 to 50% (most estimate 47% of the earth's land area is rangeland)
3. Australia (86%+ of Australia is considered rangeland)
4. Sagebrush Steppe, Pinyon-Juniper Woodlands, Salt Desert Shrublands, Intermountain Grassland
5. 6 to 28 inches (climatic conditions do not typically favor cultivations or provide enough precipitation for most trees)
6. Nevada (80%)
7. More than 51% (54% of Idaho is classified as rangeland)
8. Bureau of Land Management (38.1%)



Rangelands of the World

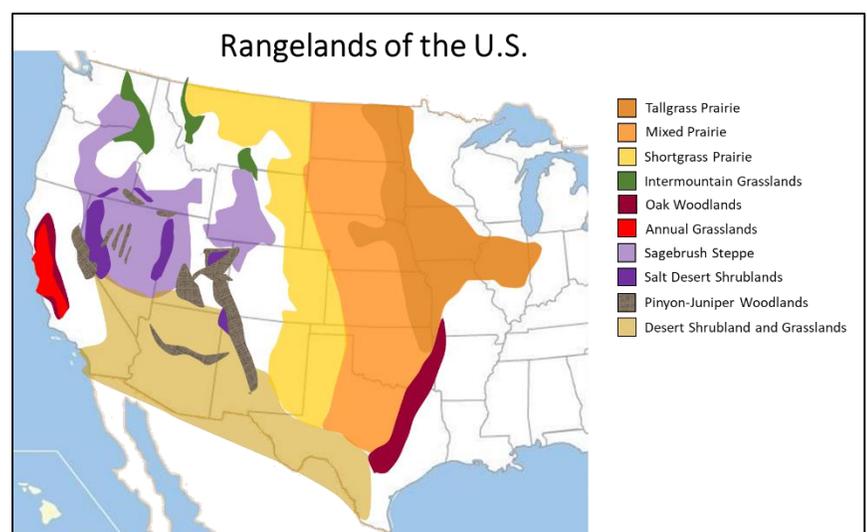
Deserts, grasslands, shrublands, woodlands, savannas, and tundra are rangeland that occur in a diverse array of forms across the globe, and extensively on every continent.

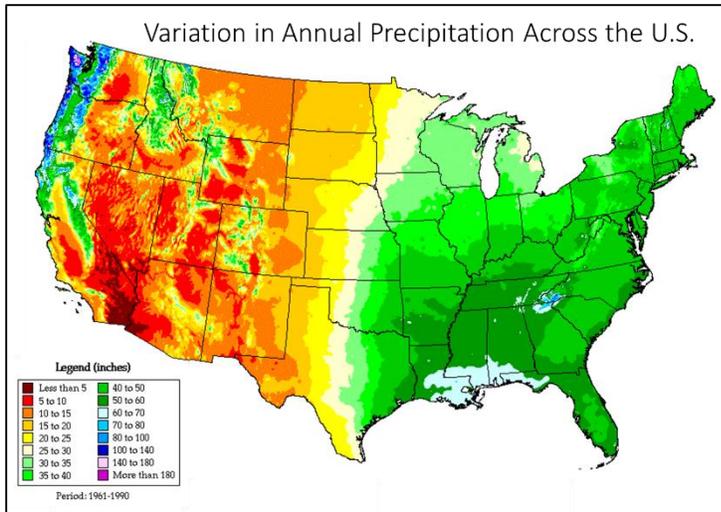
- **Deserts** are the driest rangelands. Vegetation on these lands is often sparse and dominated by shrubs and succulent cactus plants.
- **Grasslands** are lands dominated by grasses and grass-like plants.
- **Shrublands** are lands dominated by shrubs that have an understory of grasses and forbs.
- **Woodlands and Savannas** are lands dominated by widely-spaced trees with an understory of grasses and forbs.
- **Tundras** are treeless plains in the arctic or high-elevation (cold) regions.

Rangeland of the U.S.

Examples in North America:

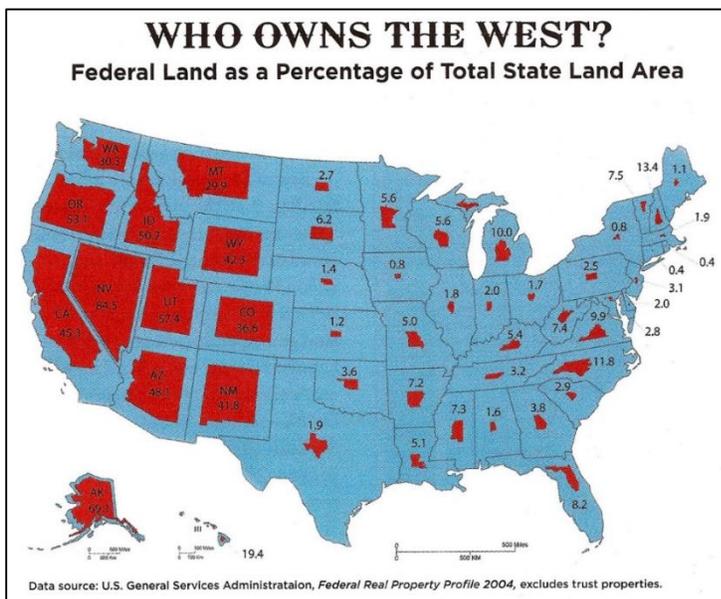
- **Desert Shrubland and Grasslands:** Mojave, Sonoran, and Chihuahuan deserts
- **Grasslands:** Tallgrass Prairie, Mixed Prairie, Shortgrass Prairie, Intermountain Grasslands (e.g., Palouse Prairie), and Annual Grasslands
- **Shrublands:** Sagebrush-Steppe, and Salt- Desert Shrublands
- **Woodlands and Savannas:** Pinyon-Juniper Woodlands and Oak Woodlands





Variation in Annual Precipitation across the U.S.

- Rangeland receives between 6-28 inches of annual (yearly) precipitation.
- The Sierra Nevada Mountains and Rocky Mountains create an orographic barrier which means they intercept moisture heading east from the Pacific Ocean; this creates a dry area (red and orange on the map) on the east or leeward side of the mountain. This effect is known as a **rain shadow**.



State Endowment Lands

- Through the *Morrill Act* in 1862, a portion of federal lands were granted to states. This act created the checkerboard pattern across much of Idaho’s landscape (red squares in the Rangeland Stewardship map).
- State lands are actively managed to “secure the maximum long-term financial return” to public schools and other beneficiaries.
- State endowment lands are managed to be sustainable (remain healthy, productive, and resilient) and promise to generate returns for generations to come.

Private Lands:

- Private lands include those owned by individuals, corporations, or non-governmental organizations (NGOs). Just like people own homes and yards in the city, rangelands were homesteaded in the mid-1800s and many have been purchased since.
- Prior to the 1930s, government policies encouraged the settlement of the West. The *Homestead Act* opened public lands to settlers and pioneers; U.S. citizens willing to settle on and improve the land for at least five years were given between 160-640 acres.
- Private lands tend to be in areas where there is water; pioneers homesteading the land needed water for themselves, animals, and to grow crops. Lands with limited water were difficult to homestead and tend to be the lands managed by state and federal agencies today.

Land Cover in Idaho

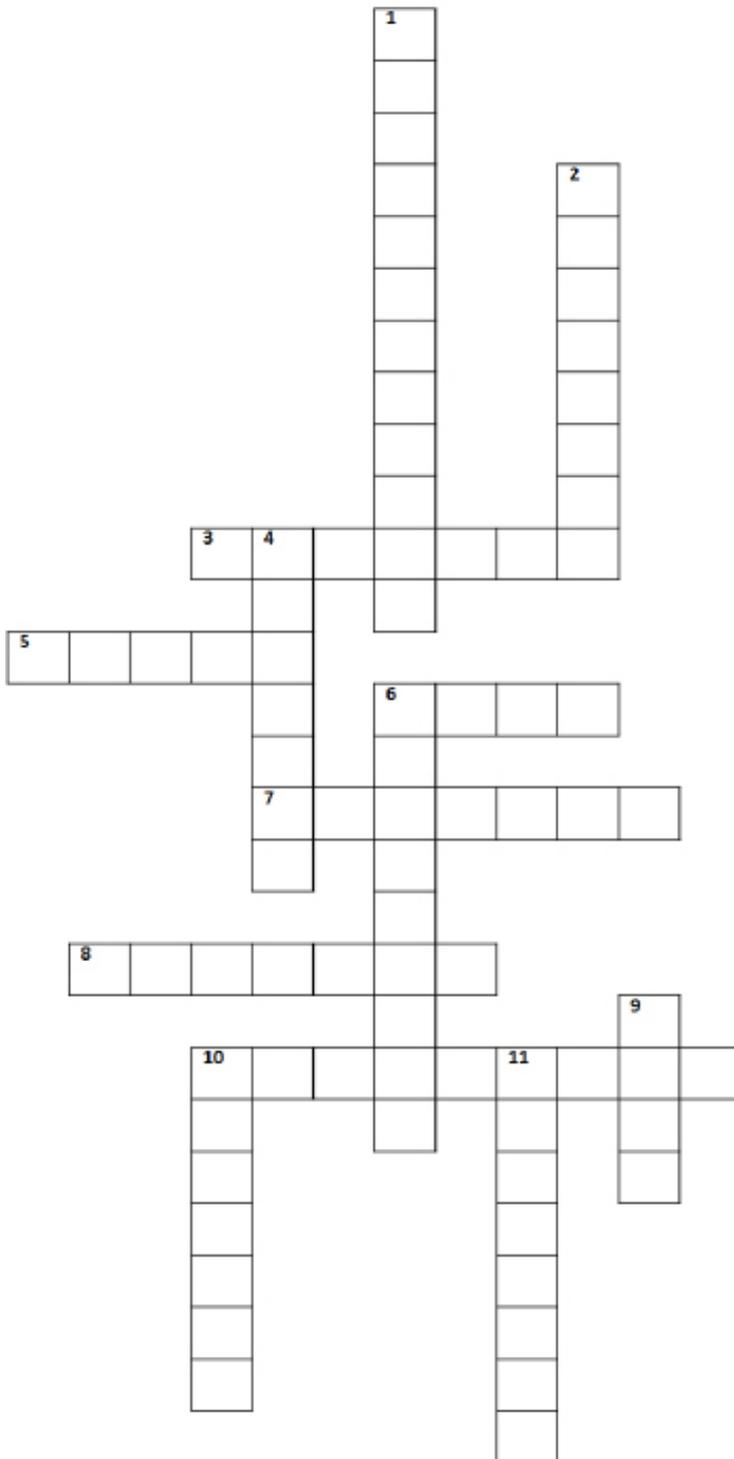
Land cover describe the characteristics of the land surface (for example, urban, agriculture, forest, and rangeland). Land cover can change over time, for example as agricultural lands are development into urban properties, however, this changes often take time. In Idaho, land cover is as follows:

- Rangeland = 54.4% or 28,793,382 acres
- Forest = 32.0% or 16,950,807 acres
- Cultivate Crops (or agricultural lands) = 9.3% or 4,898,404 acres
- Urban = 1.7% or 918,048 acres
- Irrigated Pastures = 1.7% 879,739 acres
- Water = 0.9% or 491,743

Rangeland Stewardship in Idaho: Who manages or owns Idaho rangelands?

- Federal rangeland = 68.8%; Primarily managed by the
 - Bureau of Land Management (BLM)—38.1% or 10,961,030 acres (yellow)
 - US Forest Service (USFS)—25.9% or 7,443,705 acres (green)
- State rangelands = 5.6%
- Private rangelands = 24% or 6,827,264 acres (blue)

Rangeland Stewardship Crossword Puzzle



Across

3. U.S. citizens willing to settle on and _____ the land for at least five years were given between 160-640 acres.
5. Private lands tend to be in areas where there is _____.
6. Almost _____ of the thirteen western states are federal lands, most of which are rangelands.
7. Lands with _____ water that were difficult to homestead, tend to be the lands managed by state and federal agencies today.
8. _____ lands include those owned by individuals, corporations, or non-governmental organizations.
10. State lands are actively managed to “secure the maximum long-term _____ return” to public schools and other beneficiaries.

Down

1. The Morrill Act created the _____ pattern across much of Idaho’s landscape.
2. Federal public land is to be managed for _____ use and for the greatest good of all Americans.
4. Through the _____ Act, a portion of federal lands were granted to states.
6. The _____ Act opened public lands to settlers and pioneers.
9. A federal agency that manages the majority of rangelands in Idaho is the Bureau of _____ Management (BLM).
10. Public lands are lands that are managed by _____ and state land management agencies.
11. Most federal lands belong to all U.S. _____ and they are managed and cared for on our behalf by various federal agencies.

Answer Guide:

Rangeland Stewardship Crossword Puzzle:

Across

3. U.S. citizens willing to settle on and **improve** the land for at least five years were given between 160-640 acres.
5. Private lands tend to be in areas where there is **water**.
6. Almost **half** of the thirteen western states are federal lands, most of which are rangelands.
7. Lands with **limited** water that were difficult to homestead, tend to be the lands managed by state and federal agencies today.
8. **Private** lands include those owned by individuals, corporations, or non-governmental organizations.
10. State lands are actively managed to “secure the maximum long-term **financial** return” to public schools and other beneficiaries.

Down

1. The Morrill Act created the **checkerboard** pattern across much of Idaho’s landscape.
2. Federal public land is to be managed for **multiple** use and for the greatest good of all Americans.
4. Through the **Morrill** Act, a portion of federal lands were granted to states.
6. The **Homestead** Act opened public lands to settlers and pioneers.
9. A federal agency that manages the majority of rangelands in Idaho is the Bureau of **Land** Management (BLM).
10. Public lands are lands that are managed by **federal** and state land management agencies.
11. Most federal lands belong to all U.S. **citizens** and they are managed and cared for on our behalf by various federal agencies.