Overview of Rangeland Animals

1) Types of Animals
   - Mammals
   - Birds
   - Herps (Amphibians & Reptiles)
   - Fish
   - Insects

2) Humans and Animals - Terminology can be confusing....
   - Wild
   - Domestic
   - Feral

3) Origin?
   - Native
   - Introduced/Exotic

4) Feeding habit
   - Herbivores –
     - Graze and browse vegetation
   - Carnivores –
     - Search, hunt, and consume other animals
   - Omnivores –
     - Eat meat and vegetation like roots, berries, seeds, and young shoots

5) Herbivores (grazers & browsers)
   - Can ferment and use cellulose
     - Deer, elk, sheep, etc.
   - Get energy from microbes that break down cellulose
   - Eat grasses, forbs, shrubs and tree parts

6) Herbivores (concentrate selectors)
   - Limited/no ability to ferment and use cellulose
     - Birds and mice
   - Get energy from simple carbohydrates like sugars and starches
   - Eat roots, berries, seeds, young shoots

7) Carnivores
   - Cannot digest cellulose
     - Wolves, coyotes, fox, mountain lions
   - Get energy and nutrients from “pre-formed” compounds = meat
     - Search, hunt, and consume other animals

8) Omnivores
   - Cannot breakdown cellulose
     - Bears, pigs, and humans
   - Get energy and nutrients from plants and animals
   - Eat meat and vegetation like roots, berries, seeds, and young shoots
Rangeland Animals of Interest

**Mammals**
- Muscular diaphragm
- Facial muscles
- Hair
- Mammary glands
- Different types of teeth
- Sweat/sebaceous glands
- **Deer**
  - Origin – Native
  - Feeding habit – Herbivore
  - Relationship with humans - Wild
- **Pronghorn**
  - Origin – Native
  - Feeding habit – Herbivore
  - Relationship with humans - Wild
- **Bighorn**
  - Origin – Native
  - Feeding habit – Herbivore
  - Relationship with humans - Wild
- **Bison**
  - Origin – Native
  - Feeding habit – Herbivore
  - Relationship with humans - Wild
- **Beaver**
  - Origin – Native
  - Feeding habit – Herbivore
  - Relationship with humans - Wild
- **Black bear**
  - Origin – Native
  - Feeding habit – Omnivore
  - Relationship with humans - Wild
- **Red fox**
  - Origin – Native
  - Feeding habit – Carnivore
  - Relationship with humans - Wild
- **Wolf**
  - Origin – Native
  - Feeding habit – Carnivore
  - Relationship with humans - Wild
- **Cattle**
  - Origin – Introduced
  - Feeding habit – Herbivore
  - Relationship with humans - Domestic
- **Sheep**
  - Origin – Introduced
  - Feeding habit – Herbivore
  - Relationship with humans - Domestic
- **Horse**
  - Origin – Introduced
  - Feeding habit – Herbivore
  - Relationship with humans – Domestic & Feral/Wild

**Birds**
- Fused and hollow bones to facilitate flight
- Only lay eggs for same reason
- Modified hairs known as feathers
- Very few are herbivores
- Pectin in the eye for better vision
- Beaks and no teeth
- **Greater sage-grouse**
  - Origin – Native
  - Feeding habit – Omnivore
  - Relationship with humans - Wild
- **Burrowing owl**
  - Origin – Native
  - Feeding habit – Carnivore
  - Relationship with humans - Wild
- **Red-tailed hawk**
  - Origin – Native
  - Feeding habit – Carnivore
  - Relationship with humans - Wild
- **Chukar**
  - Origin – Introduced
  - Feeding habit – Omnivore
  - Relationship with humans - Wild

**Amphibians**
- Must lay eggs in moist, or wet, environments
- First terrestrial animals to evolve from fish
- Usually smooth skin
- Skin contains mucus and/or poison glands
- Only vertebrate to undergo complete metamorphosis
- Very few herbivores yet again
- **Columbia spotted frog**
  - Origin – Native
  - Feeding habit – Omnivore
  - Relationship with humans - Wild
Reptiles
- Very poor hearing and they rely on vibration
- Dry scales that hold in moisture
- Many do not every need to drink water
- Eggs can be laid on dry land due to leather covering
- Lizards have eyelids and snakes do not
  - **Horned lizard**
    - Origin – Native
    - Feeding habit – Carnivore
    - Relationship with humans - Wild
  - **Western rattlesnake**
    - Origin – Native
    - Feeding habit – Carnivore
    - Relationship with humans - Wild

Fish
- Swim bladders
- Gills
- Lateral lines
- First organism to have a bony skeleton
- No external ears
- No eye lids
  - **Bull trout**
    - Origin – Native
    - Feeding habit – Carnivore
    - Relationship with humans – Wild

Insects
- Exoskeleton
- Lay eggs
- 3 separate body parts
- 6 legs
- 2 pairs of wings
- Outnumber humans 1,000 to one
  - **Mason bee**
    - Origin – Native
    - Feeding habit – Herbivore
    - Relationship with humans - Wild
  - **Grasshopper**
    - Origin – Native
    - Feeding habit – Herbivore
    - Relationship with humans - Wild
  - **Harvester ant**
    - Origin – Native
    - Feeding habit – Herbivore
    - Relationship with humans - Wild