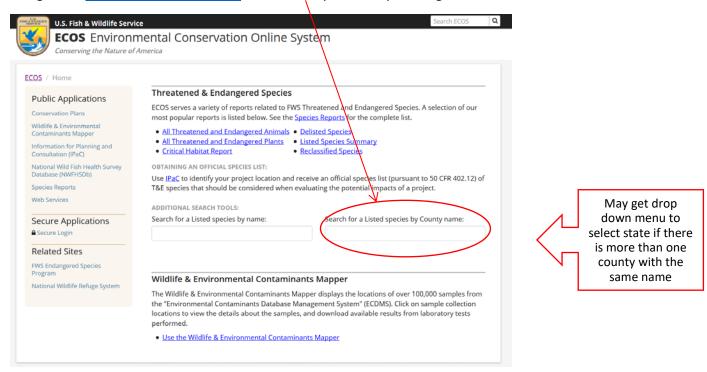
## Rangeland Plan Assignment 2 - Rangeland Animals

You do not need to hand this worksheet in with the assignment. It is simply designed to help you get the information you need for the Range Plan 2 assignment.

No matter what rangelands are being used for, it is important to understand wildlife species that may occur on the area and the potential for razing livestock. In this installment of the Rangeland Plan you will review endangered species, major huntable wildlife, and describe livestock species that are well suited for the rangeland Area of Interest (AOI) you selected in assignment 1. Follow instructions below and complete the worksheet. You do not need to submit this worksheet with your assignment, but you will need this information to write the text for assignment.

 $1^{st} \rightarrow$  Find **Endangered Species** in the County for the Rangeland AOI you selected in assignment 1.

Navigate to https://ecos.fws.gov/ecp/. Enter County in which your rangeland AOI is located.



1) \*\*What endangered species occur in the county of your Rangeland Area of Interest (AOI)? List and describe endangered species that occur on you. If no endangered species, are there any threatened species? List each species and describe its size and type. What threatens these species? listed below

Whooping crane (<u>Grus americana</u>) – Only sustaining population of whooping cranes nests and rears broods in Wood Buffalo National Park in Northern Alberta. This population winters in Aransas National Wildlife Refuge on the gulf coast of Texas. It is possible the members of this population could fly over the AOI is selected on Dry Creek, but is it is very unlikely they would land and spend significant time in the area. Other populations of whooping cranes are non-migratory in Florida and a small migratory population between Wisconsin and Florida.

**Gray wolf** (*Canis lupus*) – Dry Creek in Western North Dakota is within the historic range of the gray wolf. No current populations occur in western ND though the wolf is known to or believed to occur in Golden Valley County. Thus, there may be occasional citing within my AOI. (Interestingly, occasional citing of gray wolf, or

## Rangeland Plan Assignment 2 - Rangeland Animals

Eastern timber wolf, have occurred. It is not likely that these wolves would travel west to Golden Valley County).

**Northern Long-Eared Bat** (*Myotis septentrionalis*) is a medium sized (3-3.7 inch) bat that could occur in Golden Valley County. White-nose syndrome, a fungal disease, is currently the greatest threat to the species. Northern long-eared bats eat primarily insects. These bats hibernates in caves and mines in winter. During summer they roost during the day singularly under bark of trees and snags. Wind Farm development could affect these bats

 $2^{nd} \rightarrow$  Examine **Huntable Wildlife** on your rangeland AOI. Navigate to <u>www.fws.gov/offices/statelinks.html</u> and look for wildlife agencies in the state where your AOI is located.

2) \*\*From this list, what is the name of the State Agency that manages wildlife populations and hunting on your AOI? (Note: This is generally the first agency in the list for each state, for example Idaho Fish and Game; Montana Fish, Wildlife & Parks; Nevada Department of Wildlife; and Washington Department of Fish & Wildlife)

North Dakota Fish and Game Department

Click on the website of the state wildlife agency listed in the FWS website in question 2 above. Explore hunting opportunities near your rangeland AOI. Most often you will need to find the "Hunting Unit" or "Region" in which your Rangeland AOI occurs on this state agency website.

- 3) \*\*What are the major ungulates that are huntable on your AOI?

  Bighorn sheep, elk, moose, pronghorn, and white-tailed and mule deer (Deer Hunting Unit 4B)
  - \*\*Select one of these ungulates and describe what types of plants (i.e., grasses, forbs, or browse) they include in their diets.

Mule deer. According to ND Fish & Game website (https://gf.nd.gov/plots/landowner/mule-deer) "Mule deer are considered opportunistic concentrate selectors that forage across the landscape in search of high-quality-foods, typically shrubs and trees, followed by forbs, then grasses. Mule deer also take advantage of high-quality agricultural crops and feeds grown in North Dakota. The primary range of mule deer in North Dakota occurs in the badlands, which consists of a rugged landscape of clay buttes, covered by Rocky Mountain Juniper and green ash stands interspersed with a mixture of sagebrush, deciduous shrubs and grasses. Agricultural crops are grown along river bottoms and flats adjacent to the badlands and are utilized by mule deer. Secondary ranges occur east of the badlands to the Missouri River, and consist of a landscape dominated by agricultural activities, interspersed with wooded draws, CRP, and native grasslands encompassing rugged buttes. Water is not a limiting factor for mule deer in North Dakota."

According to NRCS Habitat Guide (<u>www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs143\_010100.pdf</u>) diets vary by season, but, animals focus on shrubs and eat little grass. Details in table to of the Habitat Guide:

Vegetation	Spring	Summer	Fall	Winter
Shrubs and trees	49%	49%	60%	74%
Forbs	25%	46%	30%	15%
Grasses	26%	3%	9%	11%

## Rangeland Plan Assignment 2 - Rangeland Animals

\*For the ungulate you selected, what is the average size of a mature animal and how much would they eat (in pounds or kilograms) per day?

According to NRCS Habitat Guide (www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs143\_010100.pdf) "Mature bucks weigh 150 to 200 pounds on average, though some may exceed 300 pounds. Does are noticeably smaller than bucks, ranging from 100 to 150 pounds at maturity."

In the Lyons et al. article read in class mule deer, average weight is 200 lbs and has intake factor of 3.5% of body weight per day. (Lyons, R. K., Machen, R. V., & Forbes, T. D. A. 1999. Understanding forage intake in range animals. Texas AgriLife Extension Publication M-393)

In another article read in class by Holechek, mule deer were reported to weigh 150 pounds and eat 2% of their body weight per day. (Holechek, J. L. 1988. An approach for setting the stocking rate. Rangelands, 10(1), 10-14.

- $3^{rd} \rightarrow$  Examine **Domestic Livestock** that would be best to graze your AOI.
  - 4) \*\*Based on the plants and topography of your AOI, what species of livestock would be best suited to graze the area? Describe the diet and abilities of this species that make them well suited.

The AOI selected on Dry Creek is dominated by grasses (80-85%) with about 10-12% forbs and lesser amounts of 7% shrubs and 1% cryptogams. The topography is mostly gentle with a few steep buttes and canyons. Best suited for cattle or sheep.

\*\*If you decided to graze livestock on your site, what species would you choose to raise and what types of plants would you expect them to include in their diet? (Note: This species may be the same species suggested in the previous question.)

I would like to graze black baldy cattle (cross between Angus and Herefords). Black baldy's are cattle so they are ruminants classified as grass/roughage type animals. They would therefore graze mostly grass. Thus, they could survive and do well on the plants on the Dry Creek Ranch AOI.

\*\*For the breed and type of animal you decide to graze, how many pounds would an average full-grown male and female weigh?

I am in interesting in smaller cows and bulls. Will consider raising cows 900 to 1000 pounds and using bulls about 1,200-1,300 pounds.

\*\*How many pounds would an average full-grown male and female eat per day (In pounds or kg)?

According to Lyons et al. 1999, 1,000 cattle have intake factor of 2.5% intake of body weight per day.

You will write your answers on a separate "Assignment" form and submit it for 25 points in Bb-Learn by **midnight, Sunday, February 17, 2019.**