

WOLVERINE REINTRODUCTION IN COLORADO

By Hanna Velicer



BACKGROUND

This project aims to determine potential suitable area for wolverine reintroduction around Steamboat Springs and the Yampa area (see map below). This is being studied to provide official guidance during the reintroduction process.

CRITERIA & DATA

- Elevation over 9,000 feet (DEM layer from USGS)
- Transitional or persistent snowpack (Snowpack layer from MODIS data)
- Farther than 0.25 miles from all roads, main and backroads (Roads layer from USGS)
- On some type of public land (Land ownership layer from COMAP)

ROUTT COUNTY MAP



METHODS

To begin, all data was imported into the map, clipped to the Routt County boundary, and altered to be a single layer for each criteria. First, a buffer was made around all roads of 0.25 miles, then extracted from the DEM layer. Next, the land ownership layer was altered to remove all “private” areas and this was also extracted from the DEM. Finally, the DEM and snowpack layers were reclassified according to the above criteria, then overlaid using a weighted overlay to achieve the final result.

RESULTS

- The total area of suitable land to release wolverines into is 695.12 mi², out of a total 2,368 mi² in the county.
- The total area by owner of suitable areas to release wolverines into is:
 - US Bureau of Land Management (BLM) - 256.35 mi²
 - US Forest Service (USFS) - 224.78 mi²
 - State - 137.49 mi²
 - Local - 76.5 mi²
- The minimum, maximum, and average elevation of the suitable area is:
 - Minimum - 6,801 feet
 - Maximum - 11,142 feet
 - Average - 9,879 feet
- Important to note that these calculations were done on both the “OK” and “Very Suitable” areas on the map.

CITATIONS

- Colorado Counties (Routt County Boundary) acquired through [CO Geospatial Data Portal](#)
- Elevation Data (DEM) acquired through [USGS 3DEP](#)
- Snow Zone Data (Snowpack) acquired from [MODIS Data by Jack Reuland](#)
- Colorado Roads (Roads) acquired through [USGS/National Map](#)
- Colorado Land Ownership (Land Ownership) acquired from [COMAP Data by Sophia Linn](#)

Suitable Area For Wolverine Reintroduction in Routt County, CO

- Not Suitable**
- Poor**
- OK**
- Very Suitable**

0 50 100 200 Miles



Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Esri, USGS

Esri, NASA, NGA, USGS, County of Routt, Esri, TomTom, Garmin, SafeGraph, FAO, MBTI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS