

Wolf Corridor in Yellowstone National Park

About Yellowstone National Park and Gray Wolves

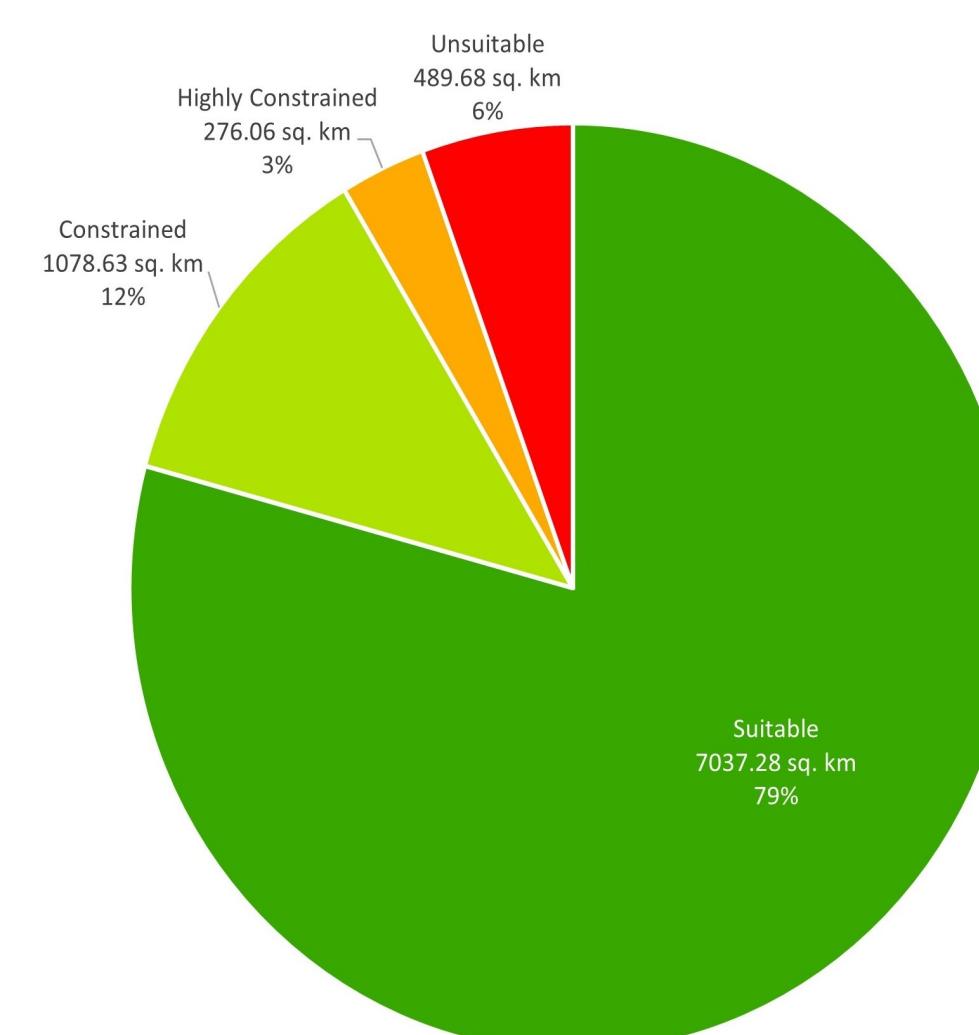
Yellowstone National Park is the first American national park located in the Western United States. It is well known for its large variety of wildlife and unique geothermal features, attracting more than 4 million visitors per year. While gray wolves were native to Yellowstone, the national park failed to provide adequate protection and they were rarely sighted during the 20th century. After being reintroduced into Yellowstone in 1995, there are at least 95 gray wolves in the Yellowstone National Park as of December 2021.

Methodology

Least Cost Path Analysis was performed to identify the optimal route for gray wolves in Yellowstone National Park. After generating cost surfaces based on the pre-defined weighted criteria, they were combined into an accumulated cost surface. The cost distance and the cost direction were then generated in order to identify the least cost path for specific wolf origin and destination.

Results

The accumulated cost surface indicates that the majority of the Yellowstone National Park is suitable for gray wolf habitat (79%), while 12% of the area is constrained, 3% of the area is highly constrained, and 6% of the area is unsuitable (see the chart). Based on the results, the optimal wolf corridor is 162.21 km long, running from Mammoth, Wyoming in the north, to Badger Creek, Wyoming, in the south.



Cost Criteria

