

Attachment B: Raw Data of Life Expectancies of Bison in Non-thermal versus Hydrothermal Areas in Yellowstone

Y Axis: Life Expectancy (0-18 years)

X Axis: Snow Depth

Non-Thermal Area	Hydrothermal Area
0 ft (0m), 18 years	0 ft (0m), 12 years
1 ft (.3m), 18 years	1 ft (.3m), 12 years
2 ft (.6m), 12 years	2 ft (.6m), 12 years
3 ft (.9m), 4.5 years	3 ft. (.9m), 9 years
4 ft (1.2m), 3 years	4 ft. (1.2m), 1.5 years

Explanation of Graph

The normal life expectancy of a bison in an area that has no hydrothermal influence is approximately 18 years. Bison can naturally survive in snow, unless its depth becomes excessive. However, excessive snow depths lead to poor nutrition or starvation, greater expenditure of energy, and an increased chance of being unable to avoid predation. In a non-thermal area, life expectancy declines when the snow depths are greater than two feet (.6m).

The average life expectancy of a bison in a hydrothermal area is about 12 years, substantially shorter than its non-thermal counterpart. This shorter life span is largely because of two reasons. First, the likelihood of becoming trapped during a predation incident is greater. Secondly, the plants and water in hydrothermal areas experience chemical changes which eventually affects the animal's health adversely.

Conversely, hydrothermal activity also provides areas of refuge from deep snows, with warmth and plentiful forage. Therefore, the bison's life expectancy remains fairly constant, unless the snow depth exceeds two feet. Life expectancy after three feet declines rapidly; and if the snow is greater than four feet, the bison has even less chance of survival than its non-thermal area counterpart. That is because the bison is more likely to be killed by a predator.