

A landscape photograph of the Nebraska Sand Hills. The foreground is filled with tall, golden-brown grasses. In the middle ground, there is a body of blue water, possibly a reservoir or a large pond, surrounded by more grass. The background consists of rolling, sandy hills under a clear blue sky. The text "Natural Selection in the Nebraska Sand Hills" is overlaid on the image in a large, bold, black font.

Natural Selection

in the Nebraska Sand Hills

Observation:

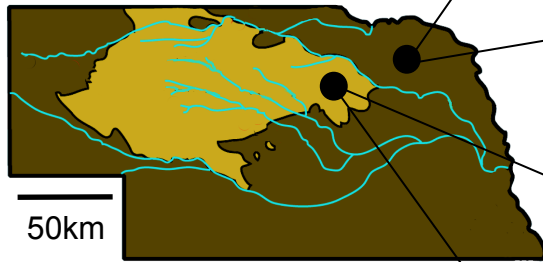
Dark soil



Dark mice



Nebraska



Light sand



Light mice



...an adaptation?

Adaptation happens by...

Natural Selection:

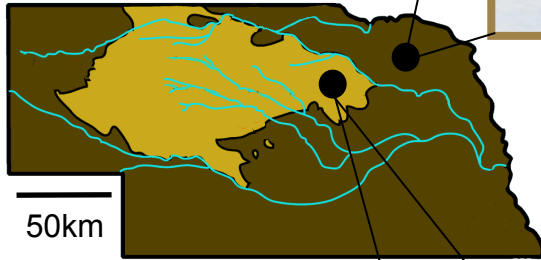
1. Variation
2. Heritability
3. Differential fitness

1. Variation:

Dark Mice



Nebraska



Light Mice



2. Heritability:

Parent genes

Offspring color

Light/Light (AA)

Dark/Dark (aa)



=

Light	Dark	Ratio
42	0	1:0

Light/Dark (Aa)

Dark/Dark (aa)



=

Light	Dark	Ratio
51	50	1:1

Light/Dark (Aa)

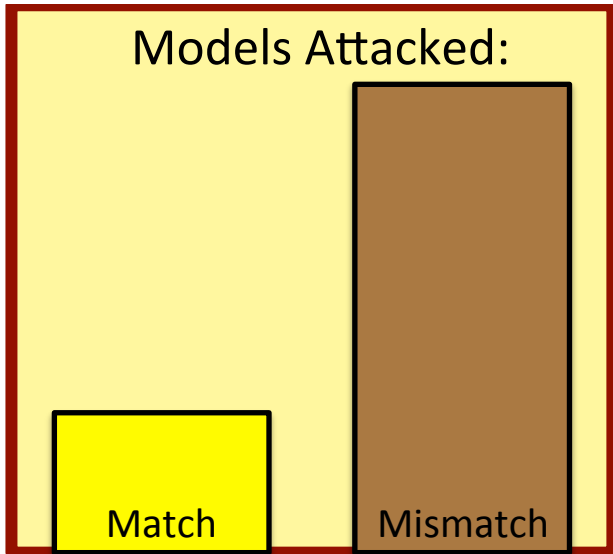
Light/Dark (Aa)



=

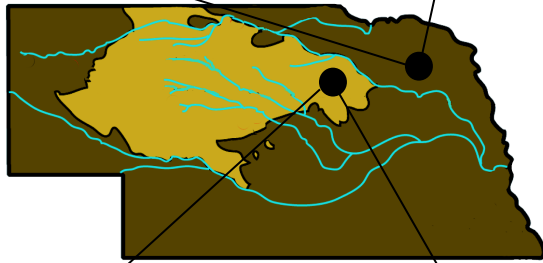
Light	Dark	Ratio
42	15	3:1

3. Differential Fitness:



Natural Selection Summary

Variation



Heritability

Light	Dark	Ratio
42	0	1:0

Light	Dark	Ratio
51	50	1:1

Light	Dark	Ratio
42	15	3:1

Differential Fitness

