Climate Change and Archaeological Resources

Greg Burtchard
Archaeological Site Distribution & Habitat Structure
Holocene Climate Model 1
-1 °C

Mount Rainier National Park

Show Sites

Animate: Park or Regional

Warmer ➔

1000's of Years B.P.

Celsius ➔ -7 -6 -5 -4 -3 -2 -1 0 1 2 3

Cooler ←

-1 °C
Show Sites
1°C

Celsius $\rightarrow$ -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Show Sites

Animate: Park or Regional

Cooler $\leftarrow$ Warmer $\rightarrow$
-3 °C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

Warmer → Cooler

1000's of Years B.P.

Show Sites

Animate: Park or Regional
-3 °C

[Map of Mount Rainier National Park with a scale bar and a graph showing temperatures over time. The graph has a timeline of 1000s of years B.P. and a temperature scale from -7 to 3 Celsius degrees. The map shows the park boundaries and key sites marked on the map. There is an option to show sites and animate the regional park or park.]
Show Sites

Animate: Park or Regional

Cooler → Warmer

-7 °C

1000’s of Years B.P.

Celsius: -7 -6 -5 -4 -3 -2 -1 0 1 2 3

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
0 c°

• Known Archaeology Sites

Remove Sites
- Known Archaeology Sites

Remove Sites
-1 °C

Known Archaeology Sites

Remove Sites
-1 °C

- Known Archaeology Sites

Map of Mount Rainier National Park showing known archaeology sites. The map includes a temperature chart indicating cooler and warmer periods from 1000s of years B.P. to the present day.
0 °C

- Known Archaeology Sites

Remove Sites

Animate: Park or Regional

Cooler → Warmer → 1000's of Years B.P.

Celsius: -7 -6 -5 -4 -3 -2 -1 0 1 2 3

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
+1 °C

- **Known Archaeology Sites**

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Cooler ↔ Warmer

Remove Sites
+2 \degree C

- Known Archaeology Sites

Remove Sites

Cooler → Warmer

Animate: Park or Regional

1000's of Years B.P.

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3
+1 c°

- Known Archaeology Sites

Remove Sites

 Cooler
Animate: Park or Regional

Warmer
National Park Service
U.S. Department of the Interior

Mount Rainier National Park

0 \degree C

- Known Archaeology Sites

Celsius \rightarrow -7 \rightarrow -6 \rightarrow -5 \rightarrow -4 \rightarrow -3 \rightarrow -2 \rightarrow -1 \rightarrow 0 \rightarrow 1 \rightarrow 2 \rightarrow 3

 Cooler \rightarrow Warmer

1000\'s of Years B.P.

Remove Sites

Animate: Park or Regional
-1 °C

- Known Archaeology Sites

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

Cooler → Warmer

1000's of Years B.P.

Remove Sites

Animate: Park or Regional
-2 c°  • Known Archaeology Sites

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Cooler  Animate: Park or Regional  Warmer →

Remove Sites
-4 c° * Known Archaeology Sites

Remove Sites

Cooler → Warmer →

Animate: Park or Regional

1000's of Years B.P.

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
-3 c°

- Known Archaeology Sites

Remove Sites
-2 c°

- Known Archaeology Sites

Remove Sites

Cooler
Animate: Park or Regional

Warmer

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.
-4°C

- Known Archaeology Sites

Remove Sites

Animate: Park or Regional

Cooler → Warmer

1000's of Years B.P.

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

°
-6 °C

- Known Archaeology Sites

Remove Sites

Celsius ➔ -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Cooler ➔ Warmer ➔

Animate: Park or Regional
-6°C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Warmer → Cooler
-5°C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Cooler ➔ Warmer ➔
-4 \degree C

Celsius \rightarrow -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

\begin{align*}
&\text{Cooler} \\
&\text{Warmer}
\end{align*}
National Park Service
U.S. Department of the Interior

Mount Rainier National Park

-3 °C

Celsius ➔ -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Warmer ➔

Cooler ➔
-2 °C

Celsius ➞ -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Cooler ➞ Warmer
1 C°

Celsius \( ightarrow -7 -6 -5 -4 -3 -2 -1 \ 0 \ 1 \ 2 \ 3 \)

1000's of Years B.P.

\( \leftarrow \text{Cooler} \quad \text{Warmer} \rightarrow \)
-1 °C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

Warmer →

Cooler ←
-1 °C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

Cooler → Warmer

1000s of Years B.P.
-2 °C

Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

Cooler → Warmer

1000's of Years B.P.
References for this Presentation


