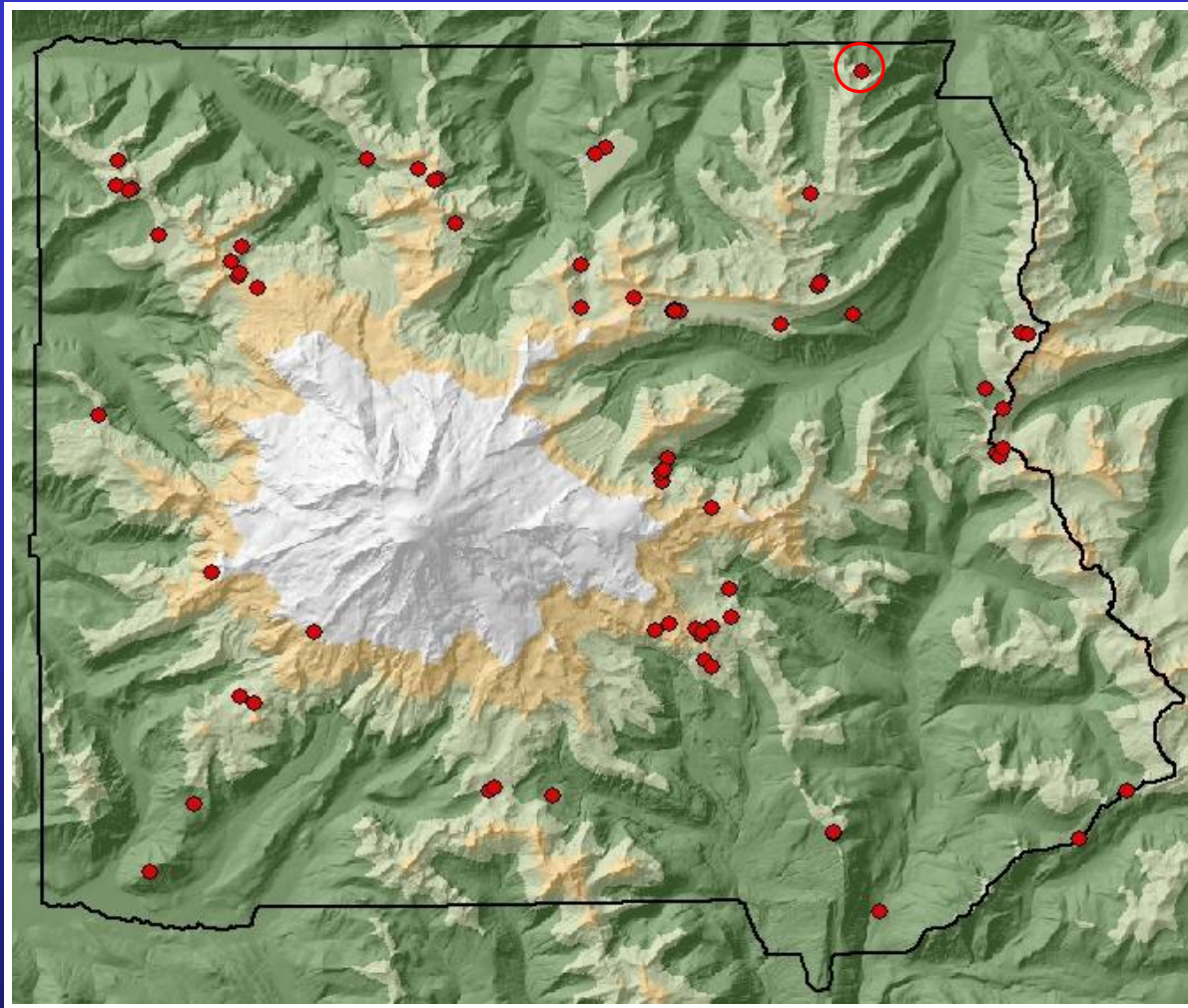


A wide-angle photograph of a mountain landscape. In the foreground, there is a rocky, gravelly slope with several patches of snow. A small stream flows through the center of the slope. The middle ground shows a valley with dense evergreen forests. In the background, there are more mountain ranges under a cloudy sky. The overall scene is a high-altitude mountain environment.

Climate Change and Archaeological Resources

Greg Burtchard



Archaeological Site Distribution & Habitat Structure Holocene Climate Model 1

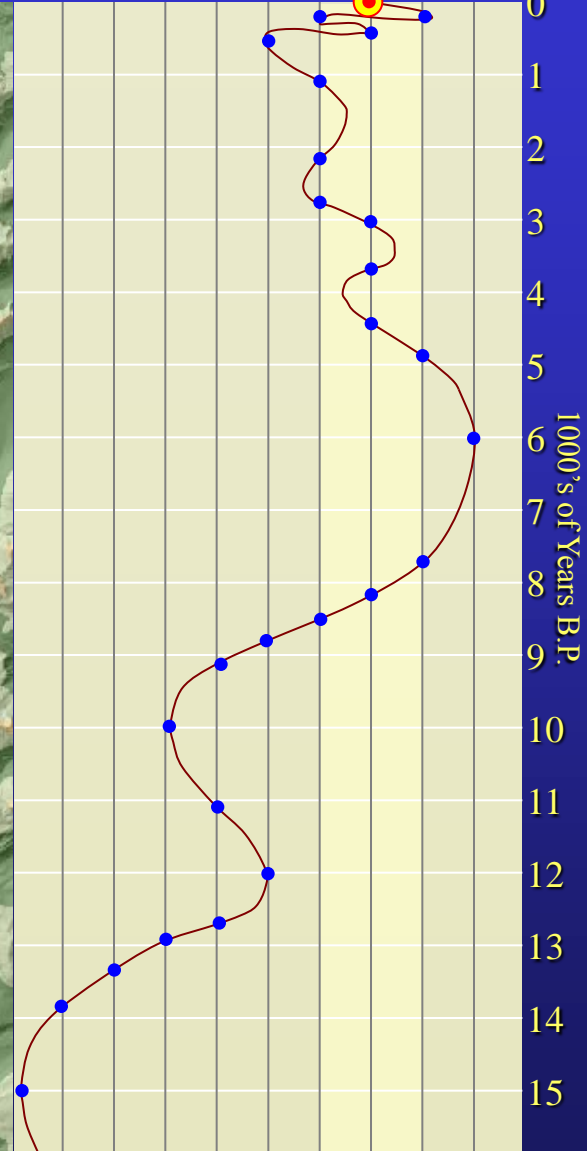
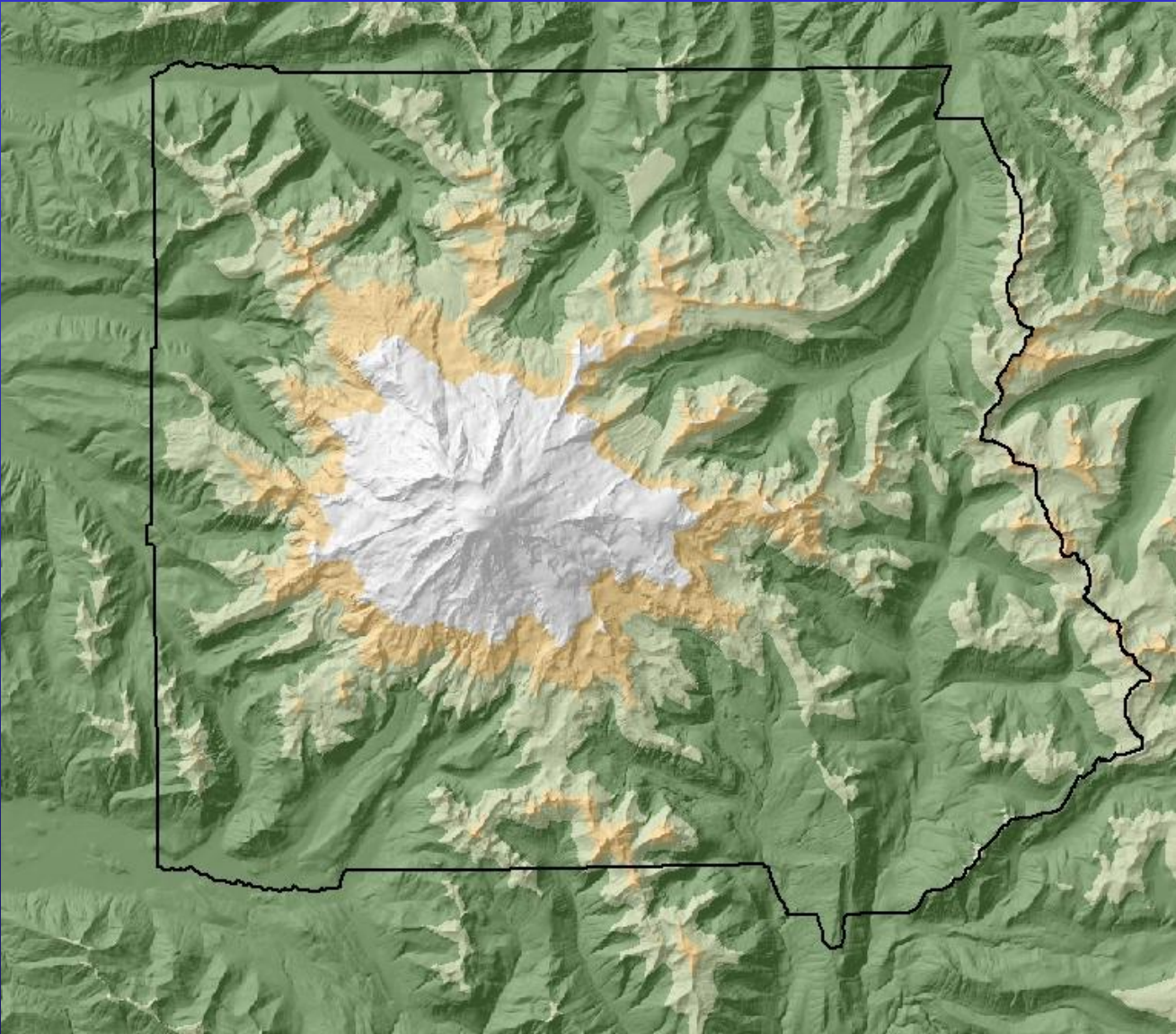


0 c°

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

1000's of Years B.P.

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Show Sites

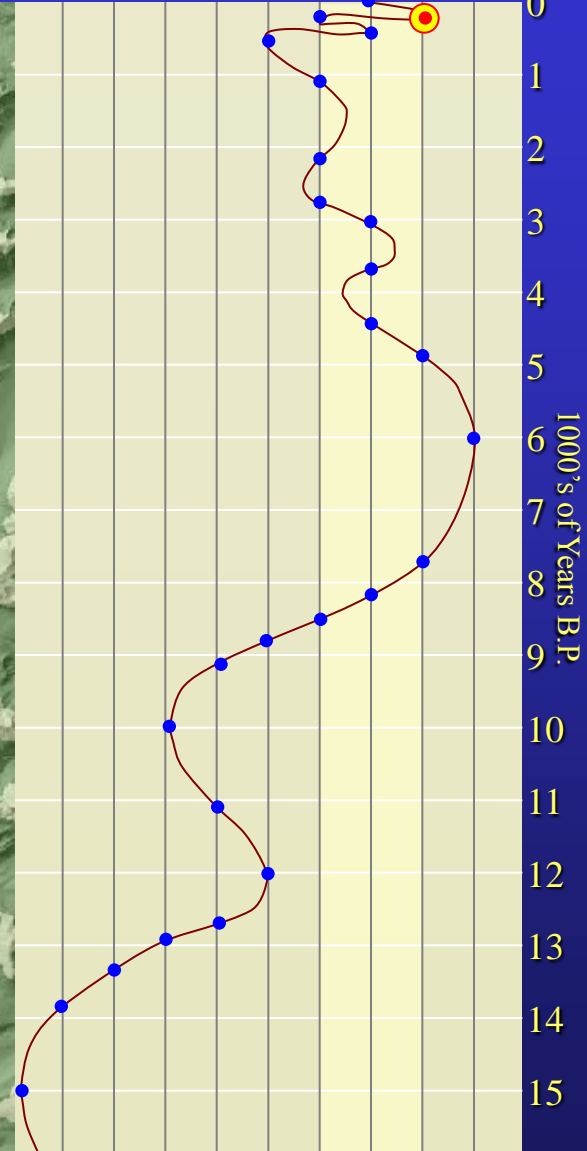
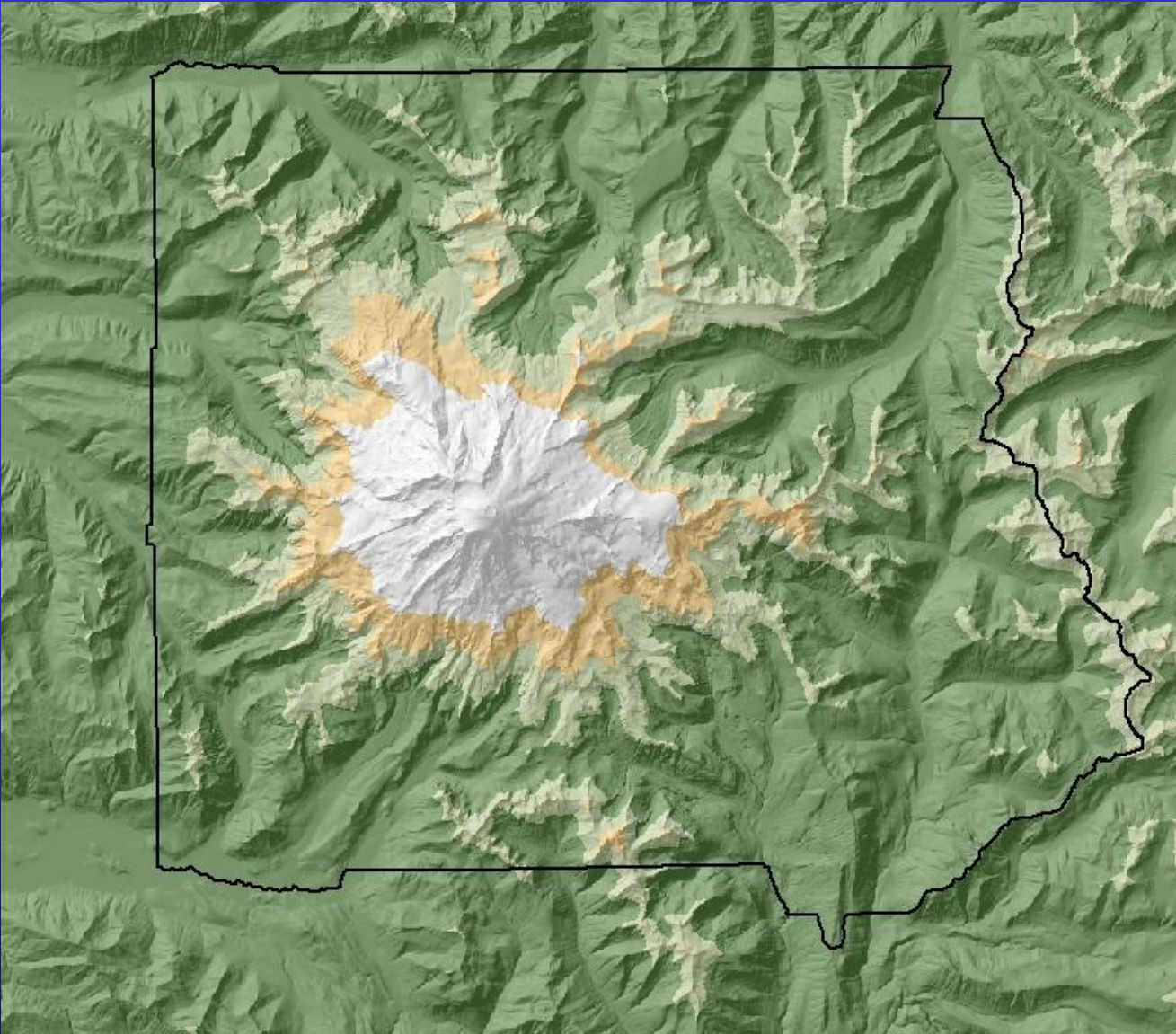
← Cooler Warmer →
Animate: Park or Regional



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

1000's of Years B.P.

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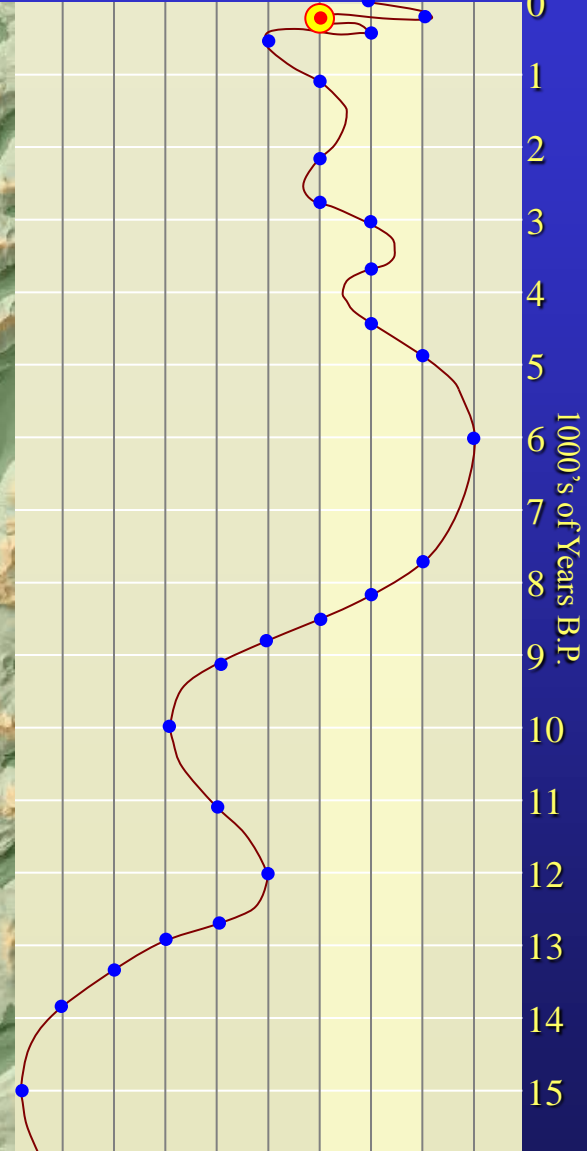
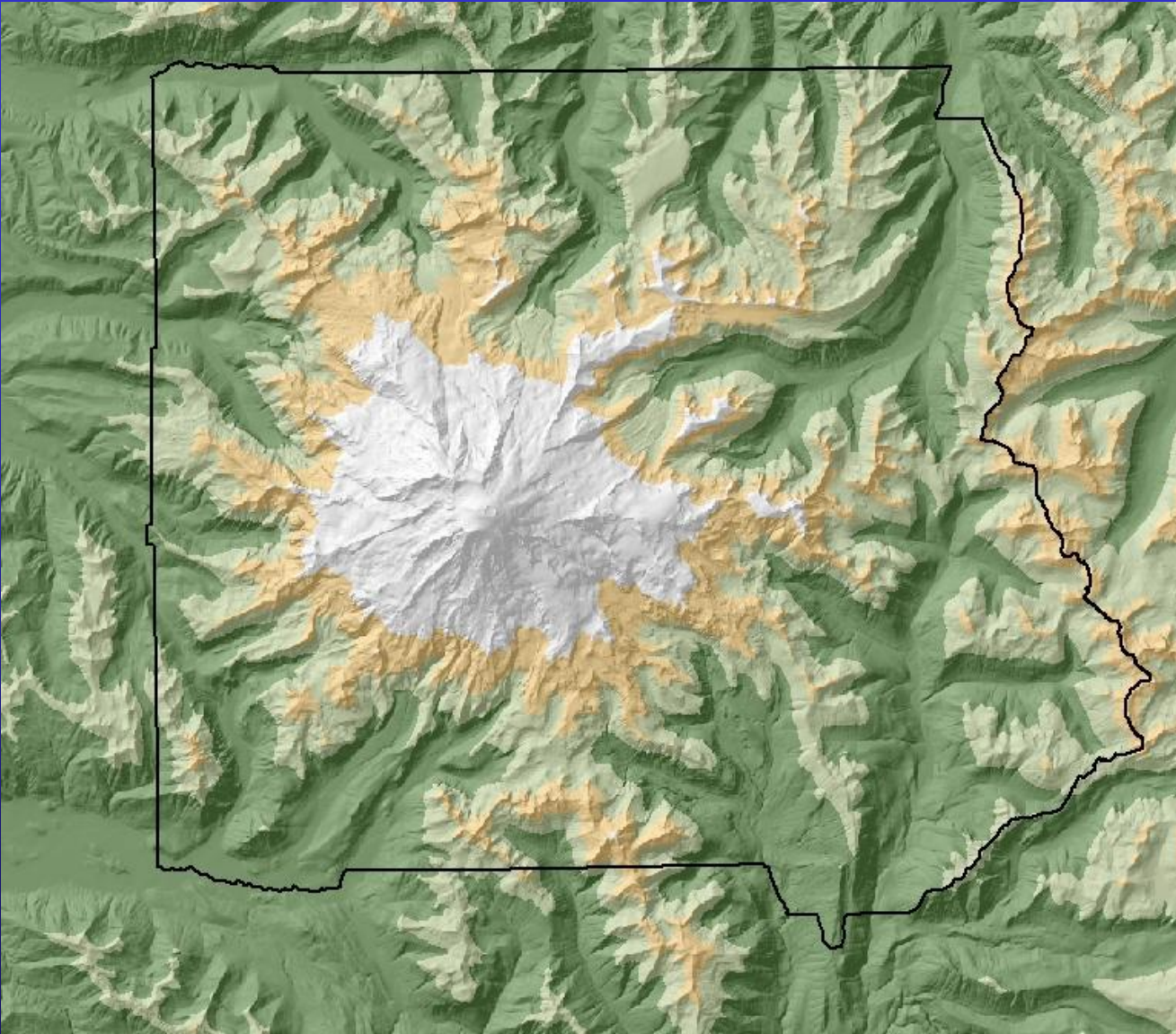
← Cooler → Warmer →
Animate: Park or Regional



-1 c°

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

1000's of Years B.P.



Show Sites

← Cooler Warmer →
Animate: Park or Regional

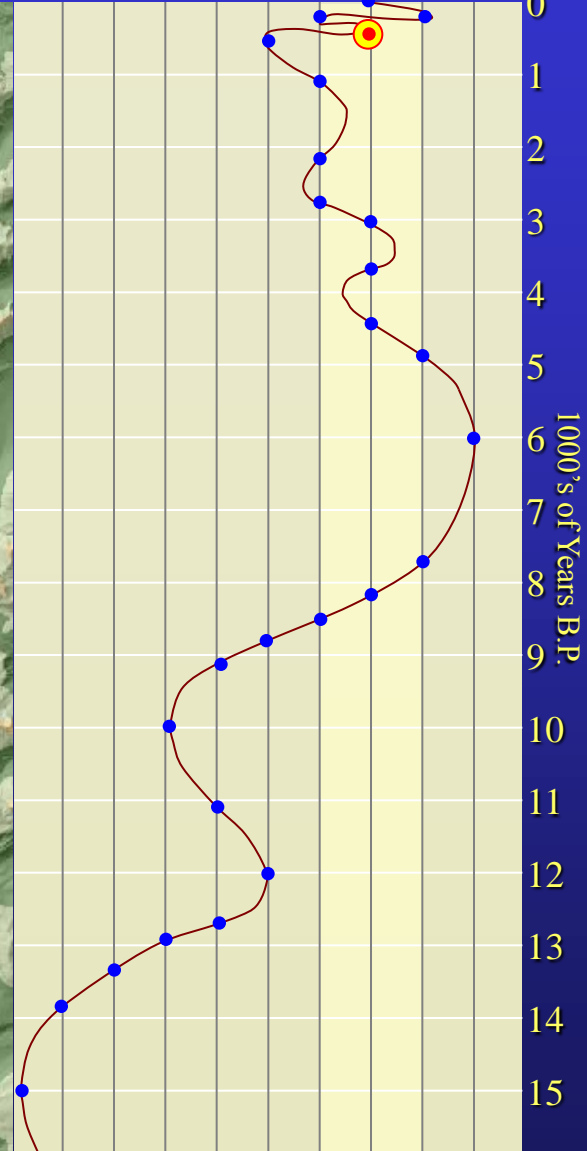
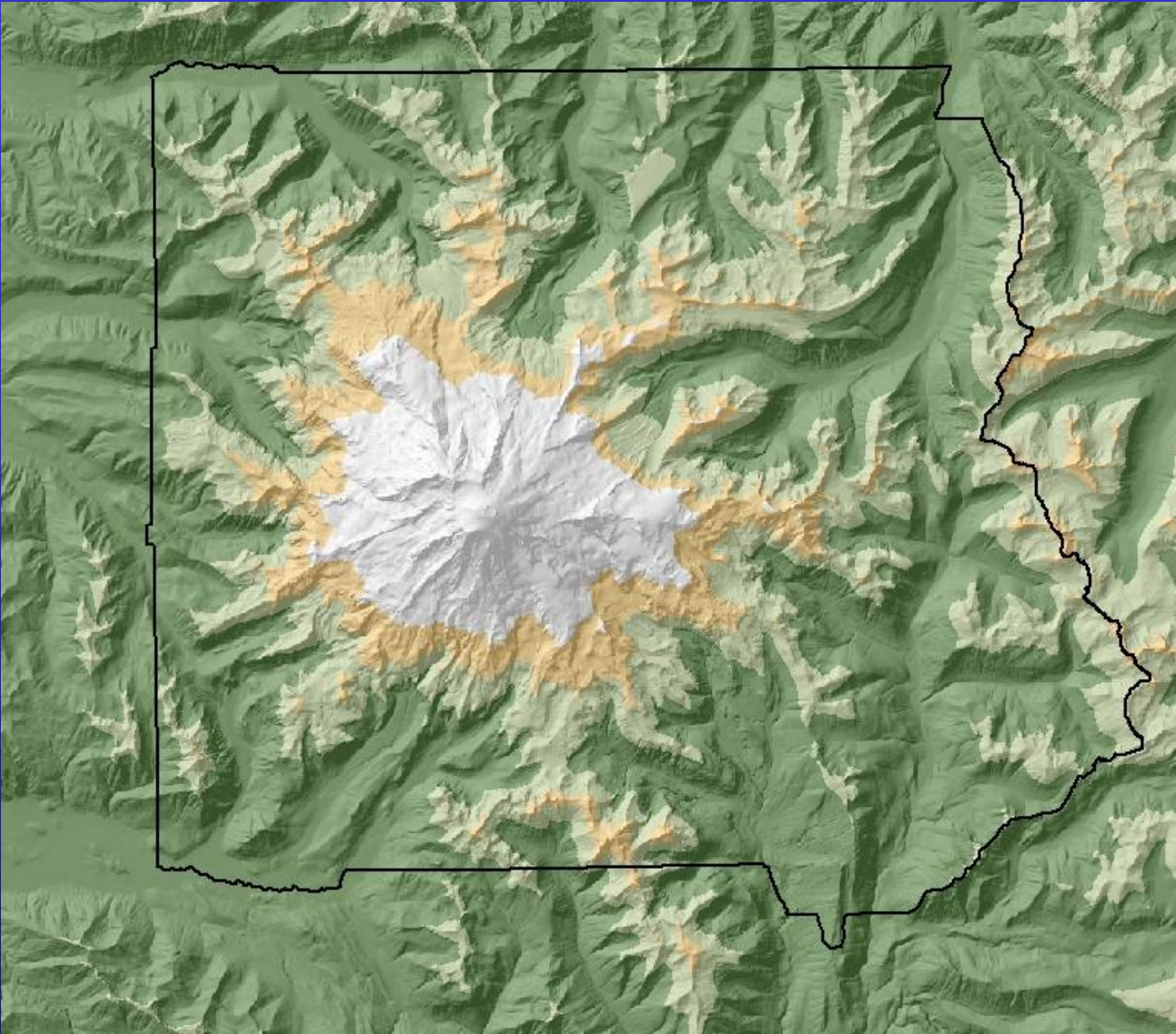


0 c°

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

1000's of Years B.P.

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Show Sites

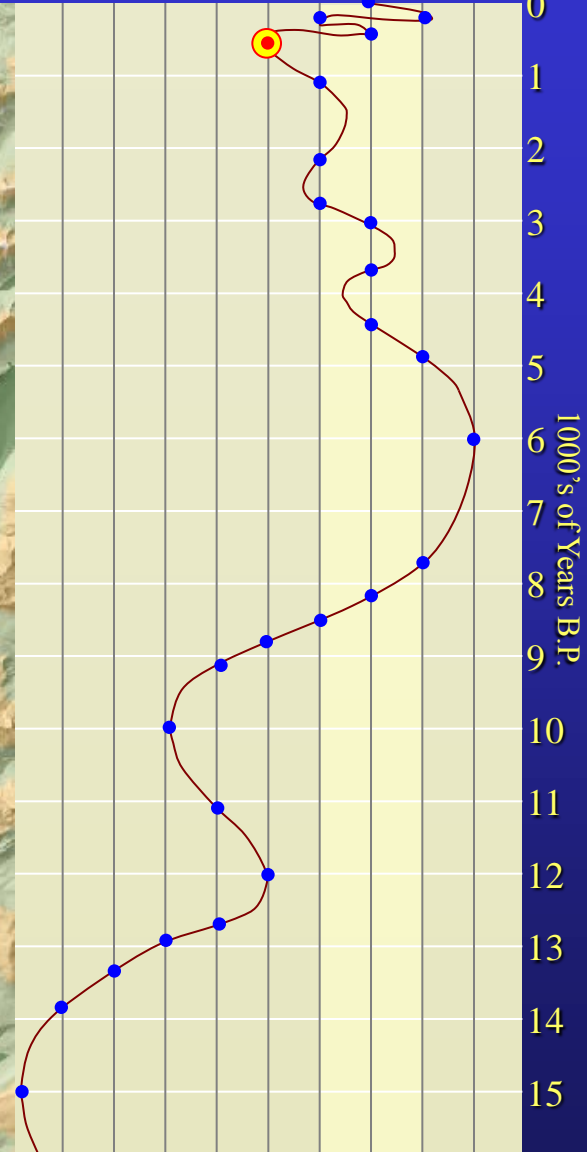
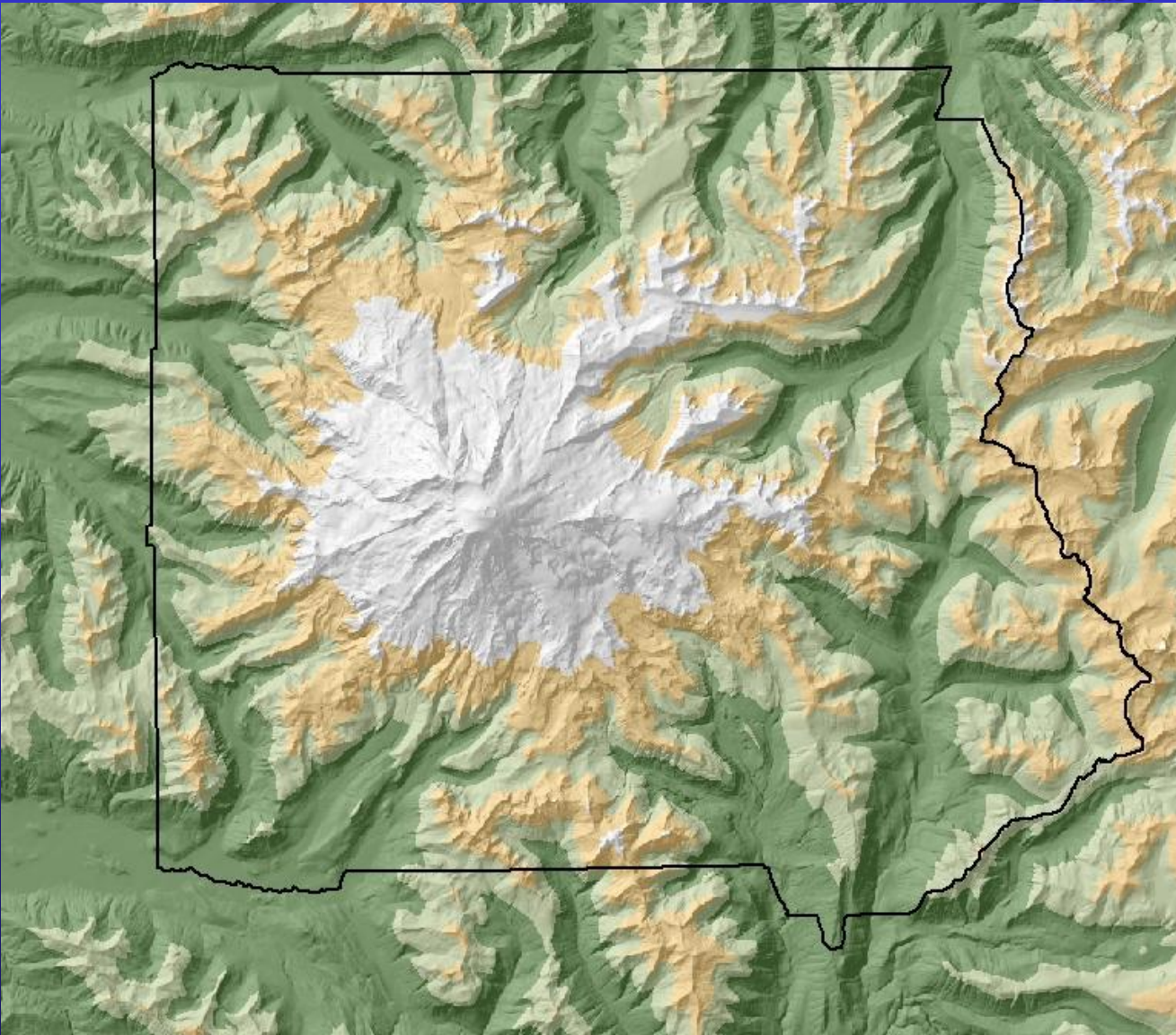
← Cooler Warmer →
Animate: Park or Regional



-2 c°

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

1000's of Years B.P.



Show Sites

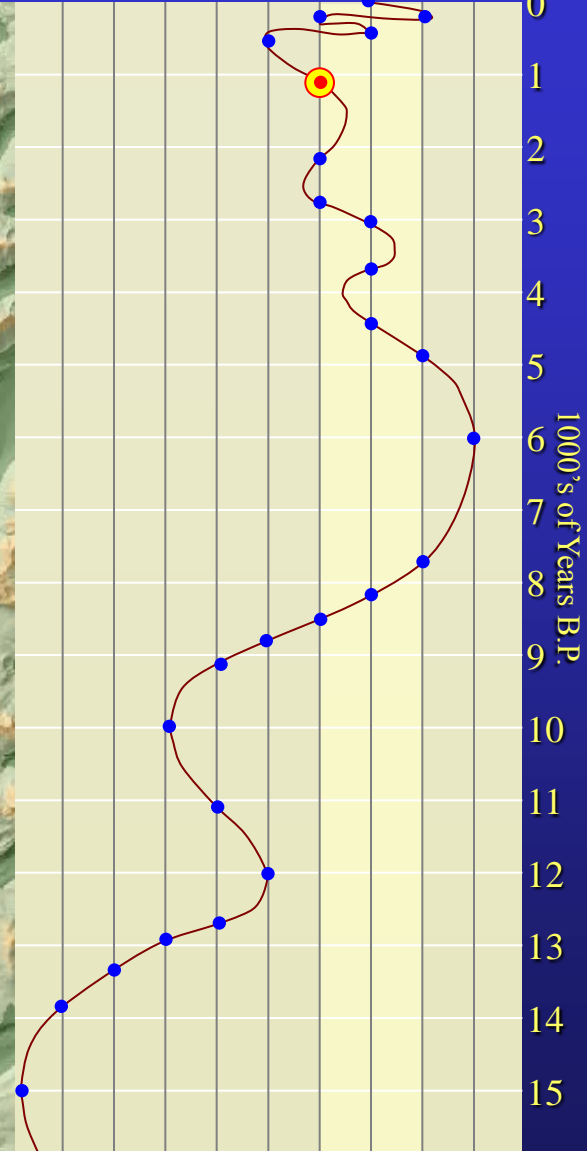
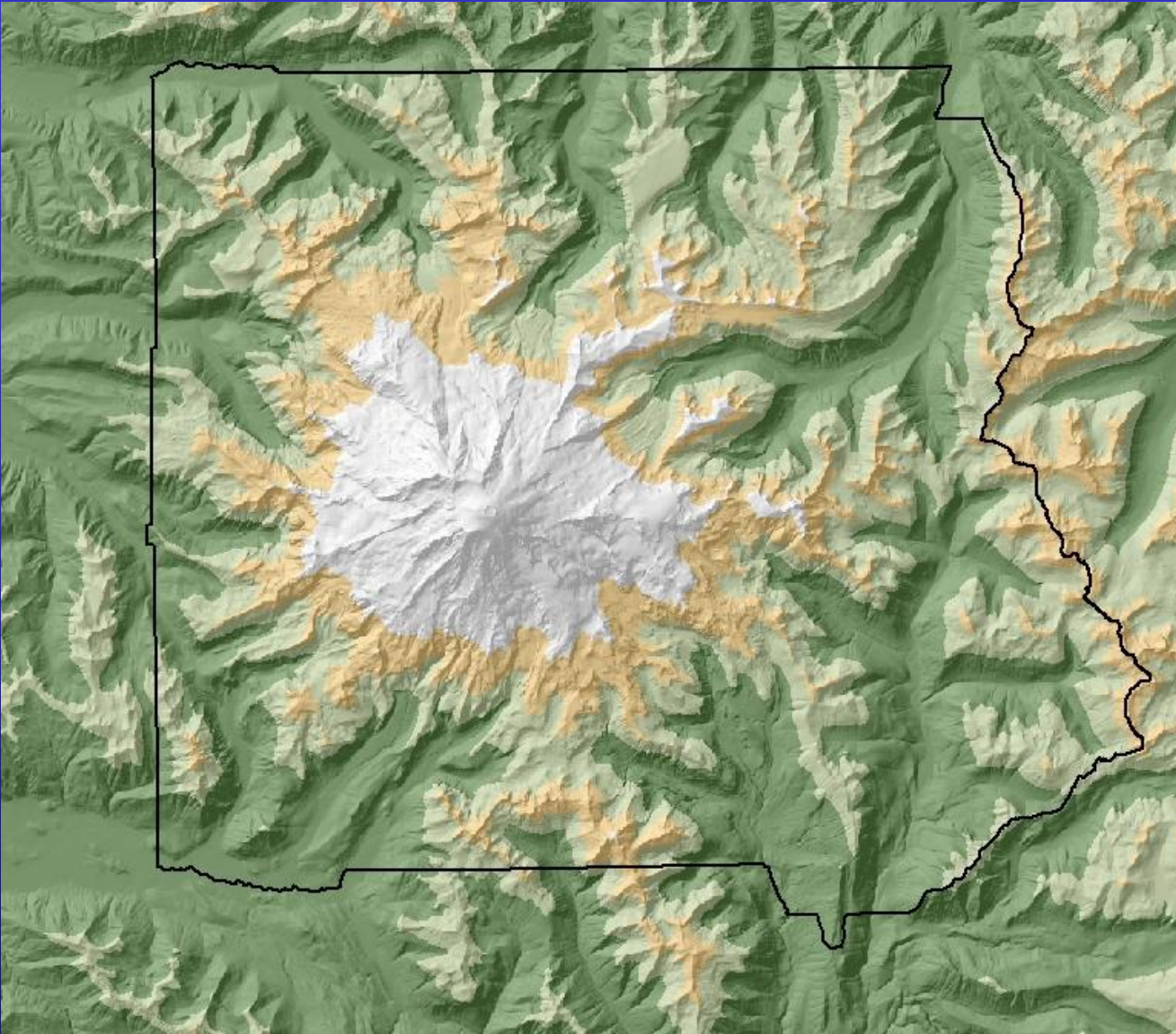
← Cooler → Warmer →
Animate: Park or Regional



-1 c°

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

1000's of Years B.P.



Show Sites

← Cooler → Warmer →
Animate: Park or Regional

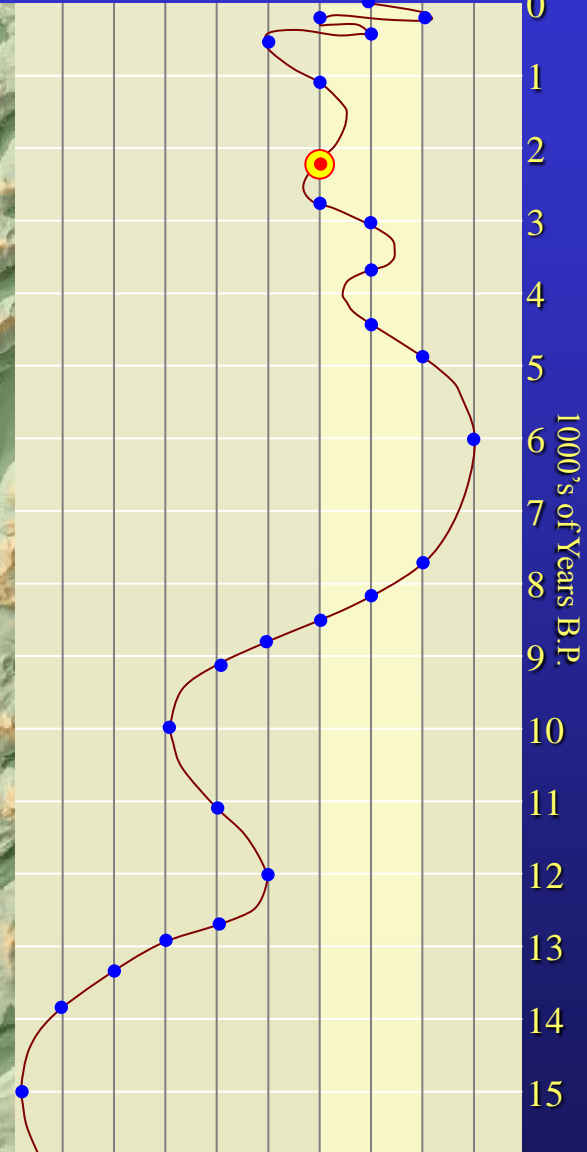
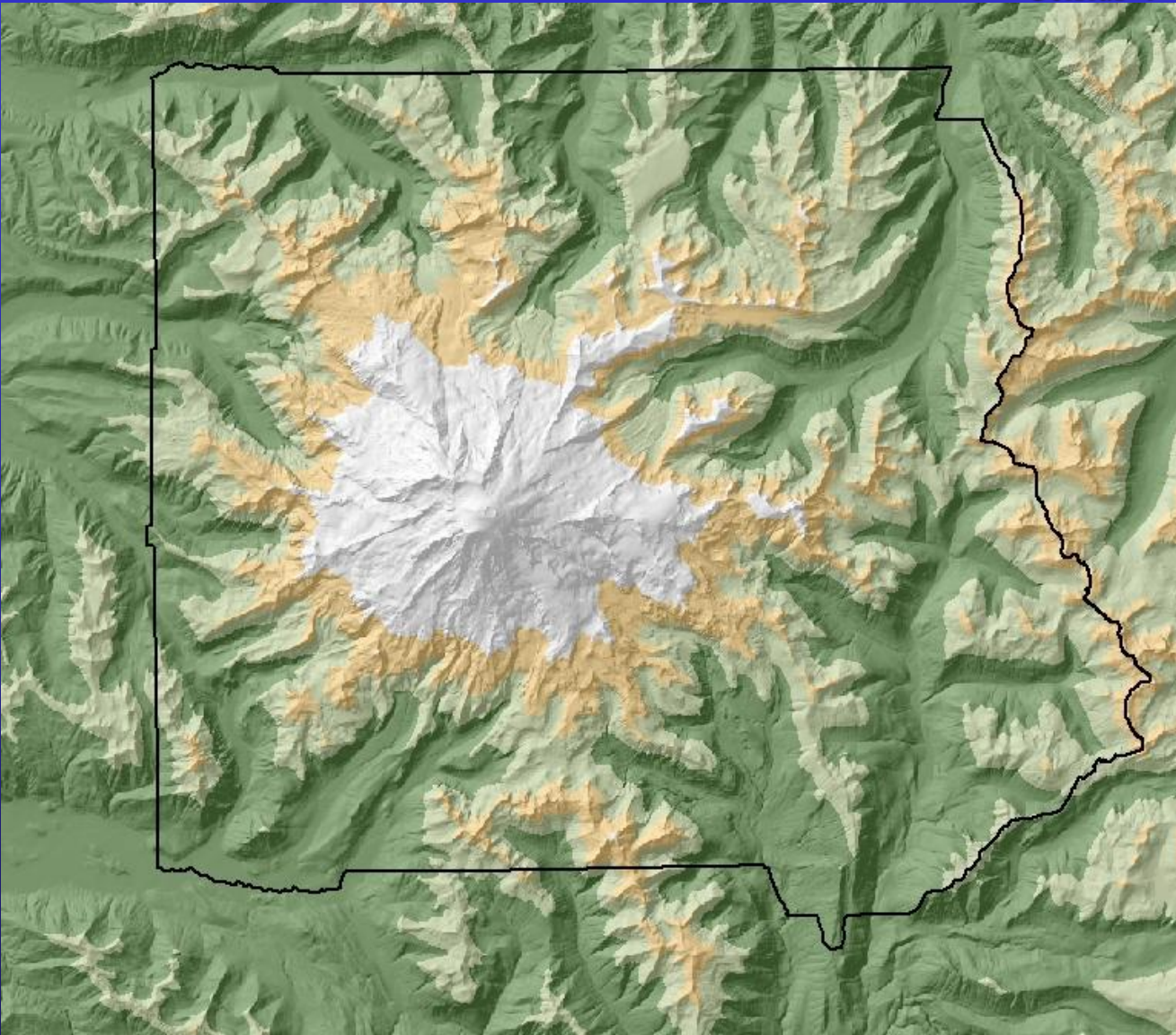


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

← Cooler Warmer →
Animate: Park or Regional

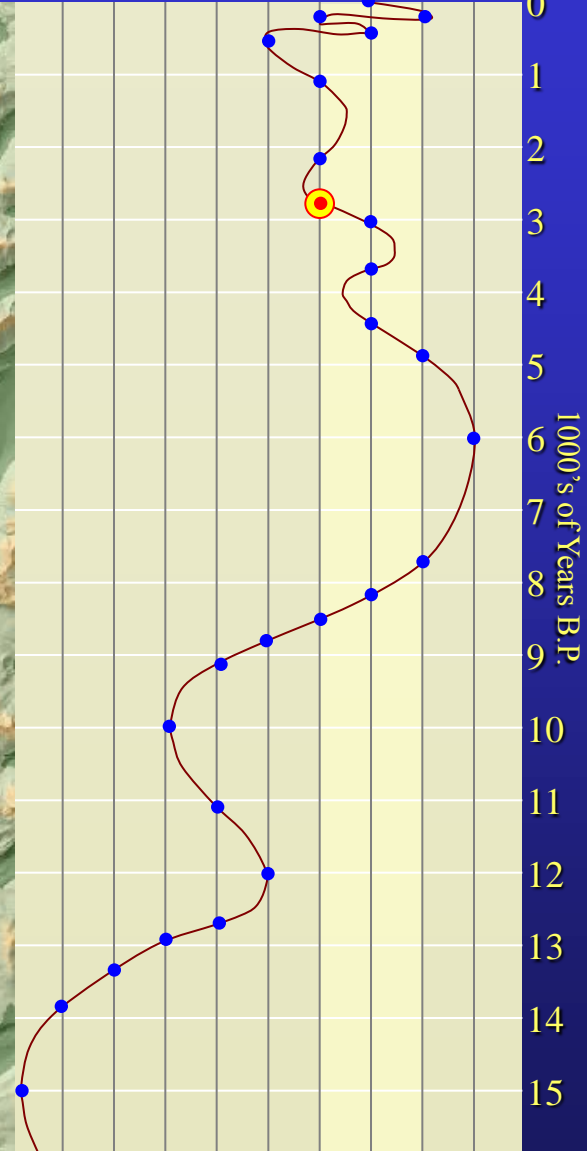
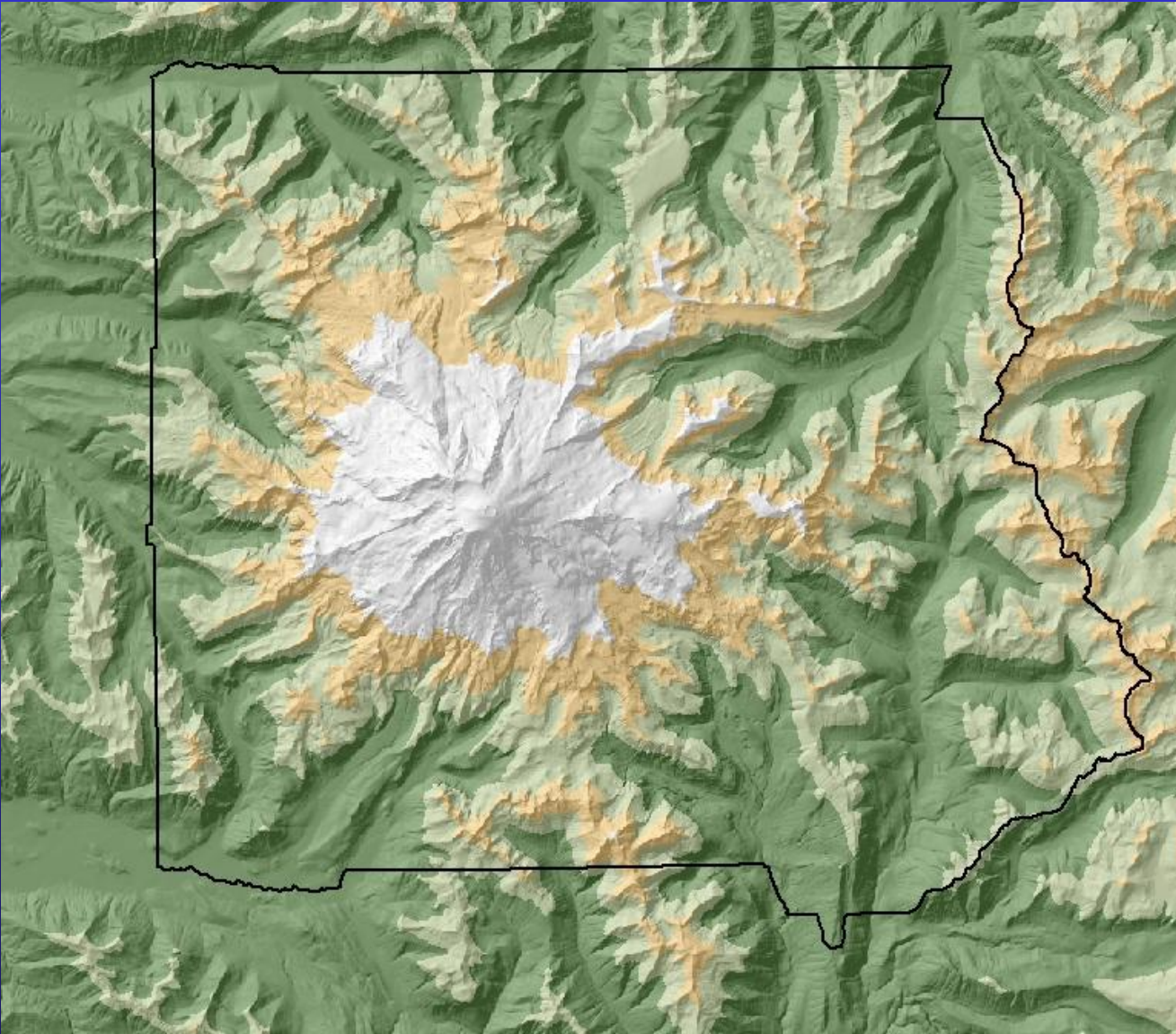


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

← Cooler Warmer →
Animate: Park or Regional

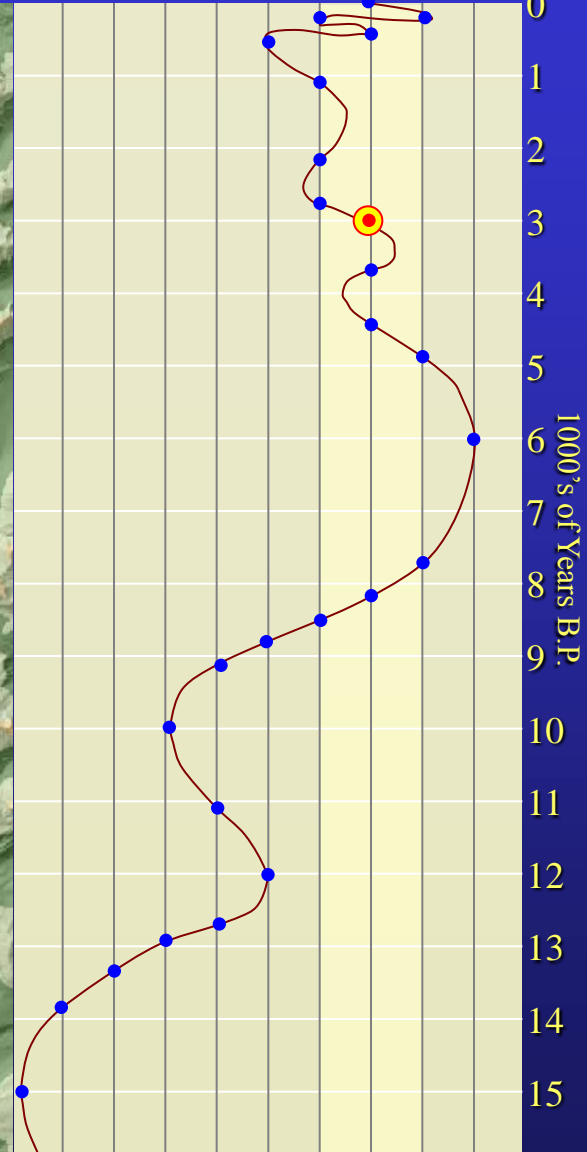
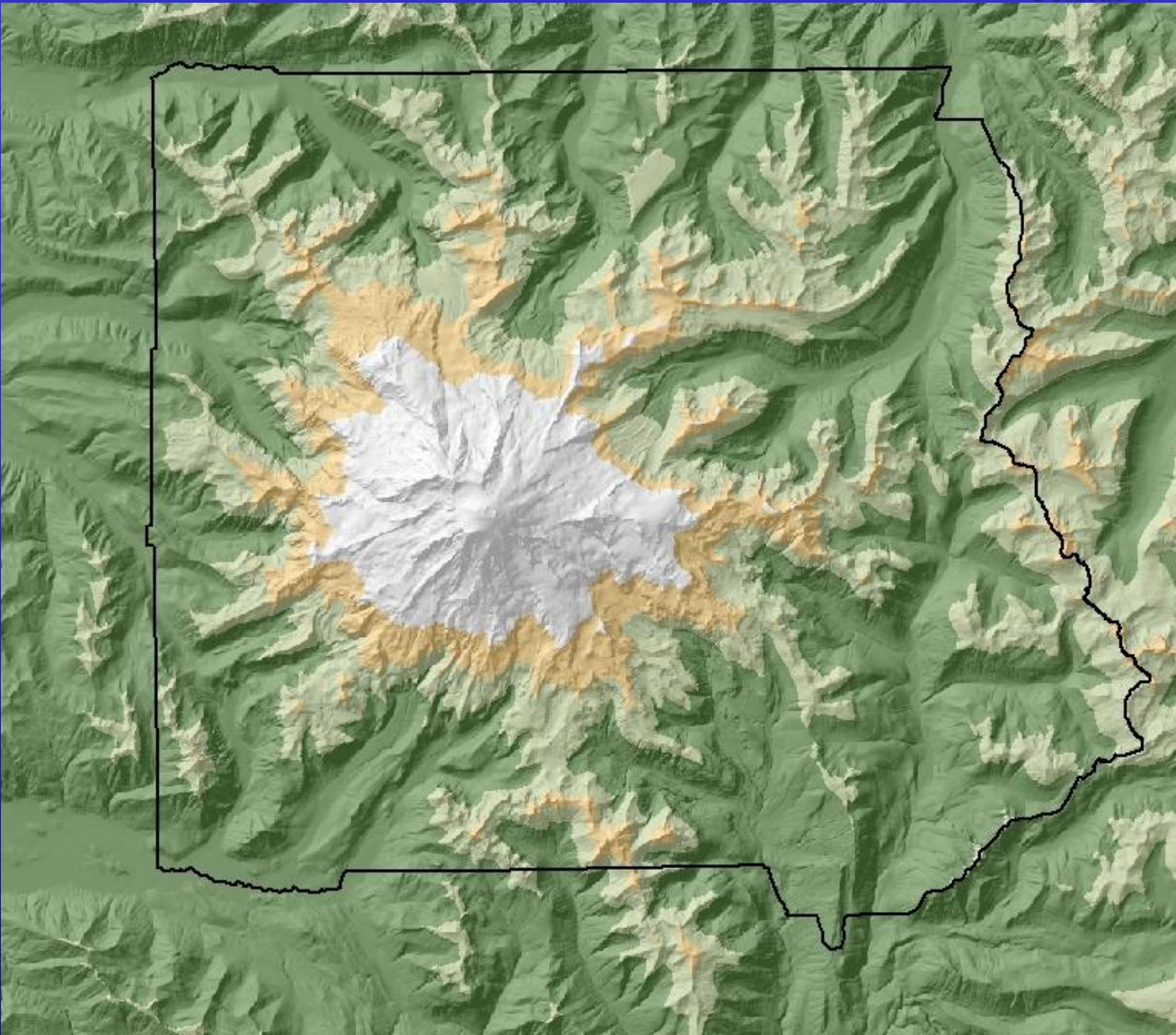


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

← Cooler → Warmer →
Animate: Park or Regional

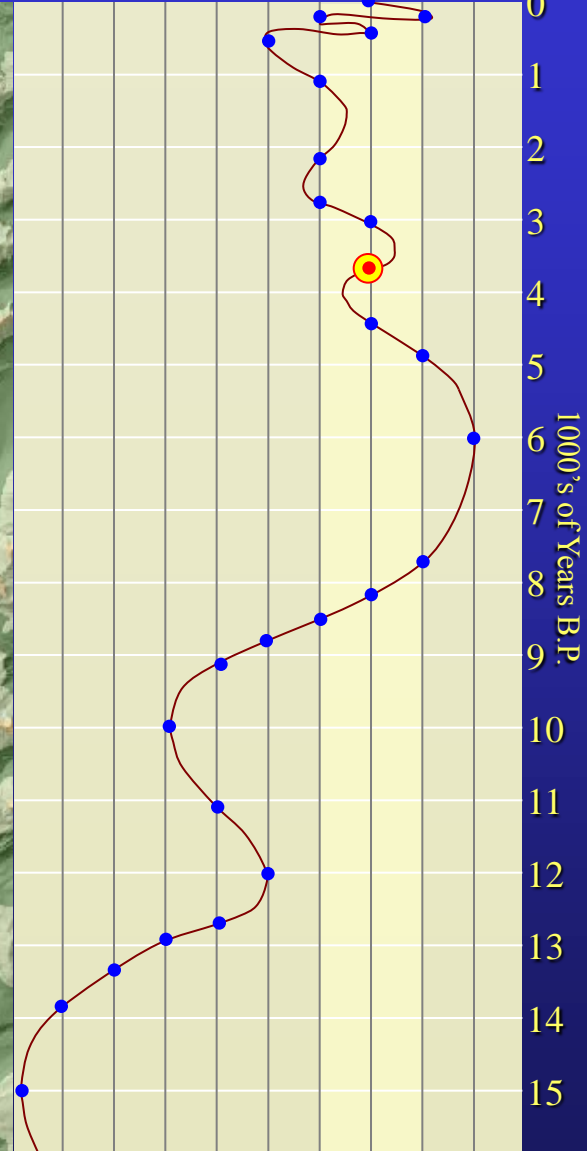
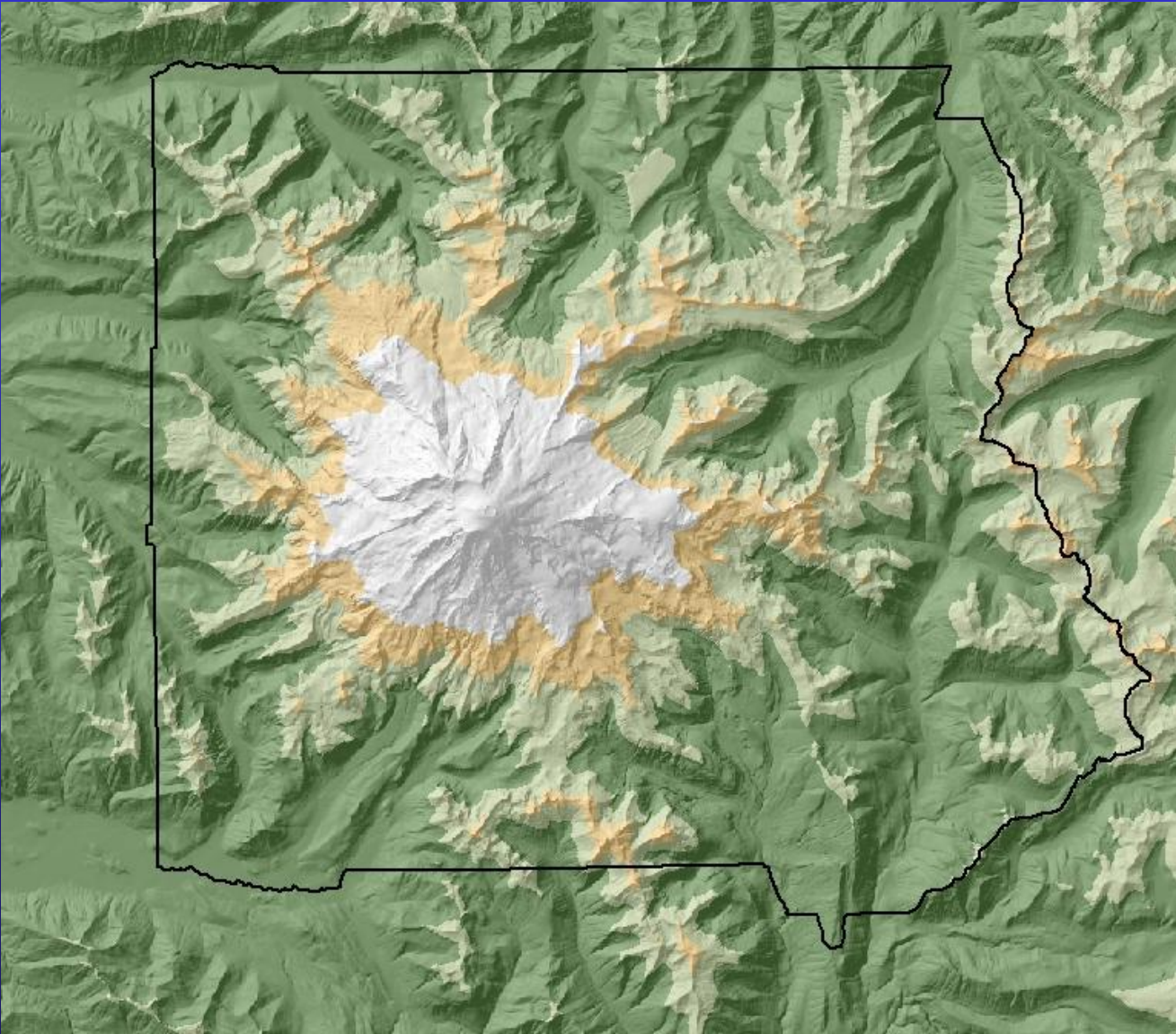


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

← Cooler → Warmer →
Animate: Park or Regional

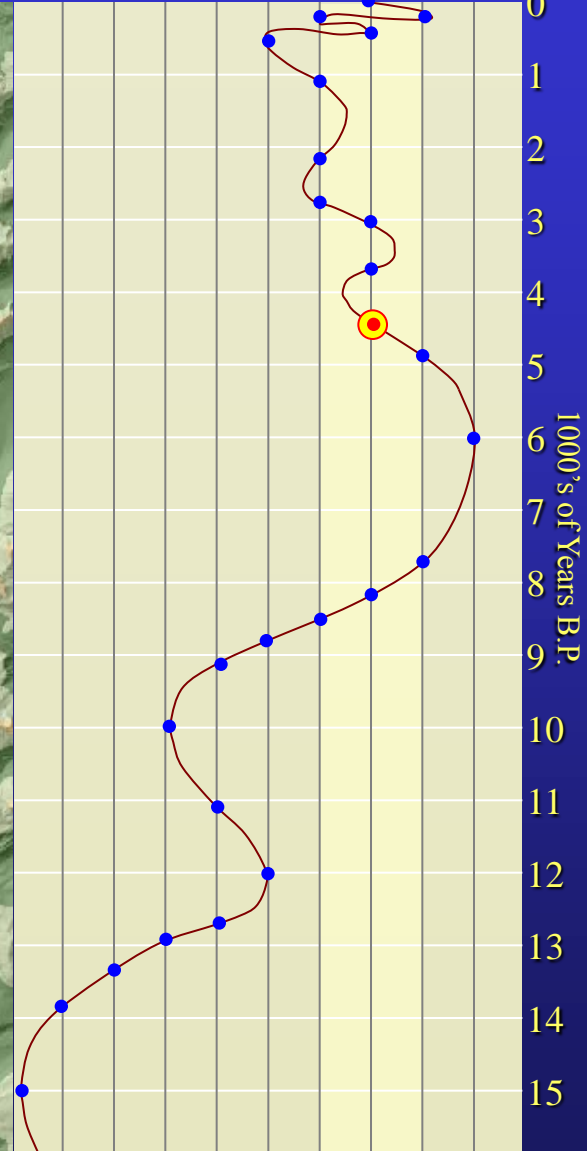
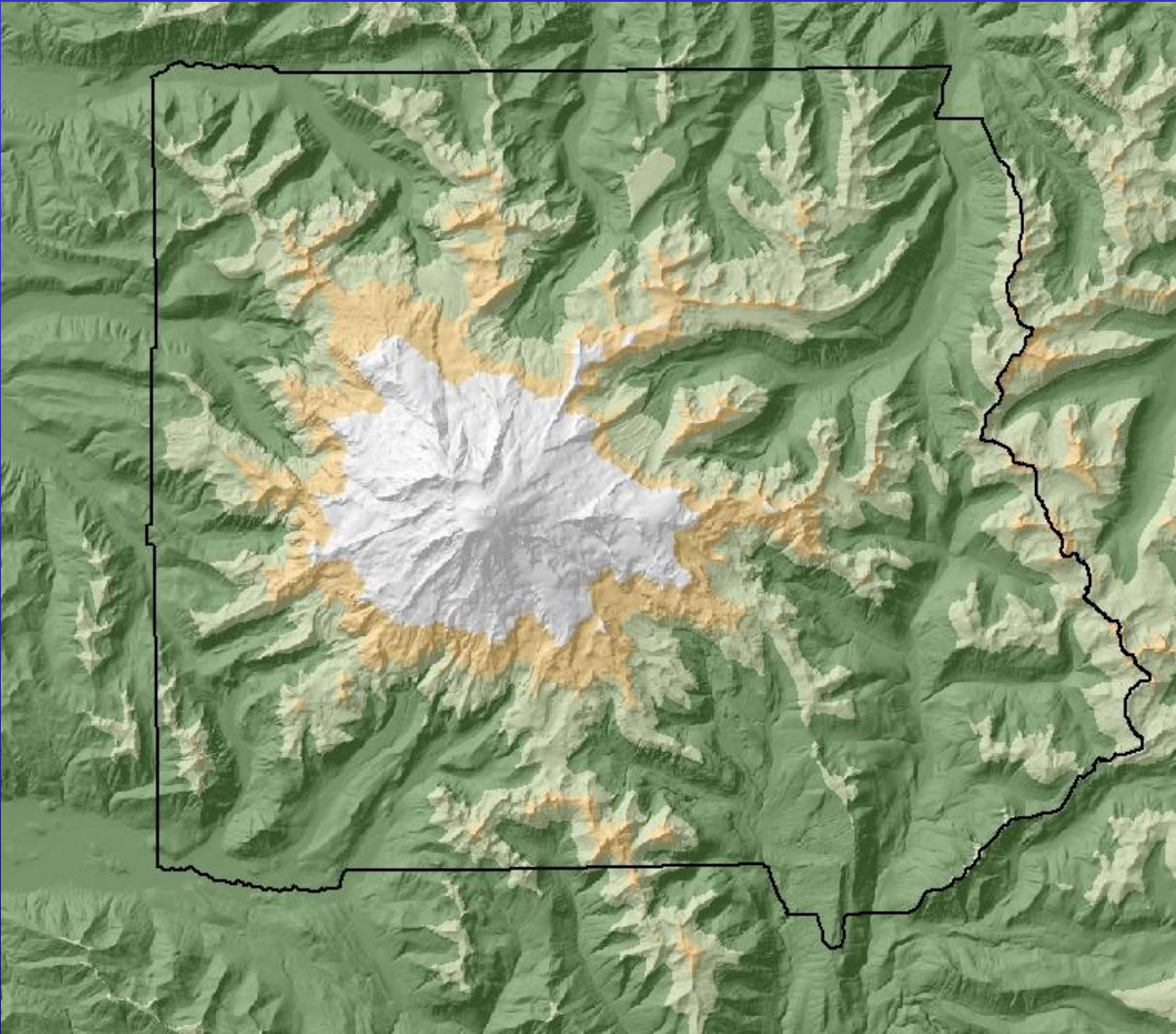


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

← Cooler → Warmer →
Animate: Park or Regional

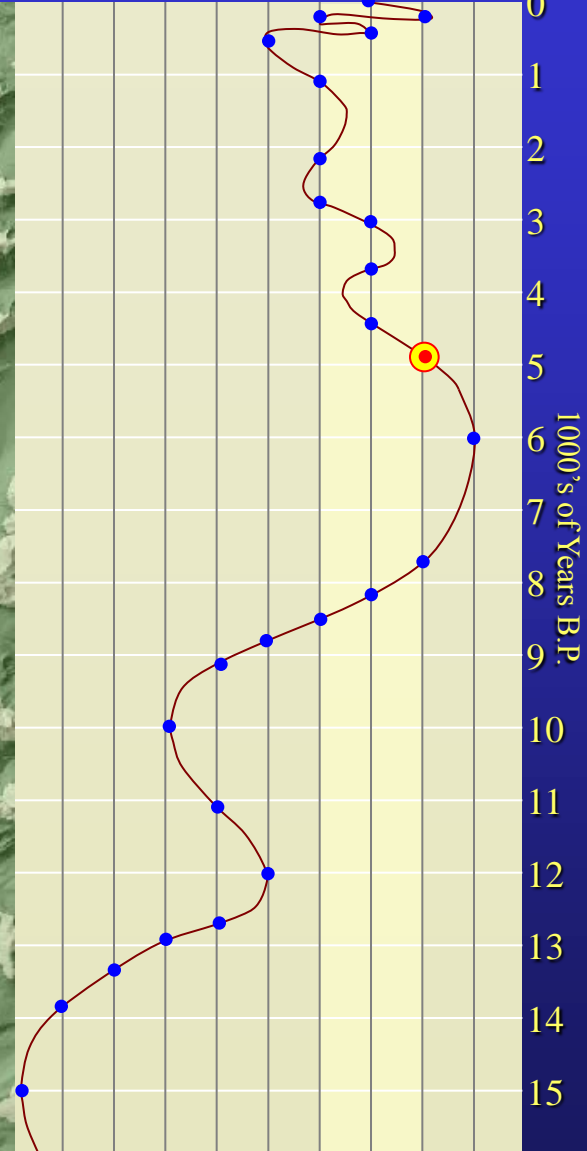
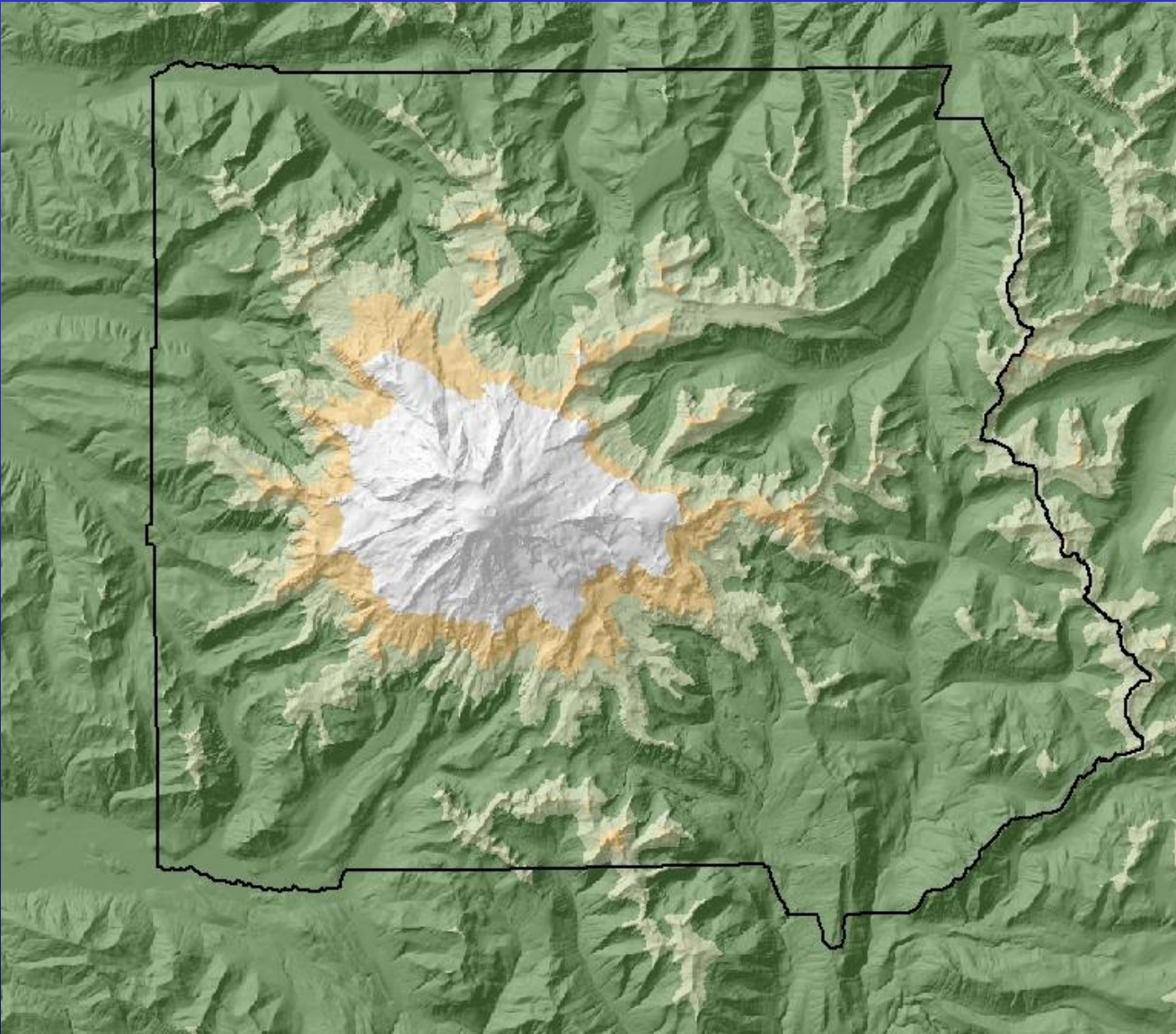


+1 c°

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

1000's of Years B.P.

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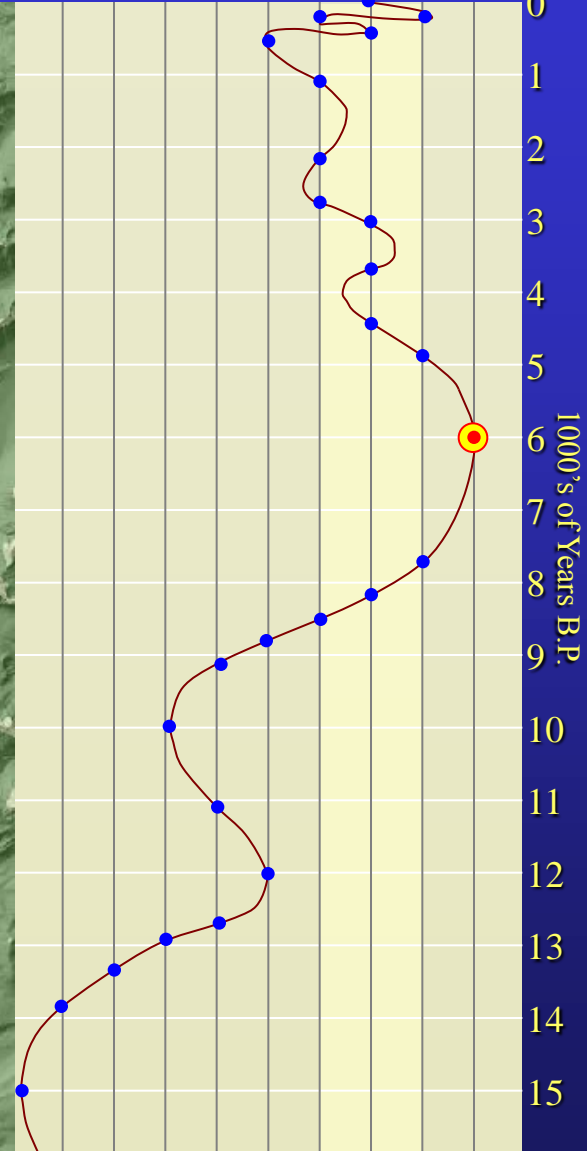
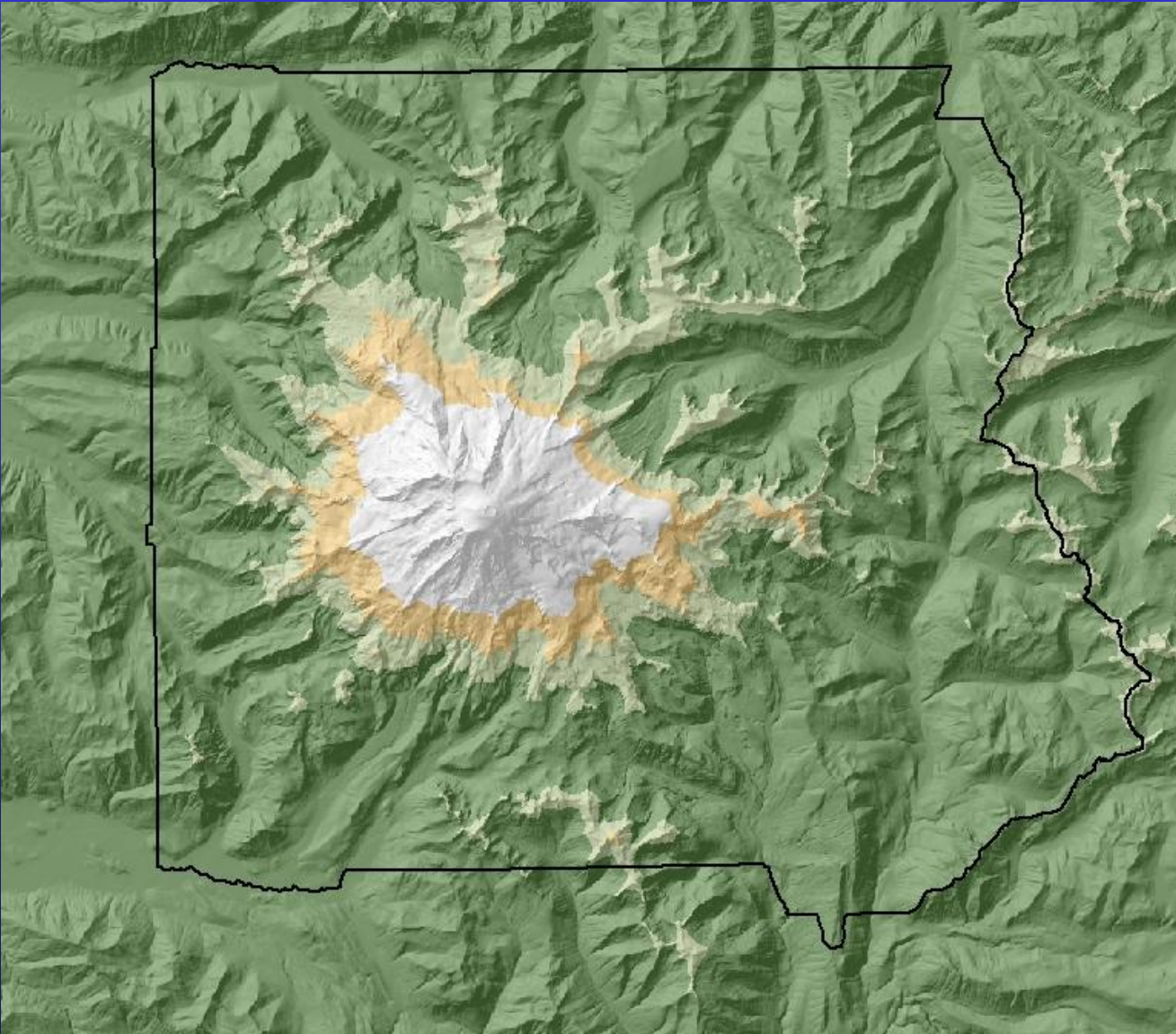
← Cooler → Warmer →
Animate: Park or Regional



+2 c°

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

1000's of Years B.P.



Show Sites

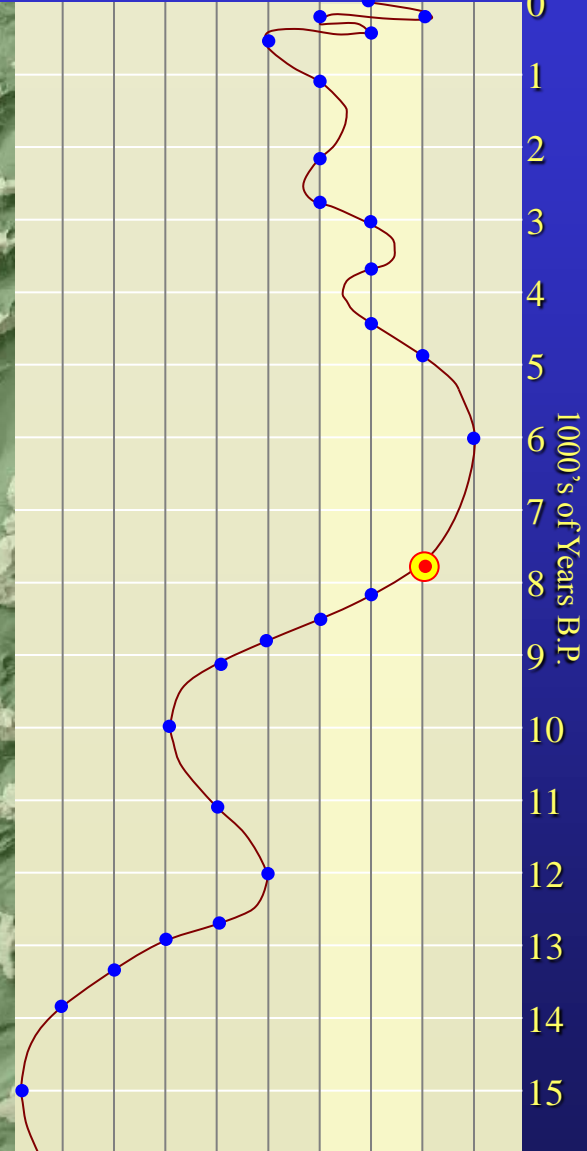
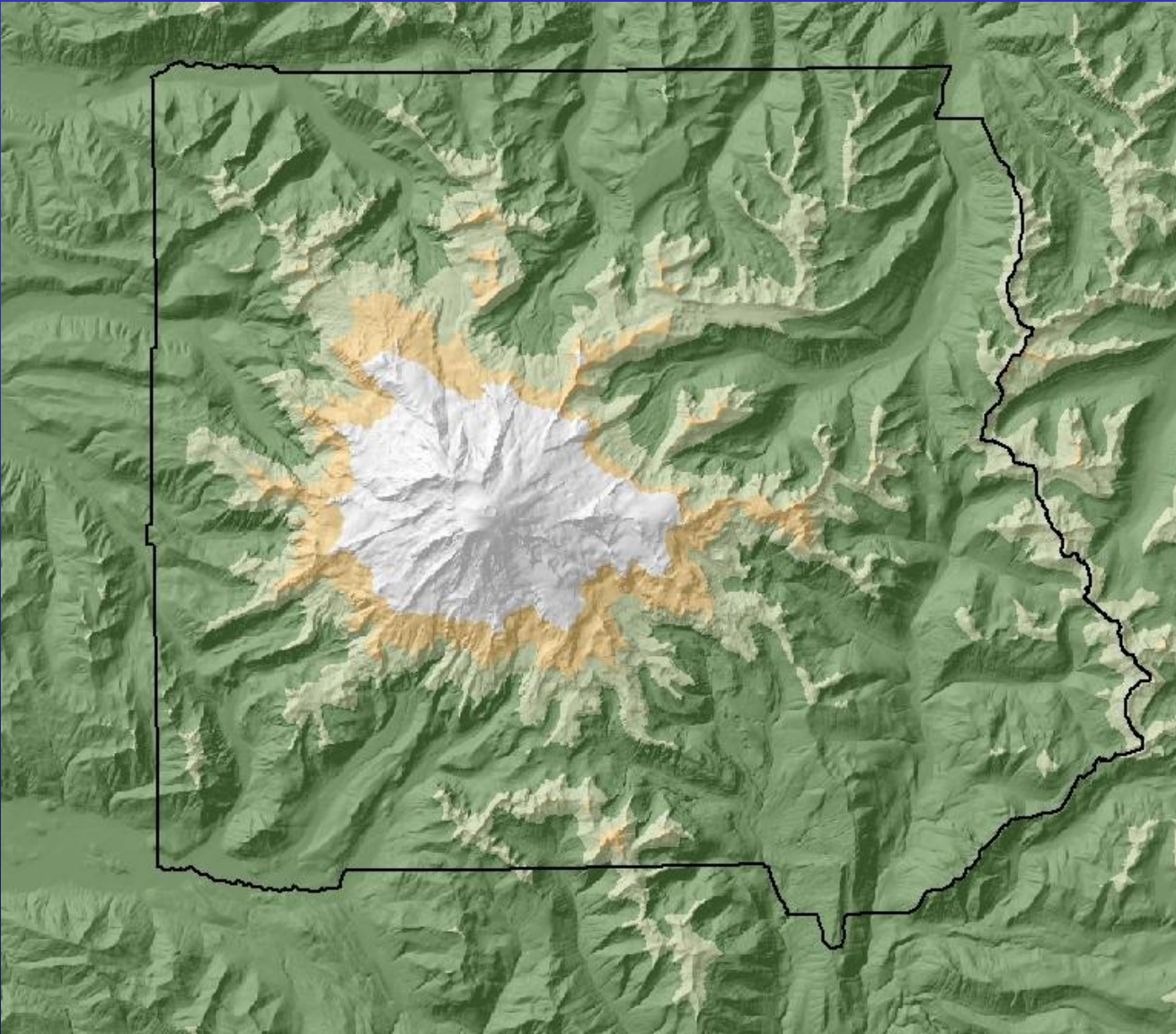
← Cooler Warmer →
Animate: Park or Regional



+1 c°

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

1000's of Years B.P.



Show Sites

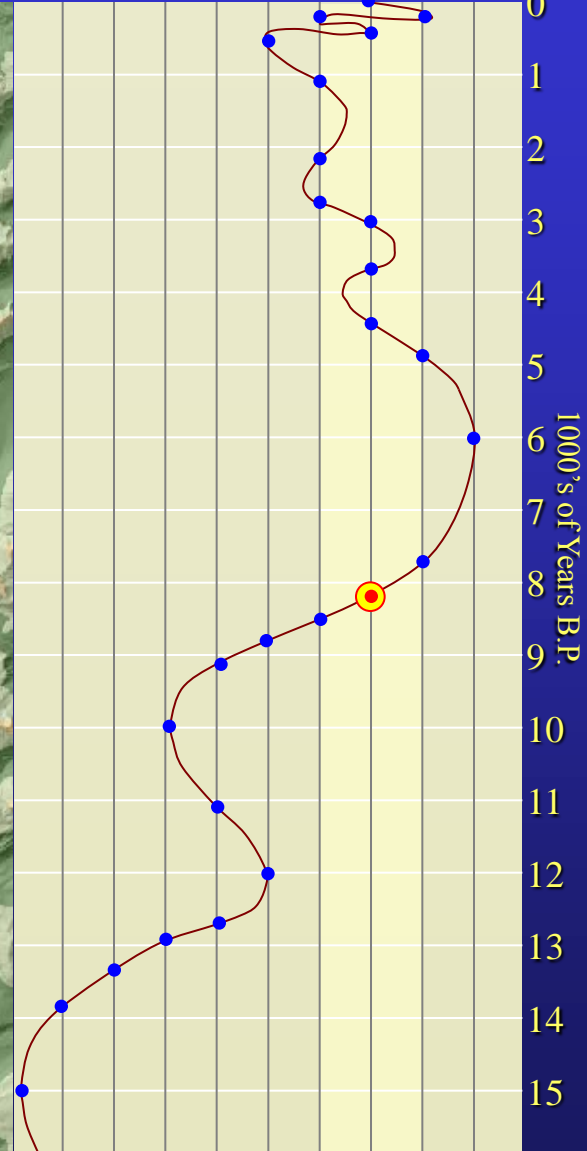
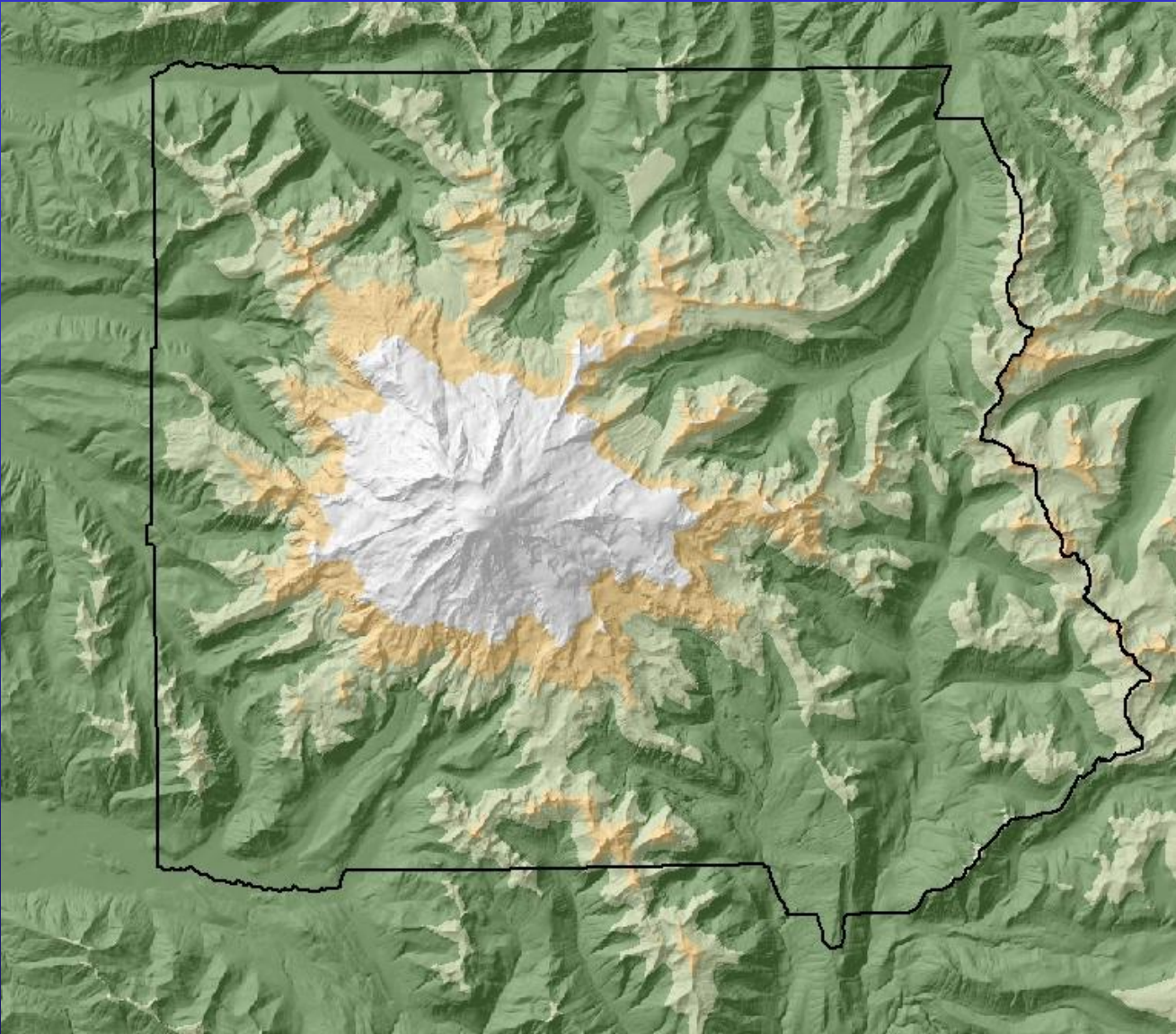
← Cooler → Warmer →
Animate: Park or Regional



0 c°

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

1000's of Years B.P.



Show Sites

← Cooler Warmer →
Animate: Park or Regional



-1 c°

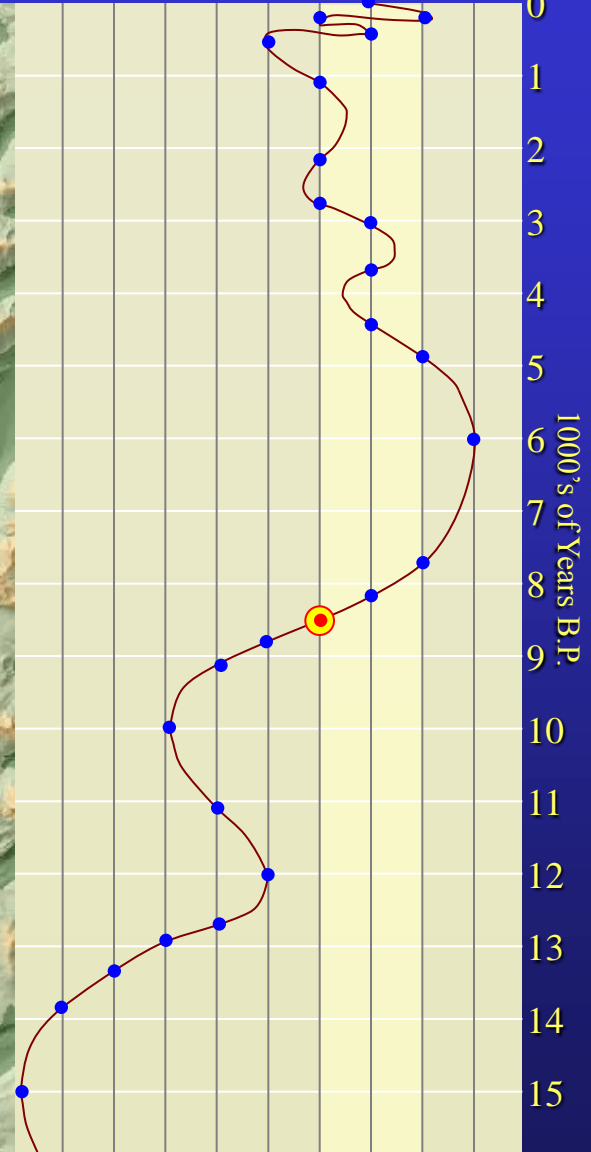
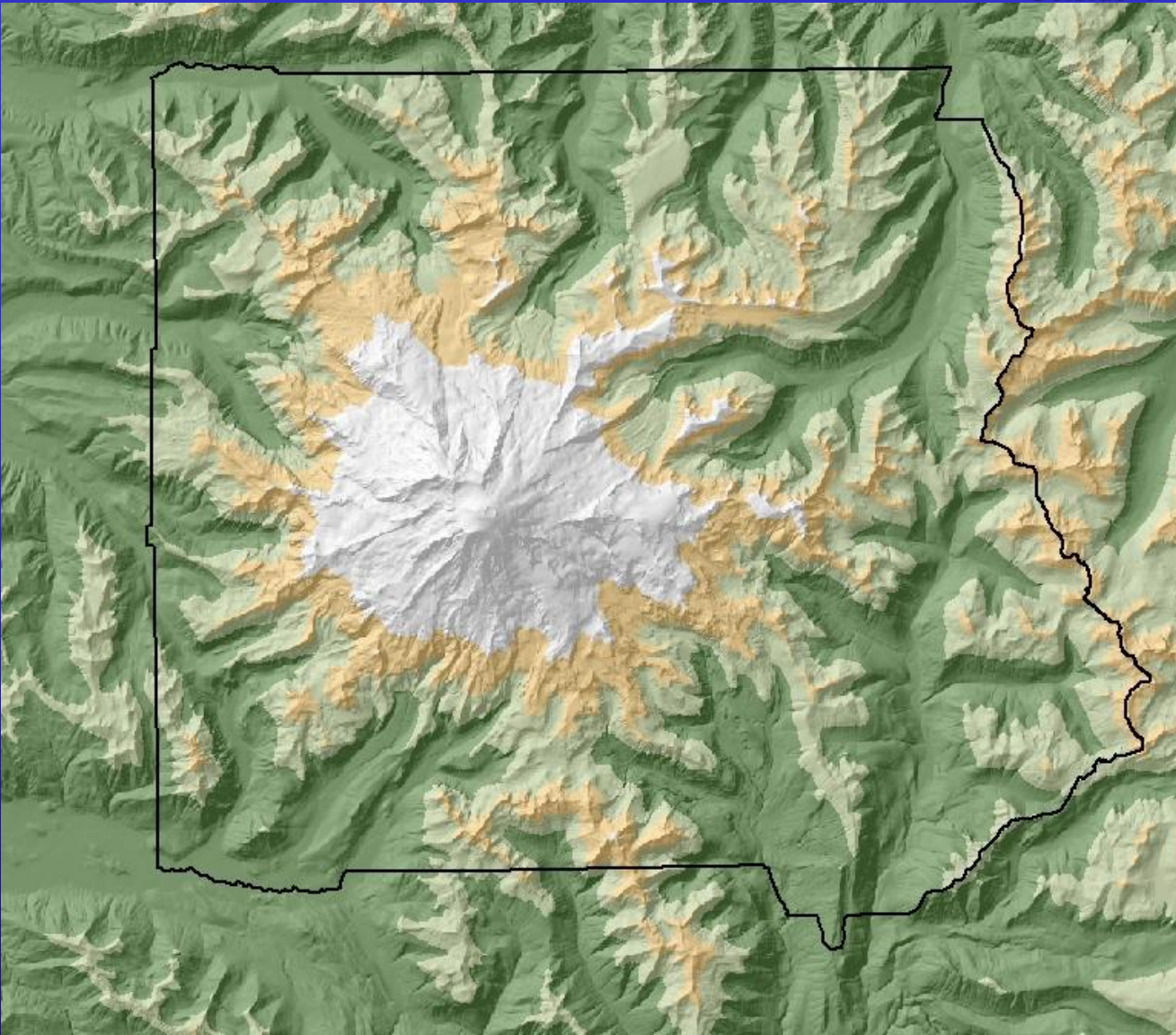
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler → Warmer →
Animate: Park or Regional

Show Sites

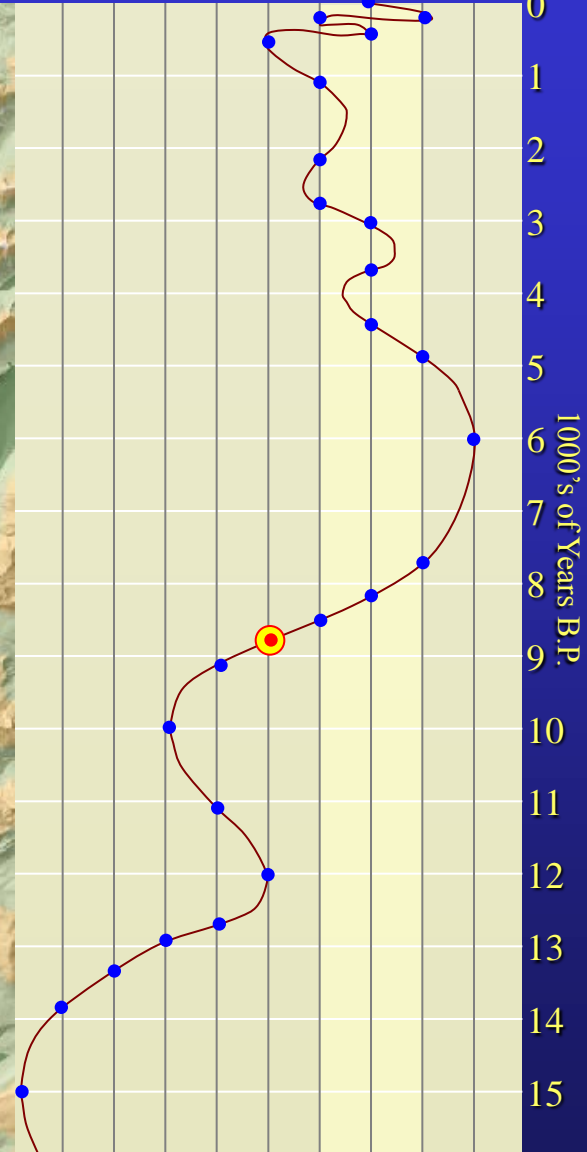
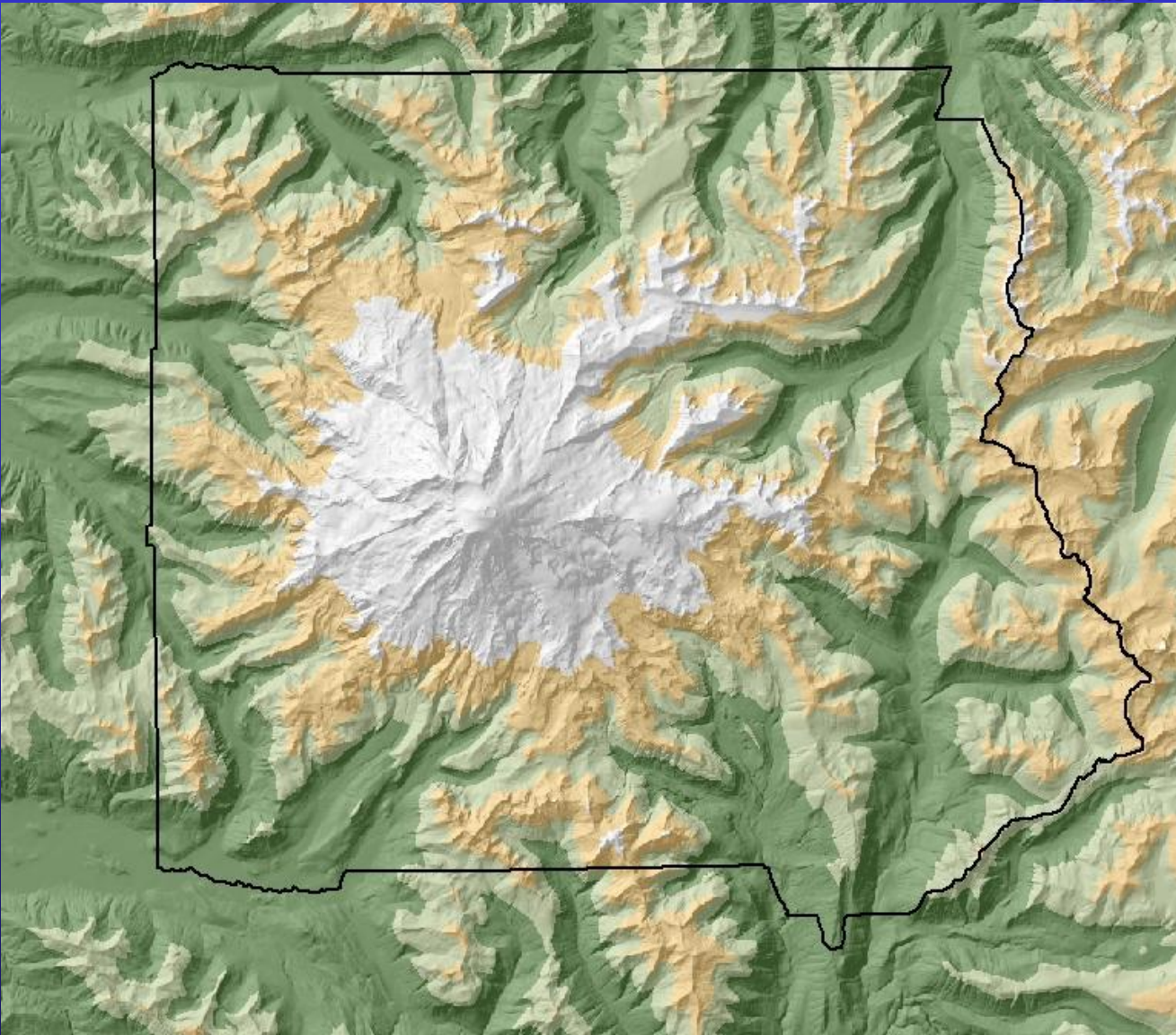




-2 c°

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

1000's of Years B.P.



Show Sites

← Cooler → Warmer →
Animate: Park or Regional



-3 c°

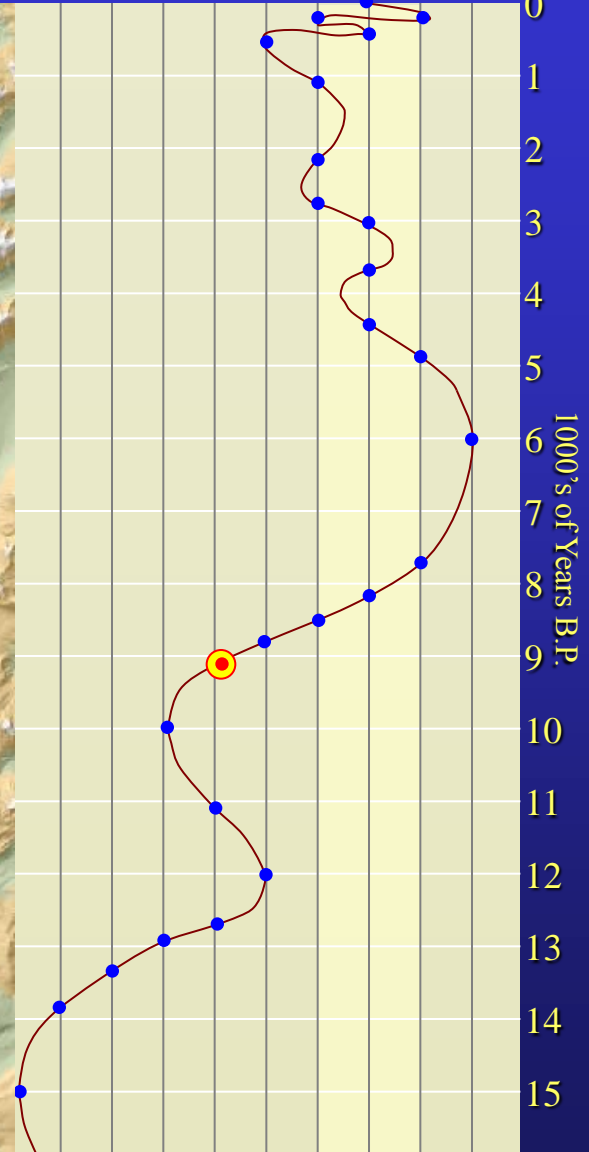
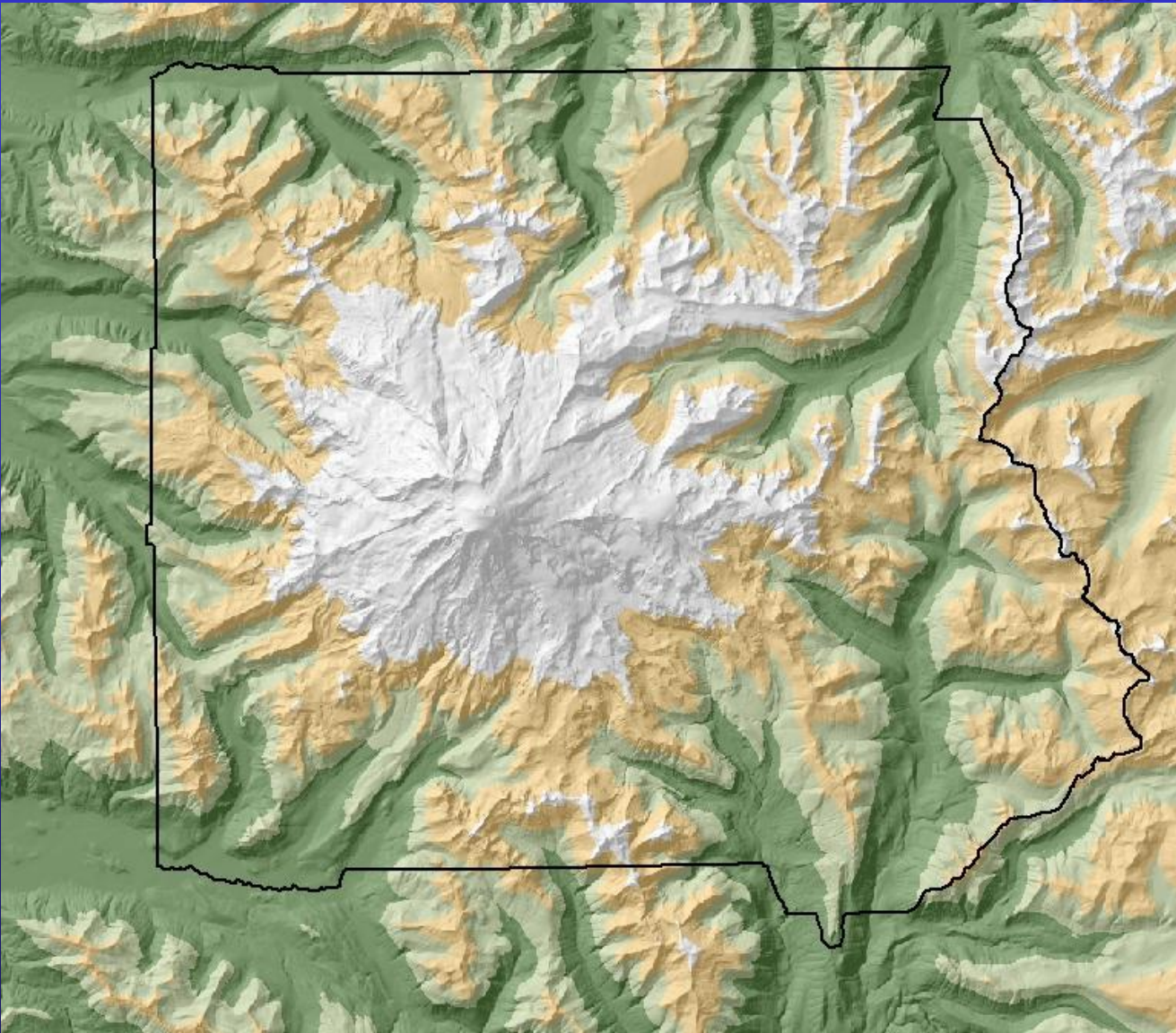
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler → Warmer →
Animate: Park or Regional

Show Sites



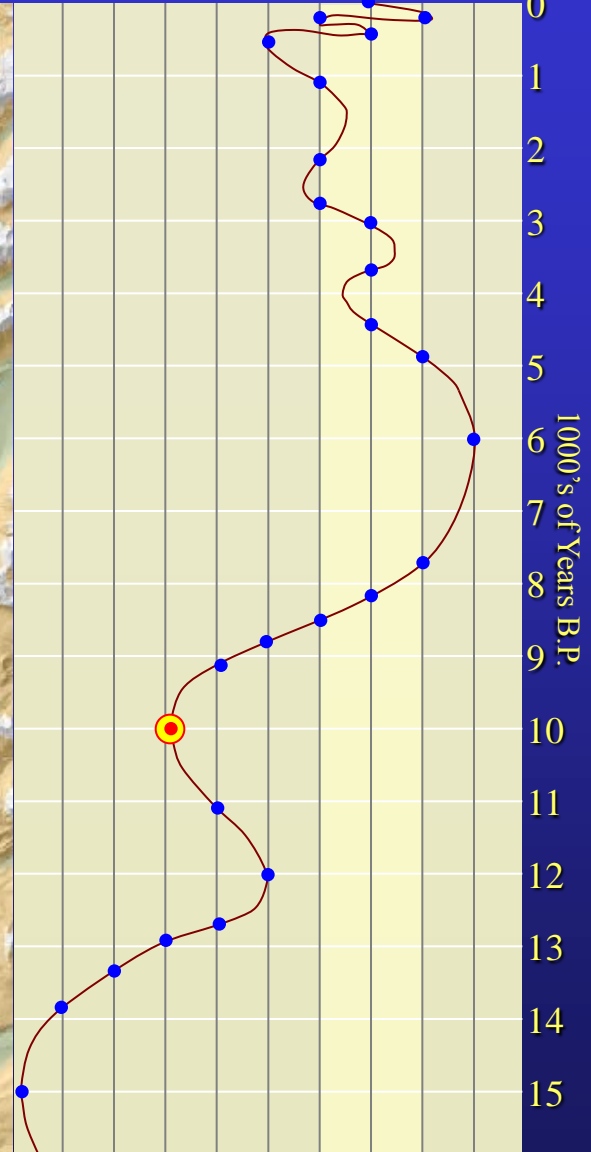
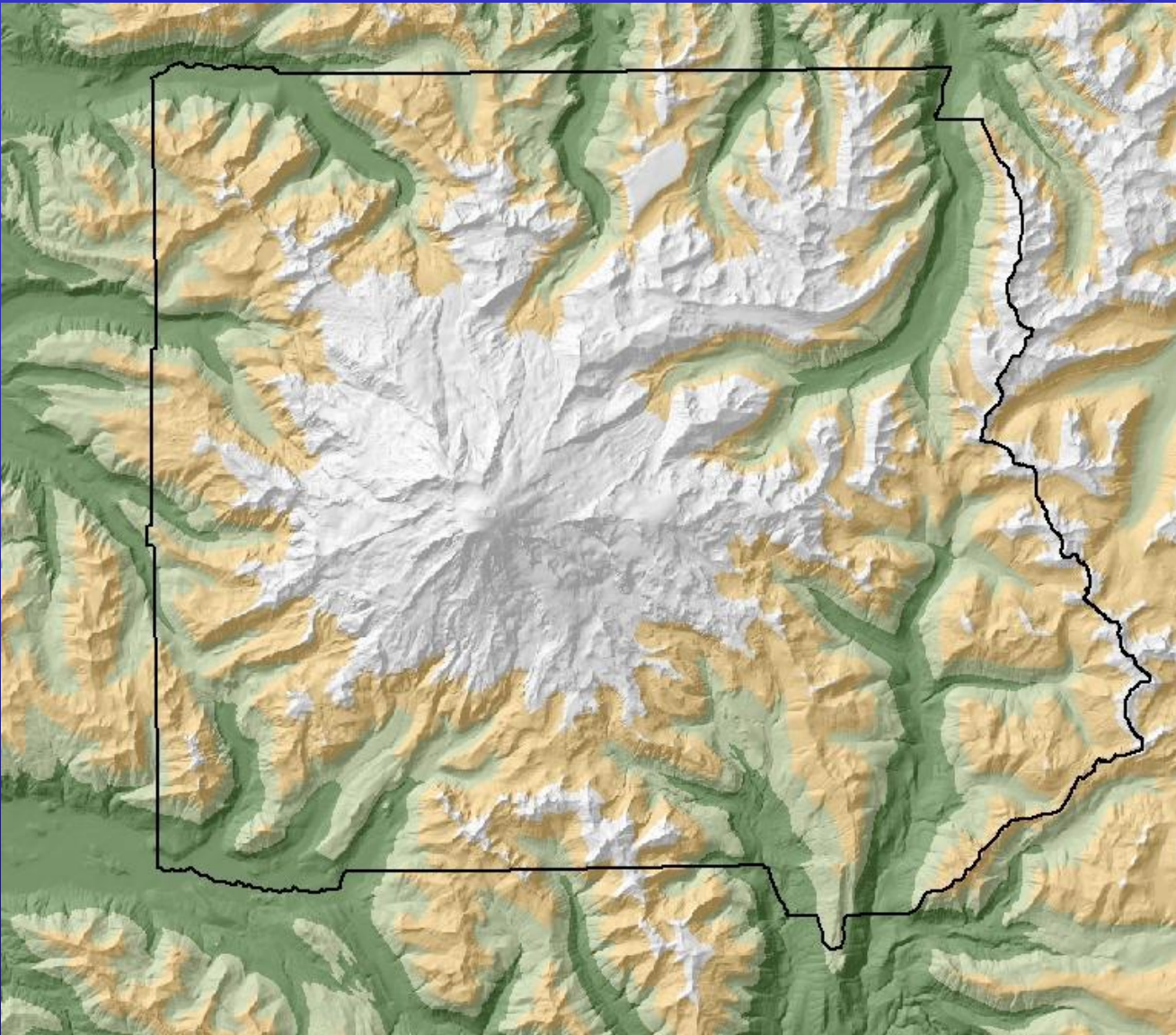


-4 c°

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

1000's of Years B.P.

← Cooler →
Animate: Park or Regional



Show Sites



-3 c°

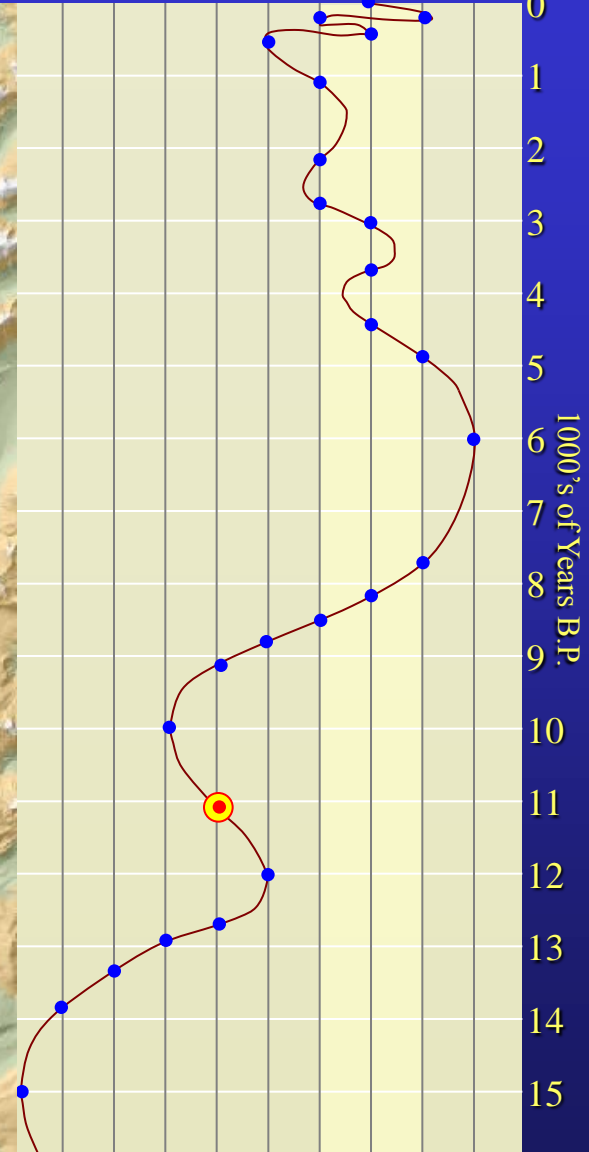
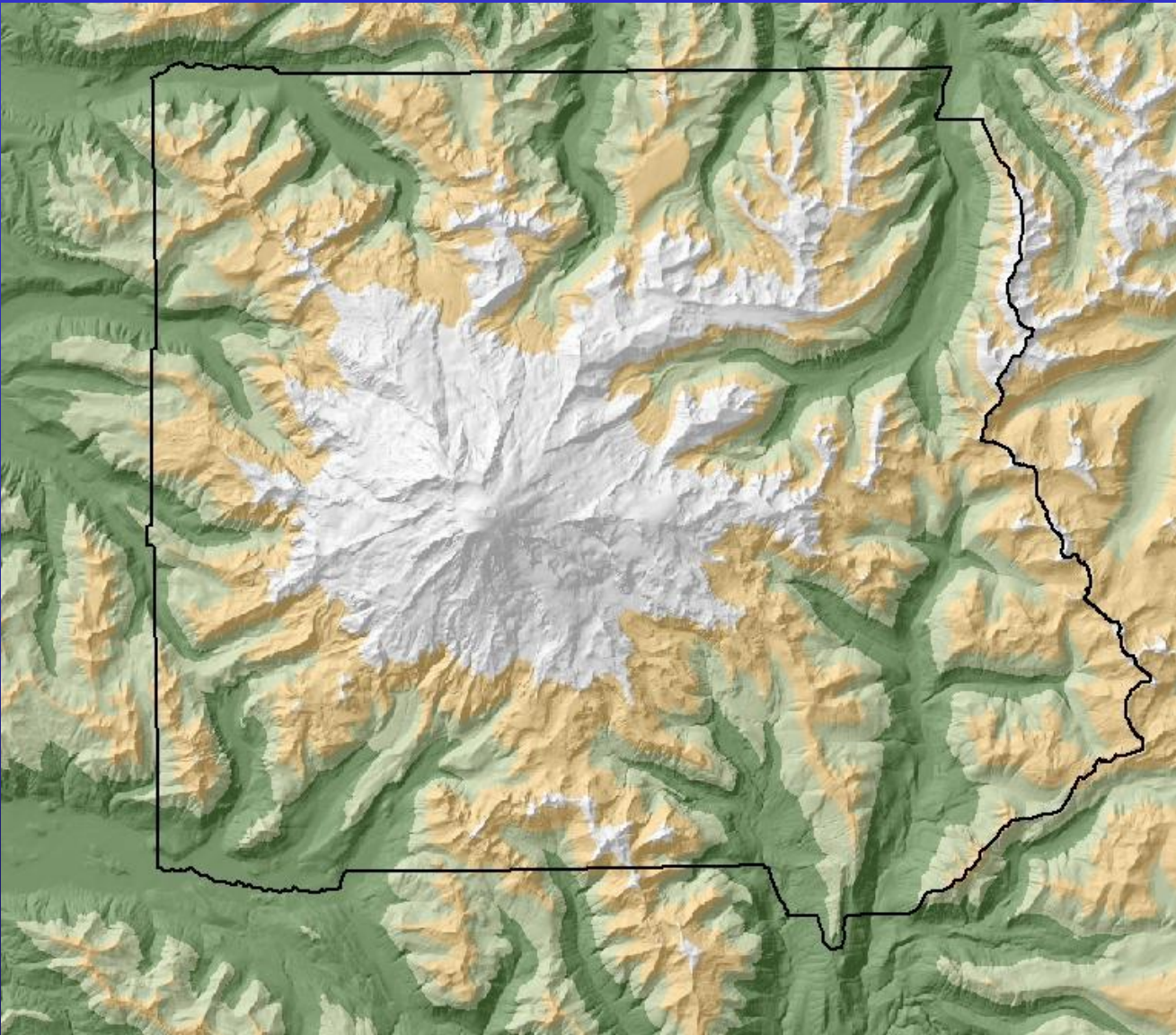
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler → Warmer →
Animate: Park or Regional

Show Sites



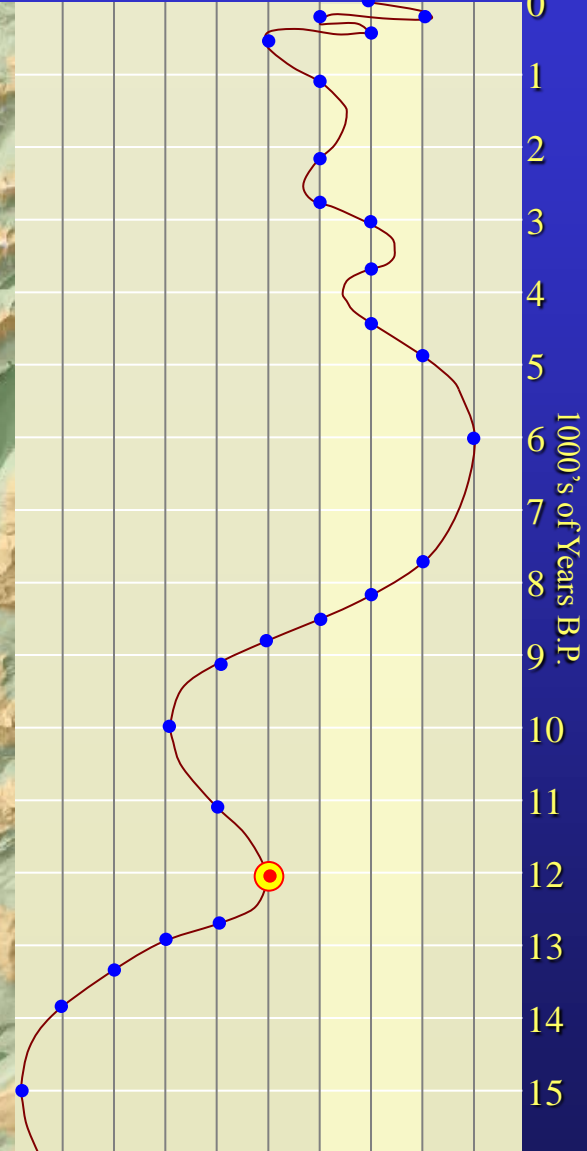
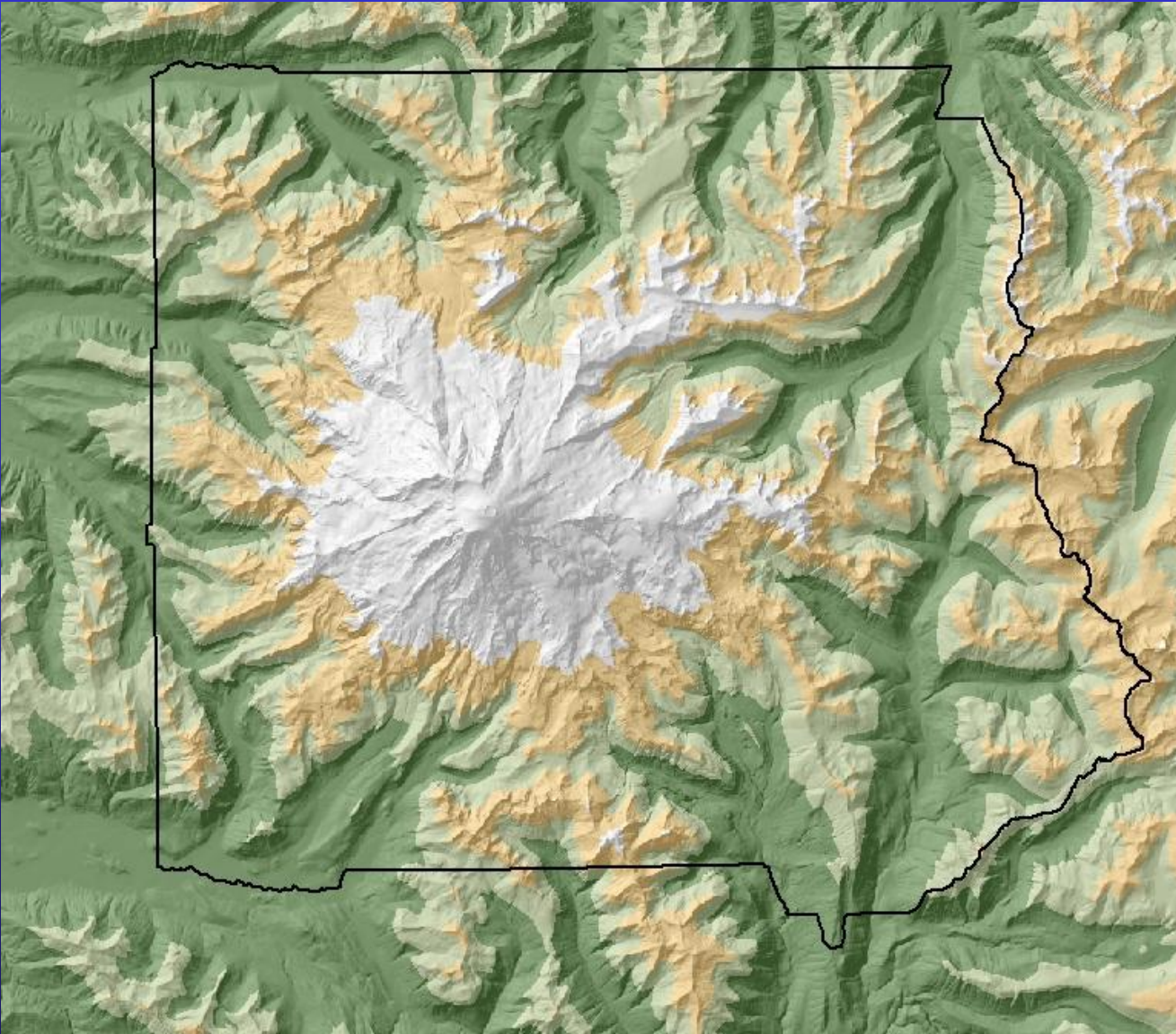


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Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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Show Sites

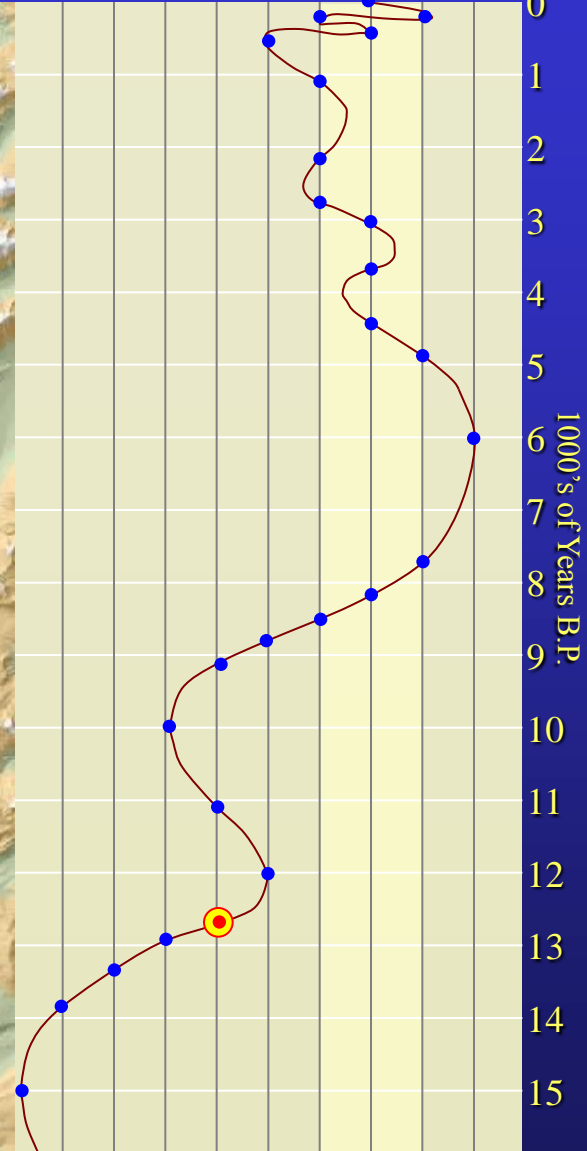
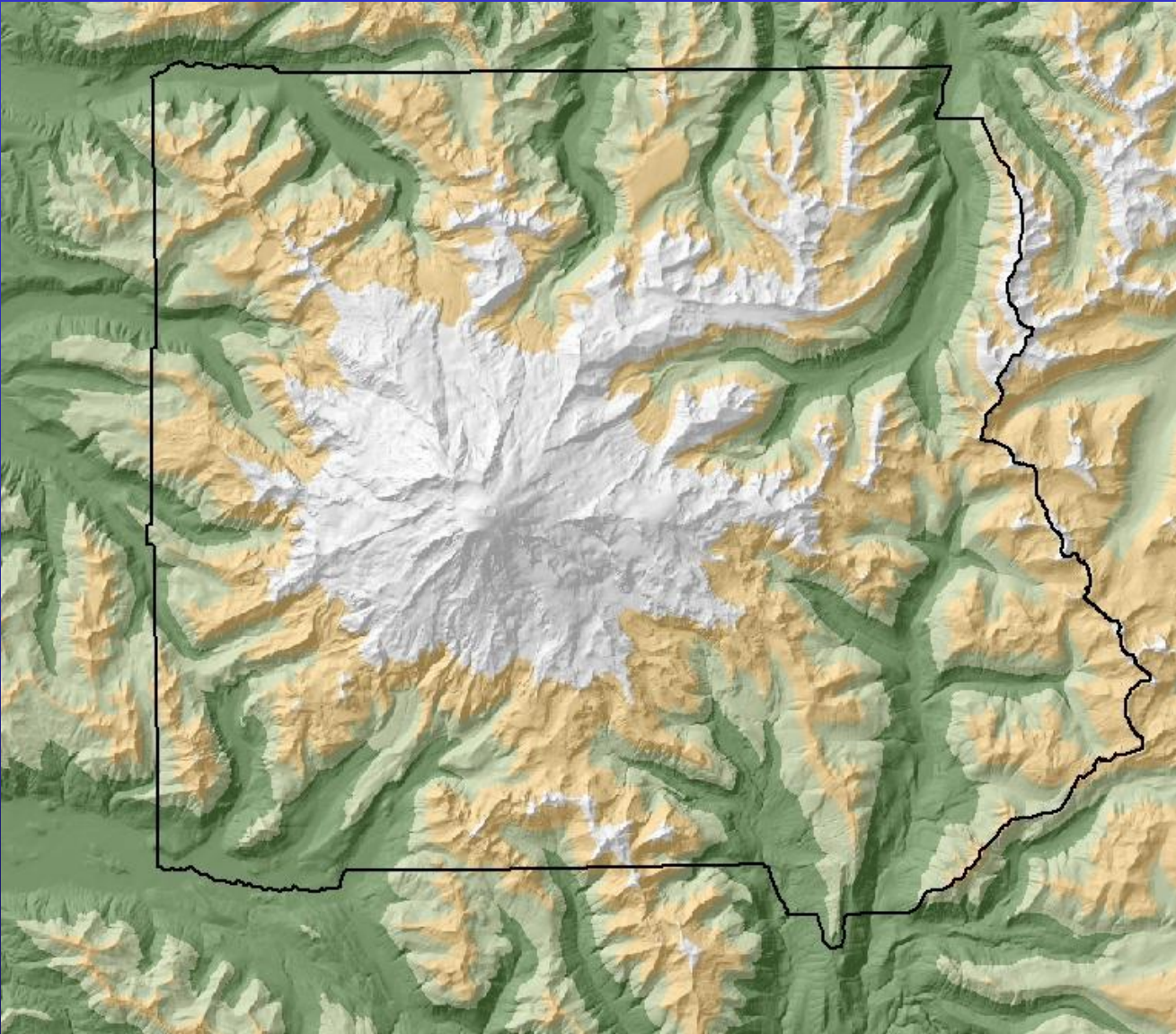
← Cooler → Warmer →
Animate: Park or Regional



-3 c°

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

1000's of Years B.P.



Show Sites

← Cooler → Warmer →
Animate: Park or Regional



-4 c°

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

1000's of Years B.P.

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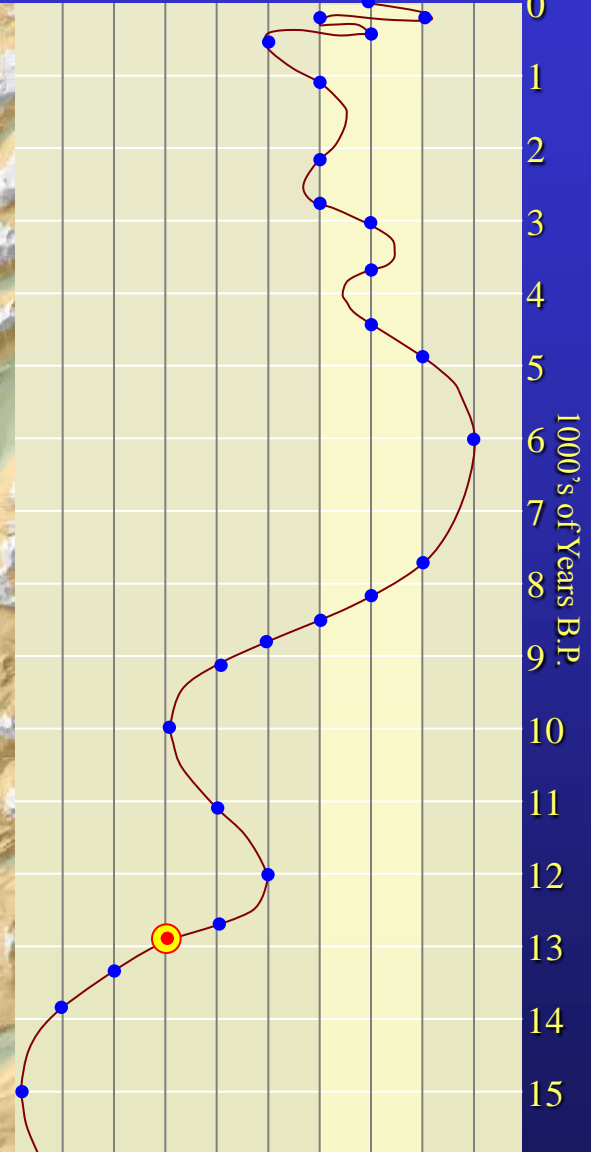
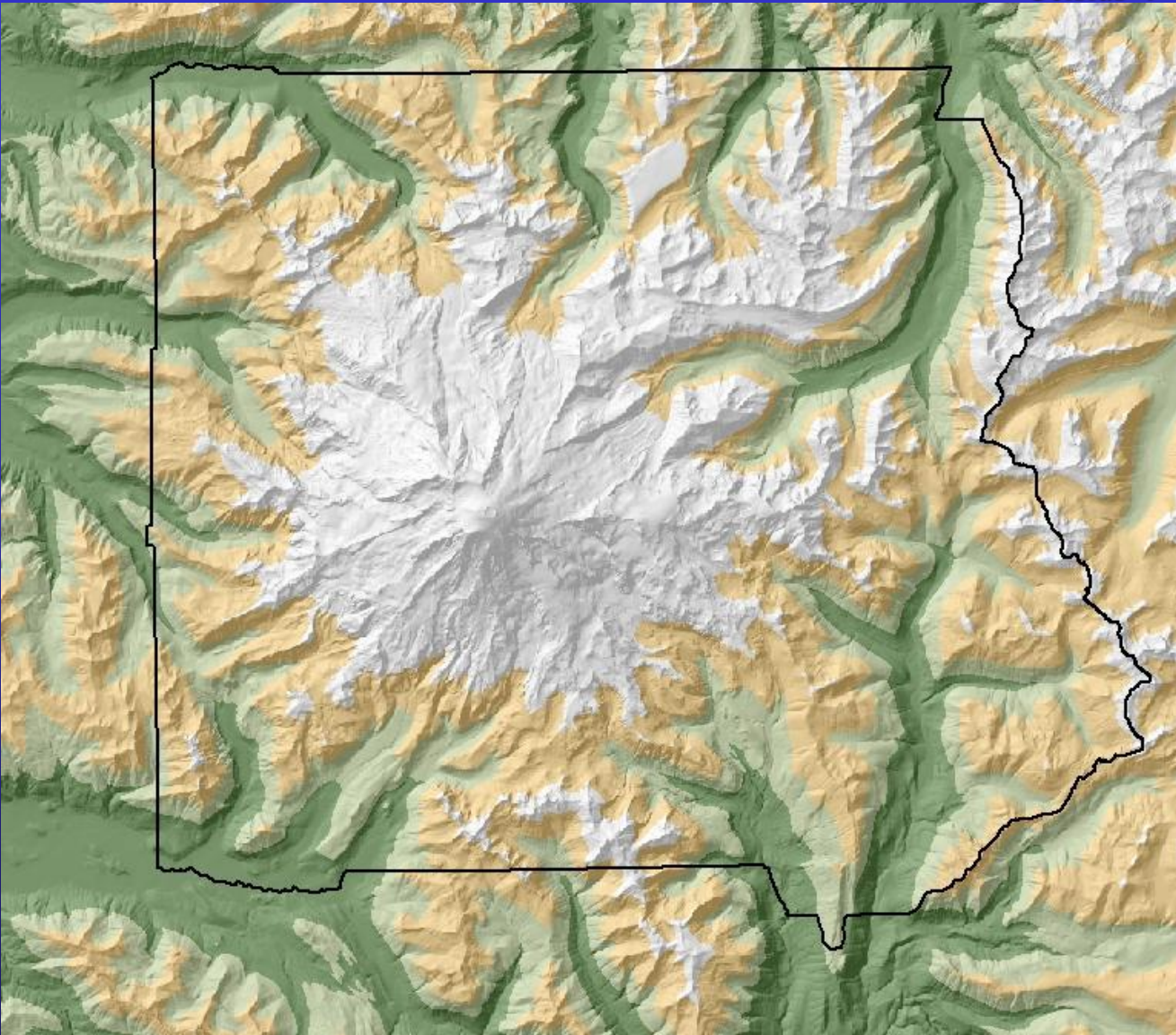
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Show Sites

← Cooler → Warmer →
Animate: Park or Regional



-5 c°

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

1000's of Years B.P.

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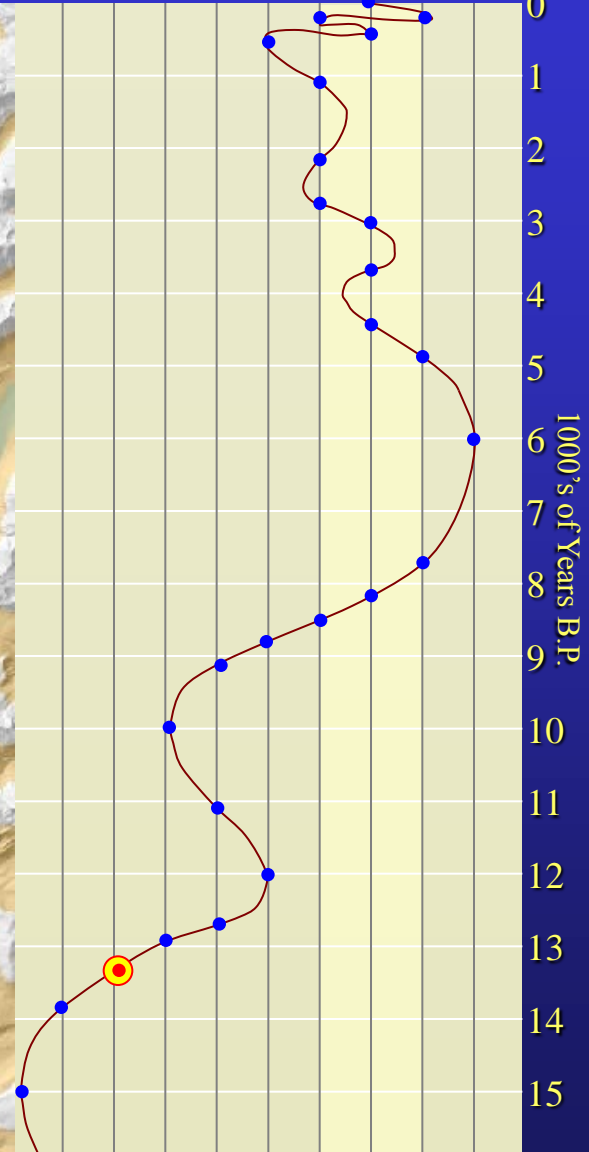
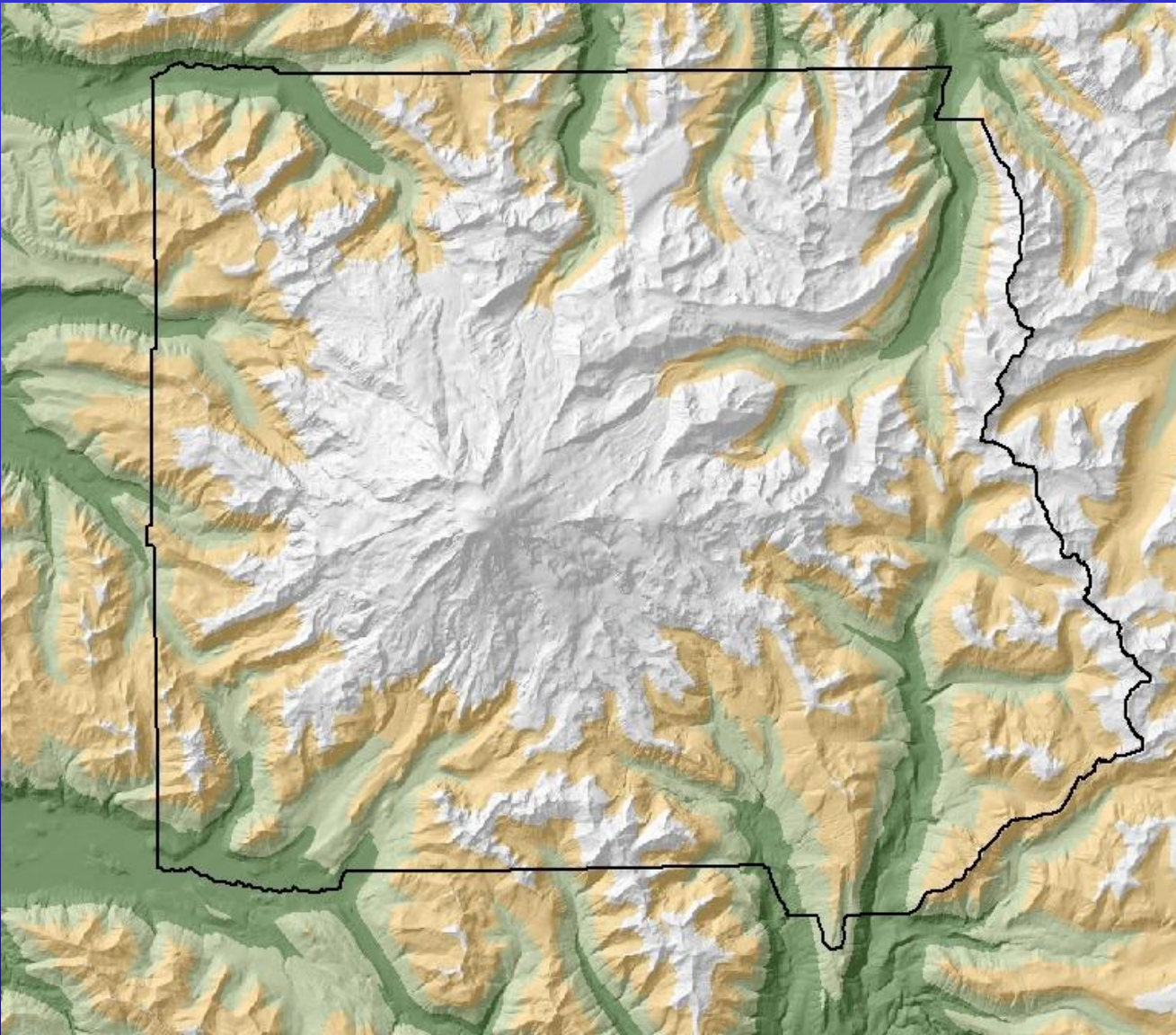
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Show Sites

← Cooler → Warmer →
Animate: Park or Regional

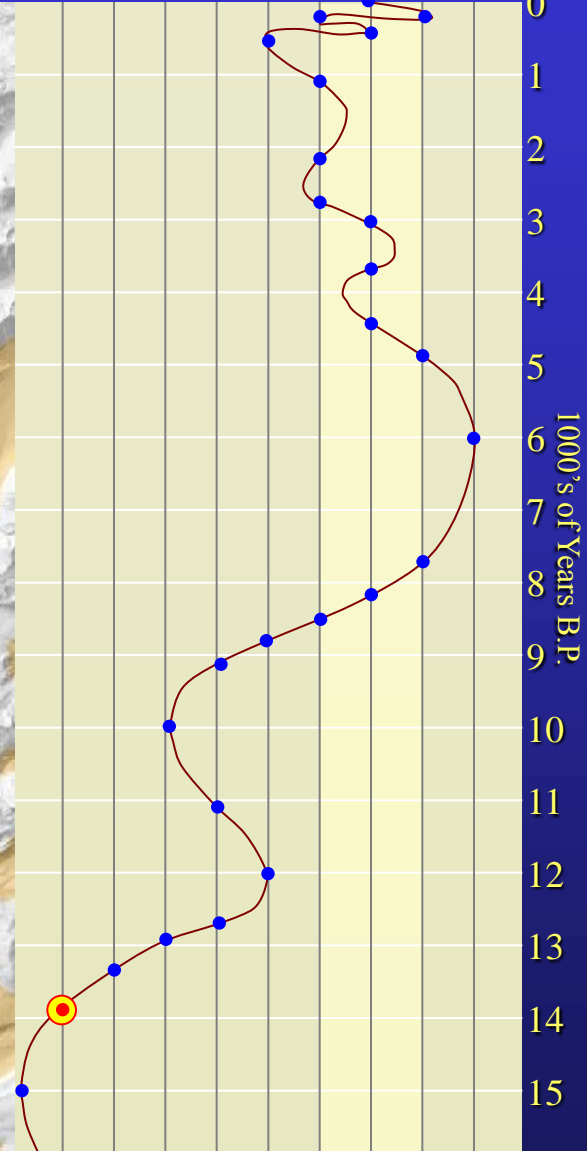
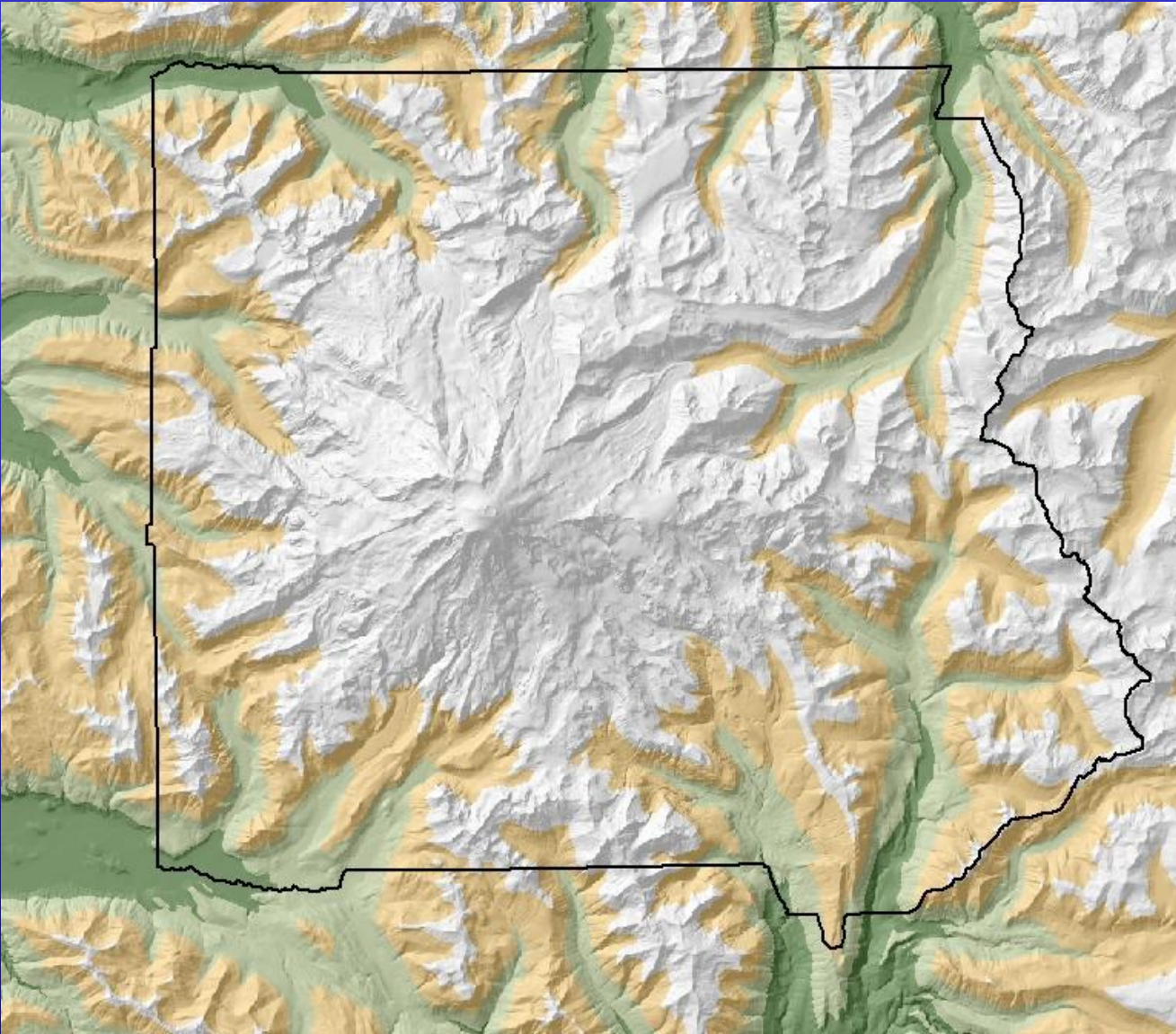


-6 c°

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

1000's of Years B.P.

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Show Sites

← Cooler → Warmer →
Animate: Park or Regional



-7 c°

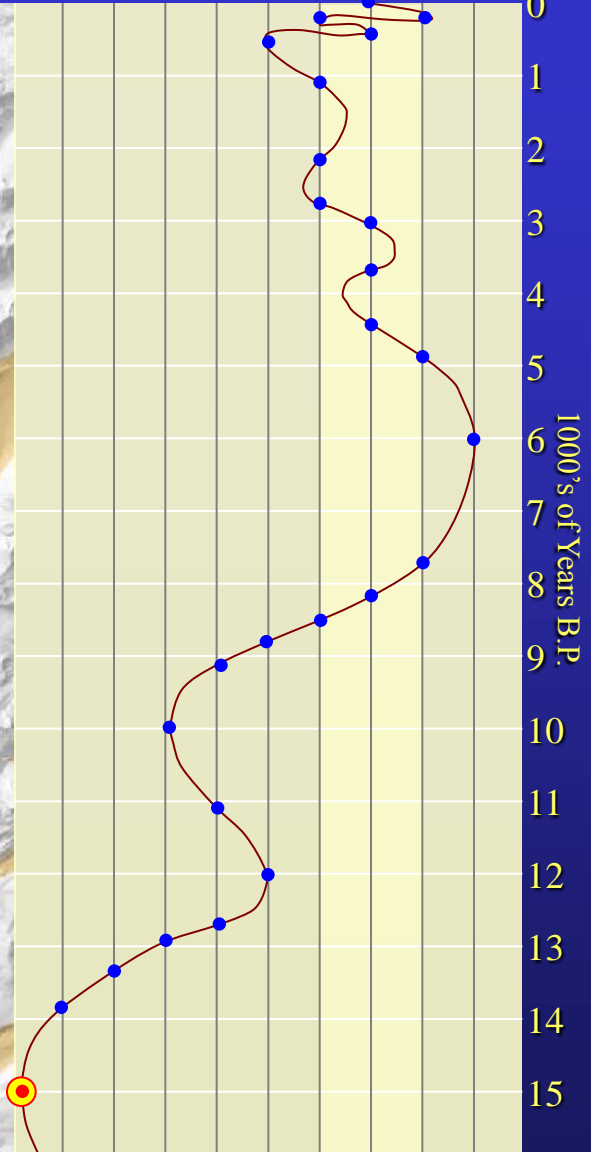
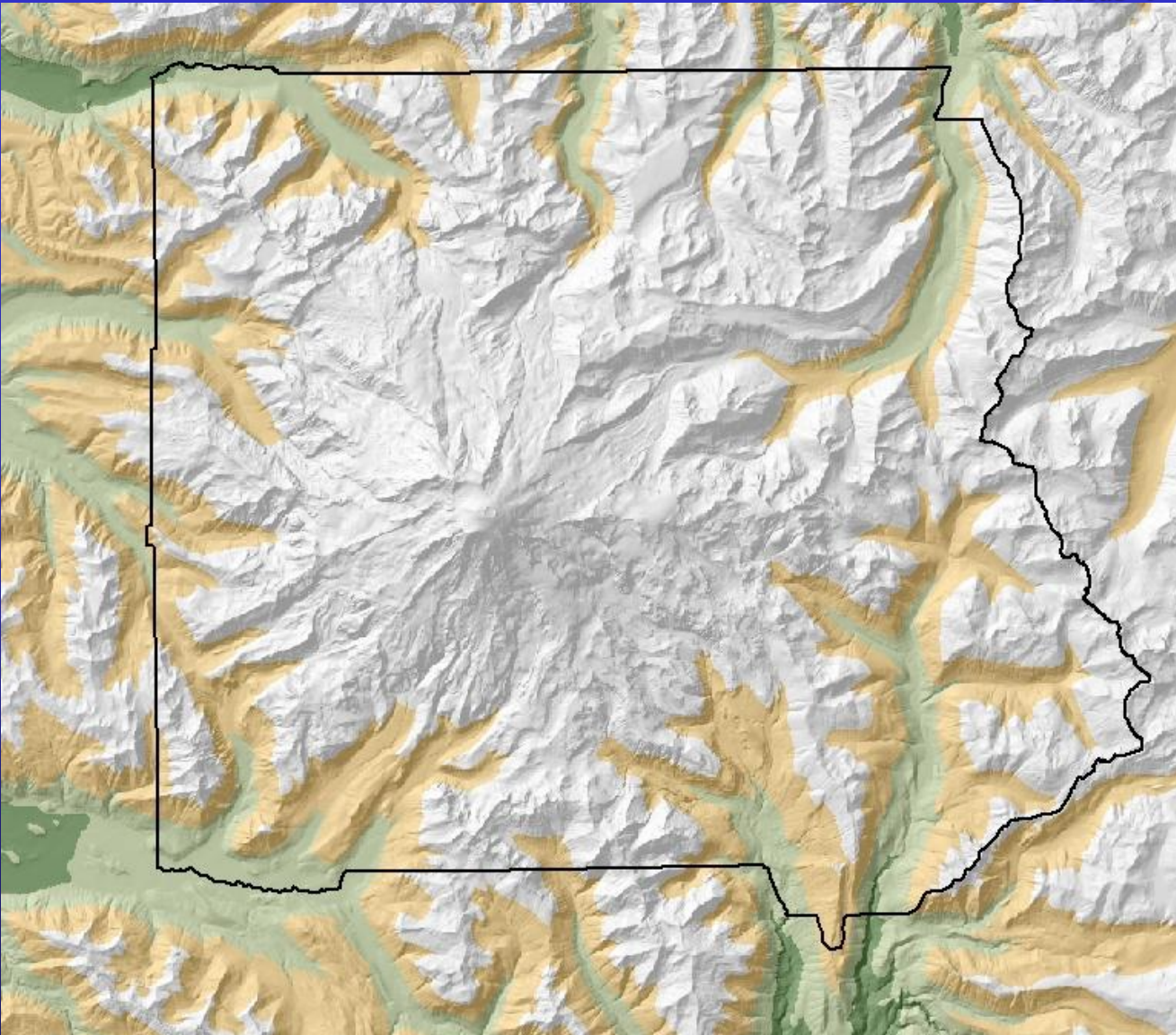
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler → Warmer →
Animate: Park or Regional

Show Sites





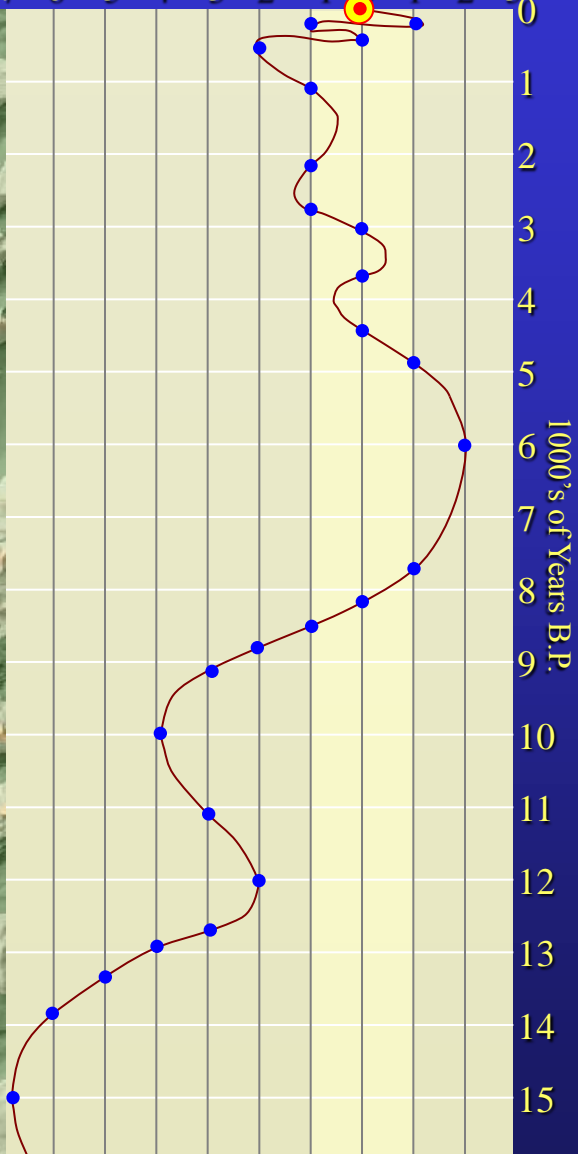
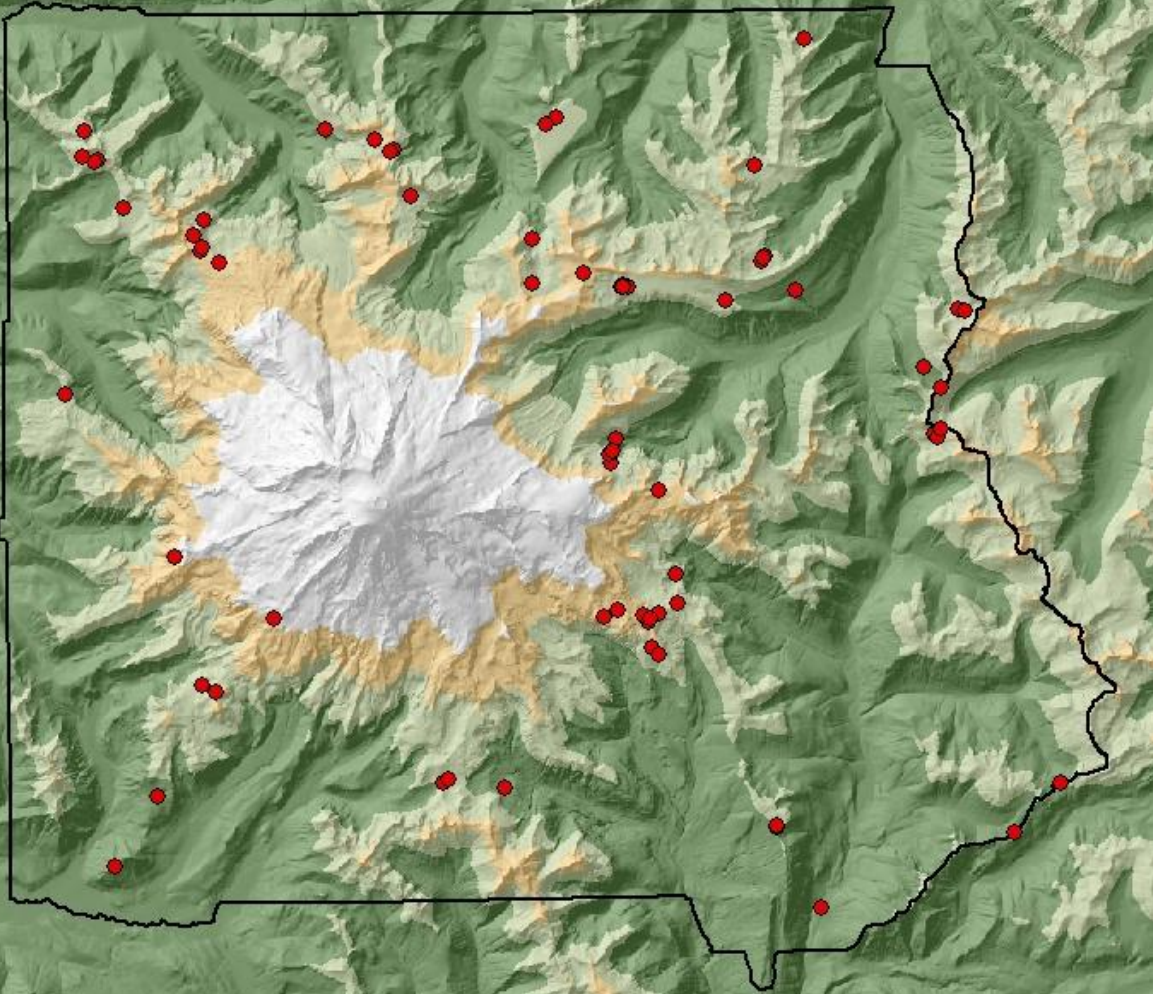
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Known Archaeology Sites

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

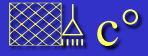
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Remove Sites

← Cooler Warmer →
Animate: Park or Regional



• **Known Archaeology Sites**

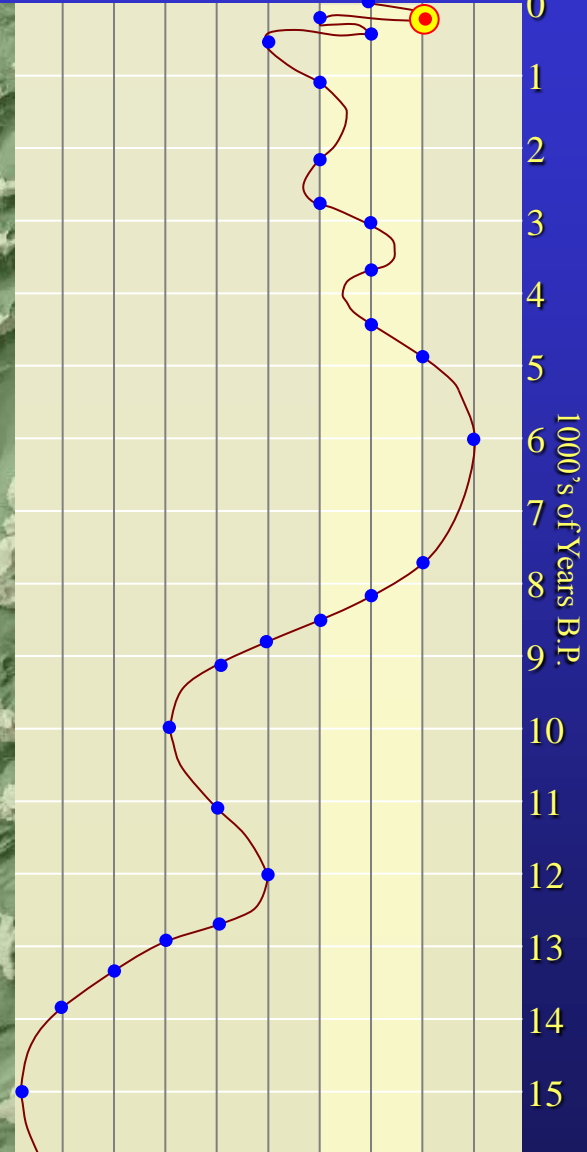
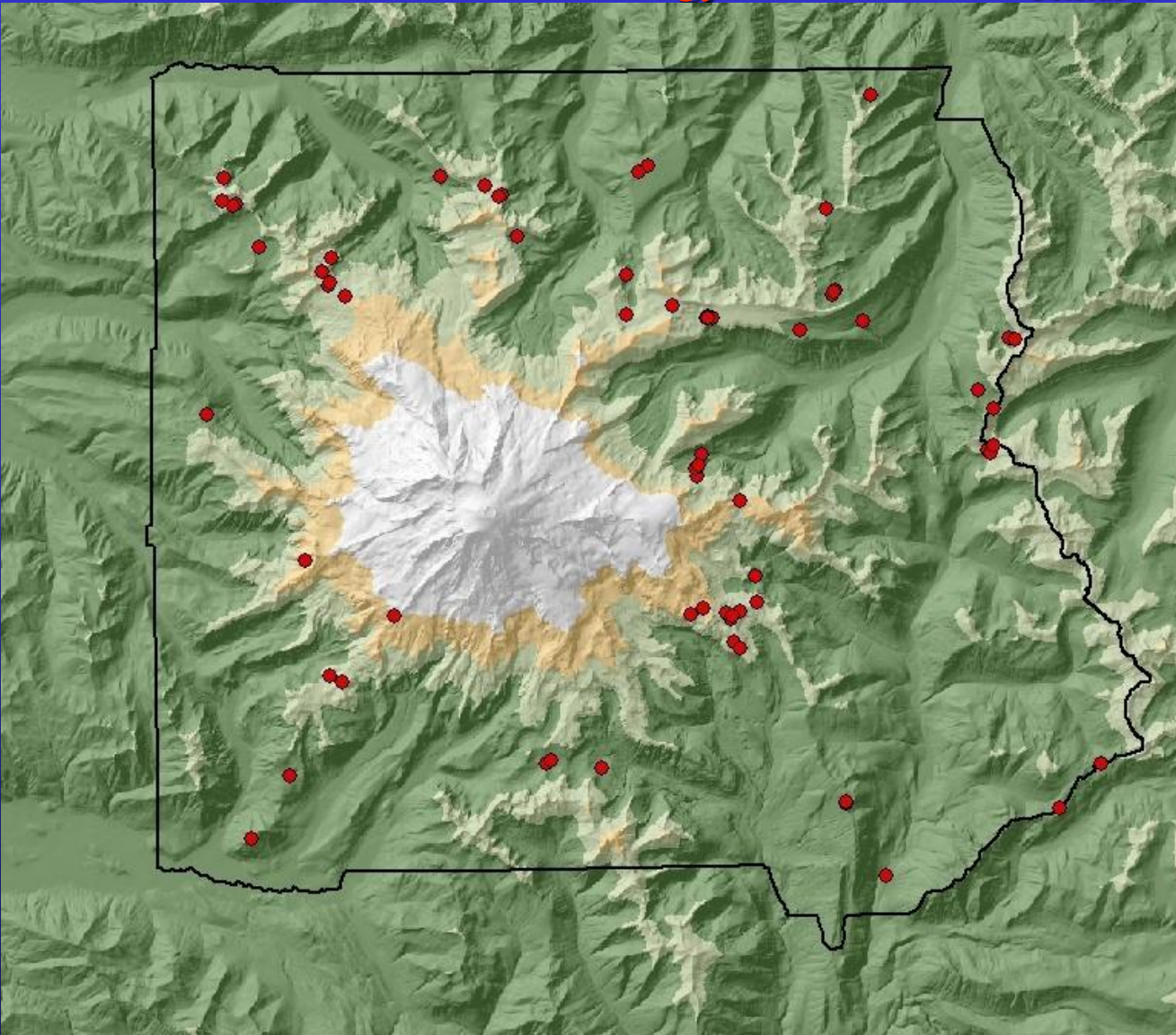
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3 0

1000's of Years B.P.

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← Cooler → Warmer →
Animate: Park or Regional

Remove Sites





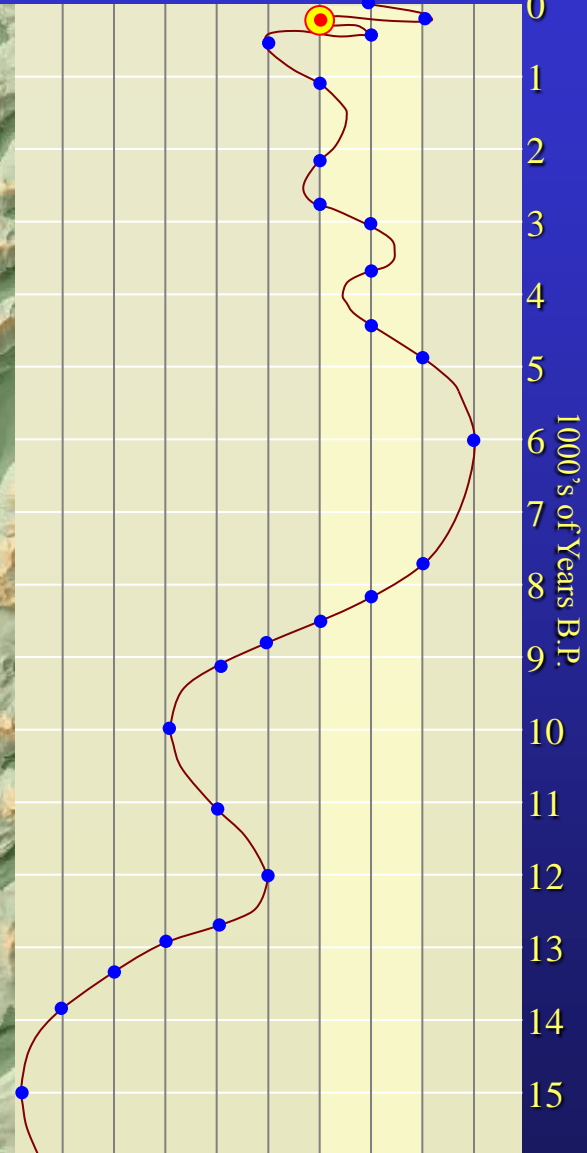
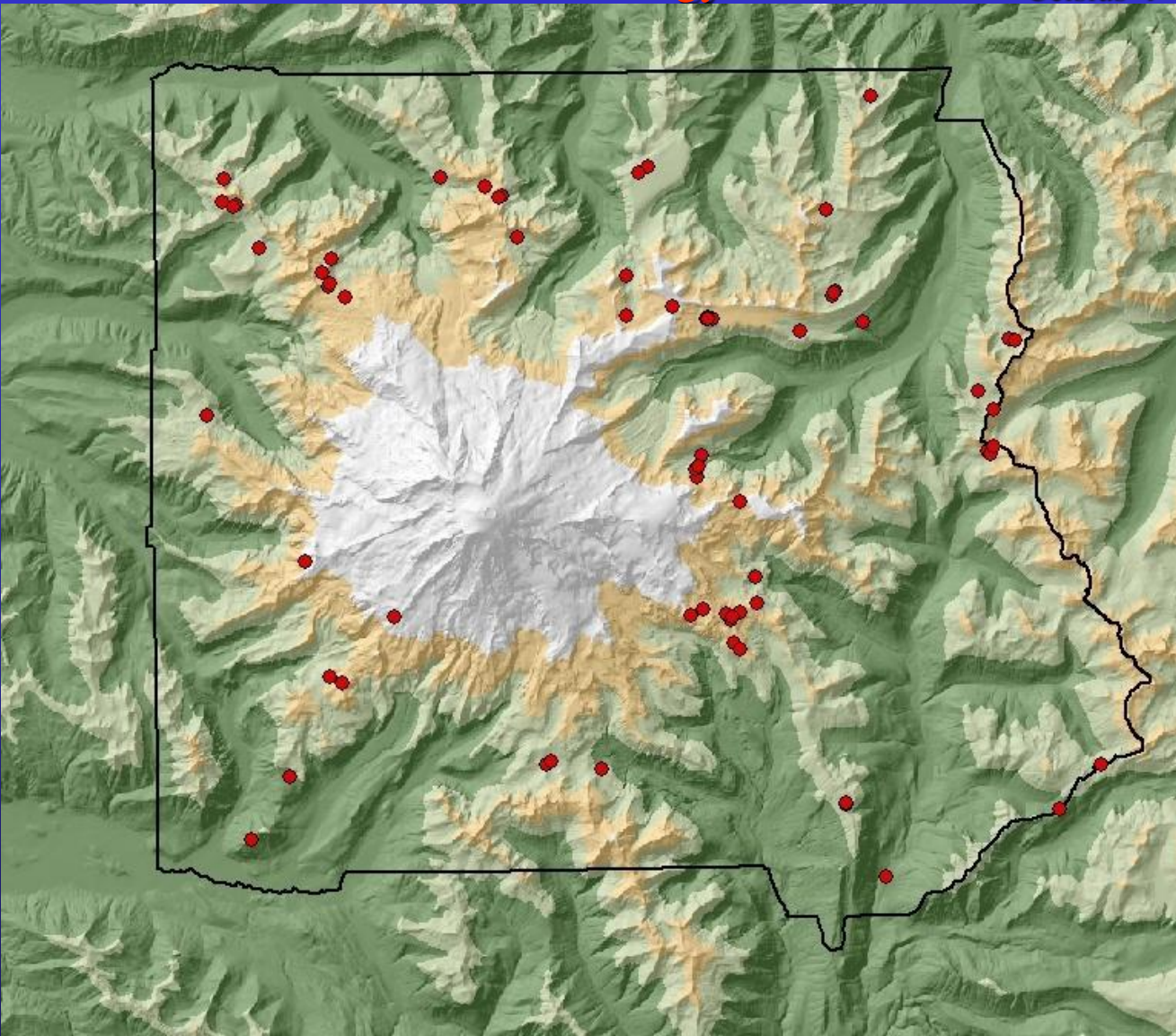
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• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



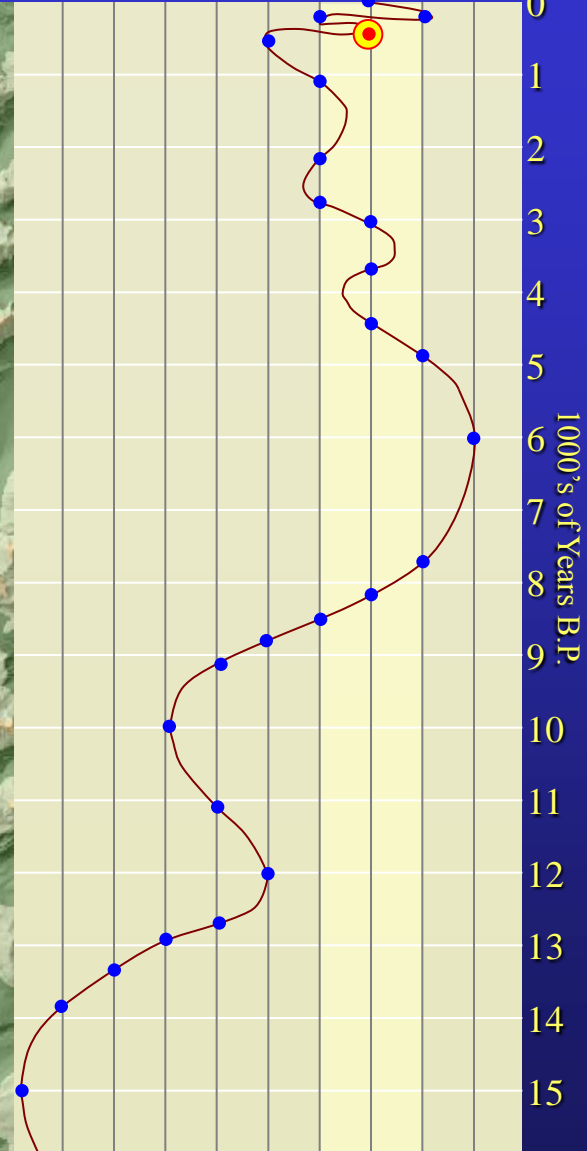
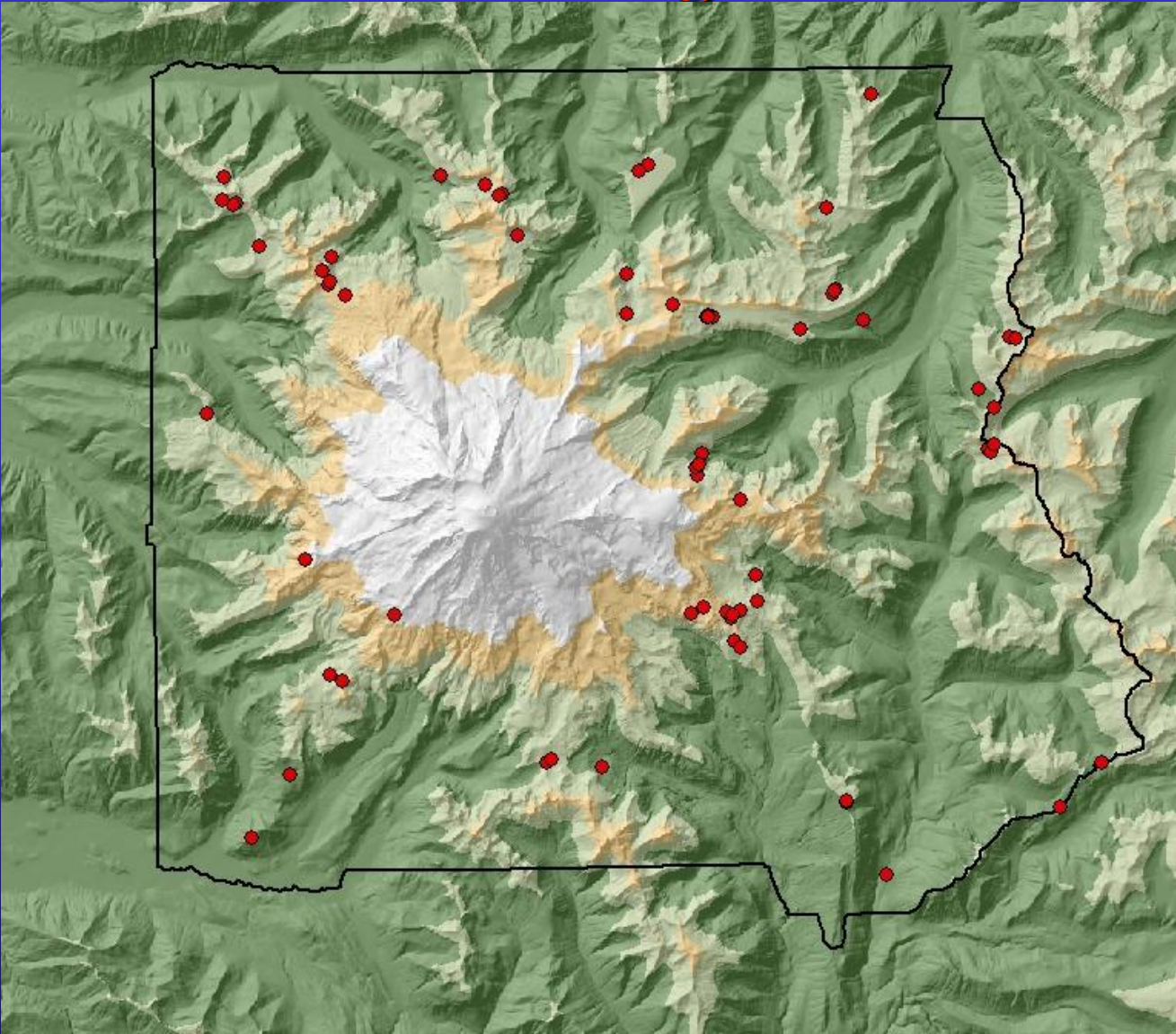
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• Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



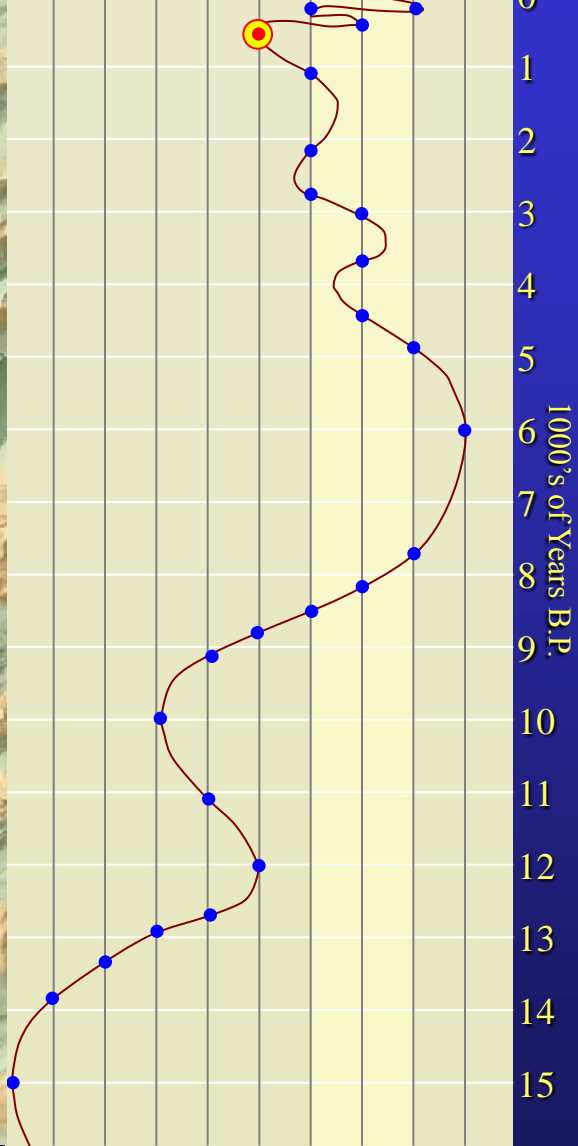
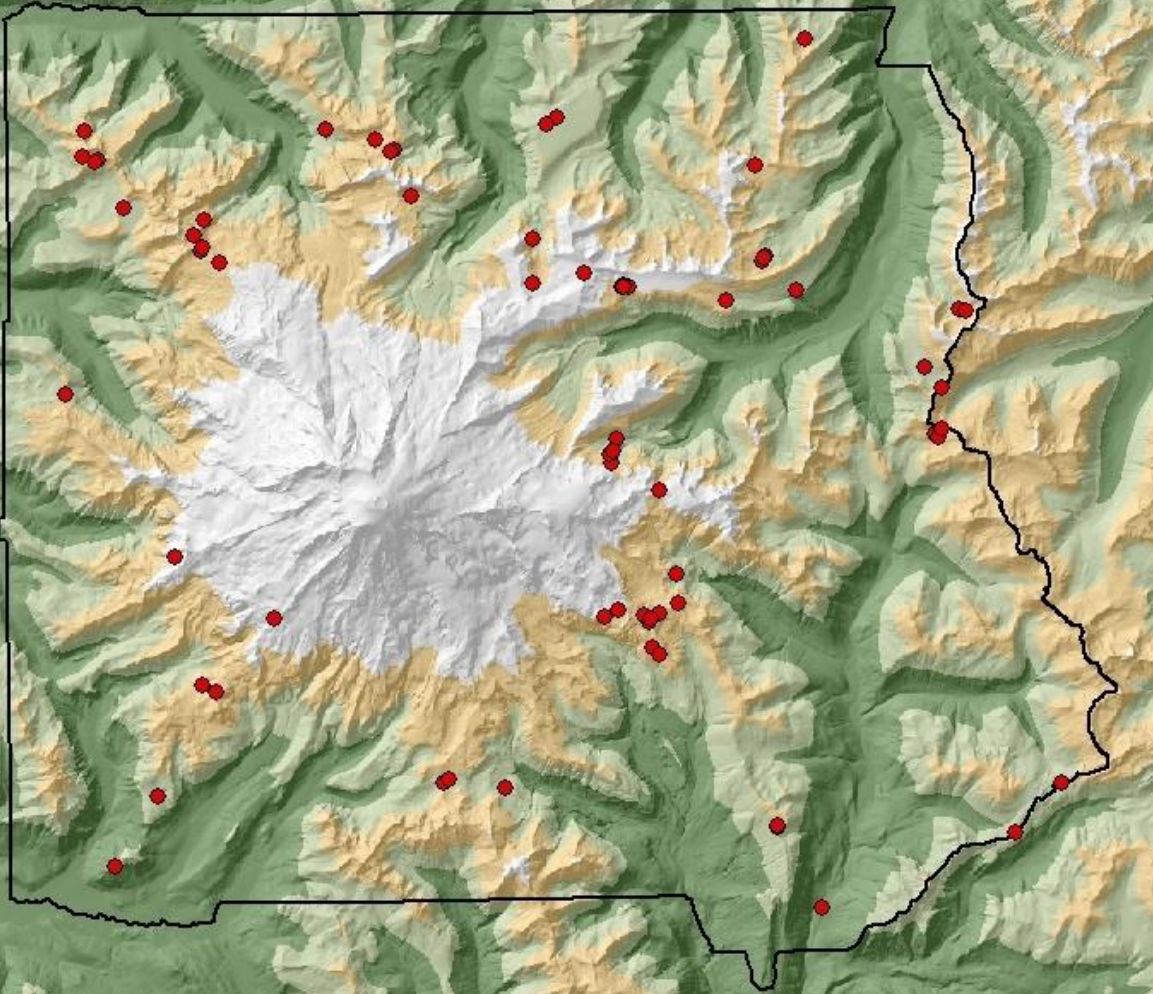
-2 c°

• Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



-1 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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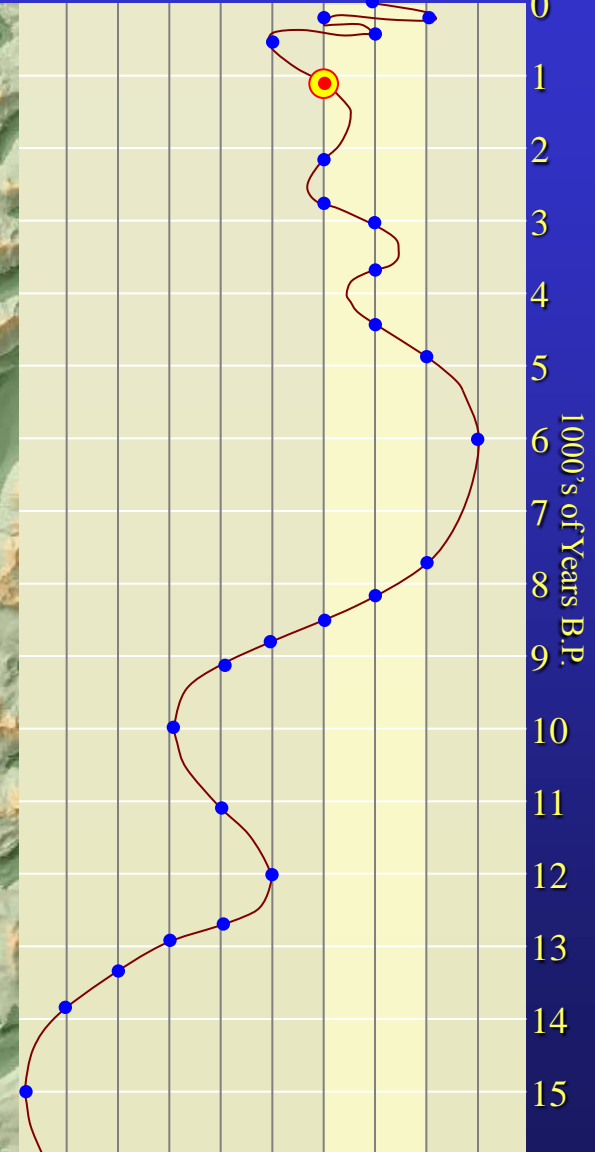
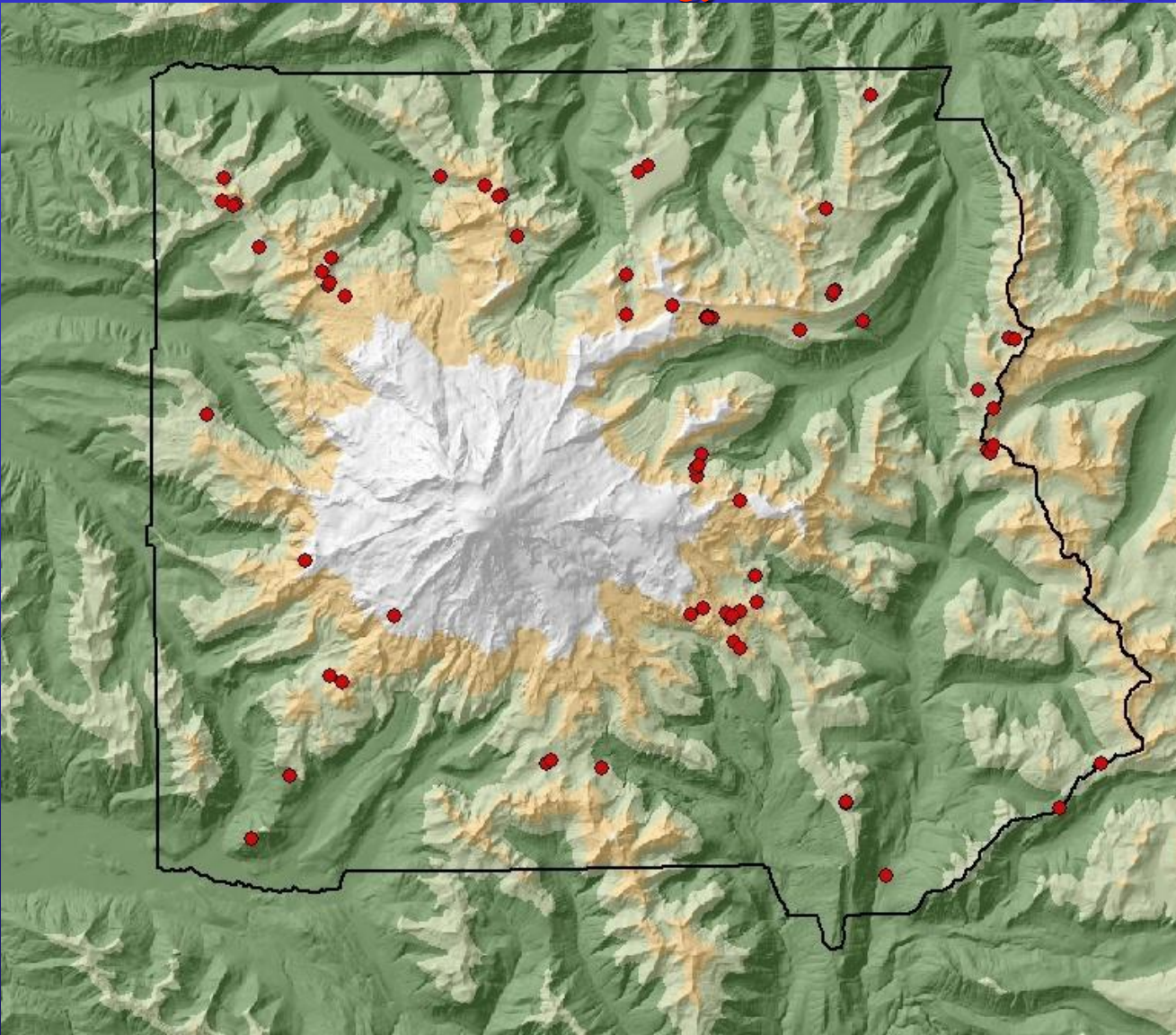
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Remove Sites

← Cooler Warmer →
Animate: Park or Regional



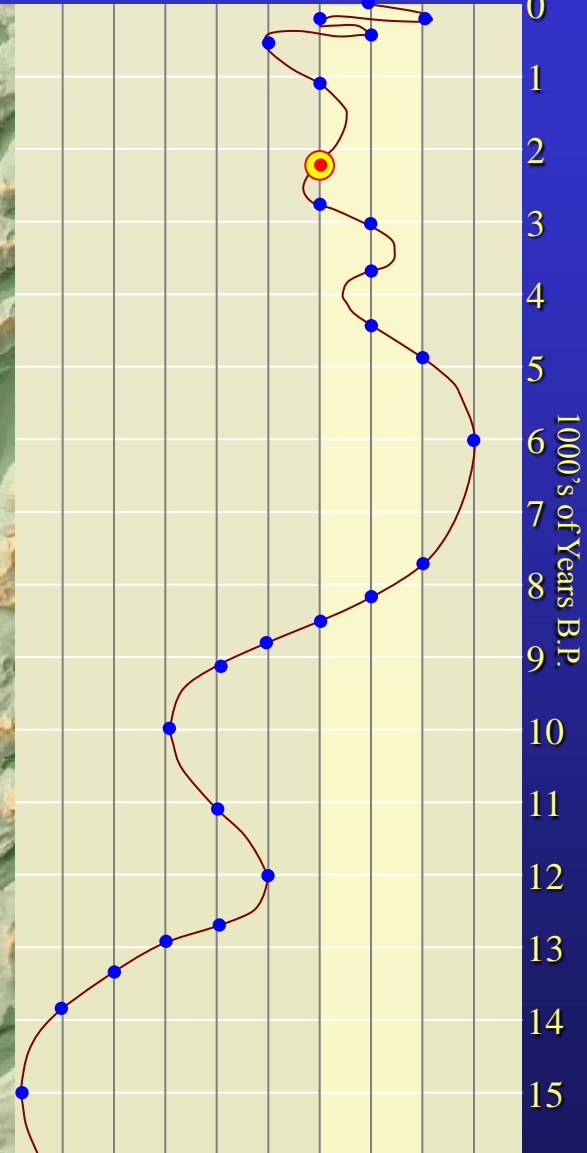
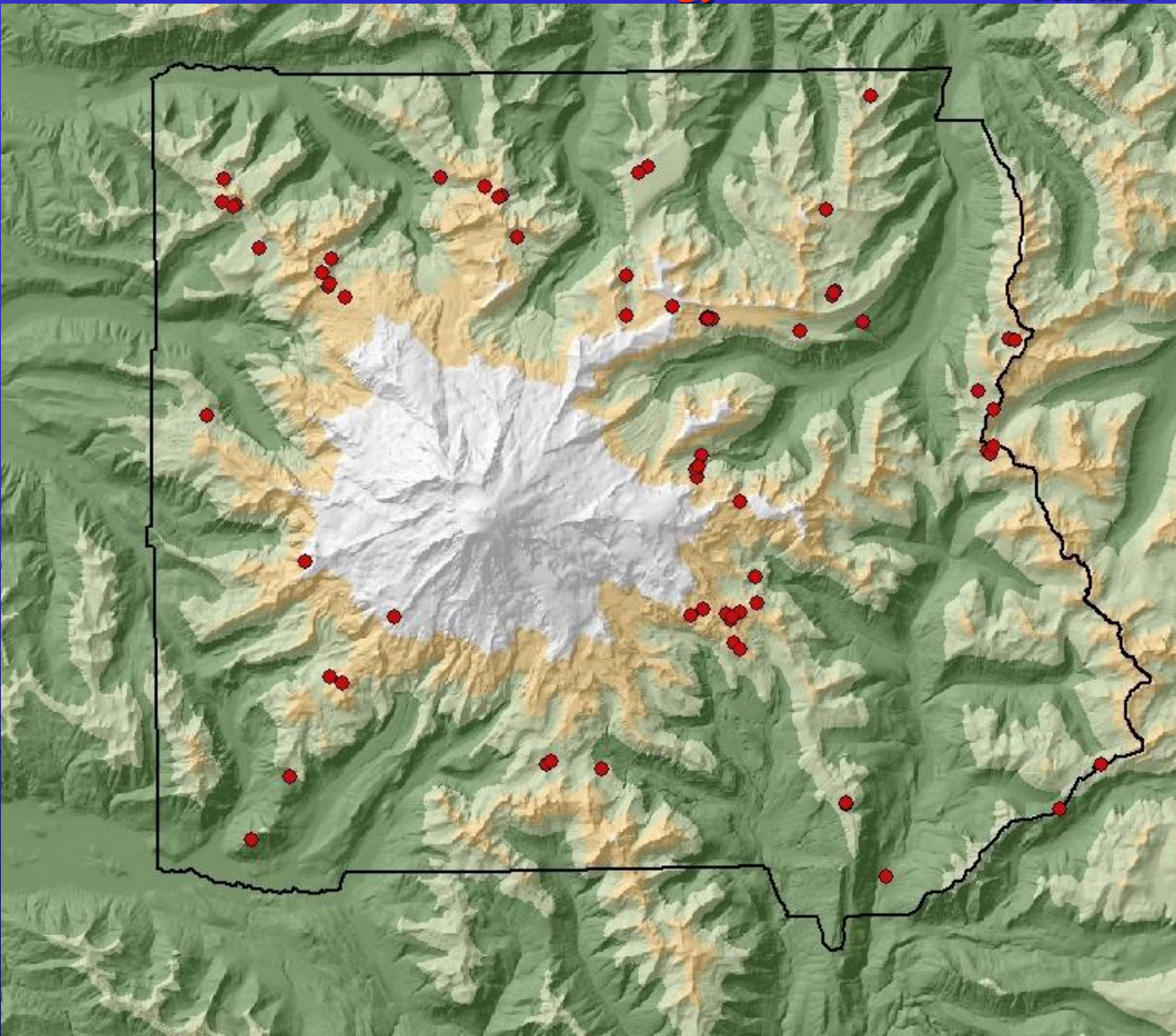
-1 c°

Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

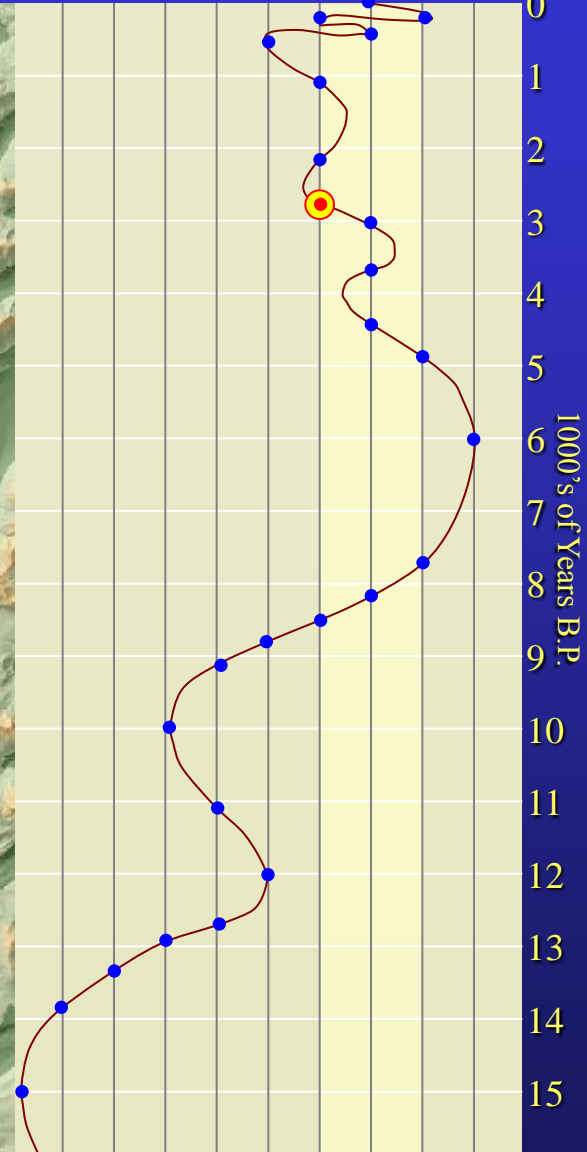
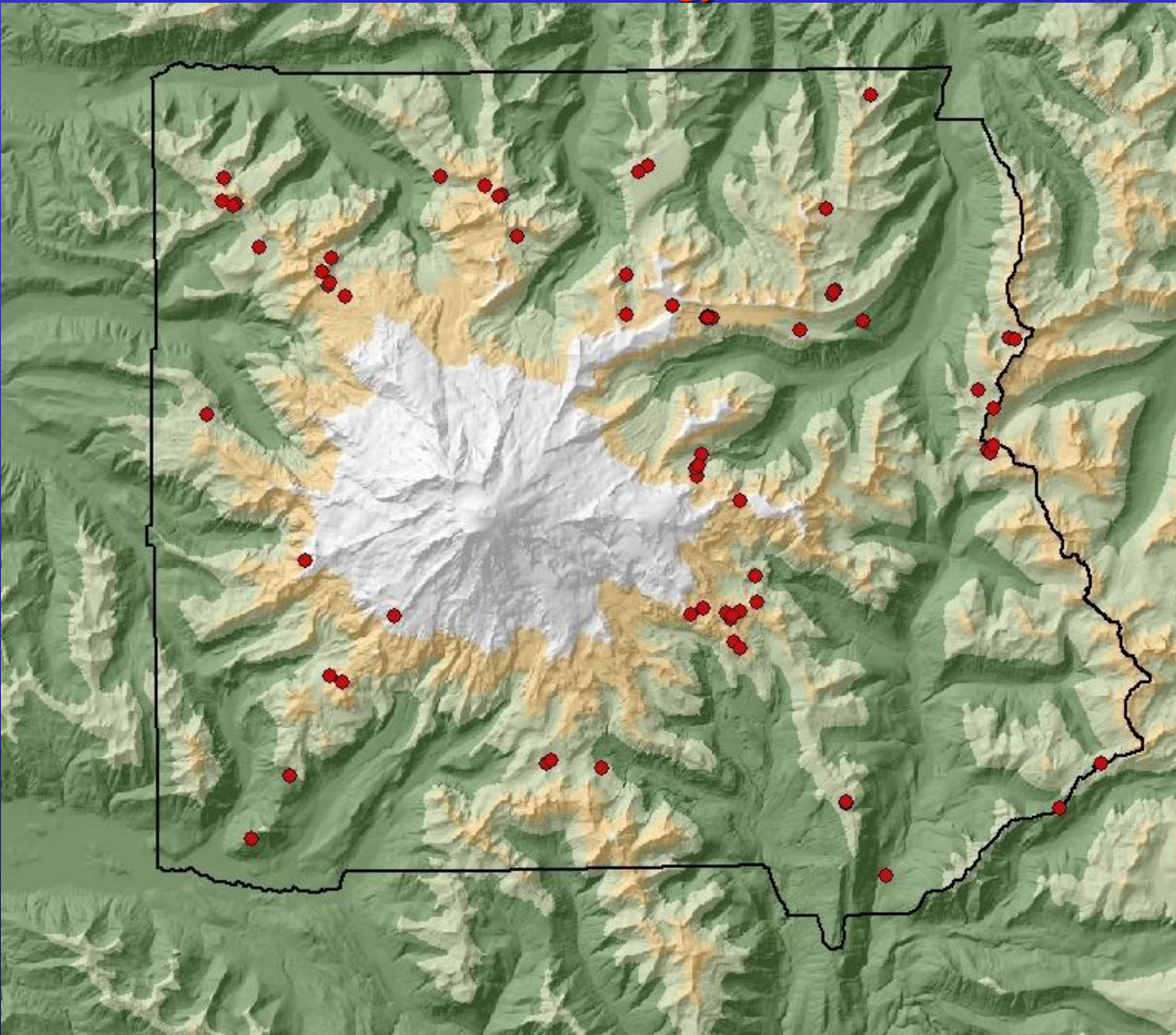
← Cooler → Warmer →
Animate: Park or Regional



-1 c°

• **Known Archaeology Sites**

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



Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



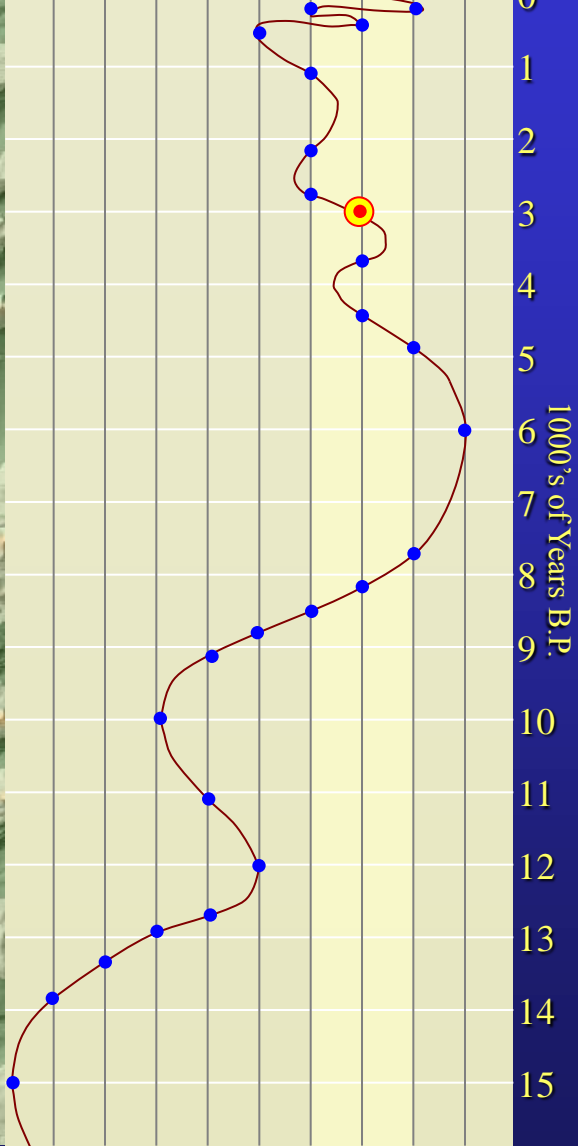
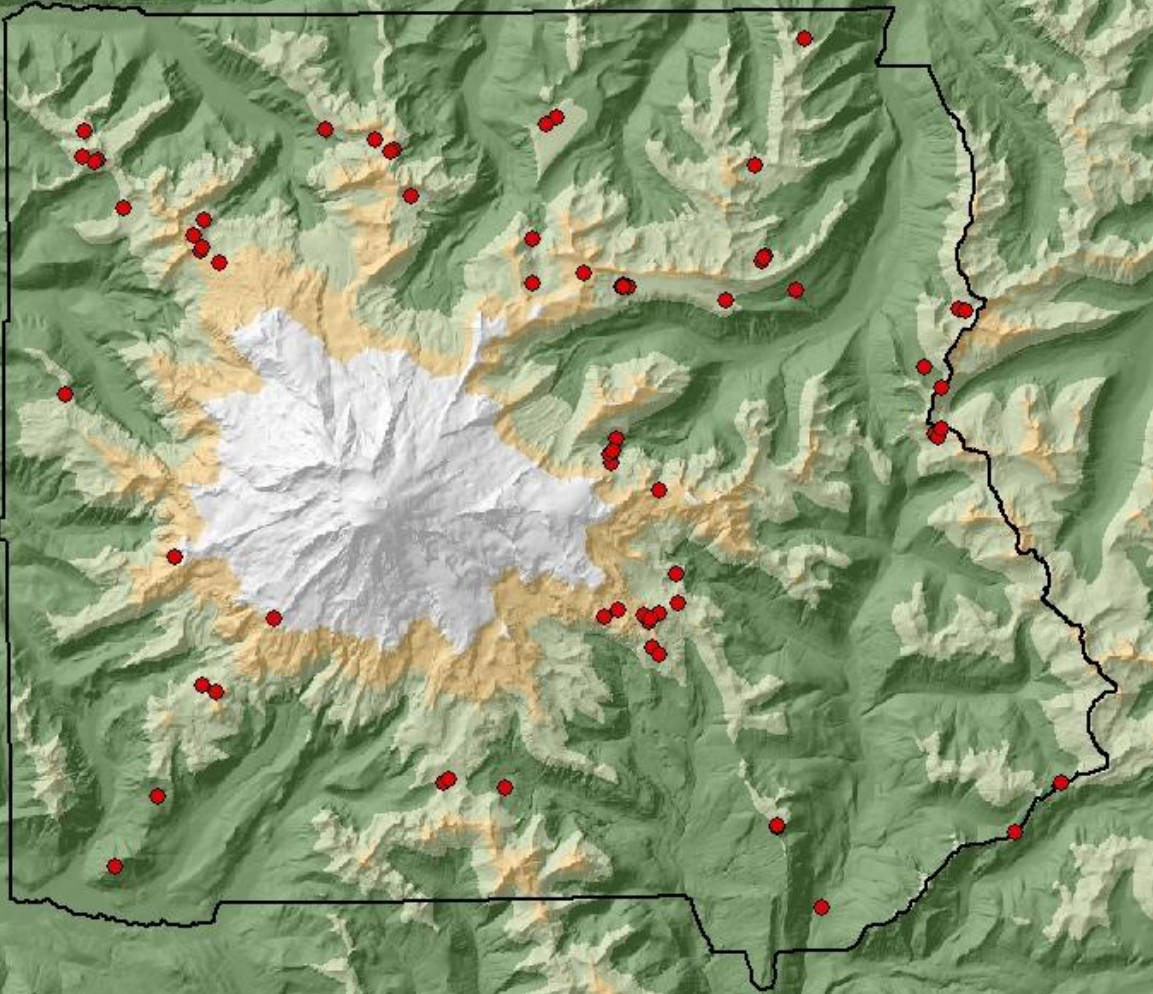
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• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



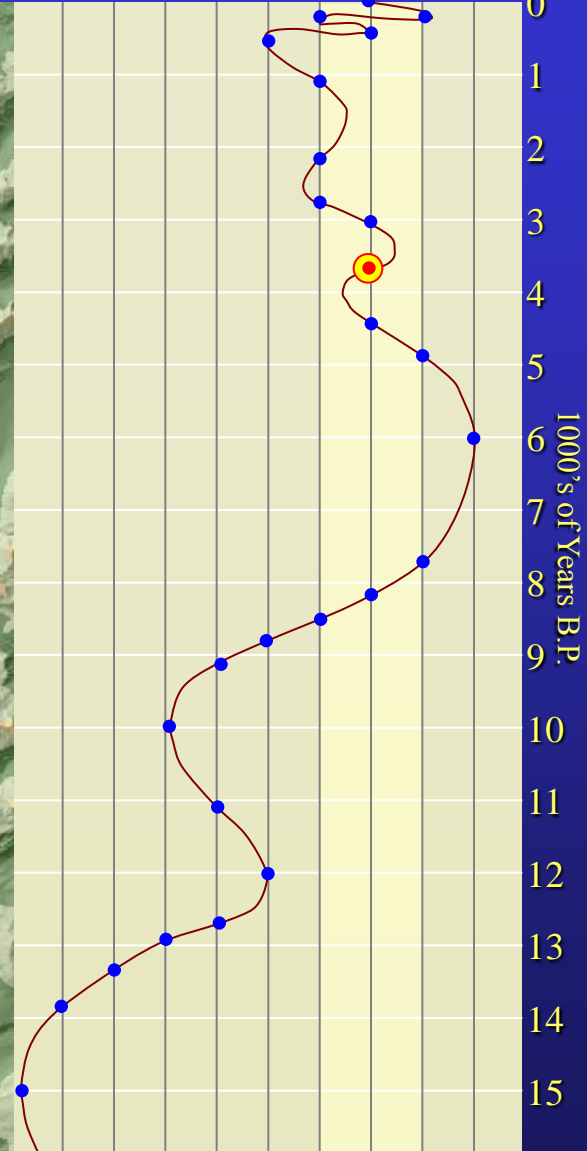
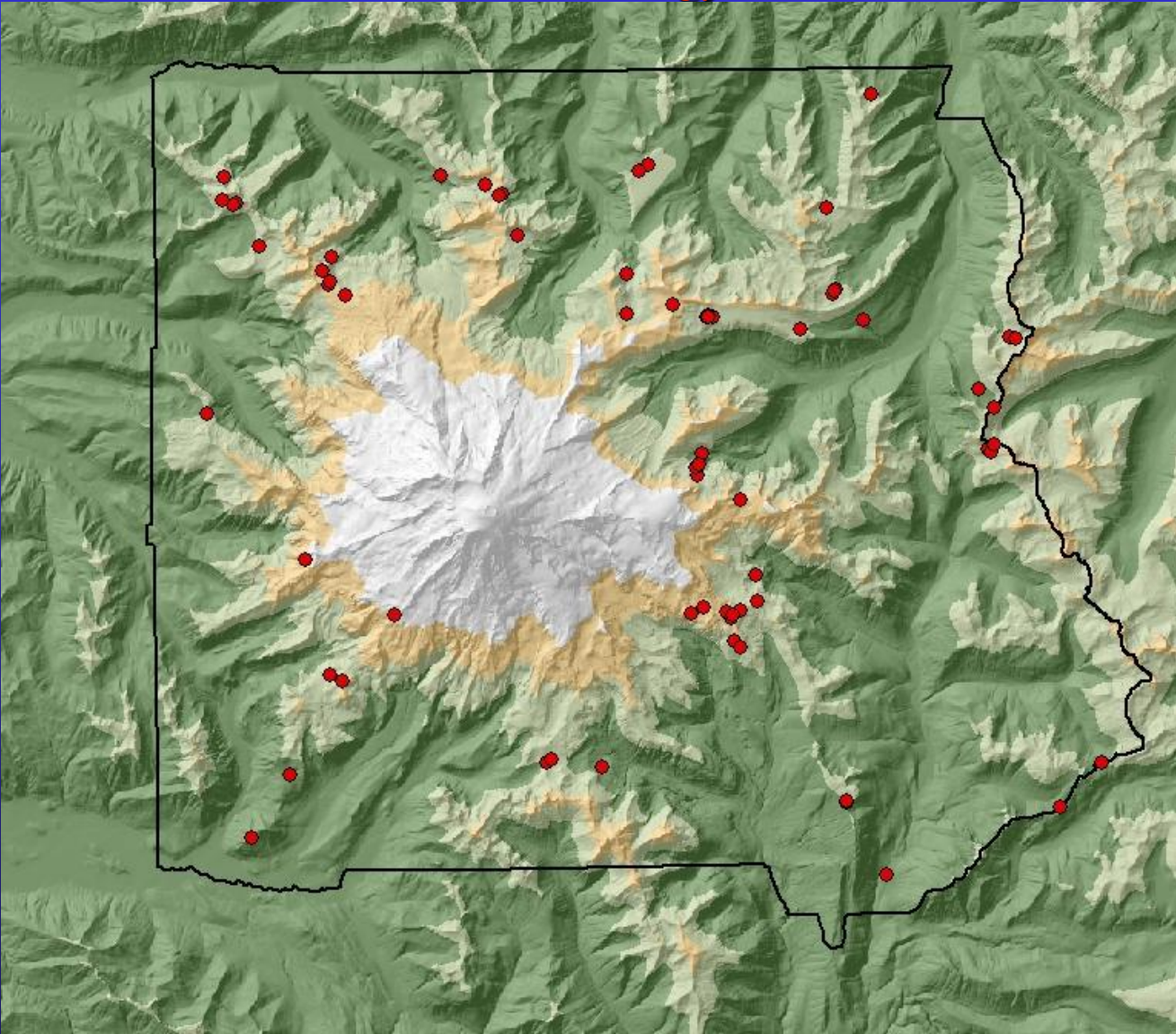
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• **Known Archaeology Sites**

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

1000's of Years B.P.

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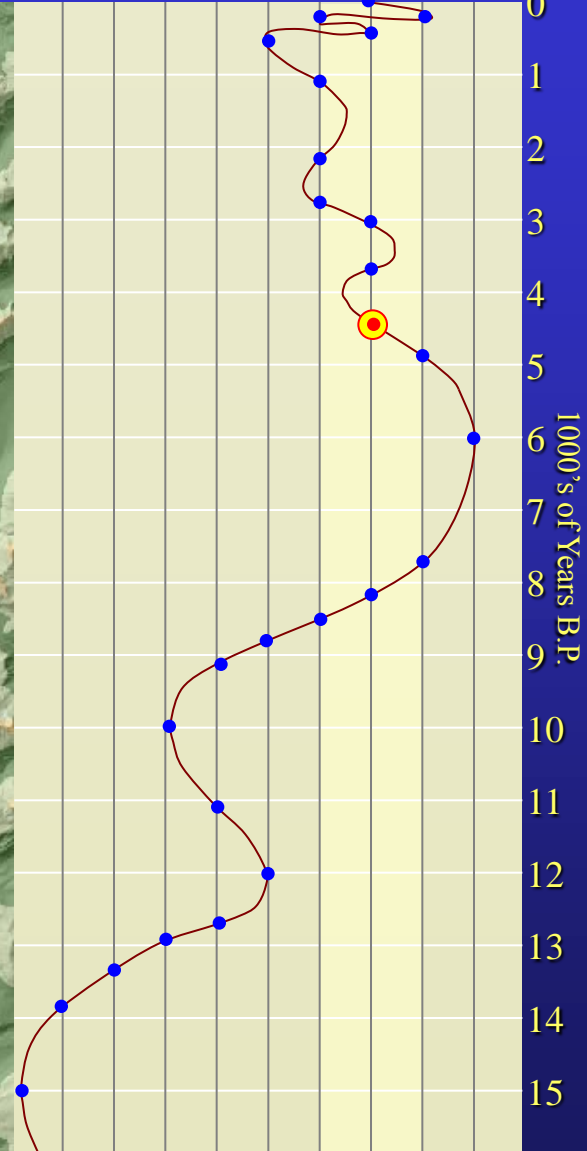
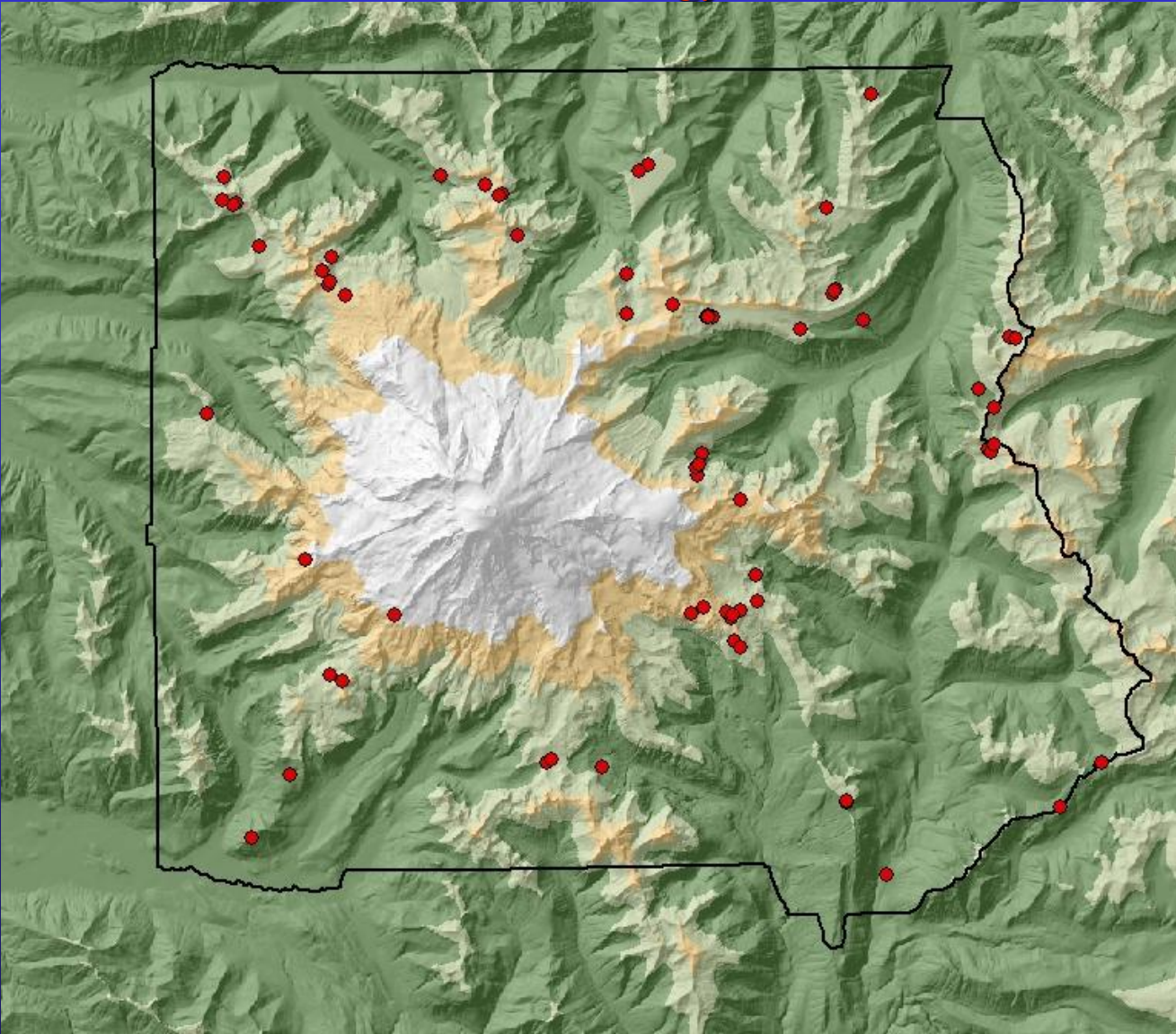
← Cooler → Warmer →
Animate: Park or Regional



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• **Known Archaeology Sites**

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



Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



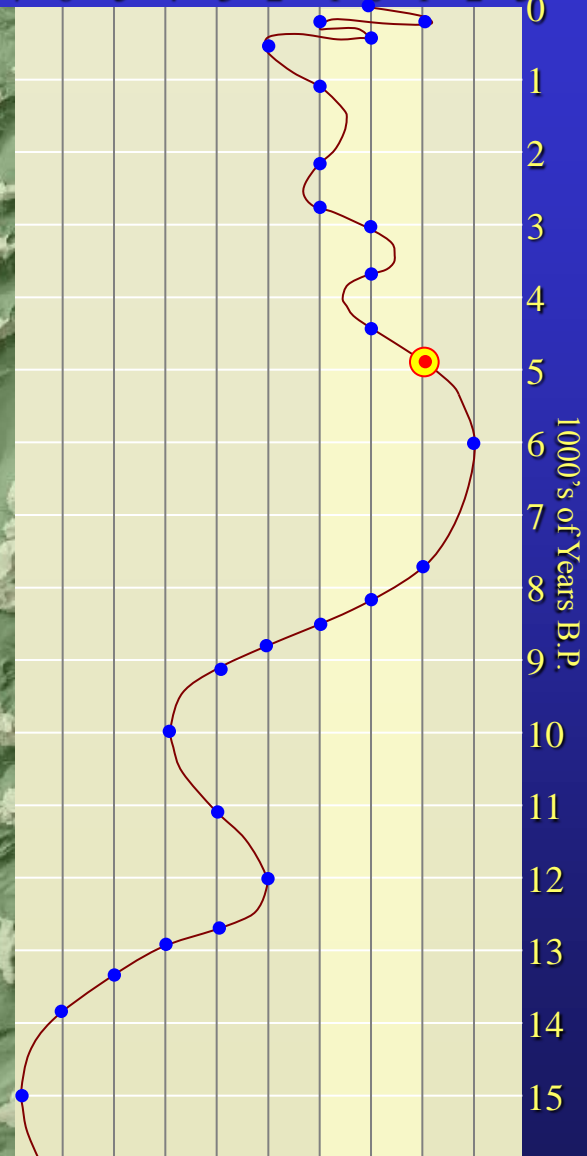
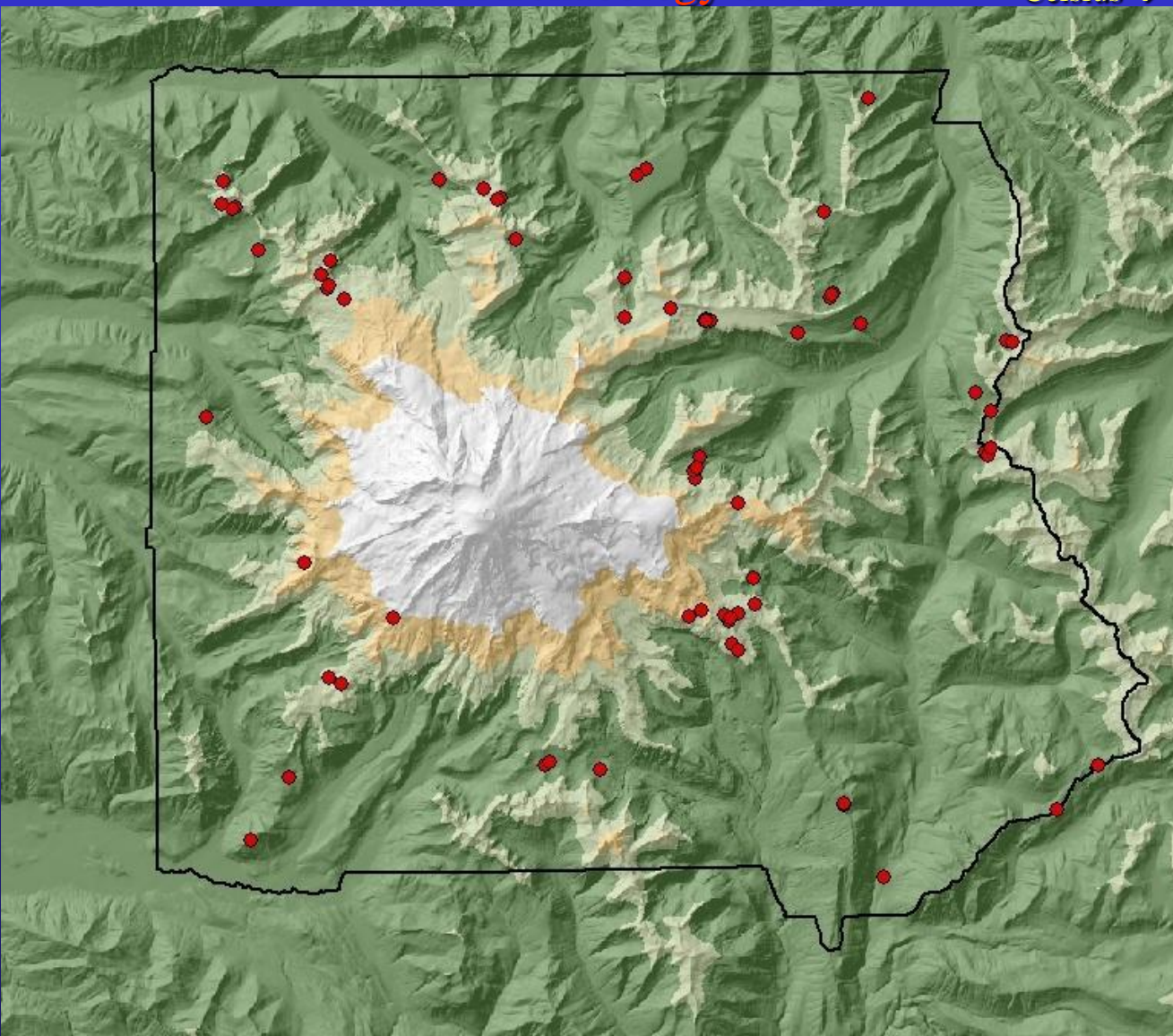
+1 c°

• Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



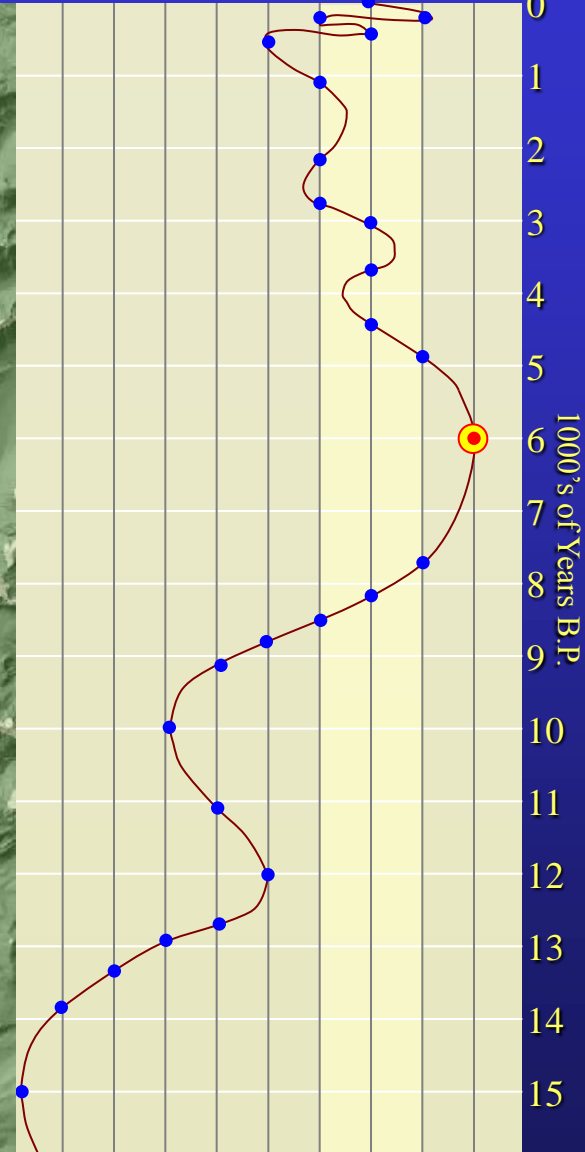
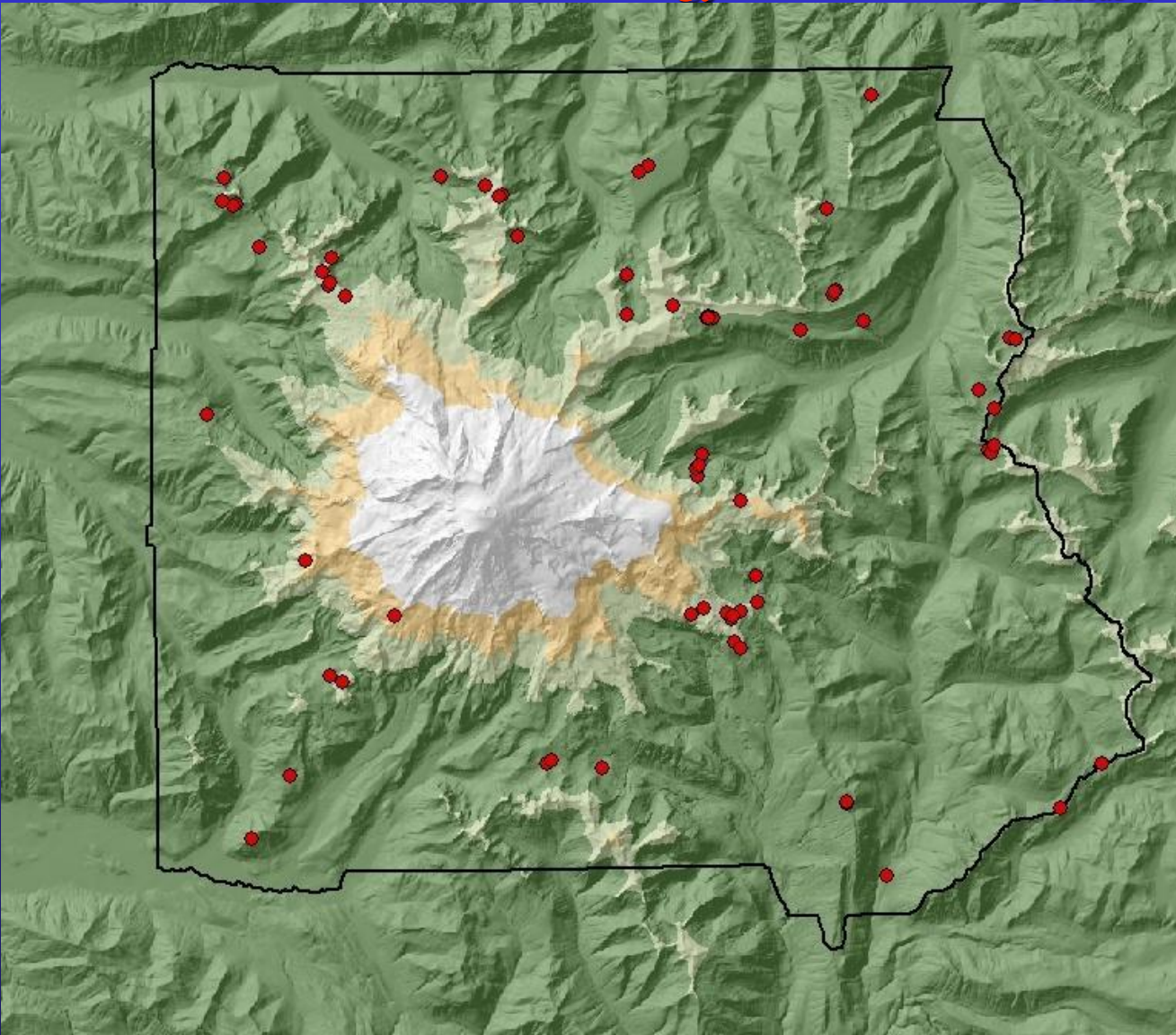
+2 c°

• Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



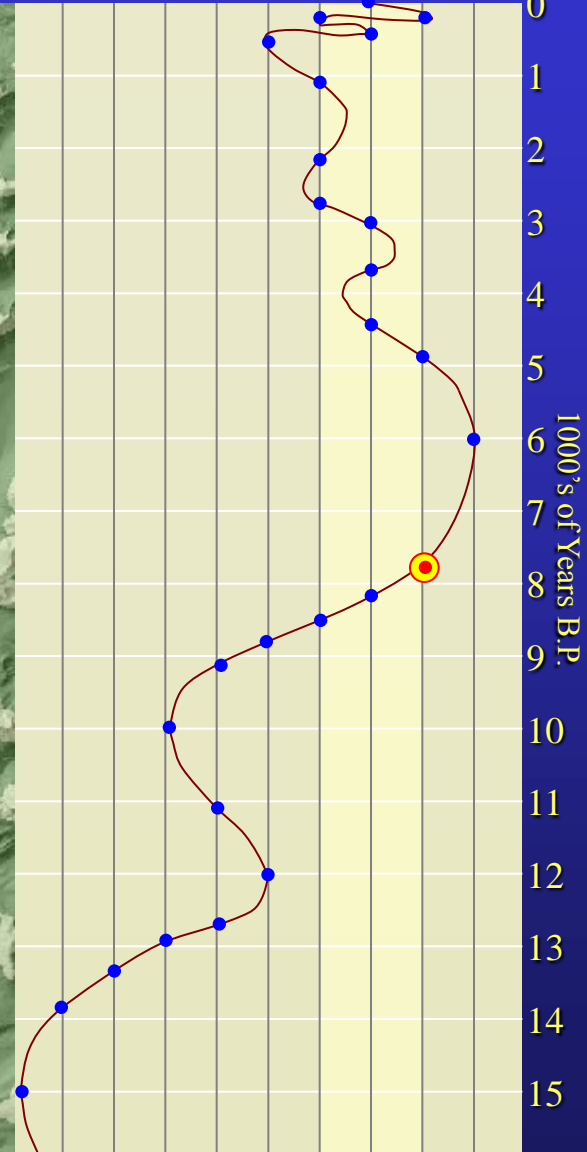
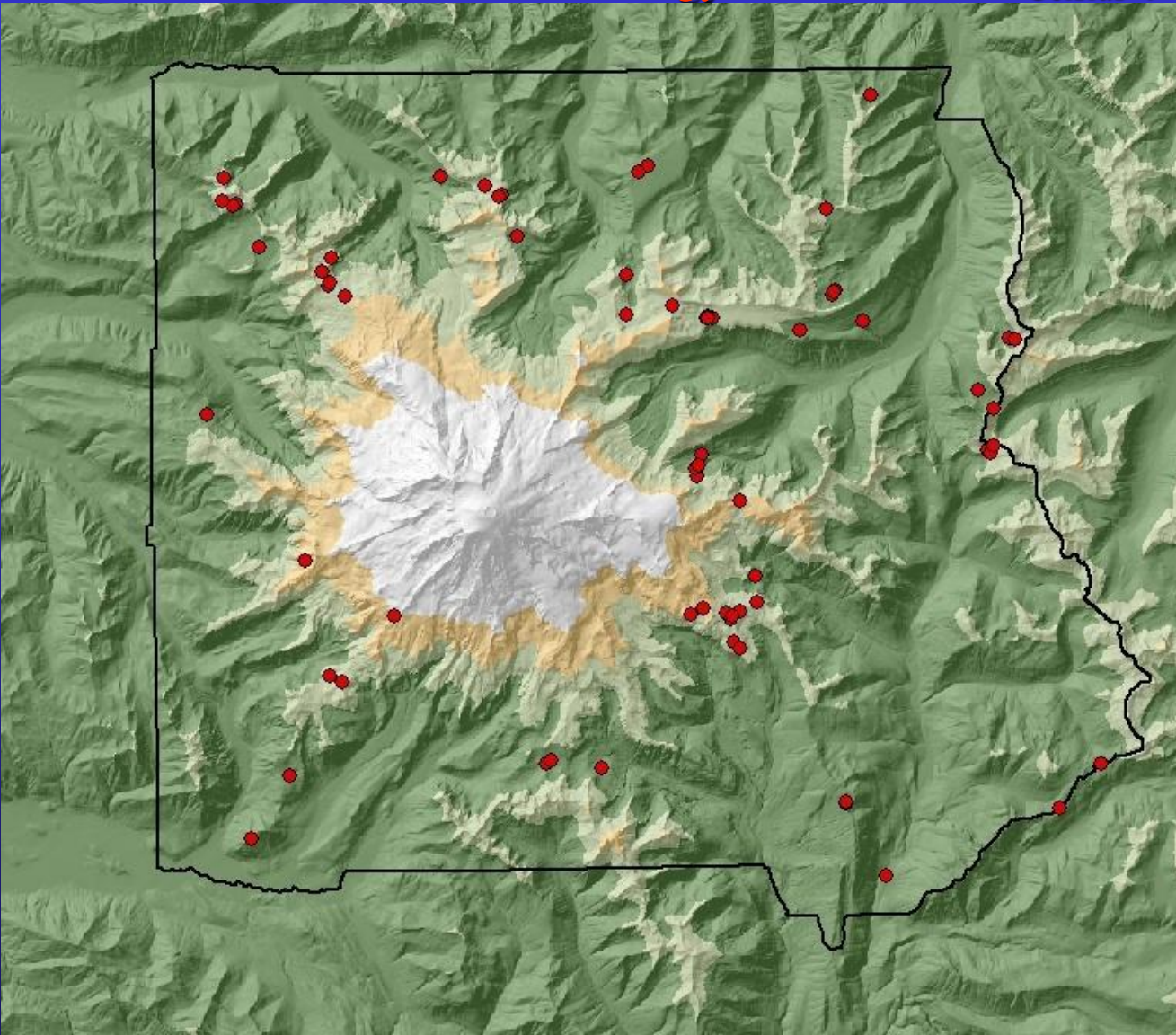
+1 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



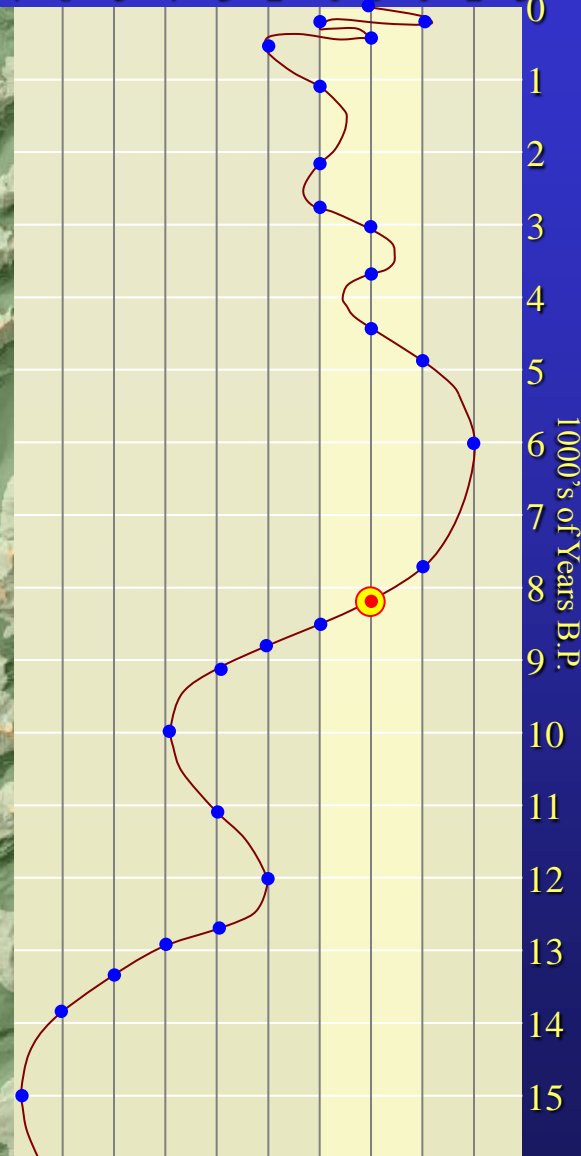
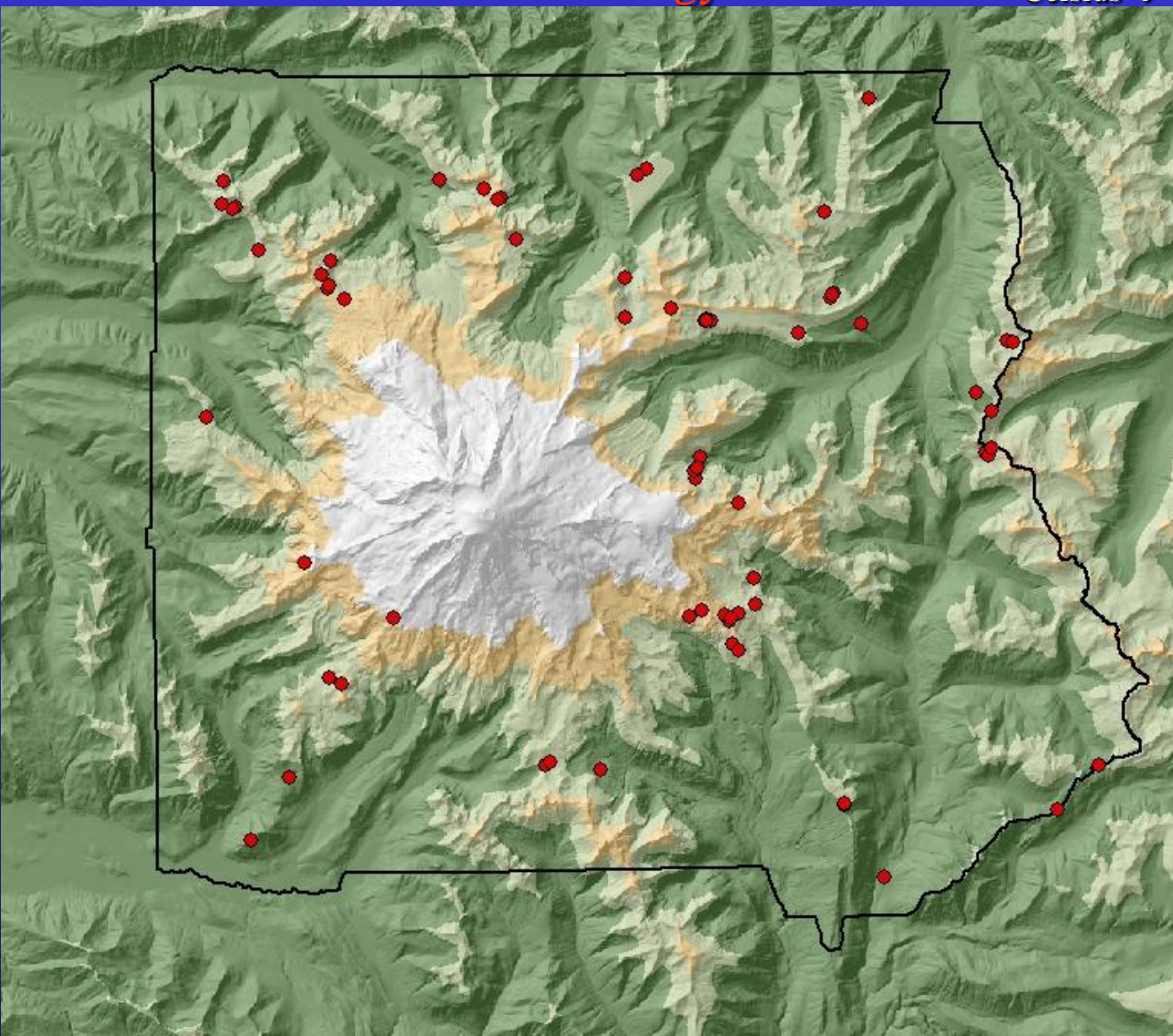
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Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



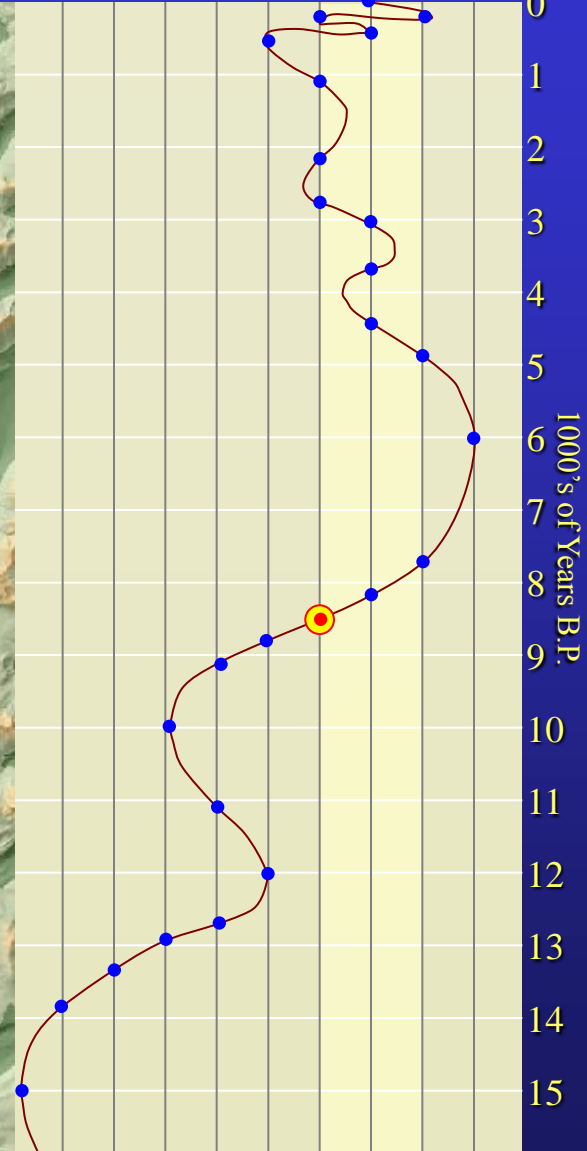
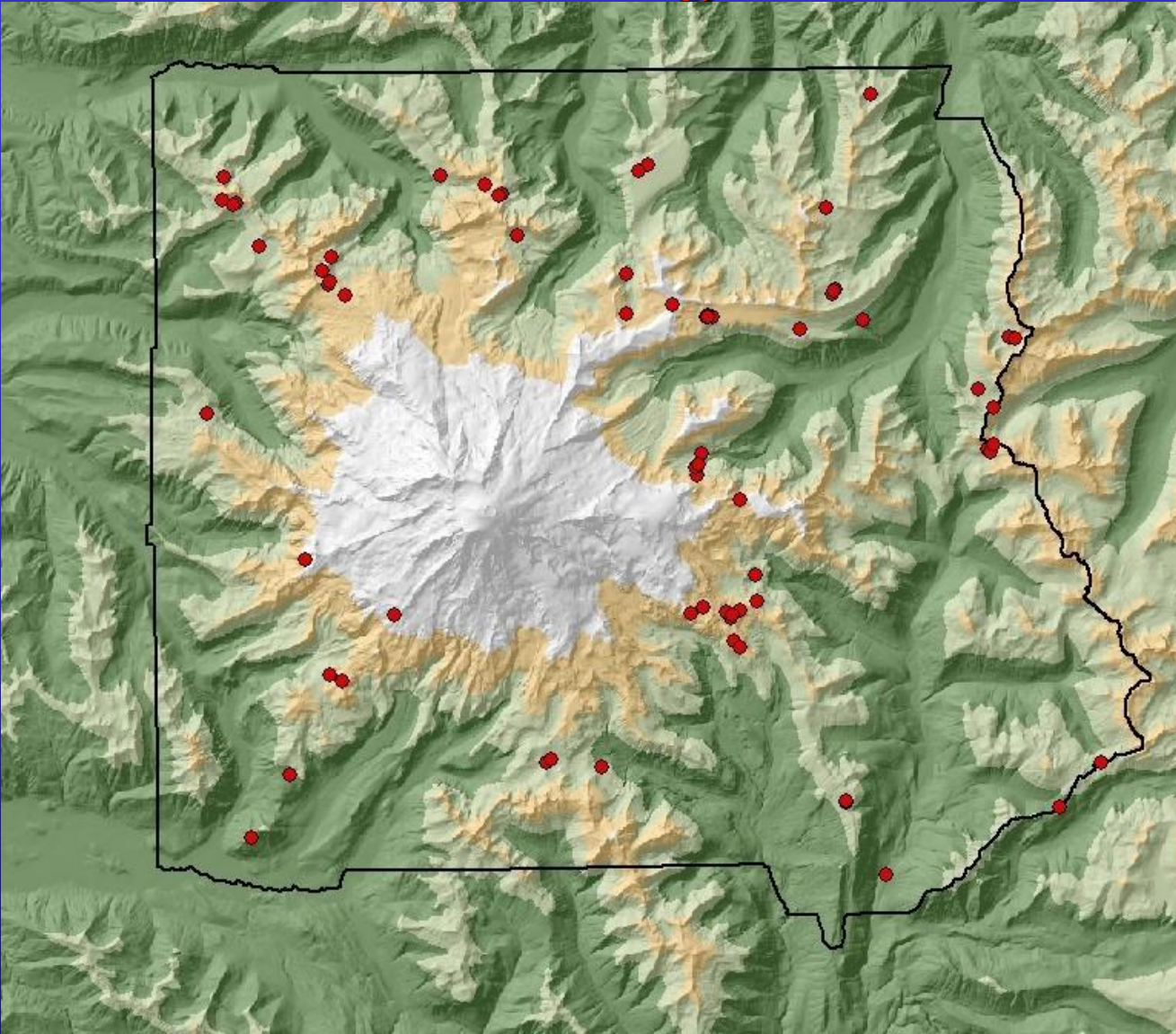
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• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



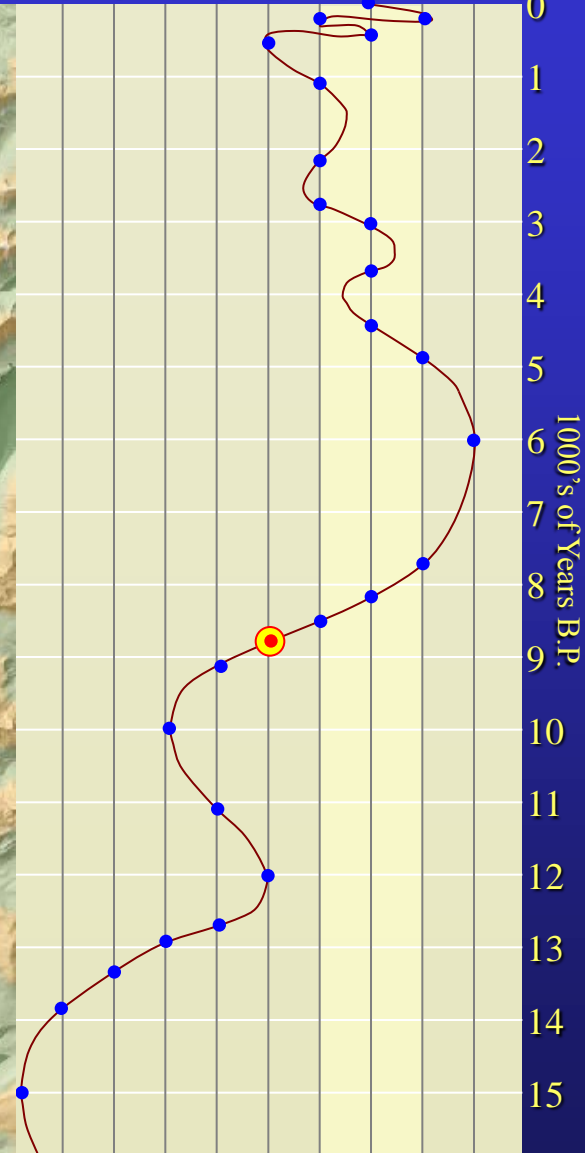
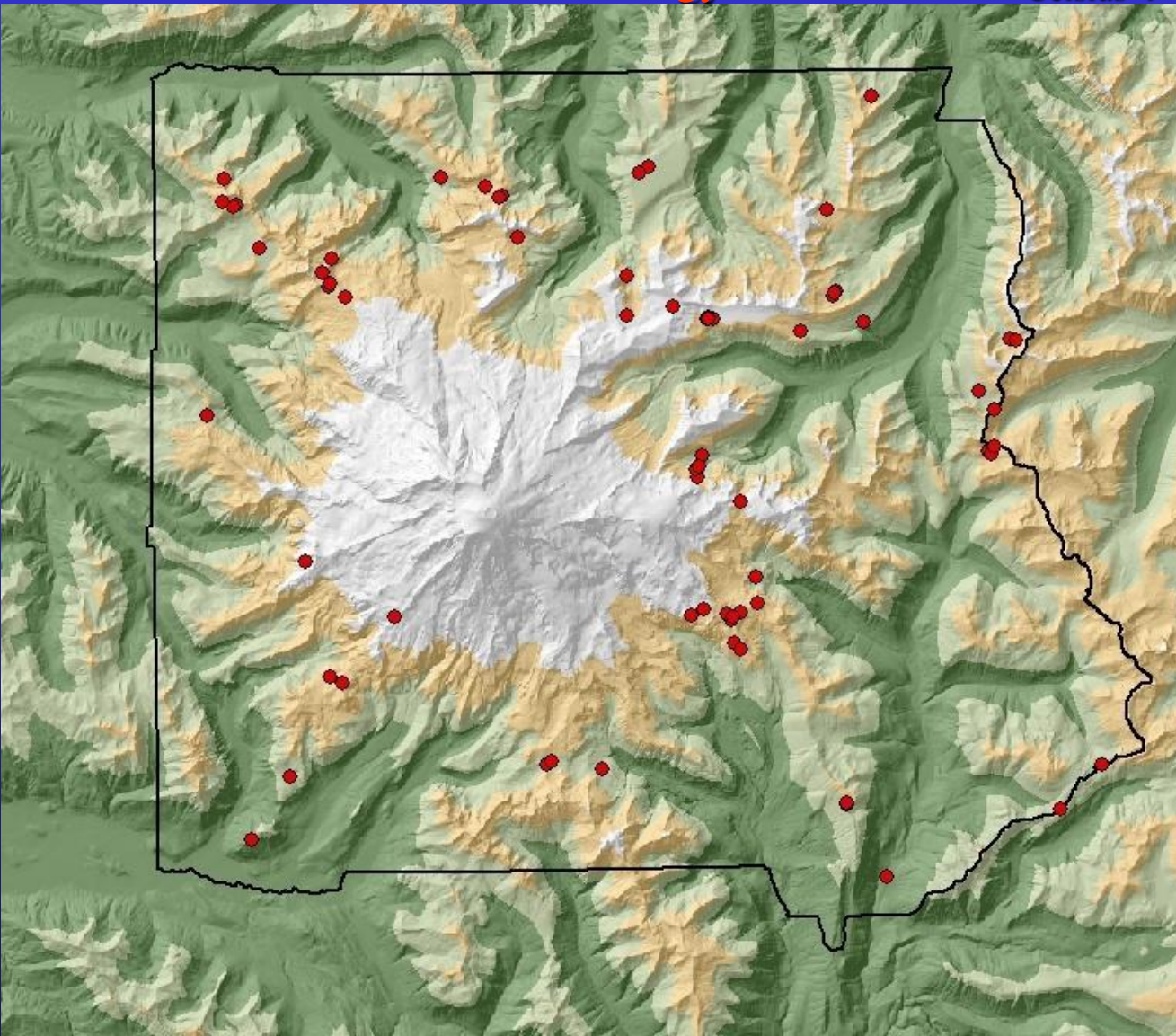
-2 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



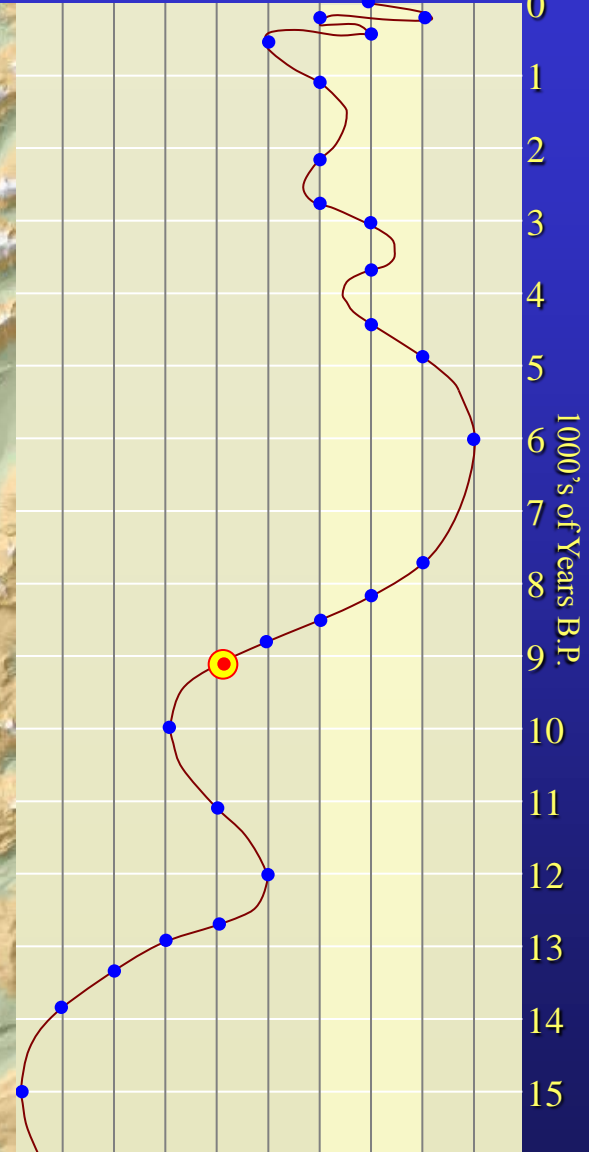
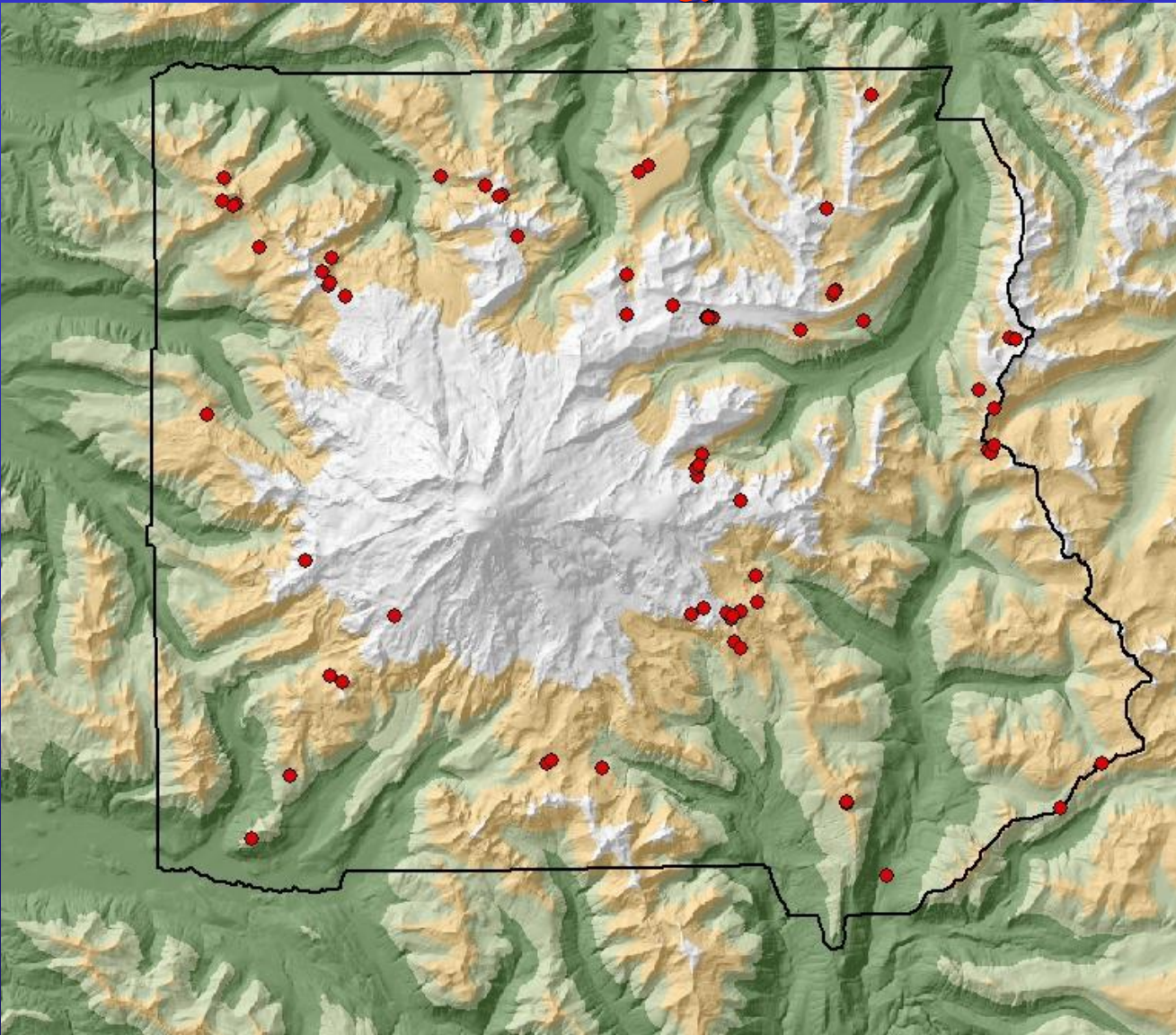
-3 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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Remove Sites

← Cooler Warmer →
Animate: Park or Regional

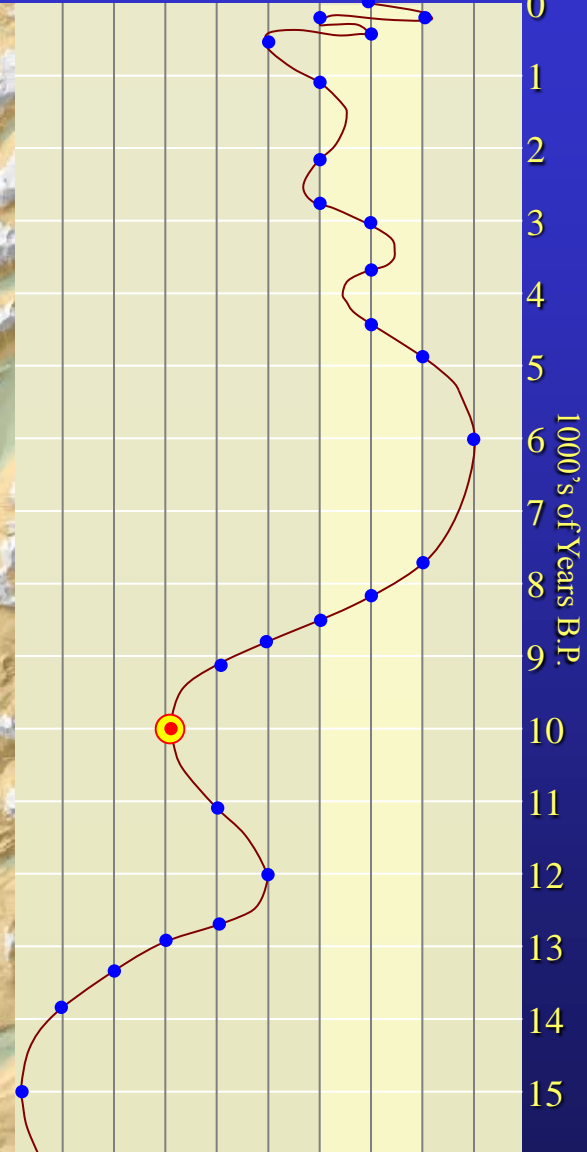
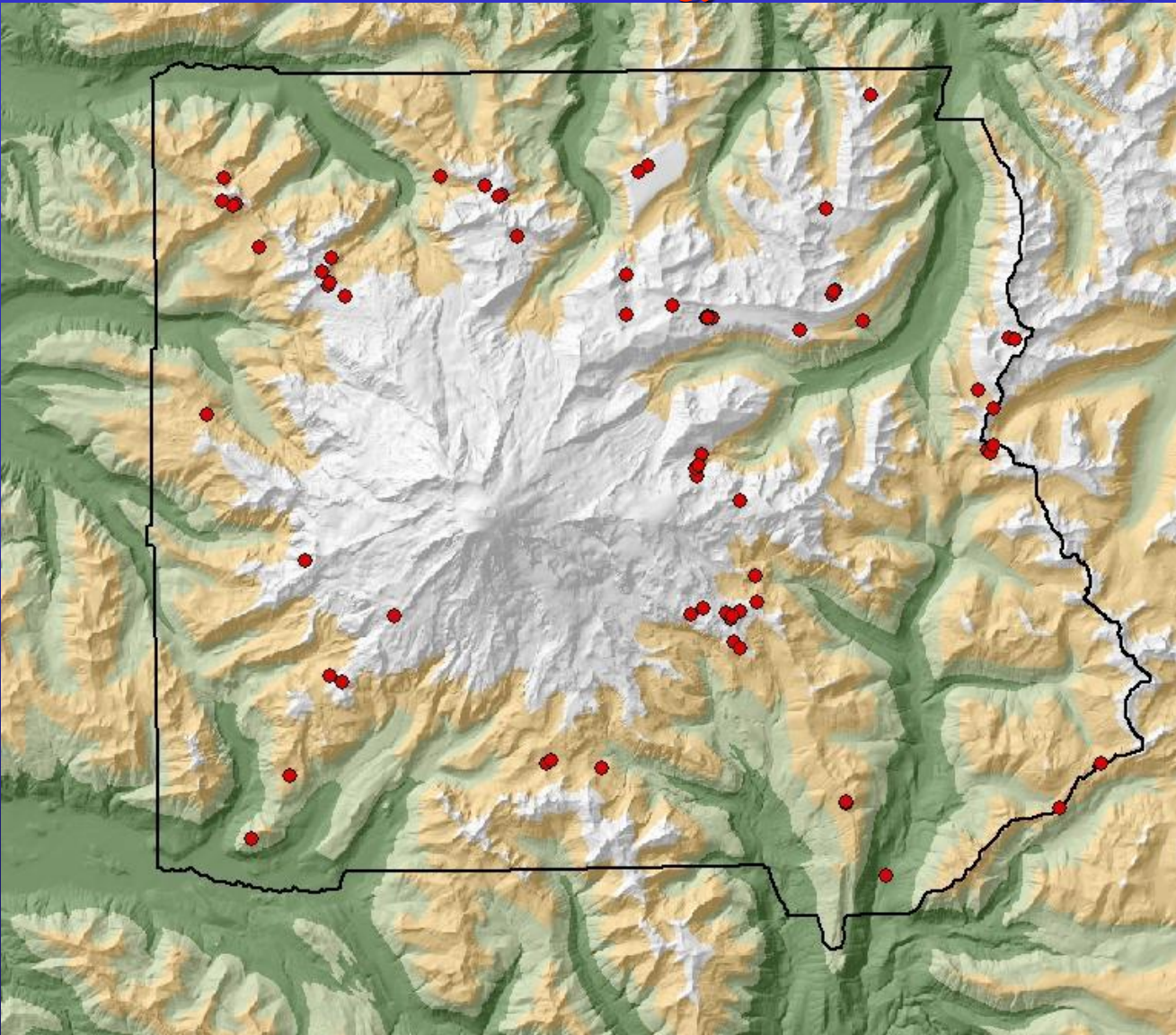


-4 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.



Remove Sites

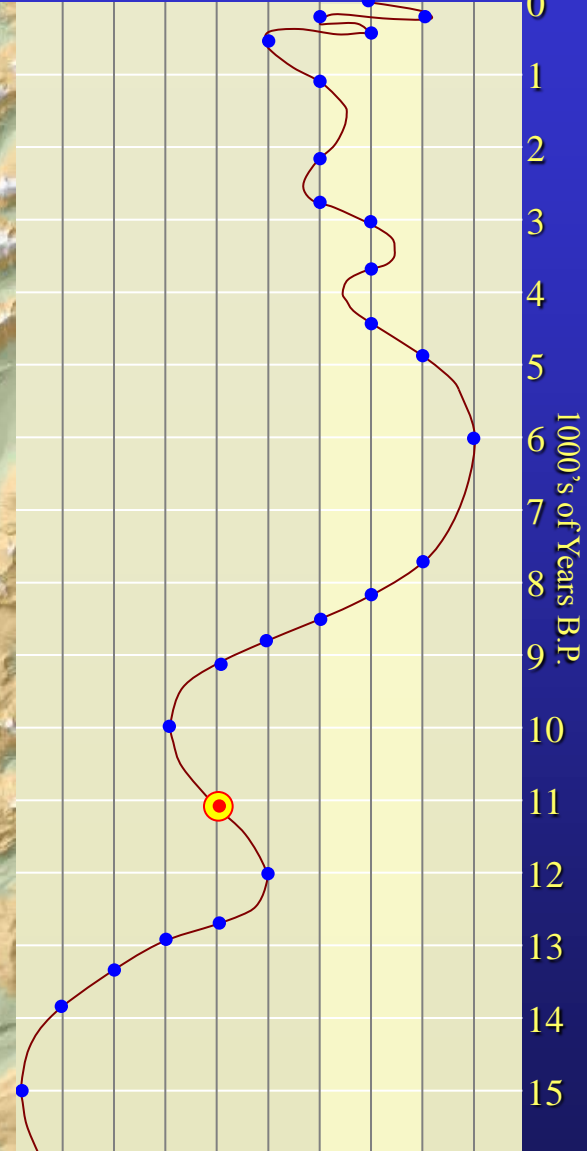
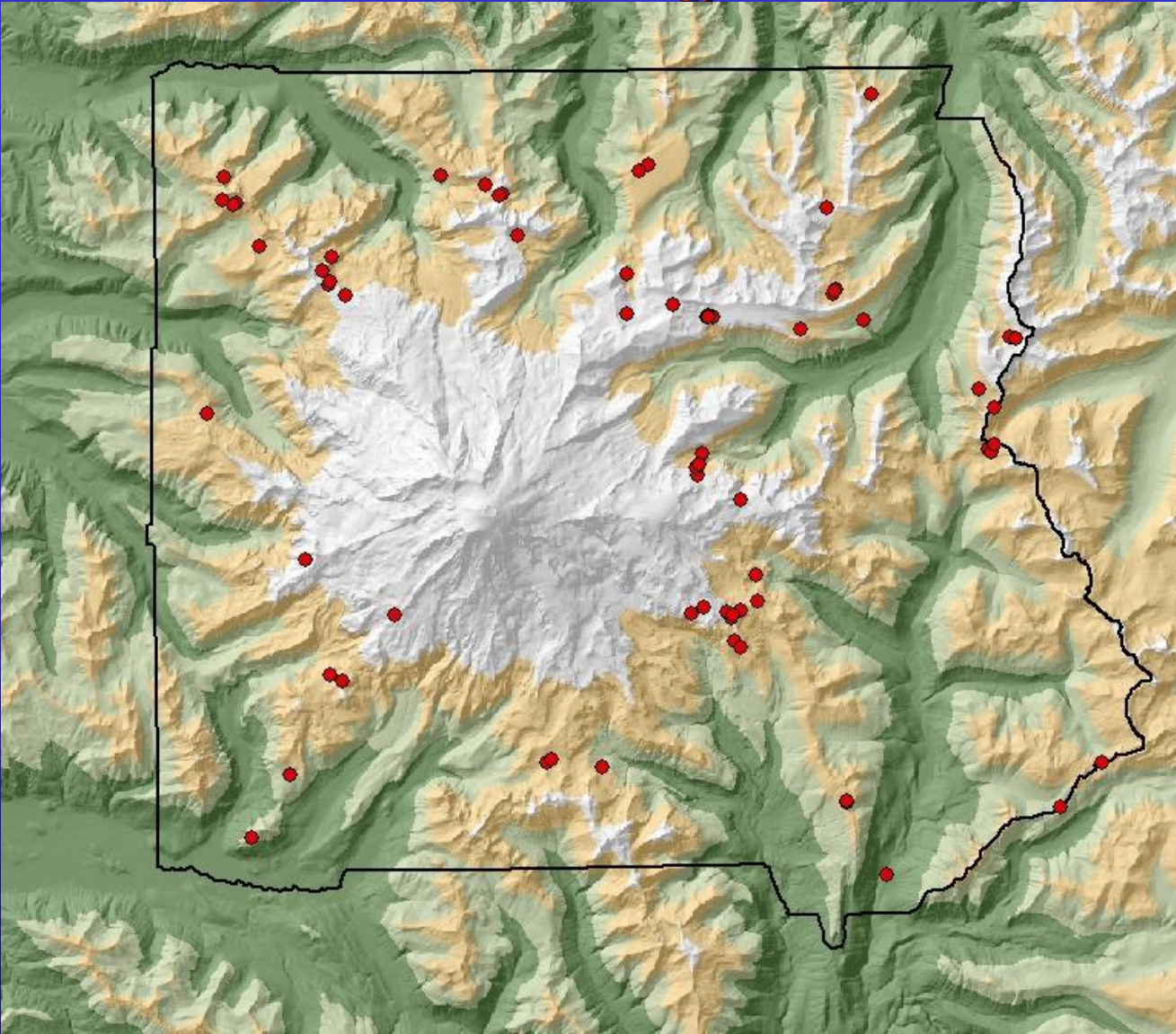
← Cooler → Warmer →
Animate: Park or Regional



-3 c°

• **Known Archaeology Sites**

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



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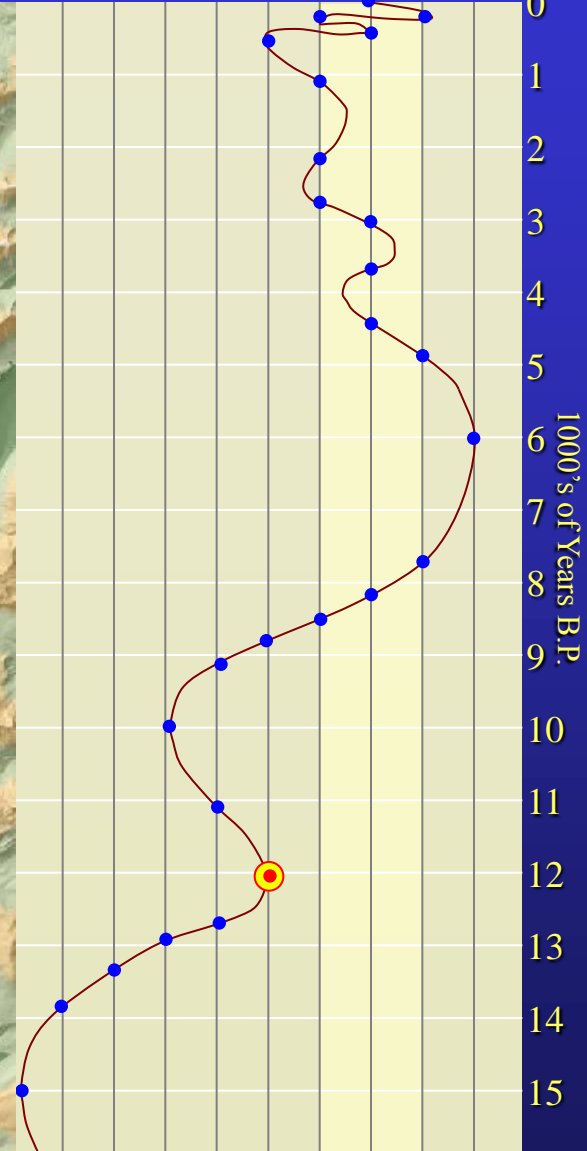
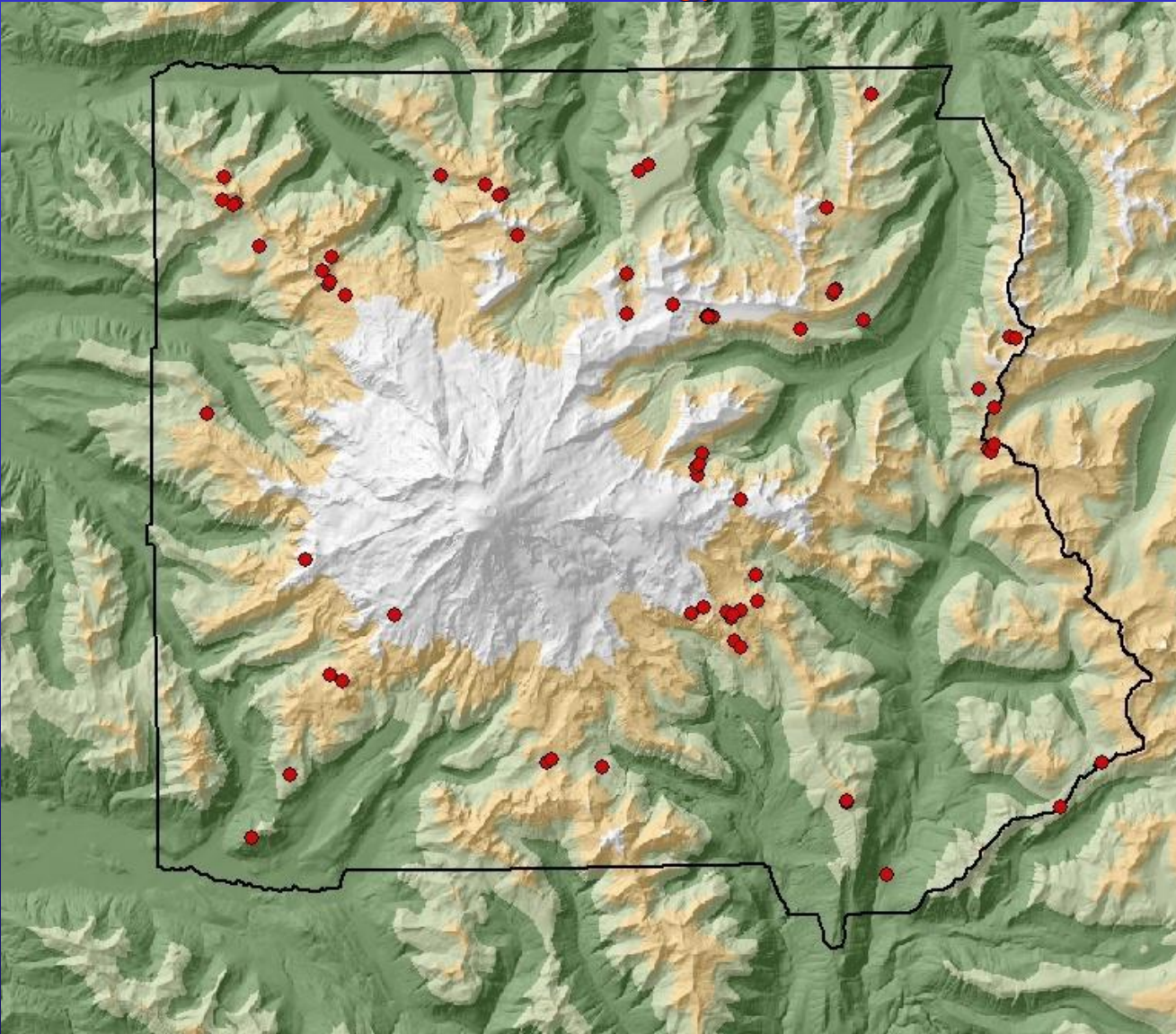
← Cooler → Warmer →
Animate: Park or Regional



-2 c°

• **Known Archaeology Sites**

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



Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



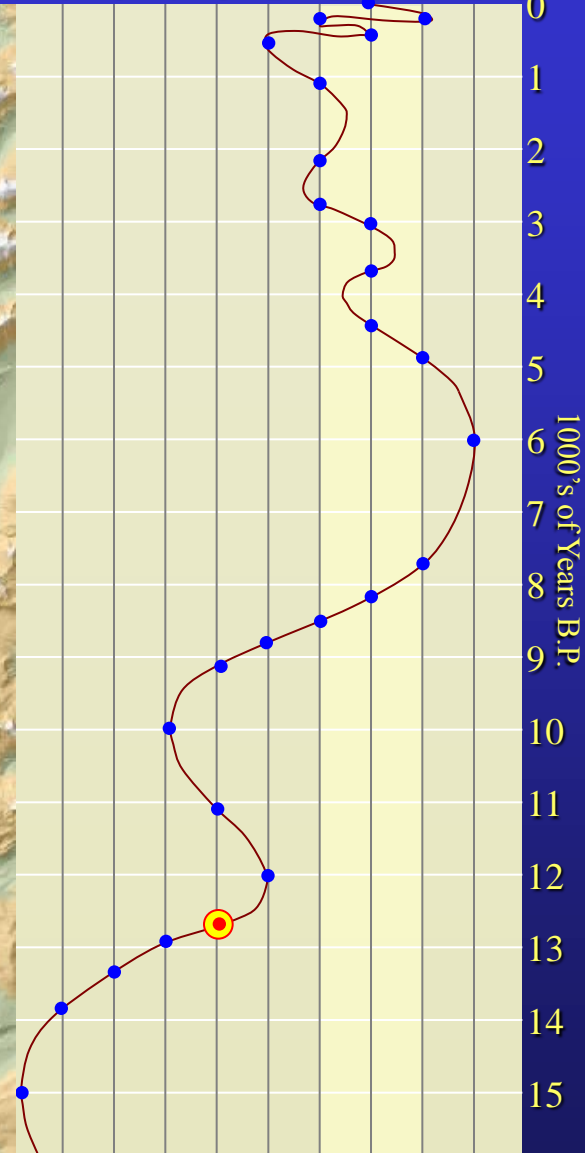
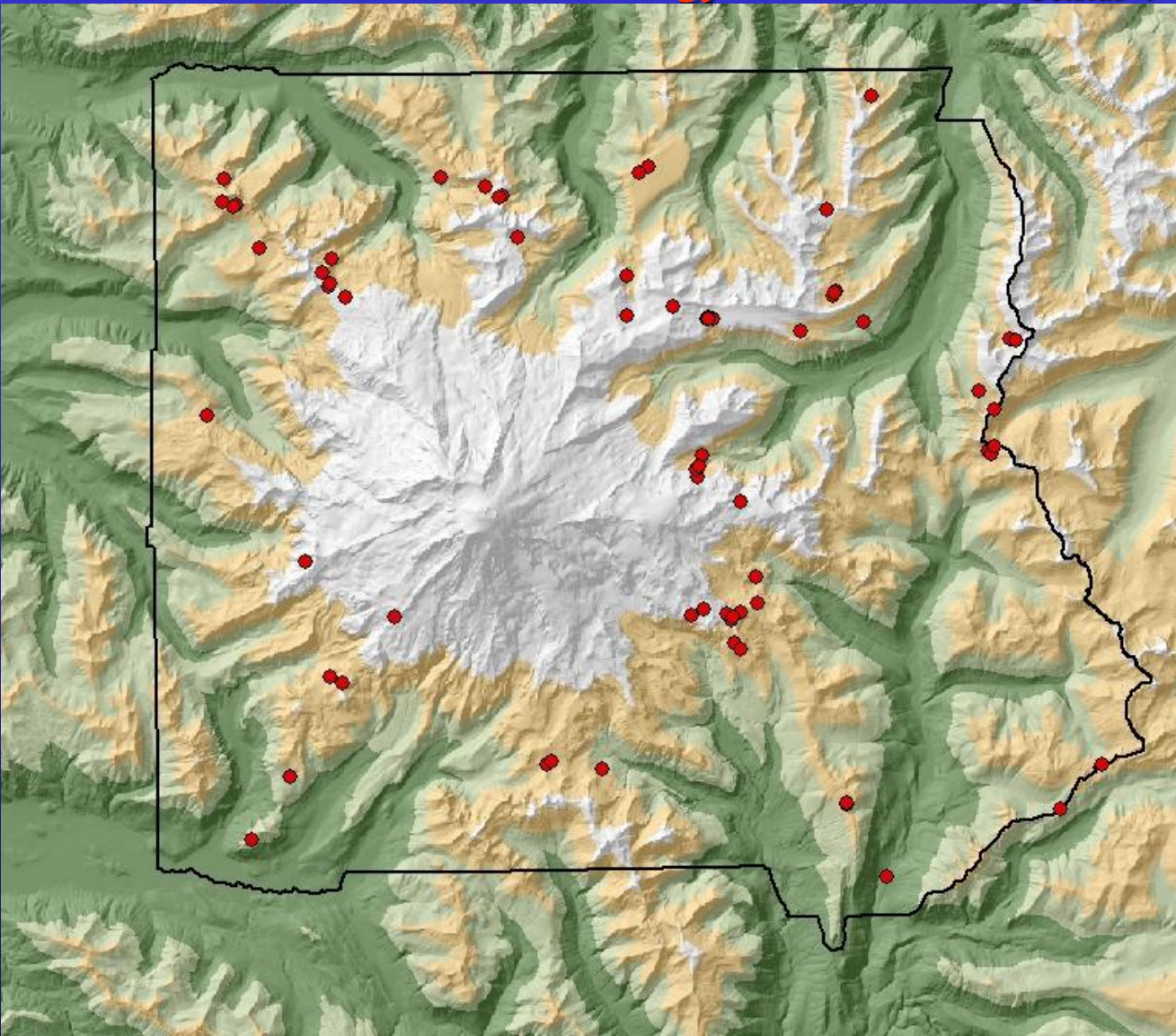
-3 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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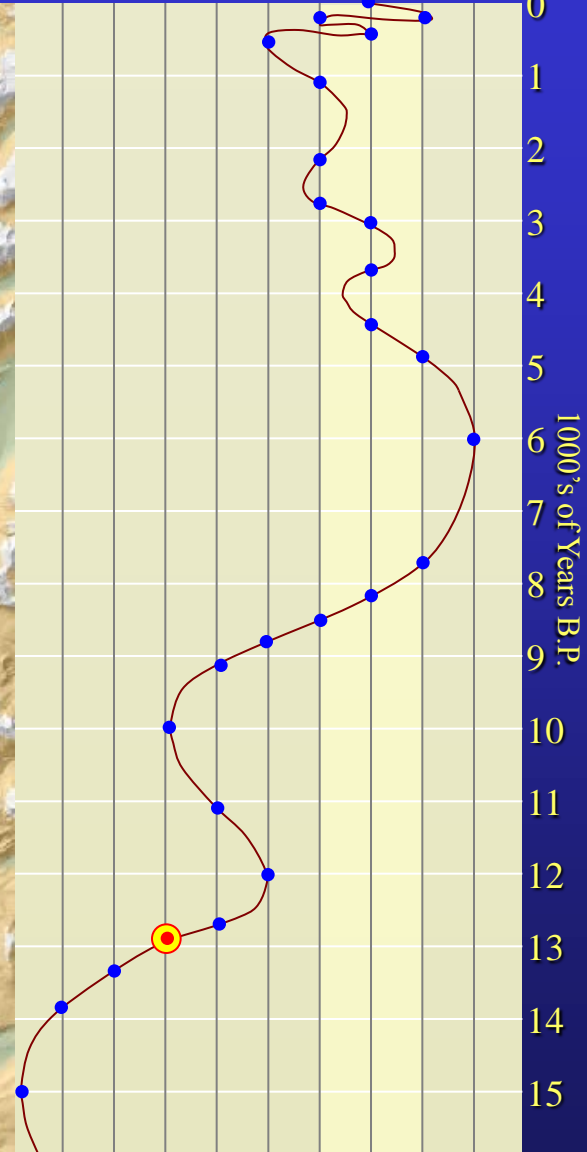
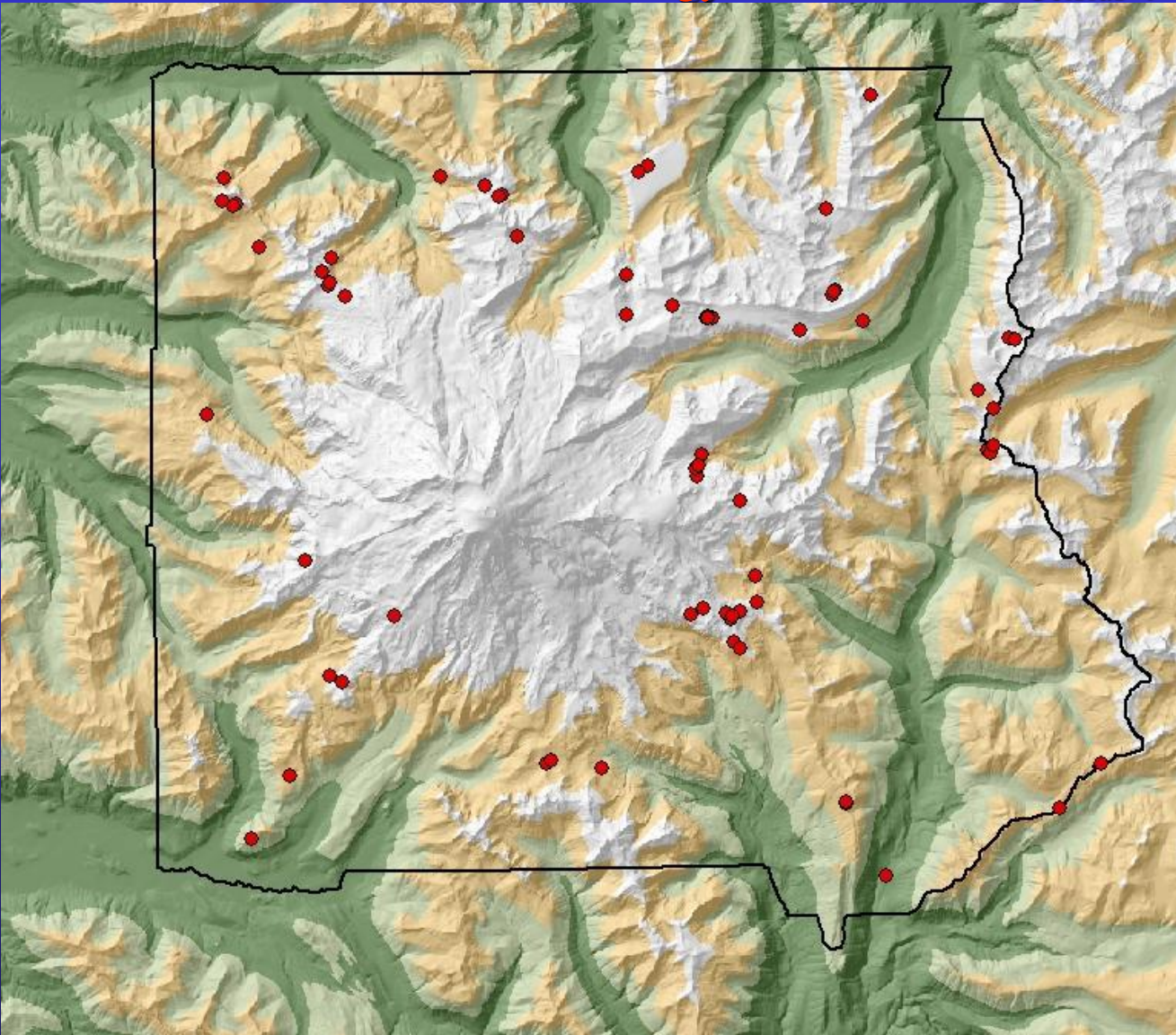
← Cooler → Warmer →
Animate: Park or Regional



-4 c°

• **Known Archaeology Sites**

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



Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



-5 c°

• **Known Archaeology Sites**

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

1000's of Years B.P.

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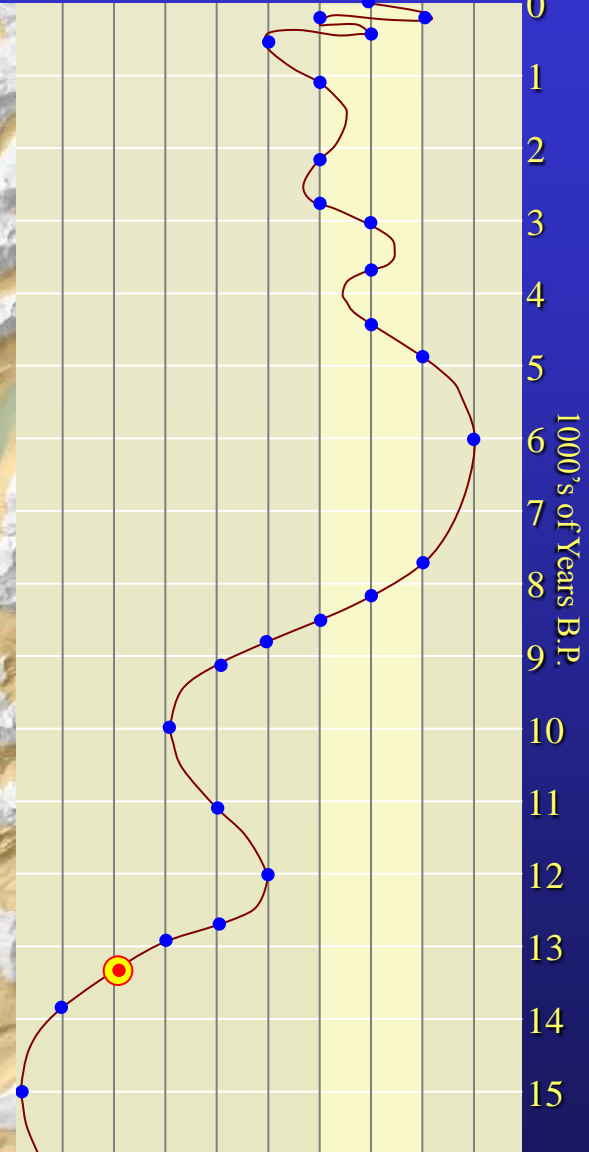
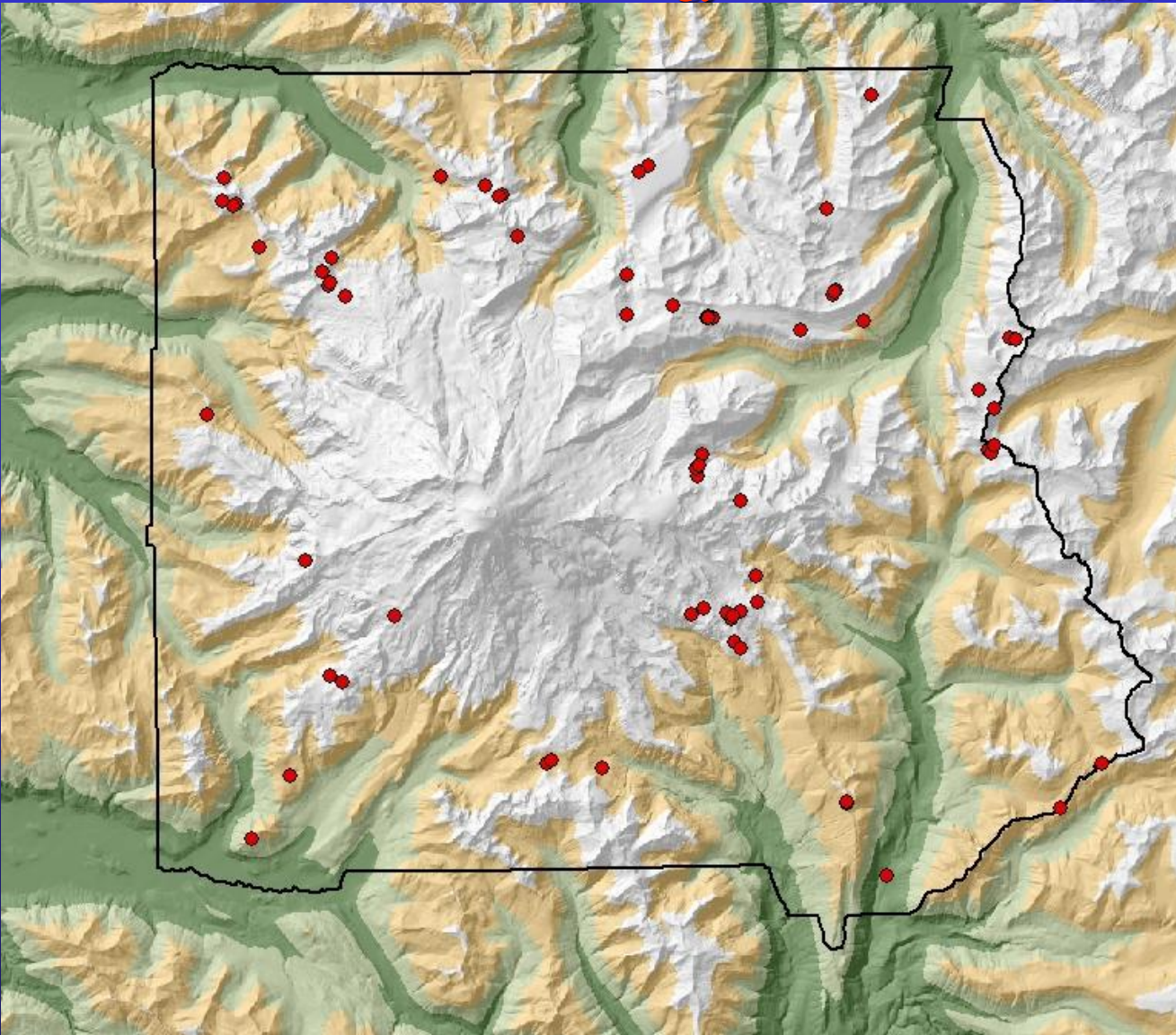
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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



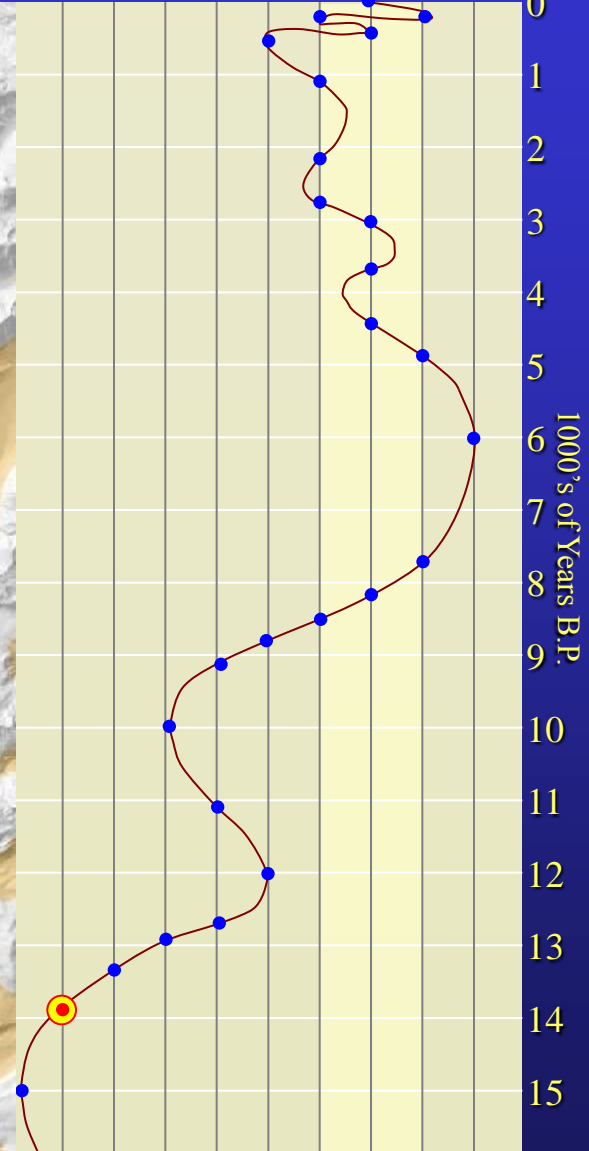
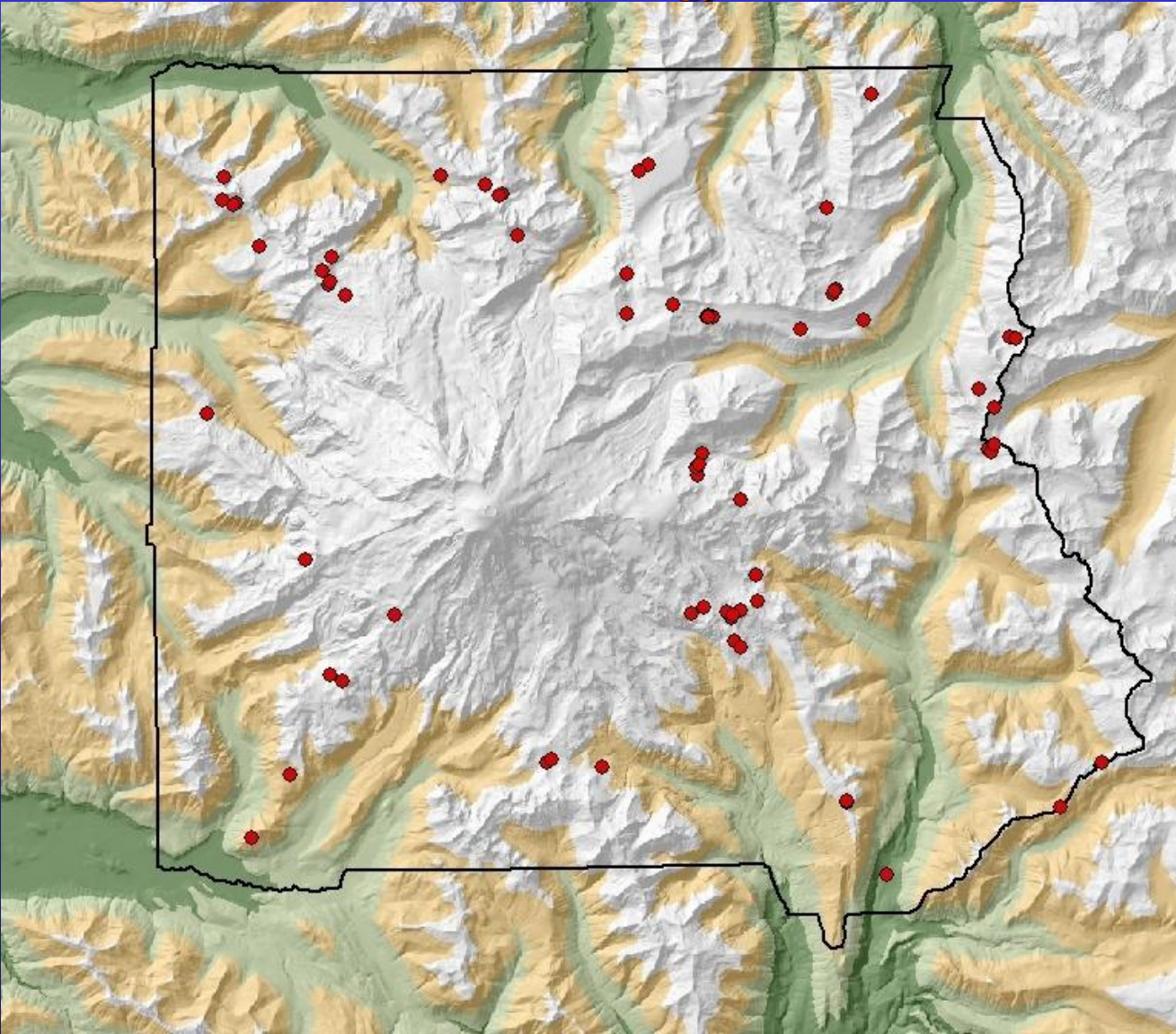
-6 c°

• Known Archaeology Sites

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

1000's of Years B.P.

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Remove Sites

← Cooler → Warmer →
Animate: Park or Regional



-7 c°

• Known Archaeology Sites

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

1000's of Years B.P.

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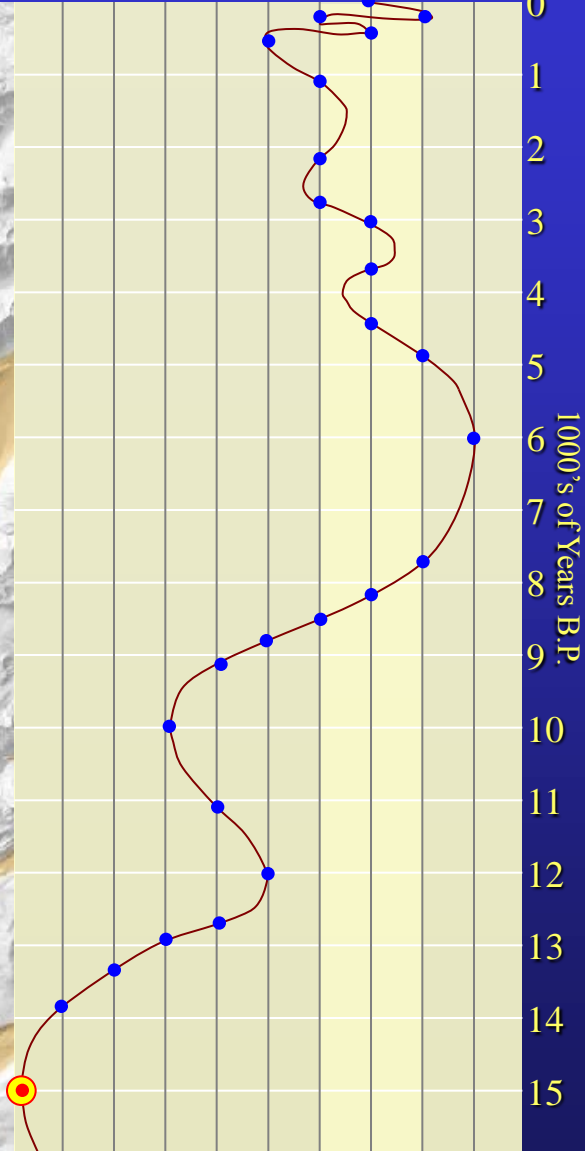
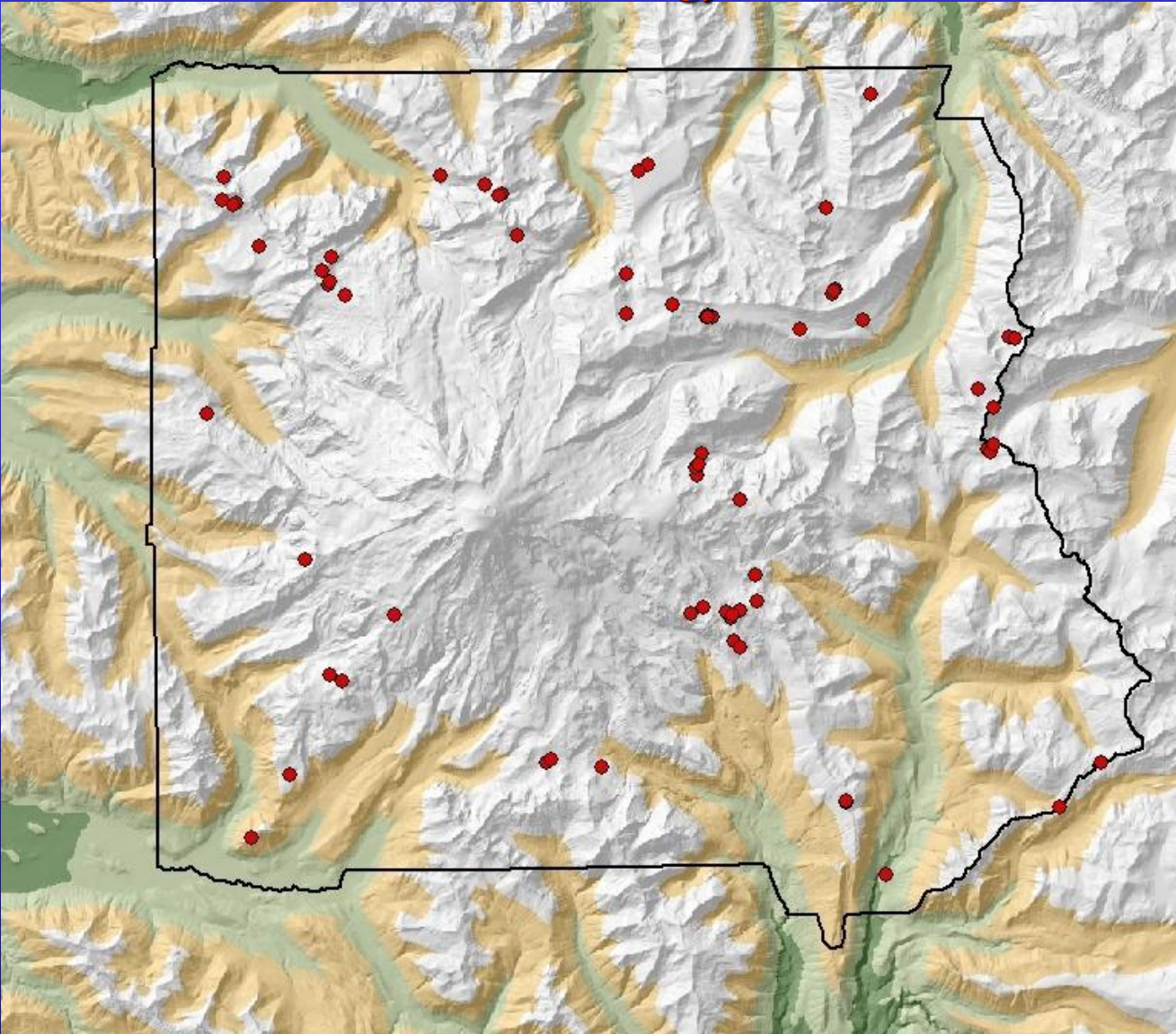
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Remove Sites

← Cooler Warmer →
Animate: Park or Regional

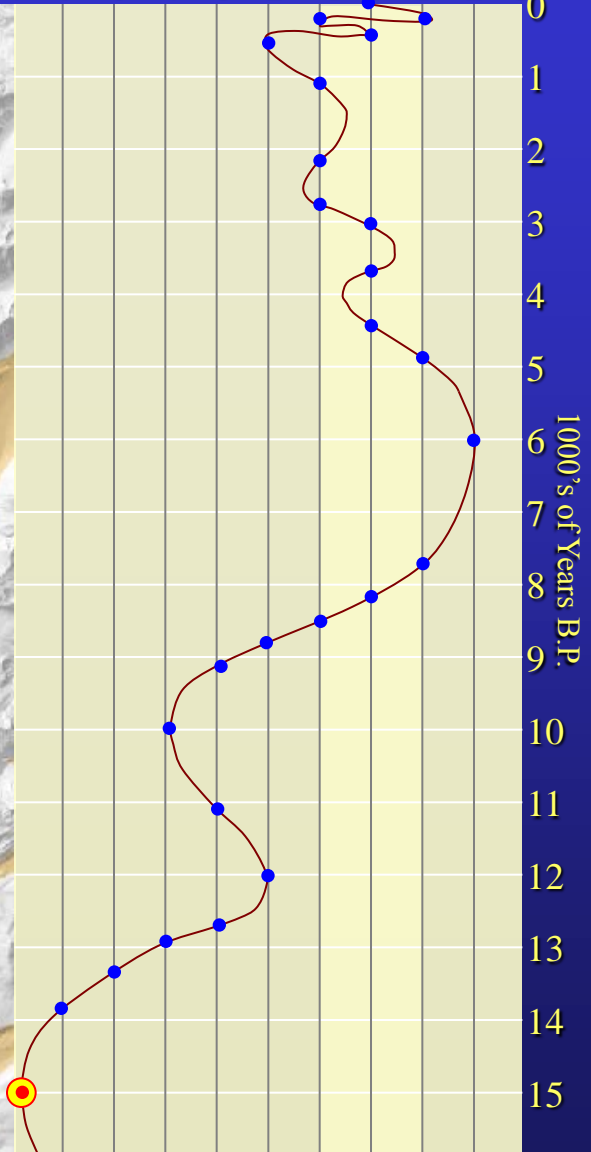
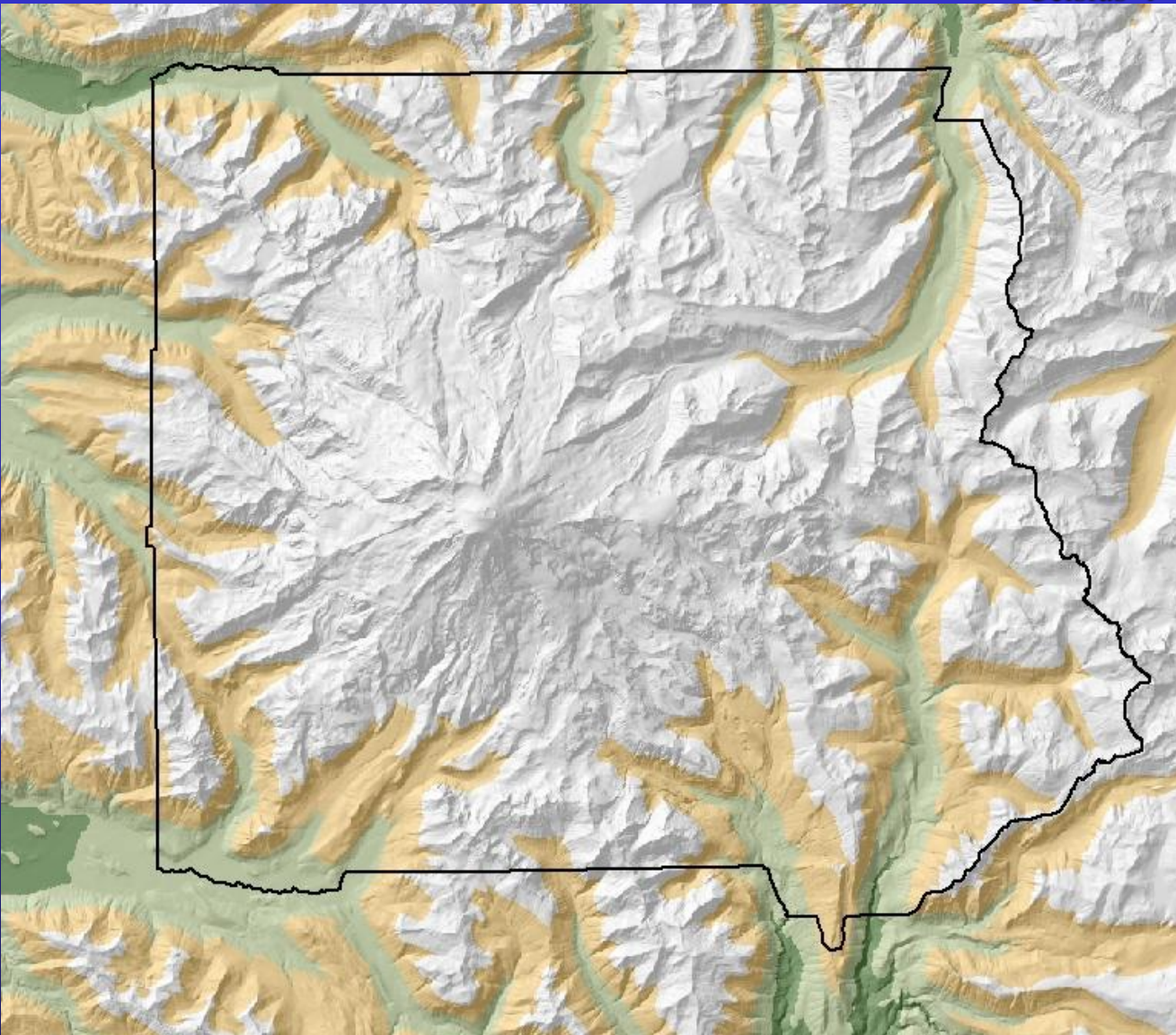


-7 c°

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

1000's of Years B.P.

← Cooler → Warmer →





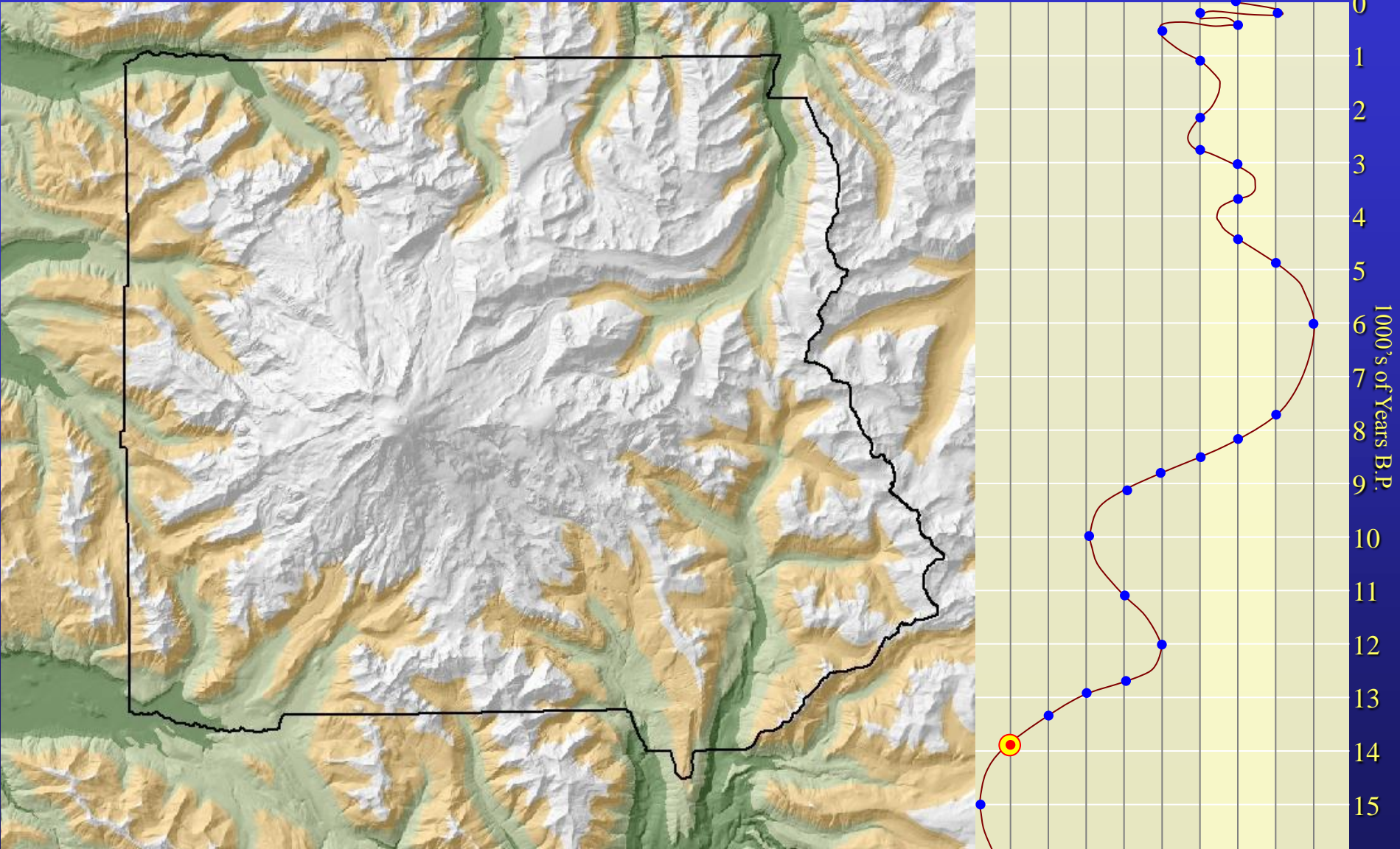
-6 c°

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

1000's of Years B.P.

← Cooler

Warmer →





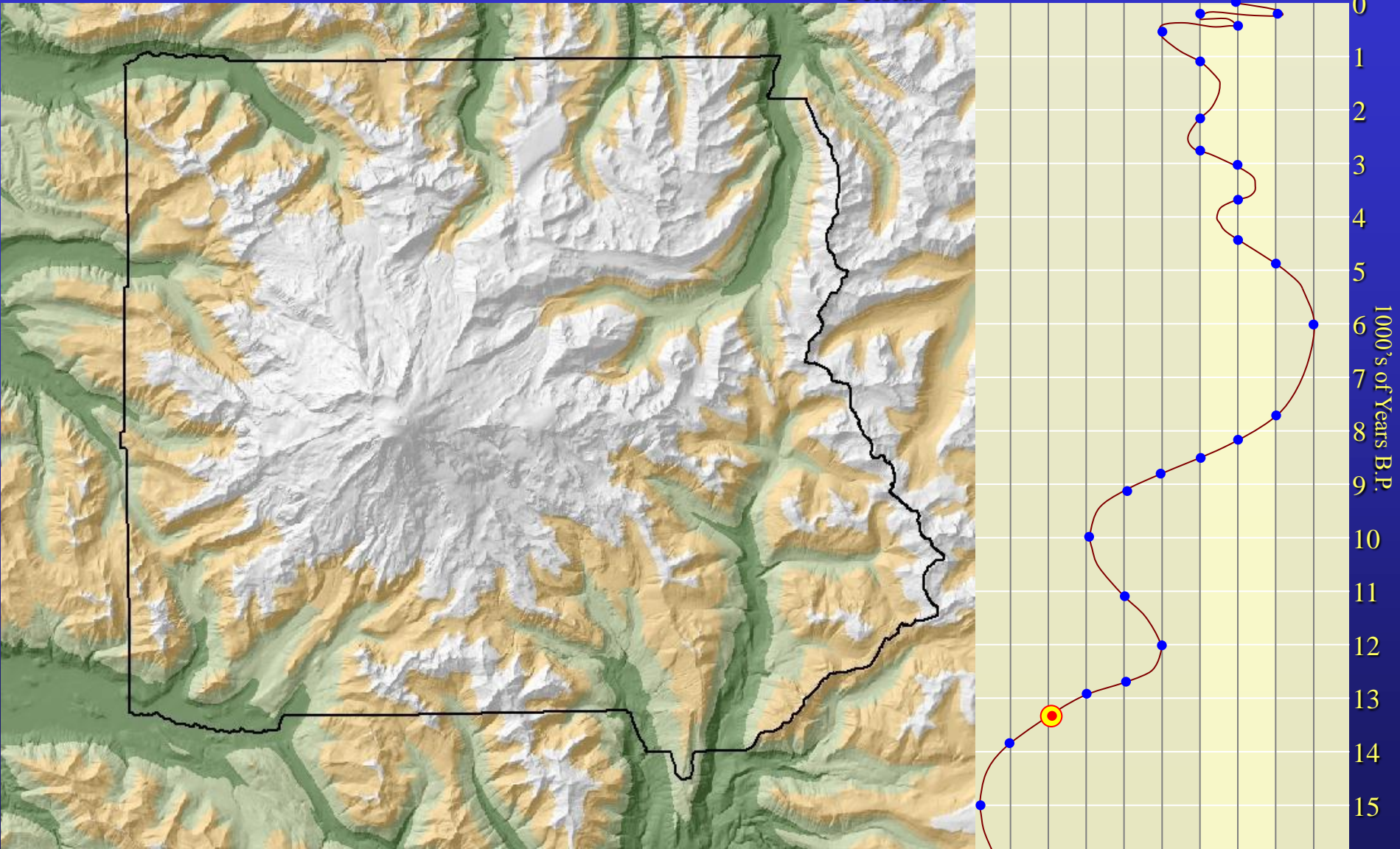
-5 c°

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

1000's of Years B.P.

← Cooler

Warmer →



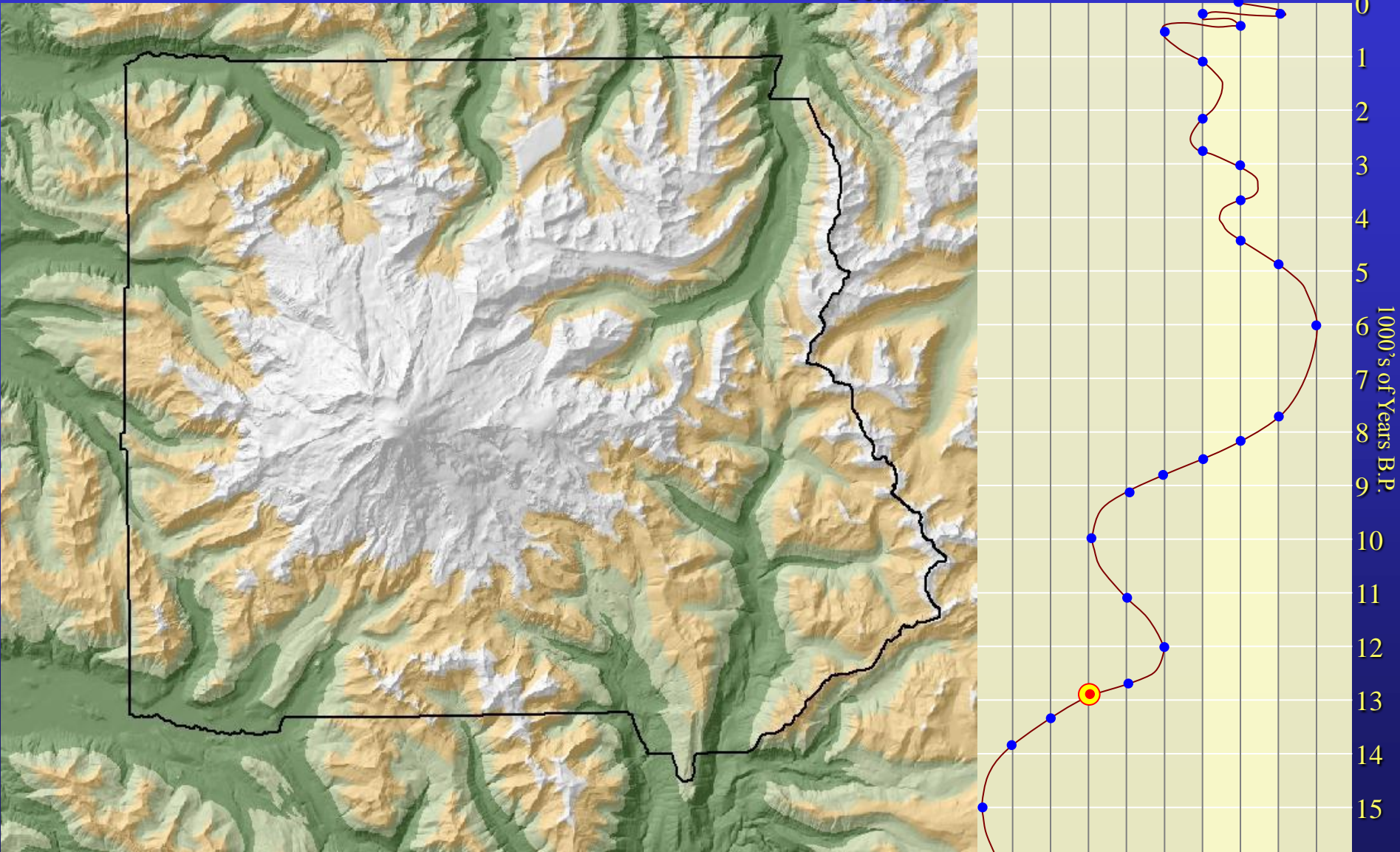


-4 c°

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

1000's of Years B.P.

← Cooler → Warmer →





-3 c°

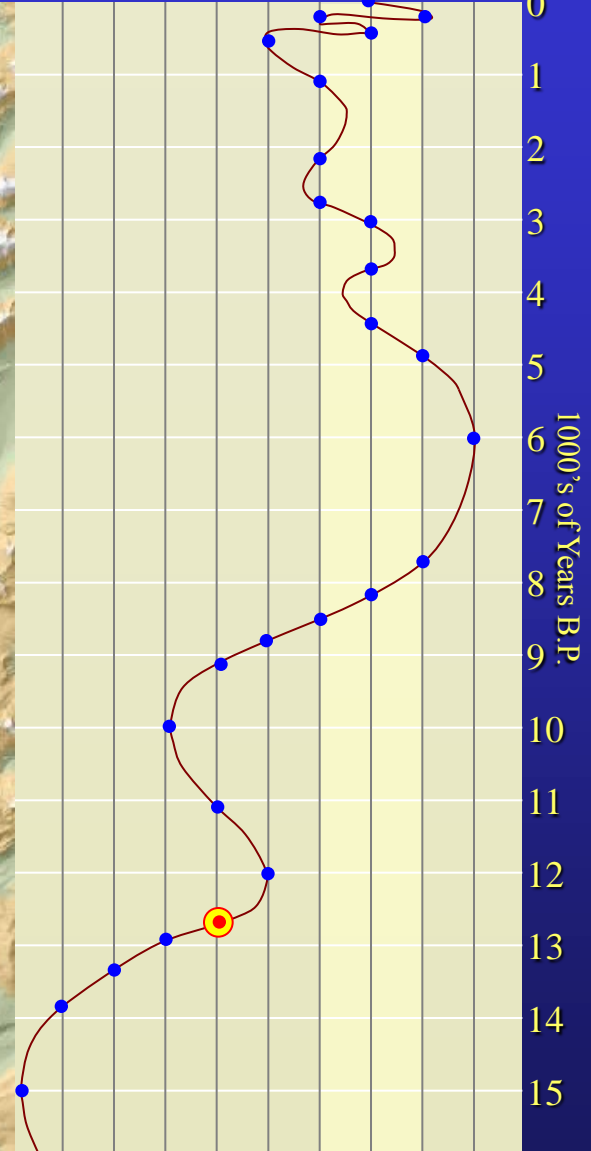
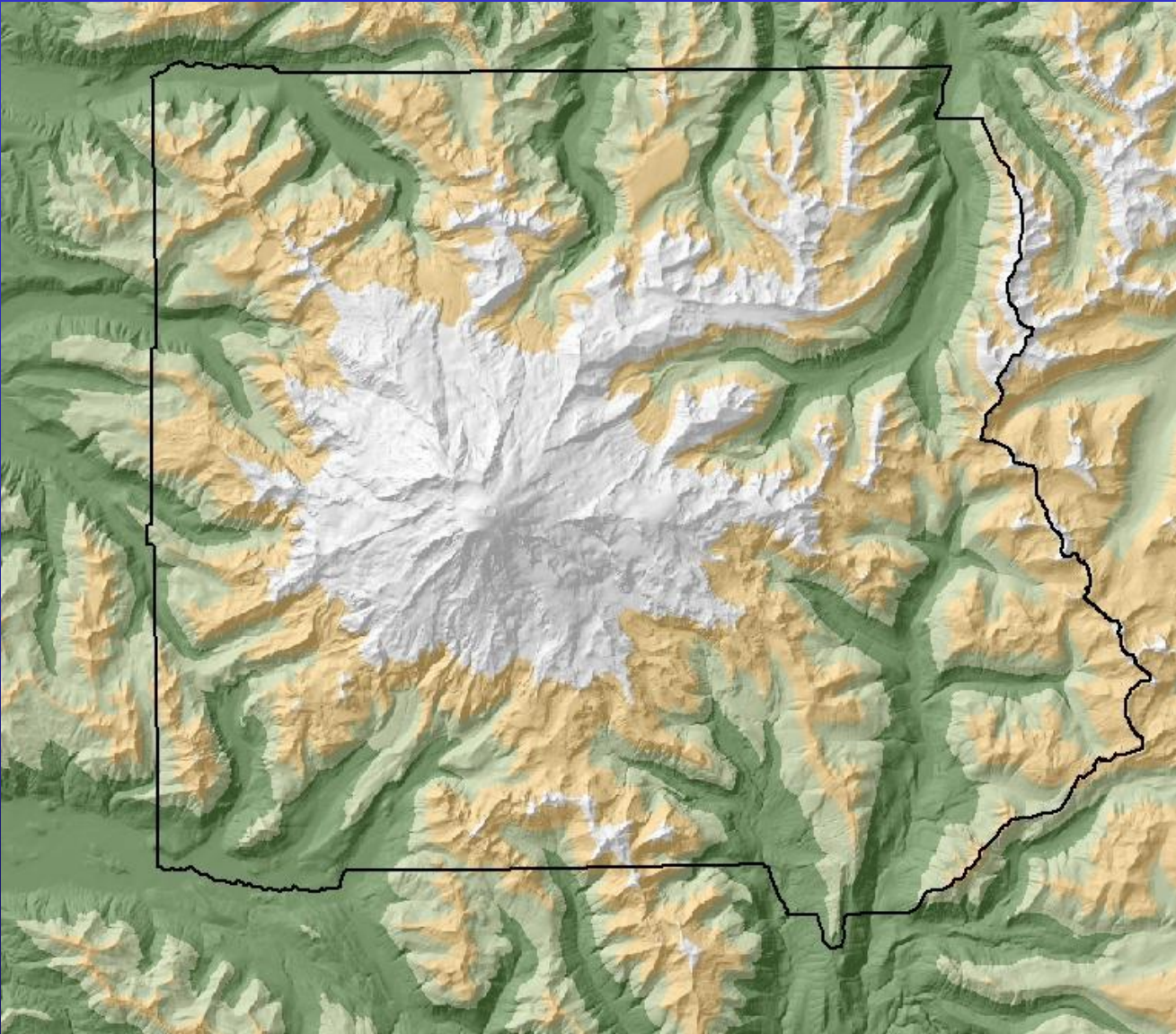
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler

Warmer →



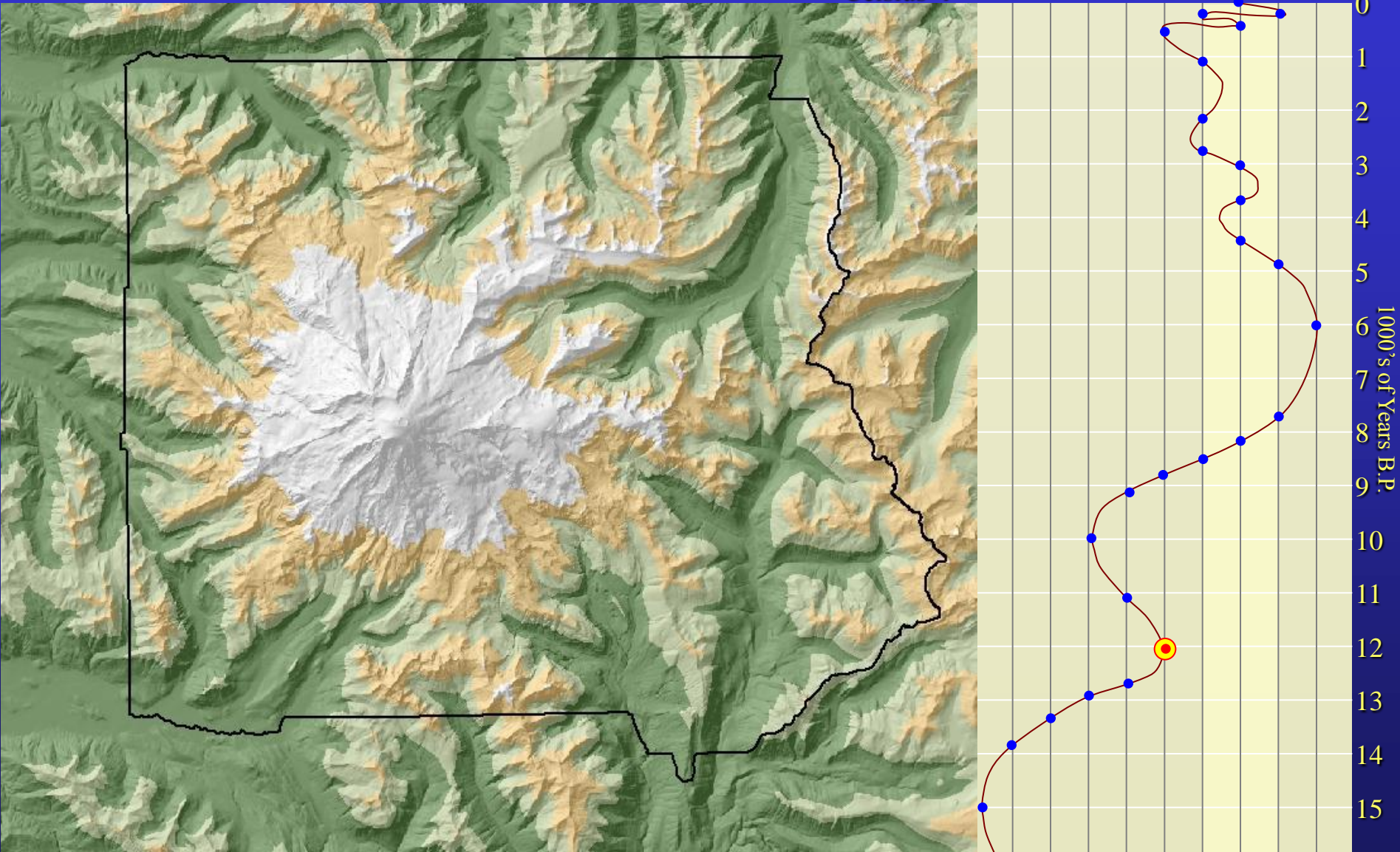


-2 c°

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

1000's of Years B.P.

← Cooler → Warmer →



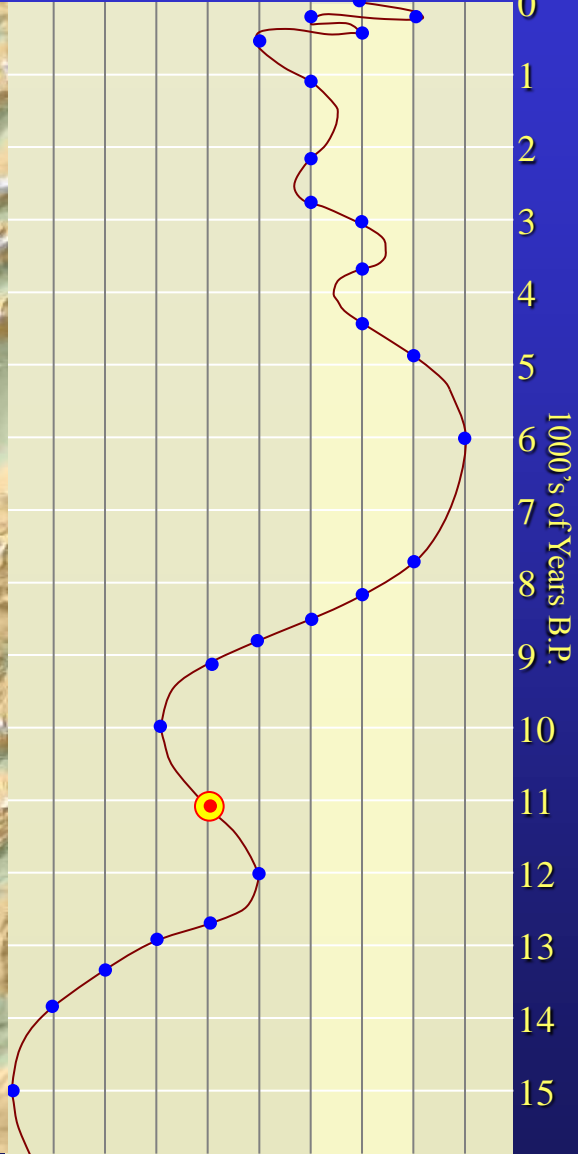
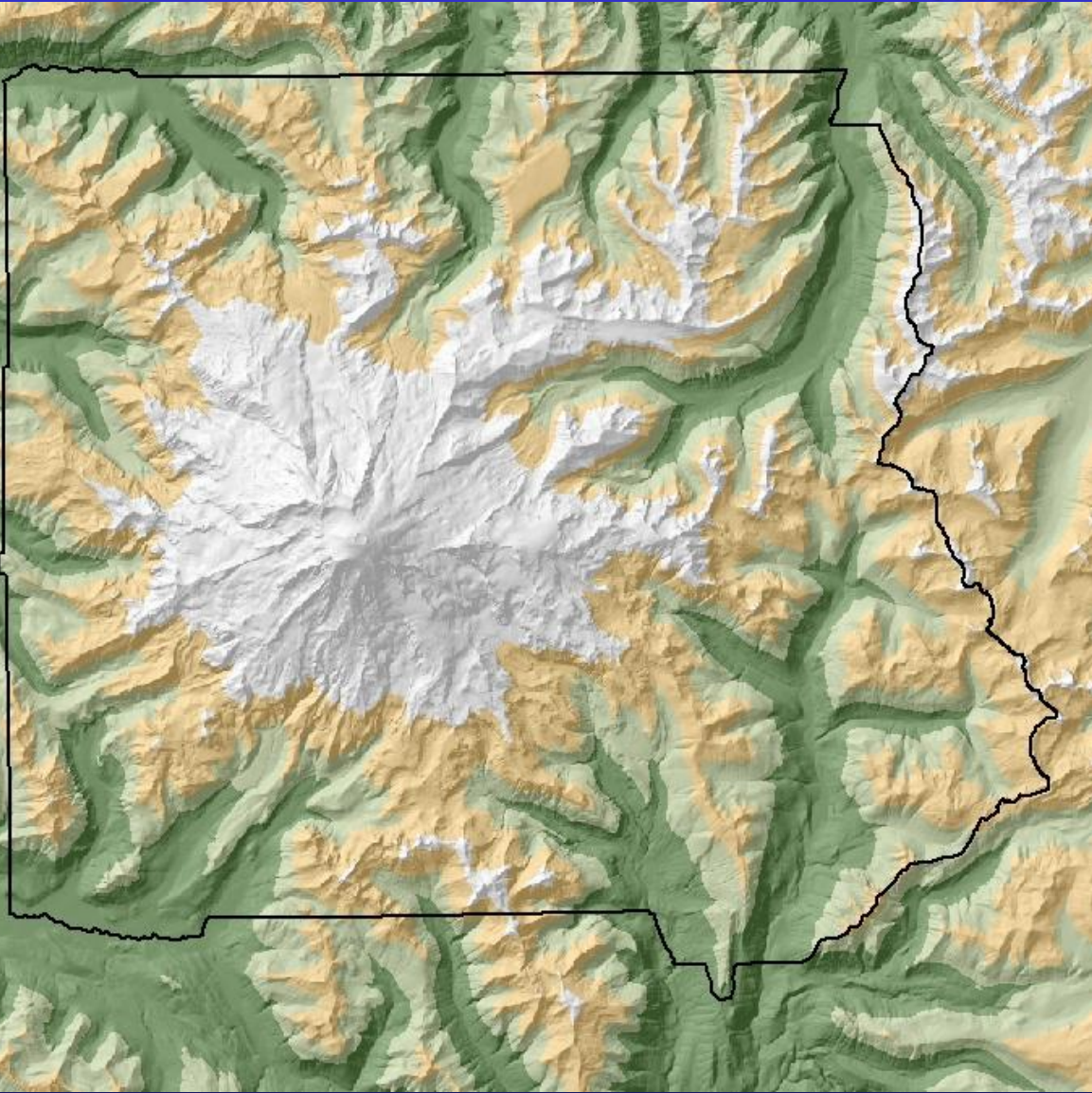


-3 c°

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

1000's of Years B.P.

← Cooler → Warmer →



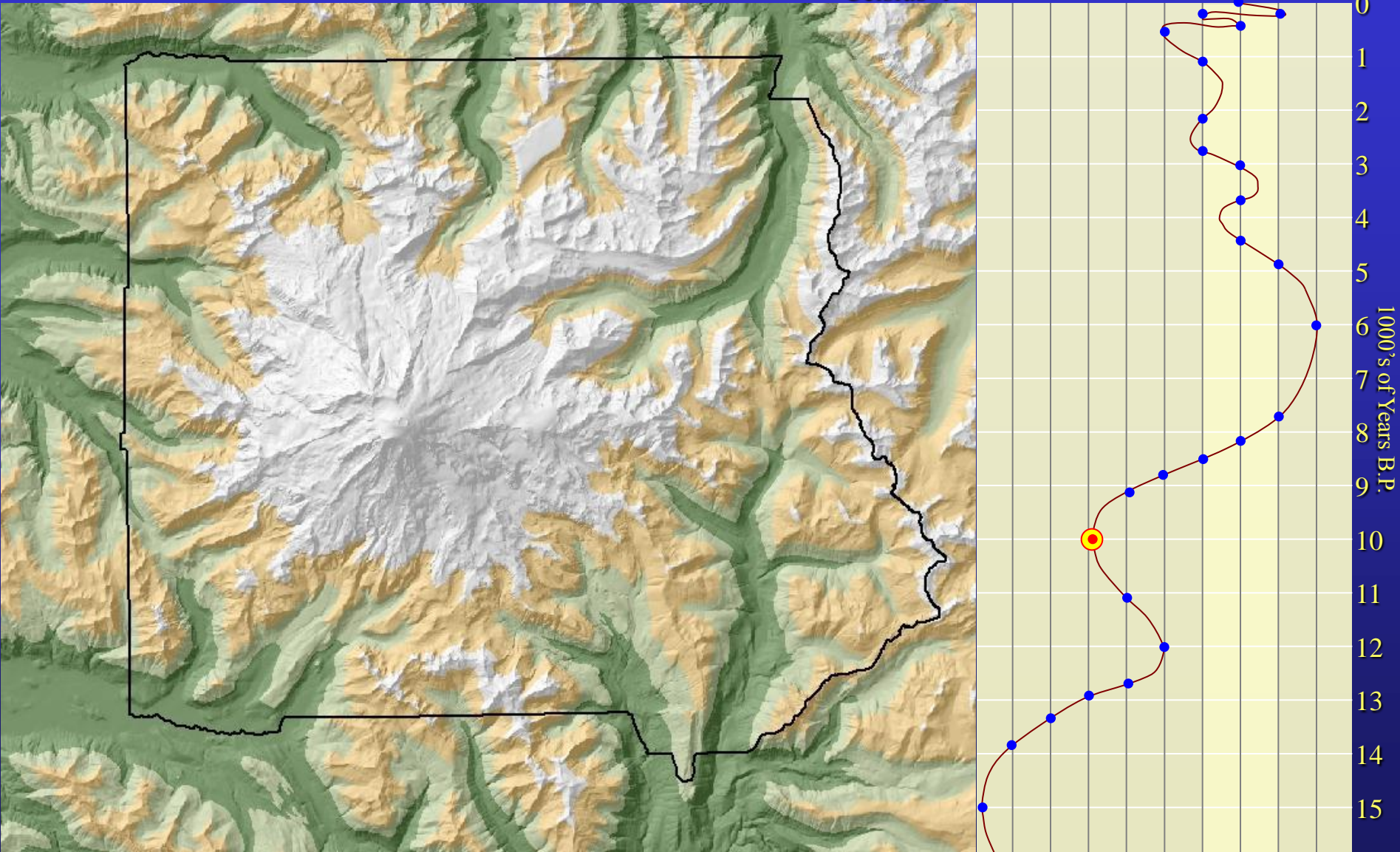


-4 c°

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

1000's of Years B.P.

← Cooler → Warmer →



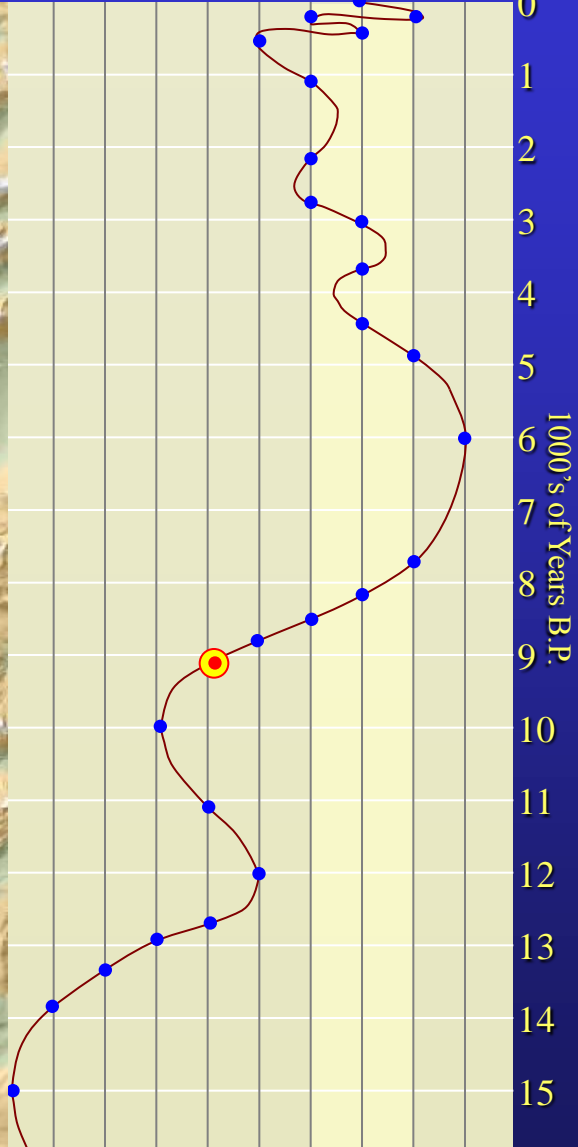
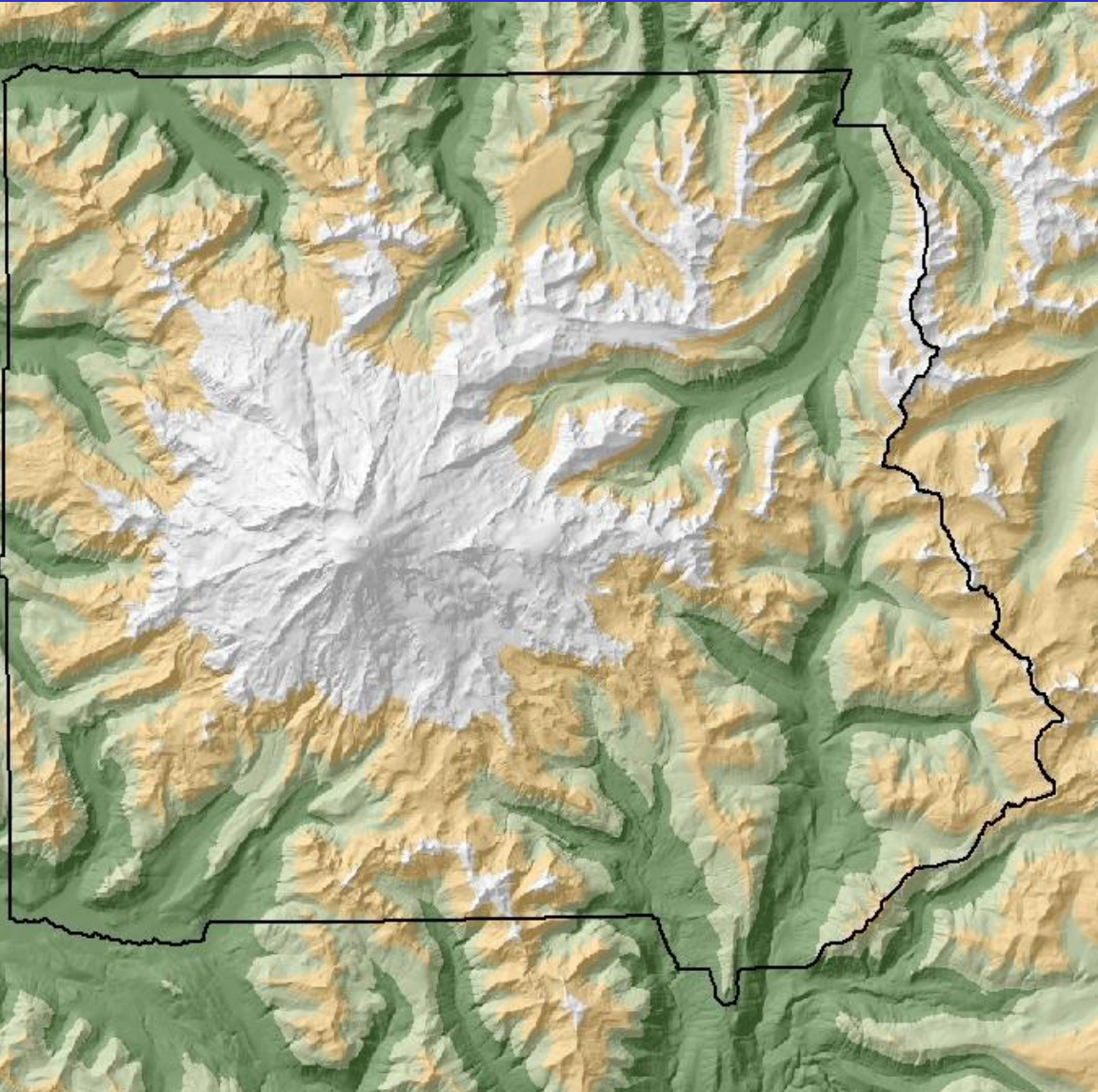


-3 c°

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

1000's of Years B.P.

← Cooler Warmer →





-2 c°

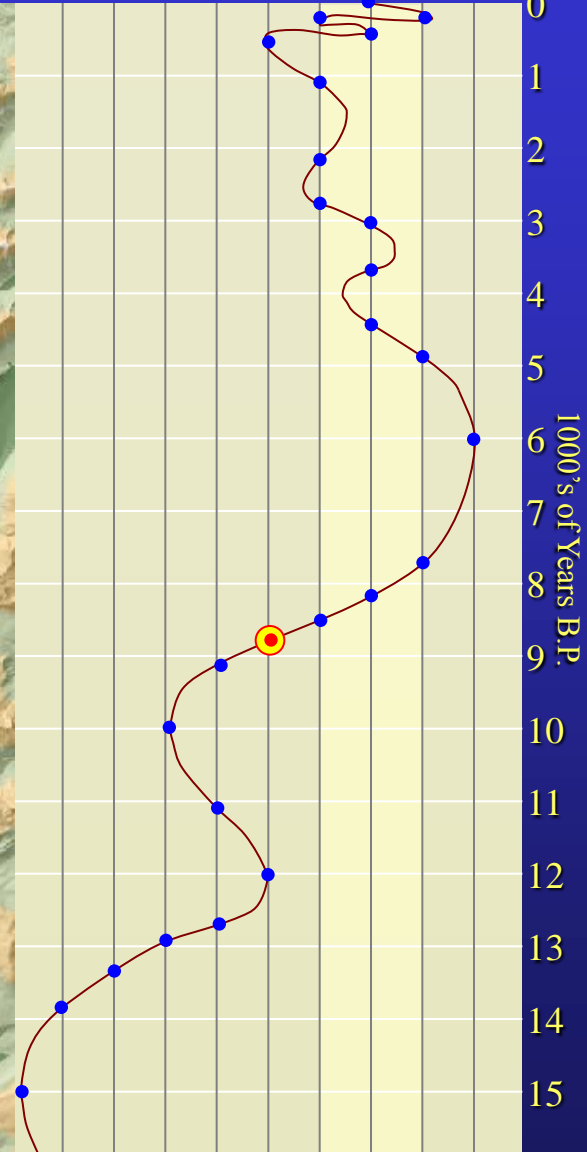
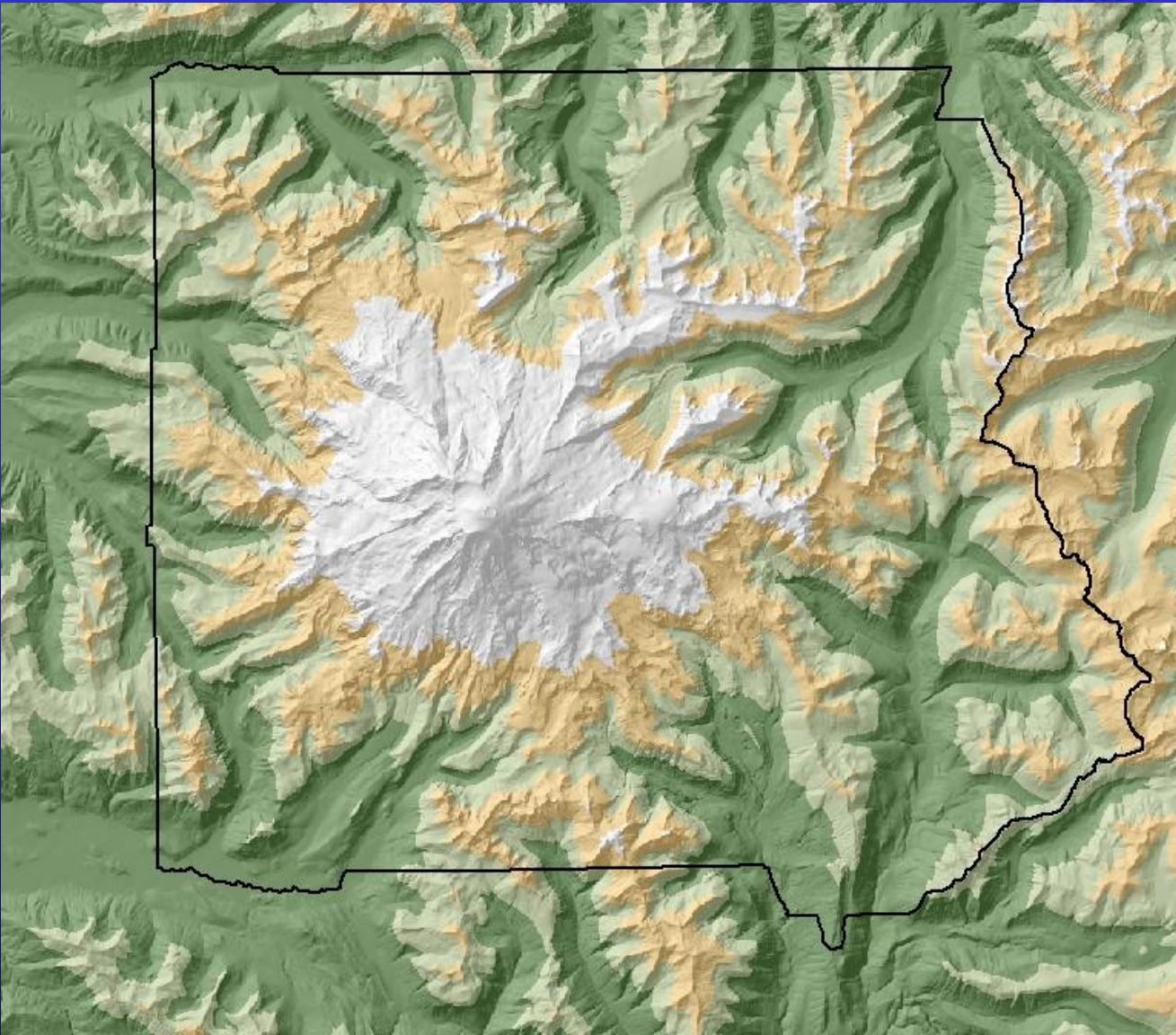
Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3

1000's of Years B.P.

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← Cooler

Warmer →



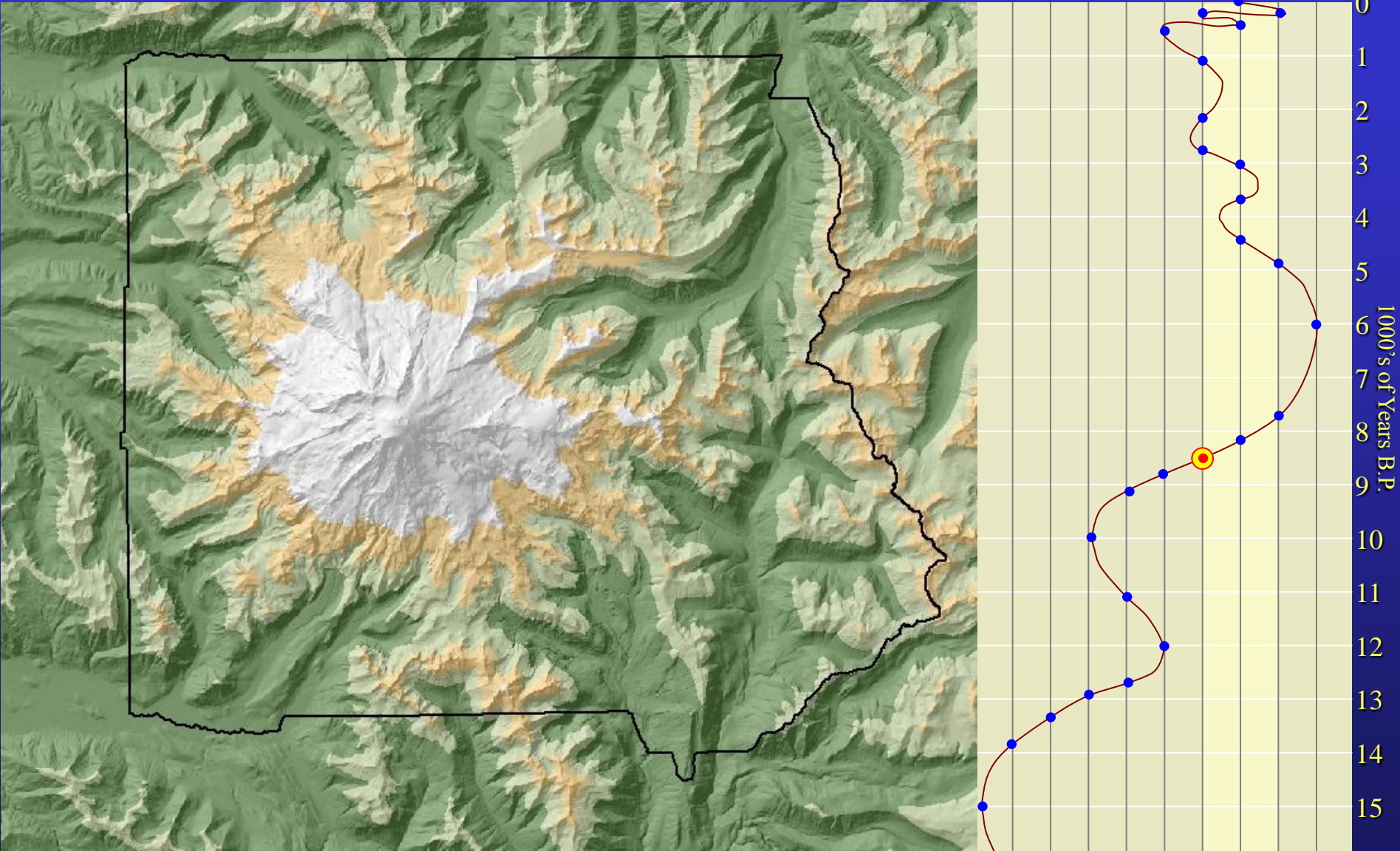


-1 c°

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

1000's of Years B.P.

← Cooler → Warmer →



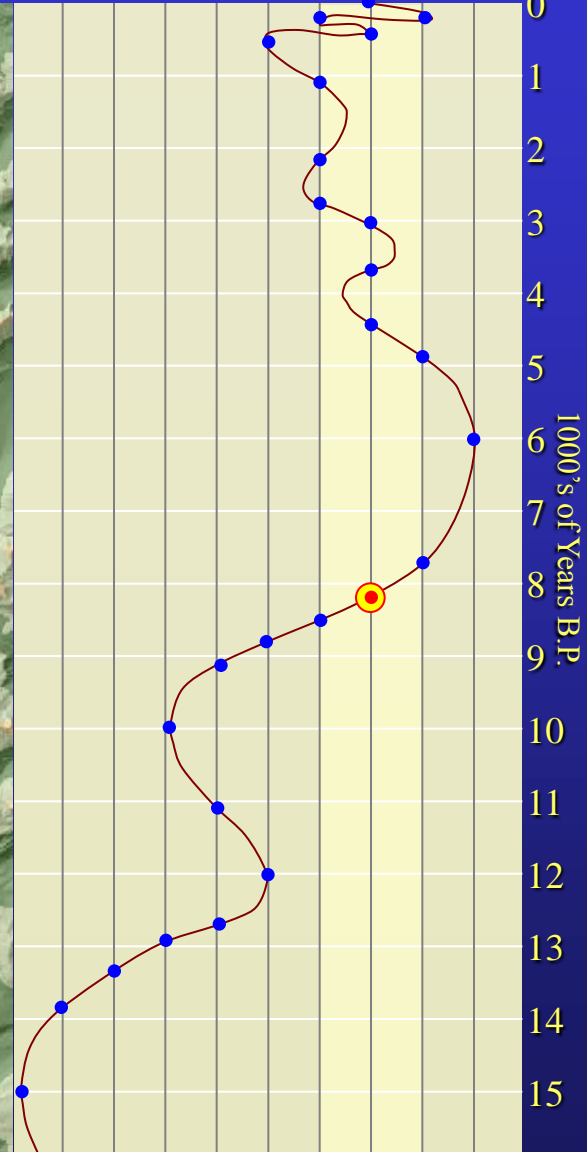
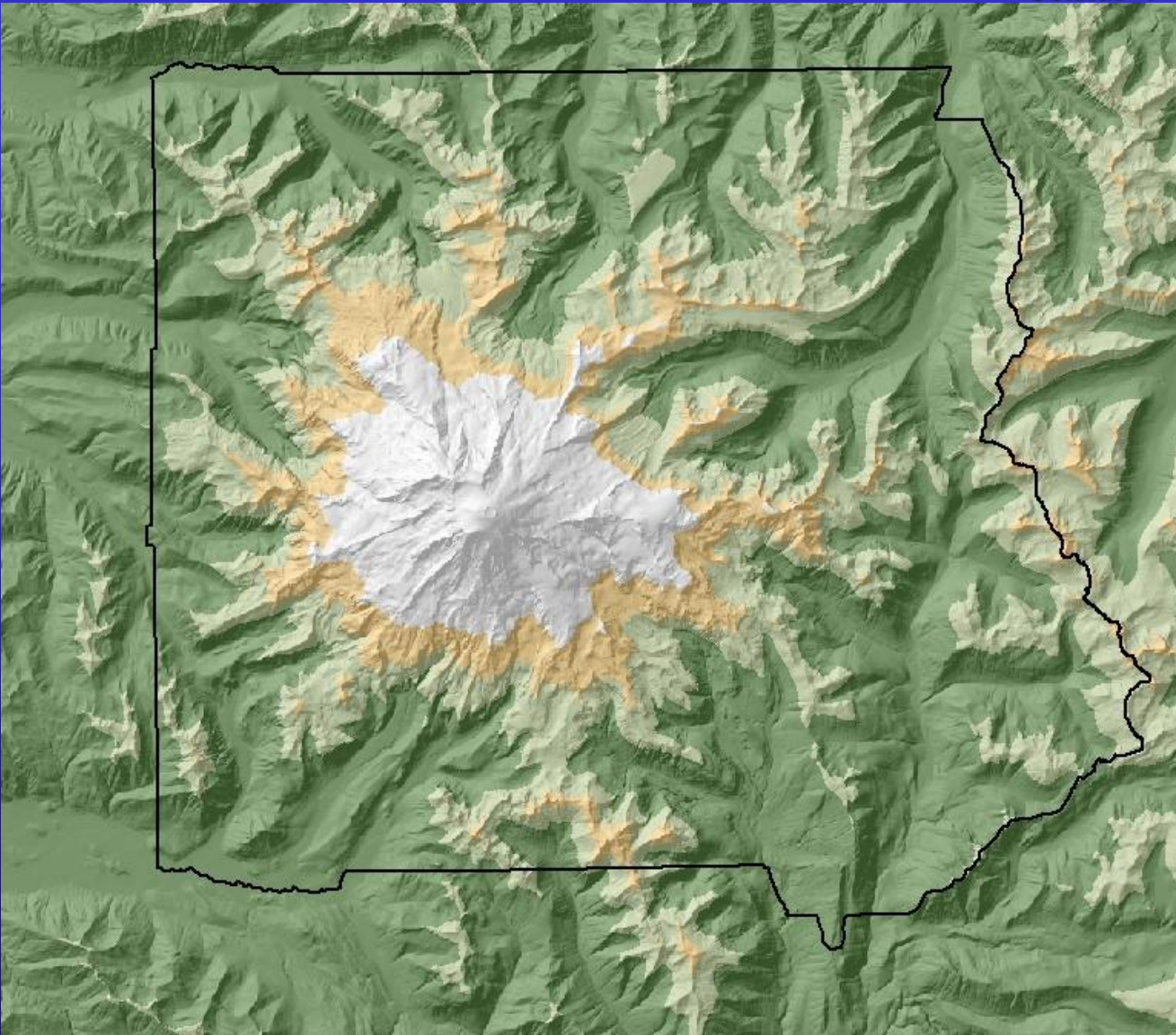


0 c°

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

1000's of Years B.P.

← Cooler → Warmer →



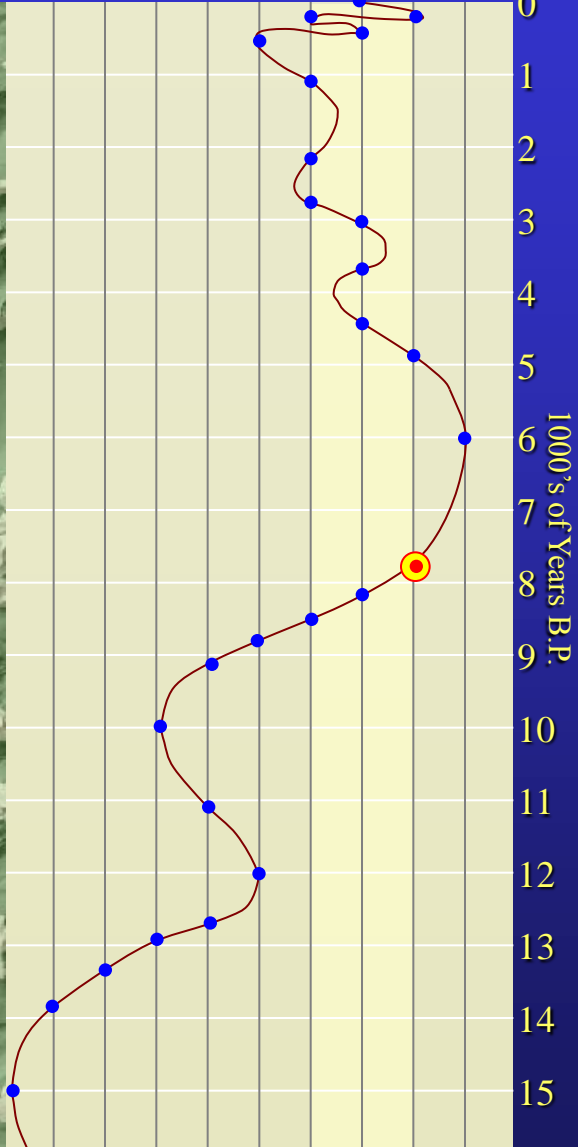
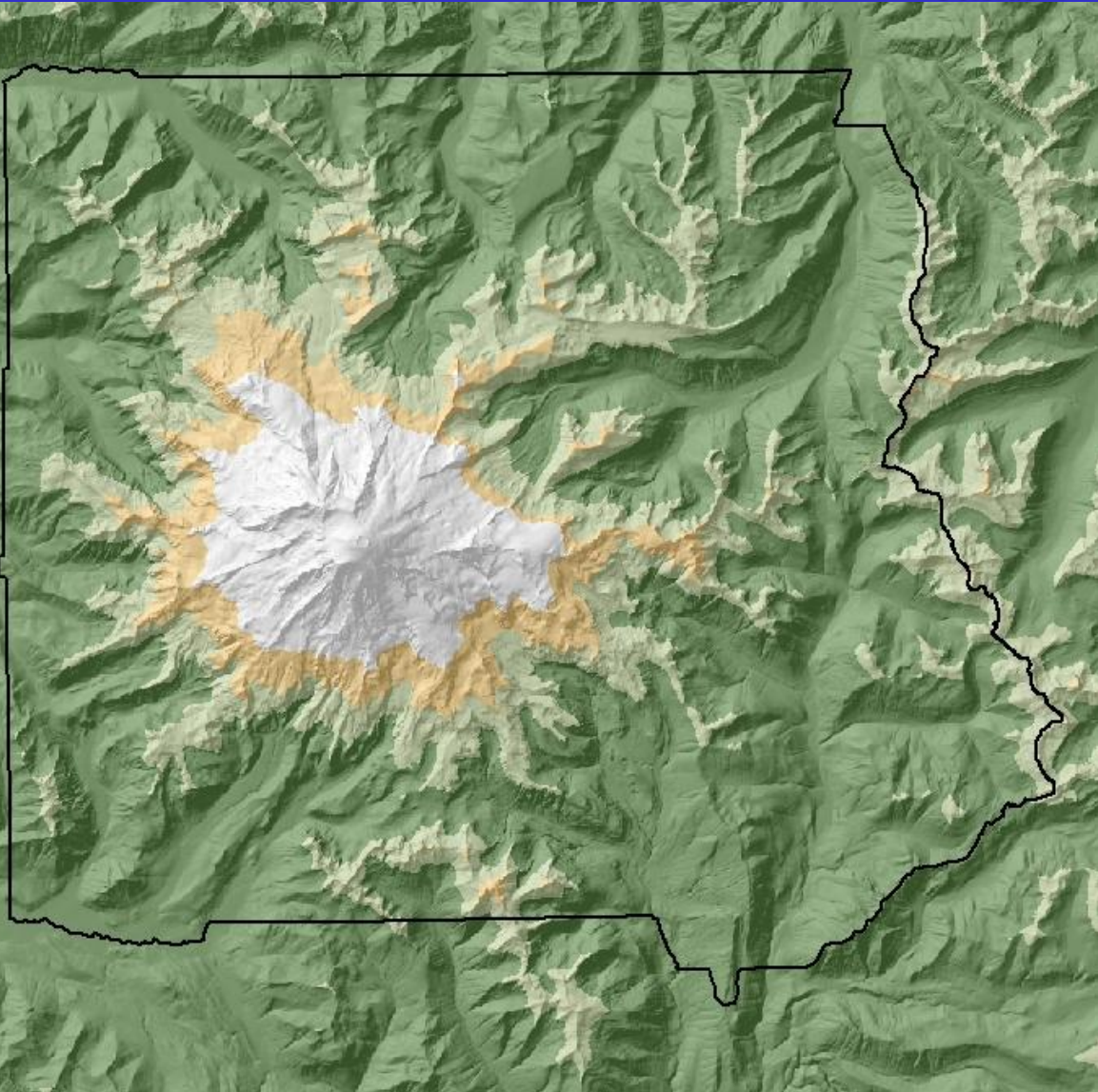


+1 c°

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

1000's of Years B.P.

← Cooler → Warmer →





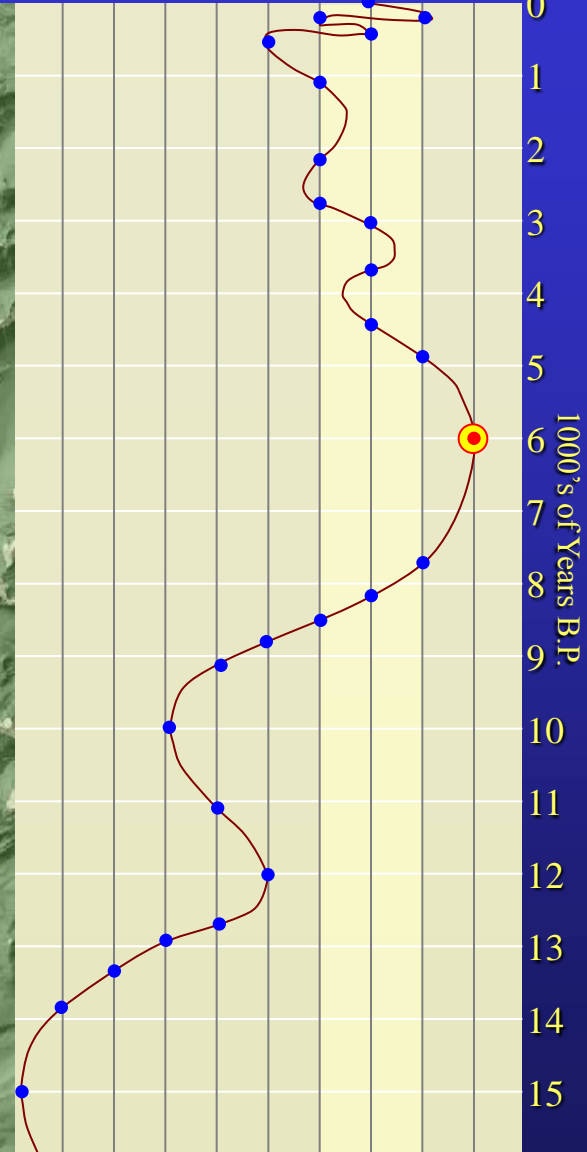
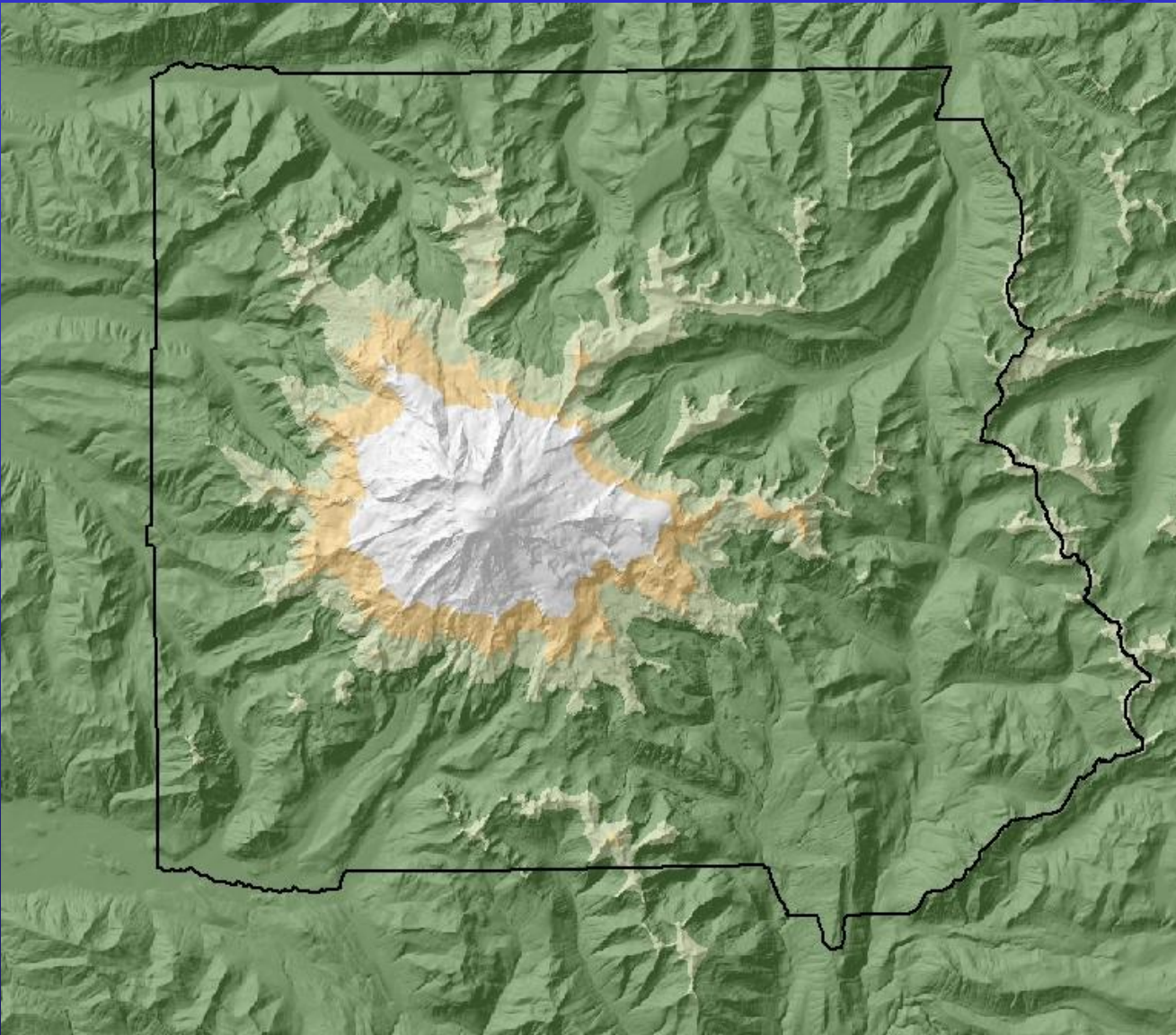
+2 c°

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

1000's of Years B.P.

0
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← Cooler → Warmer →



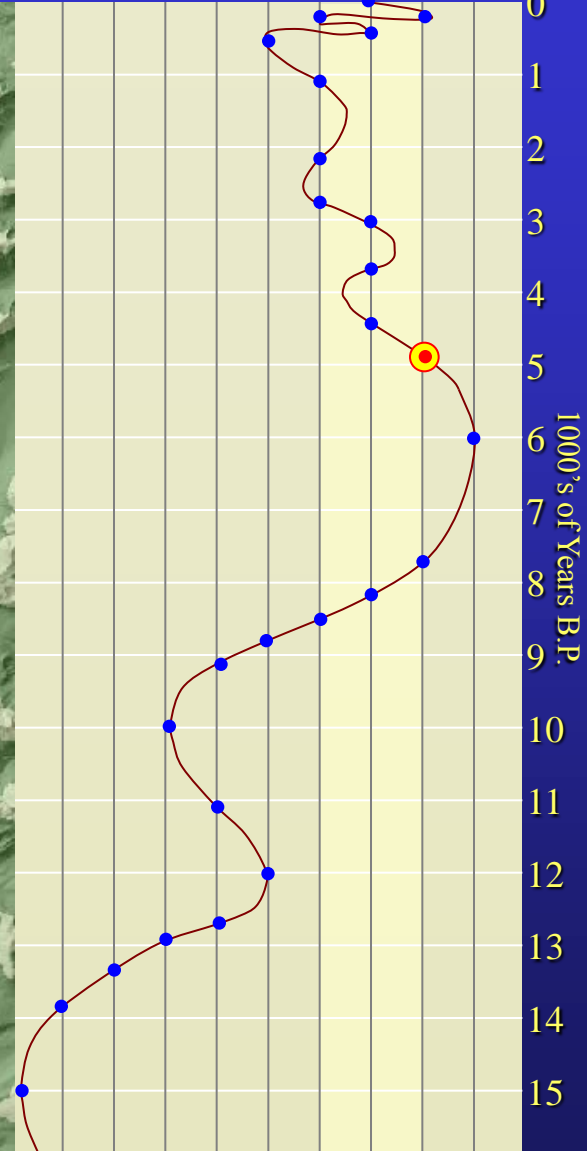
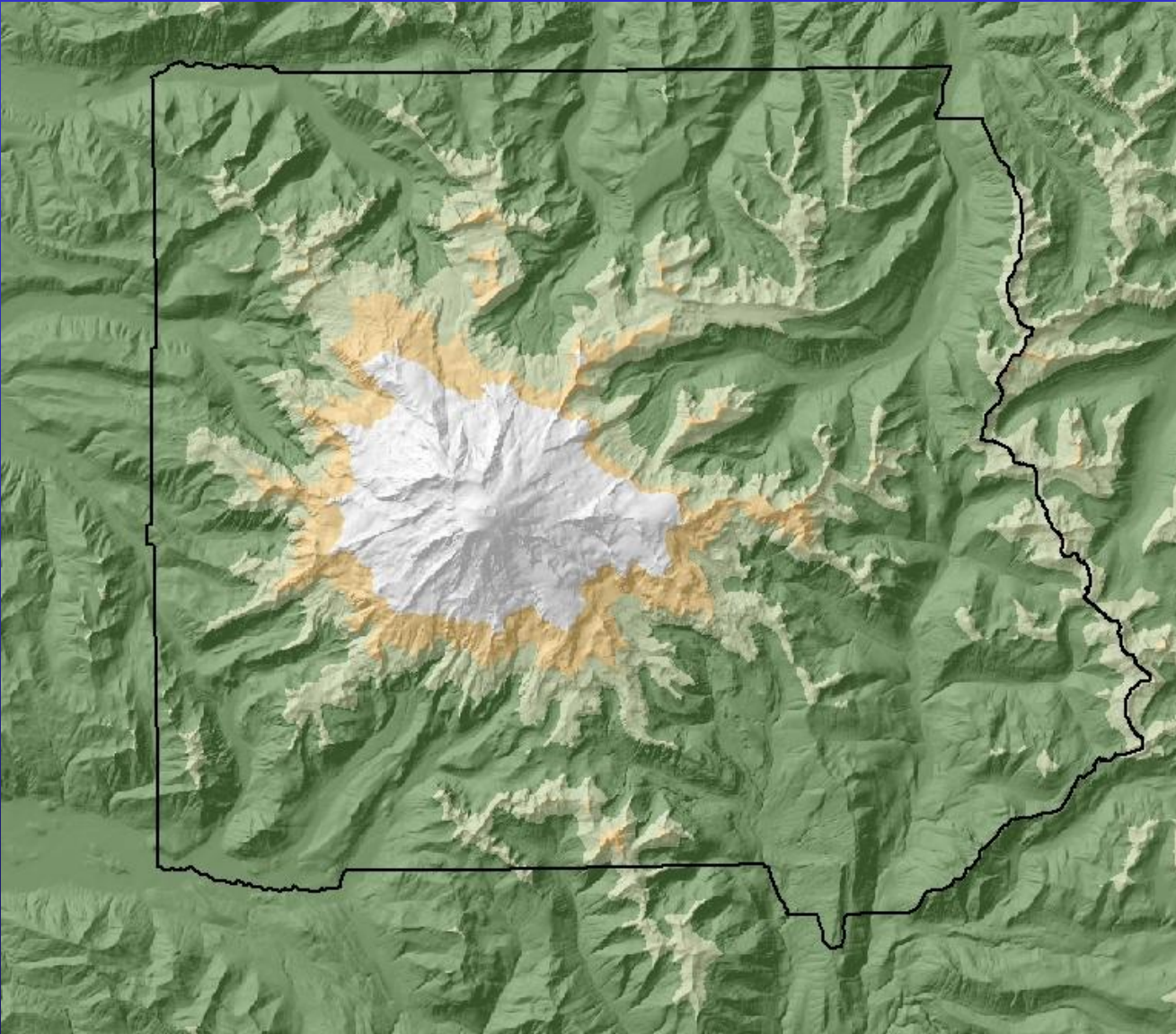


+1 c°

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

1000's of Years B.P.

← Cooler → Warmer →



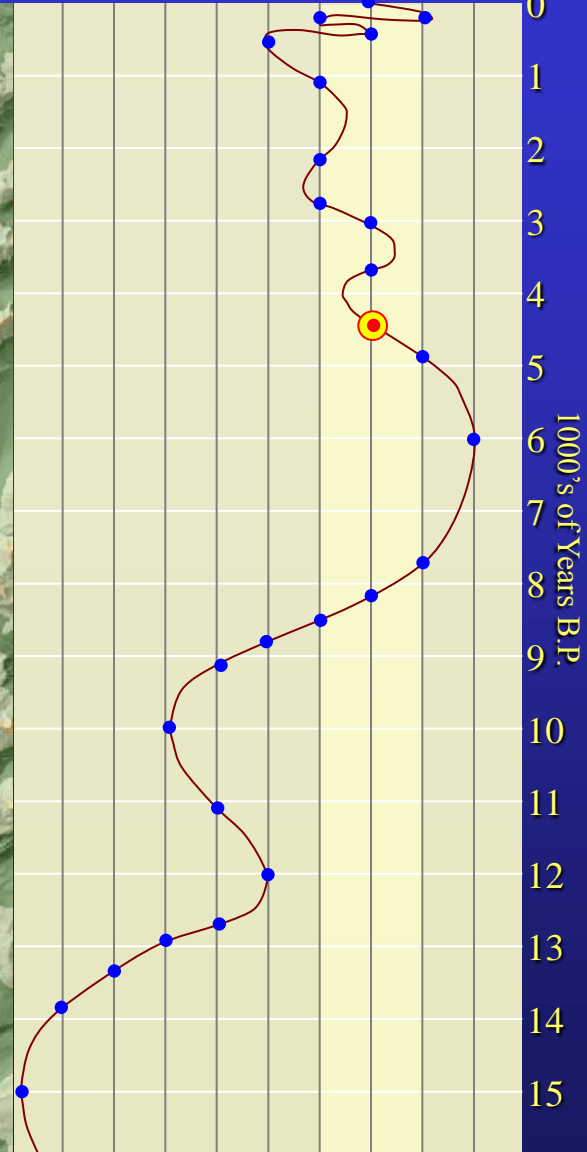
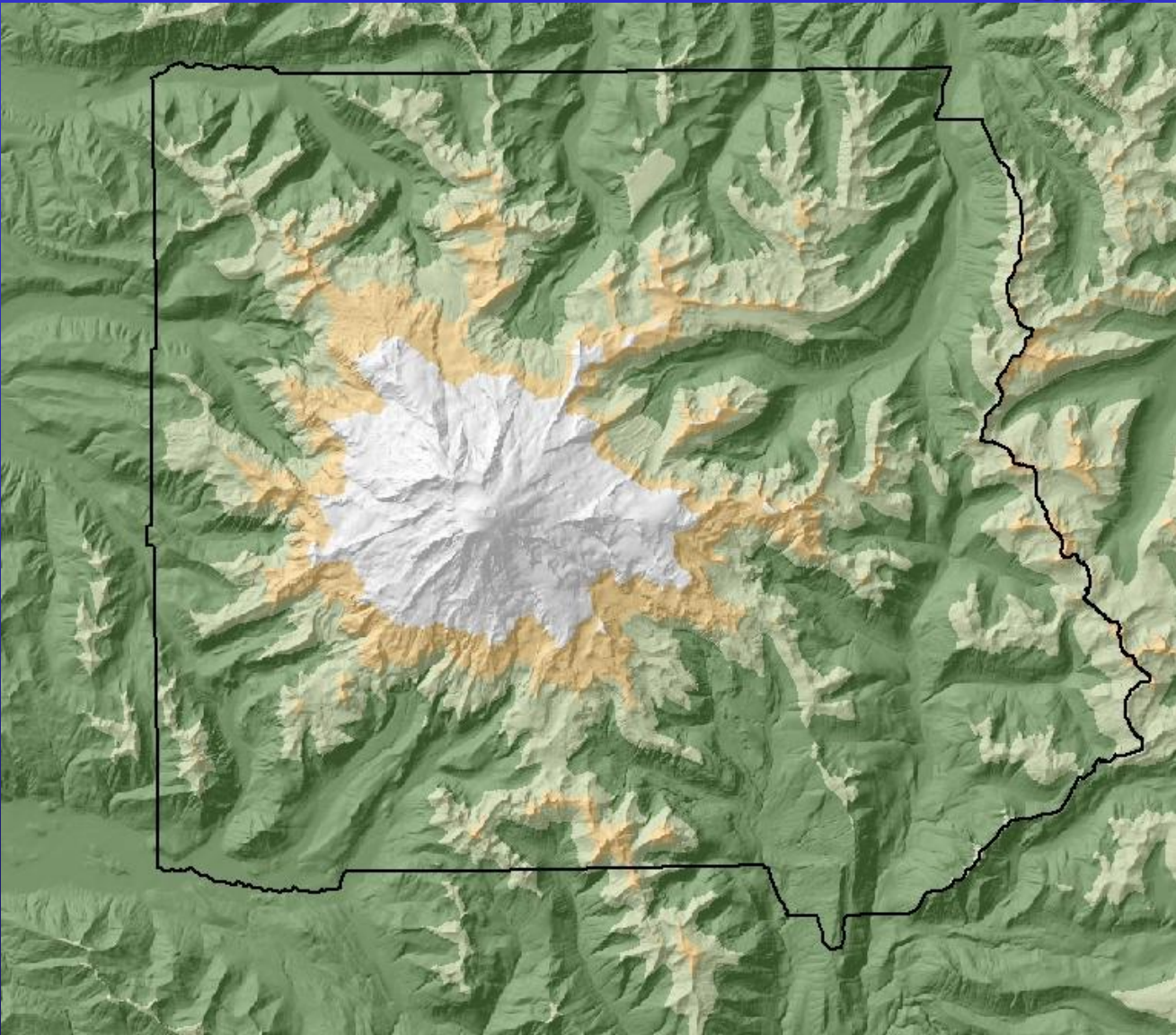


0 c°

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

1000's of Years B.P.

← Cooler → Warmer →



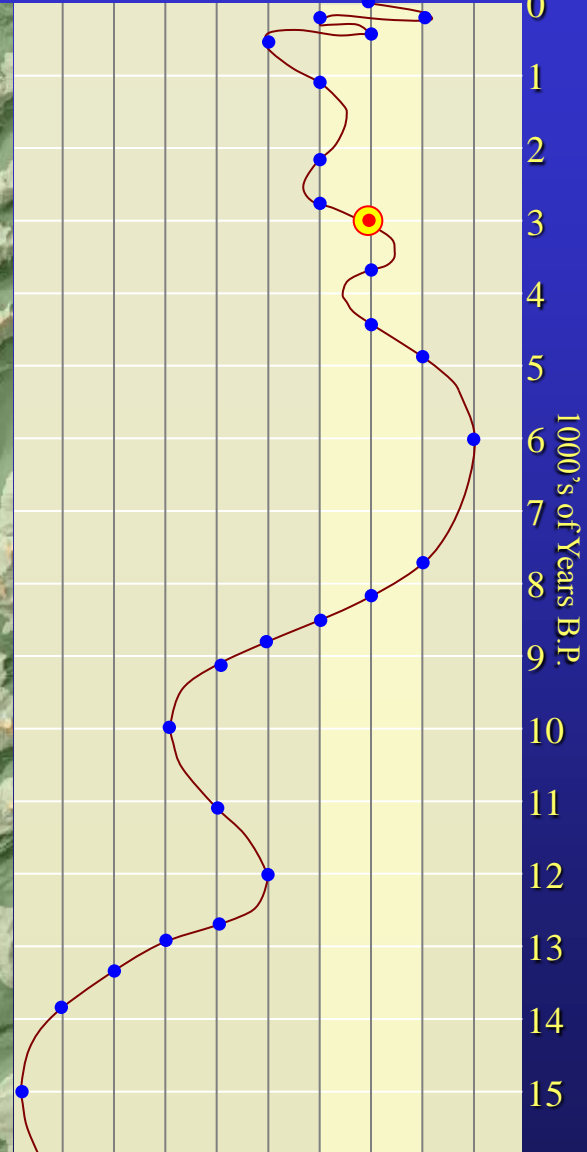
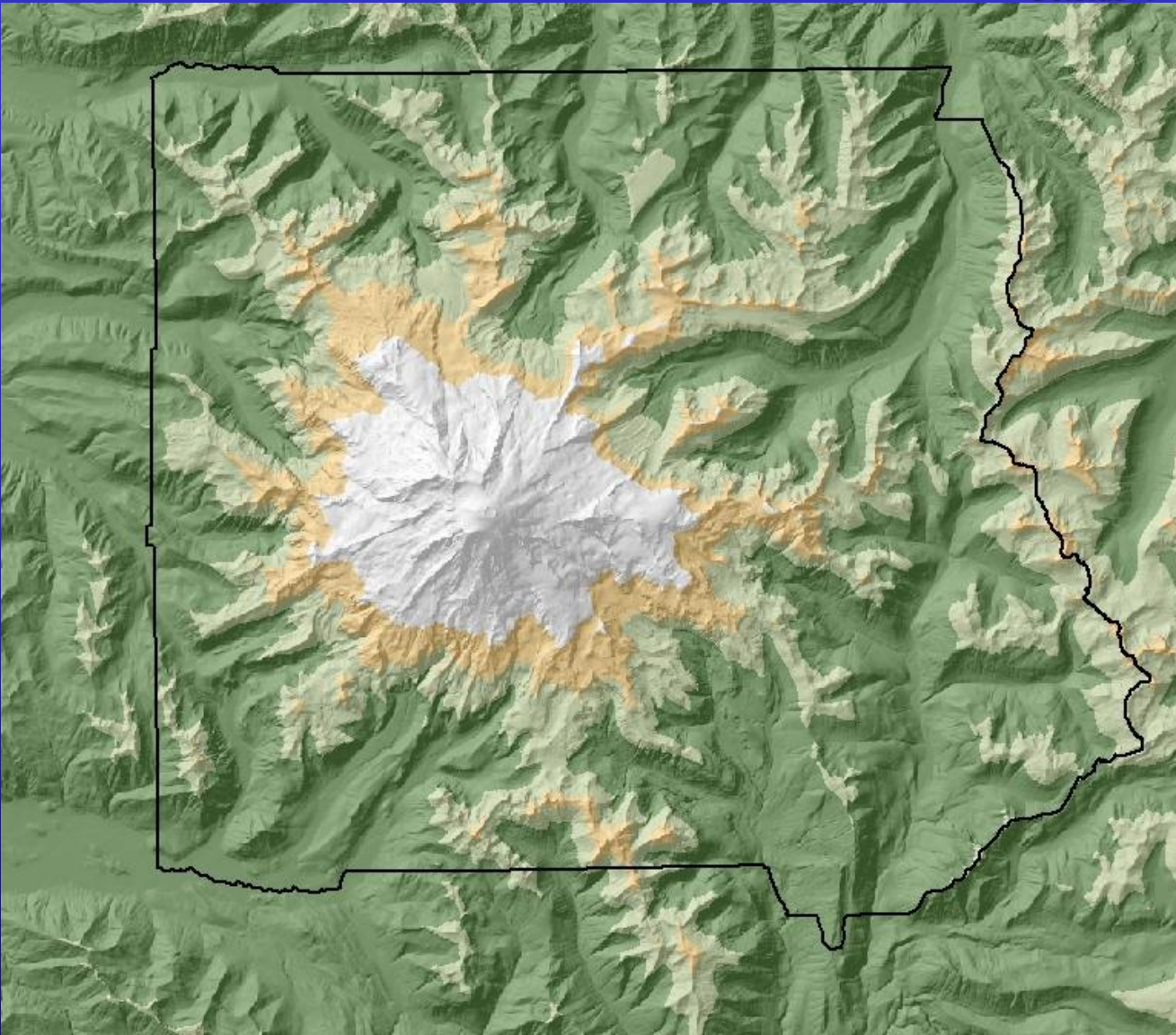


0 c°

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

1000's of Years B.P.

← Cooler → Warmer →



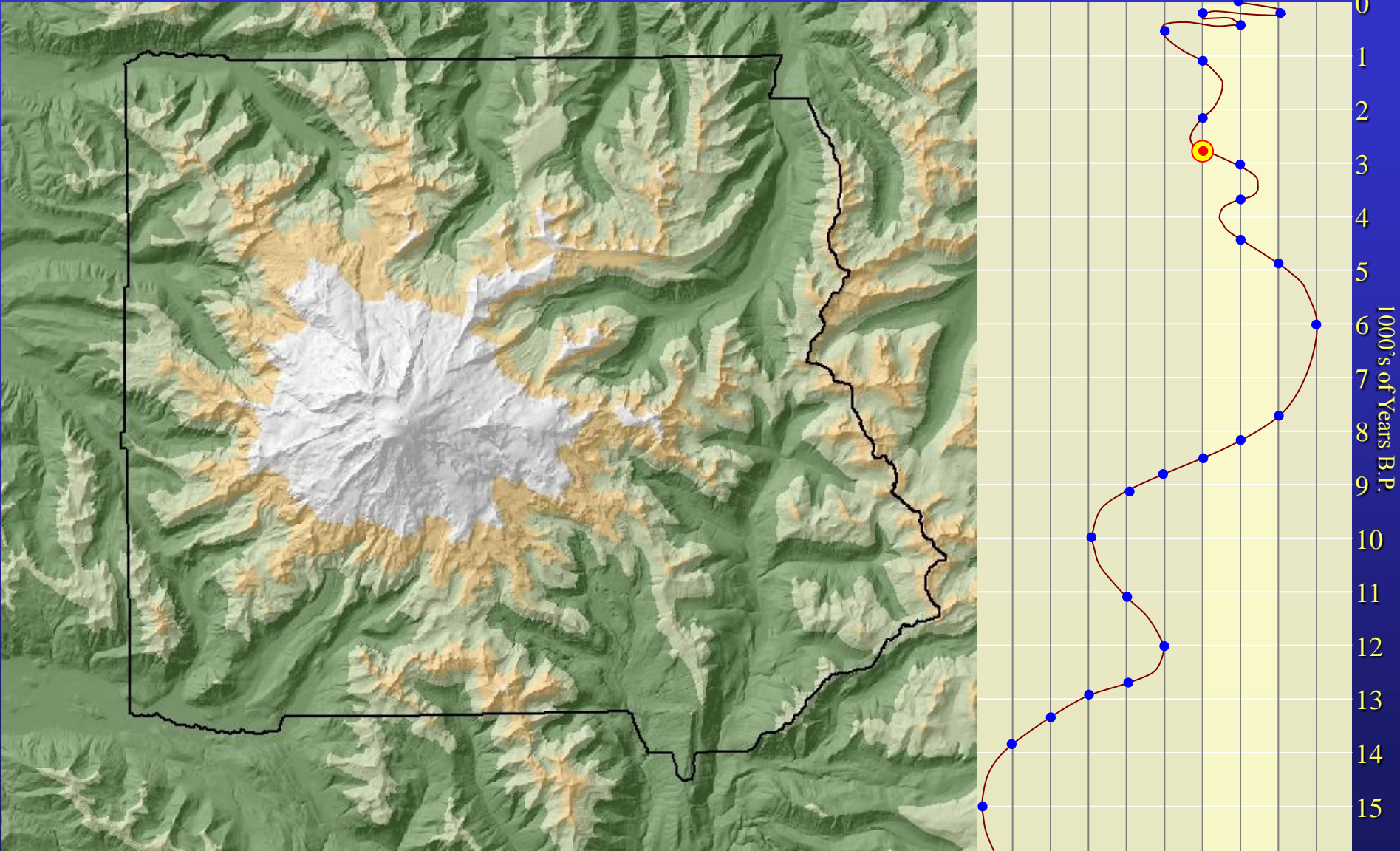


-1 c°

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

1000's of Years B.P.

← Cooler → Warmer →



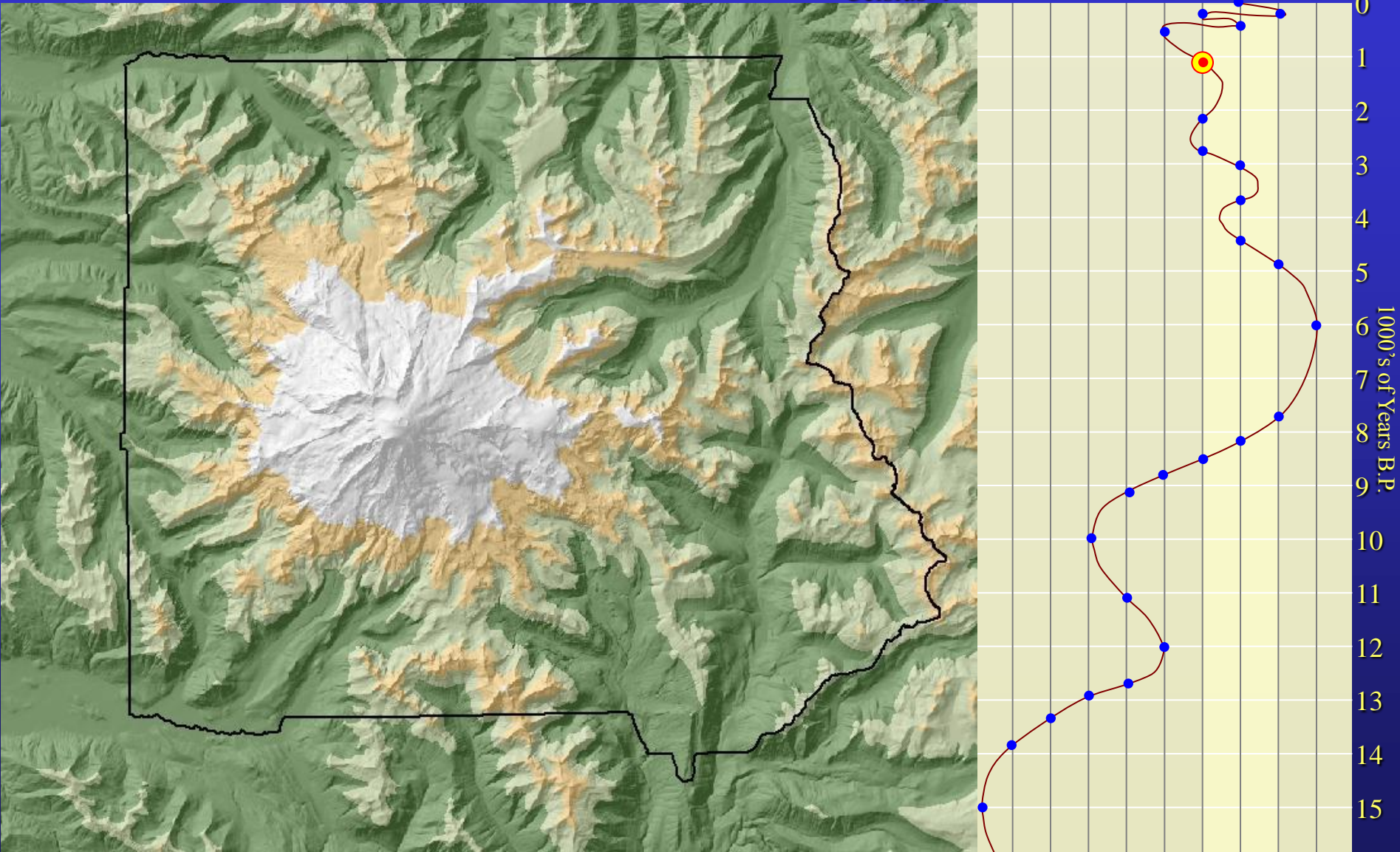


-1 c°

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

1000's of Years B.P.

← Cooler → Warmer →





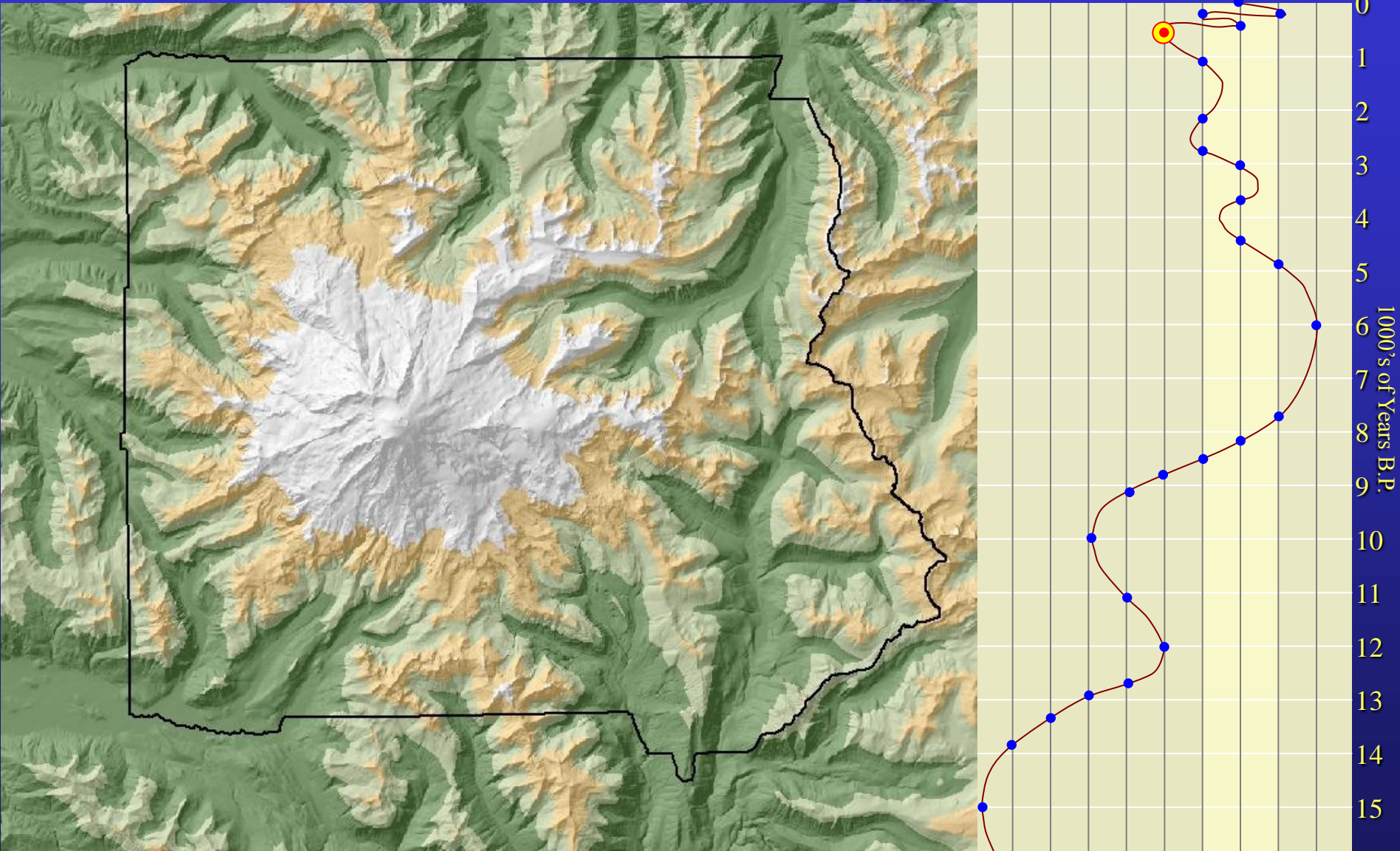
-2 c°

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

1000's of Years B.P.

← Cooler

Warmer →



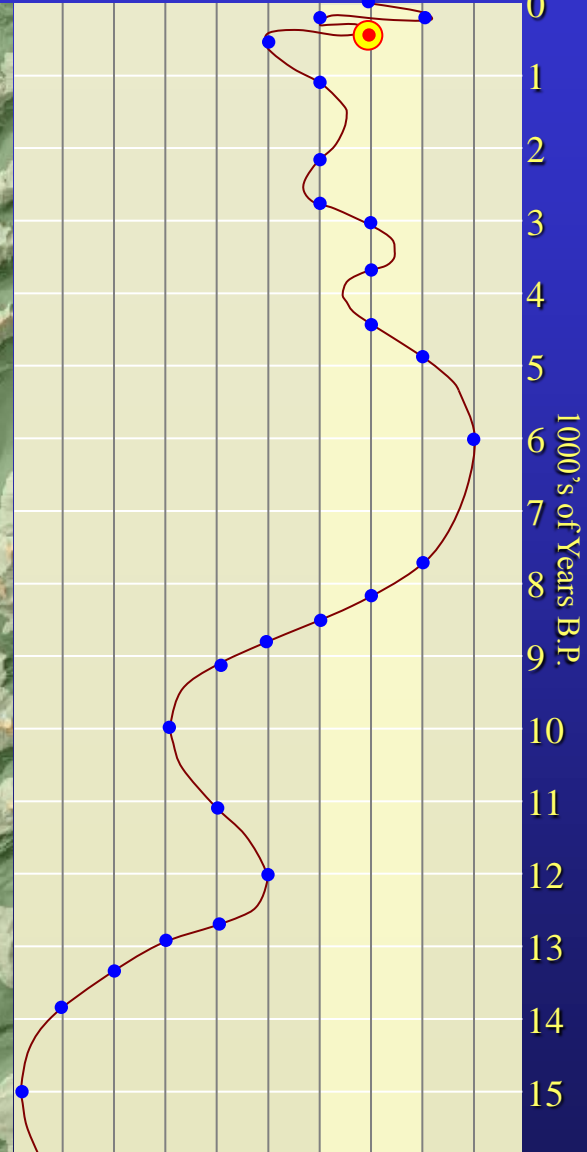
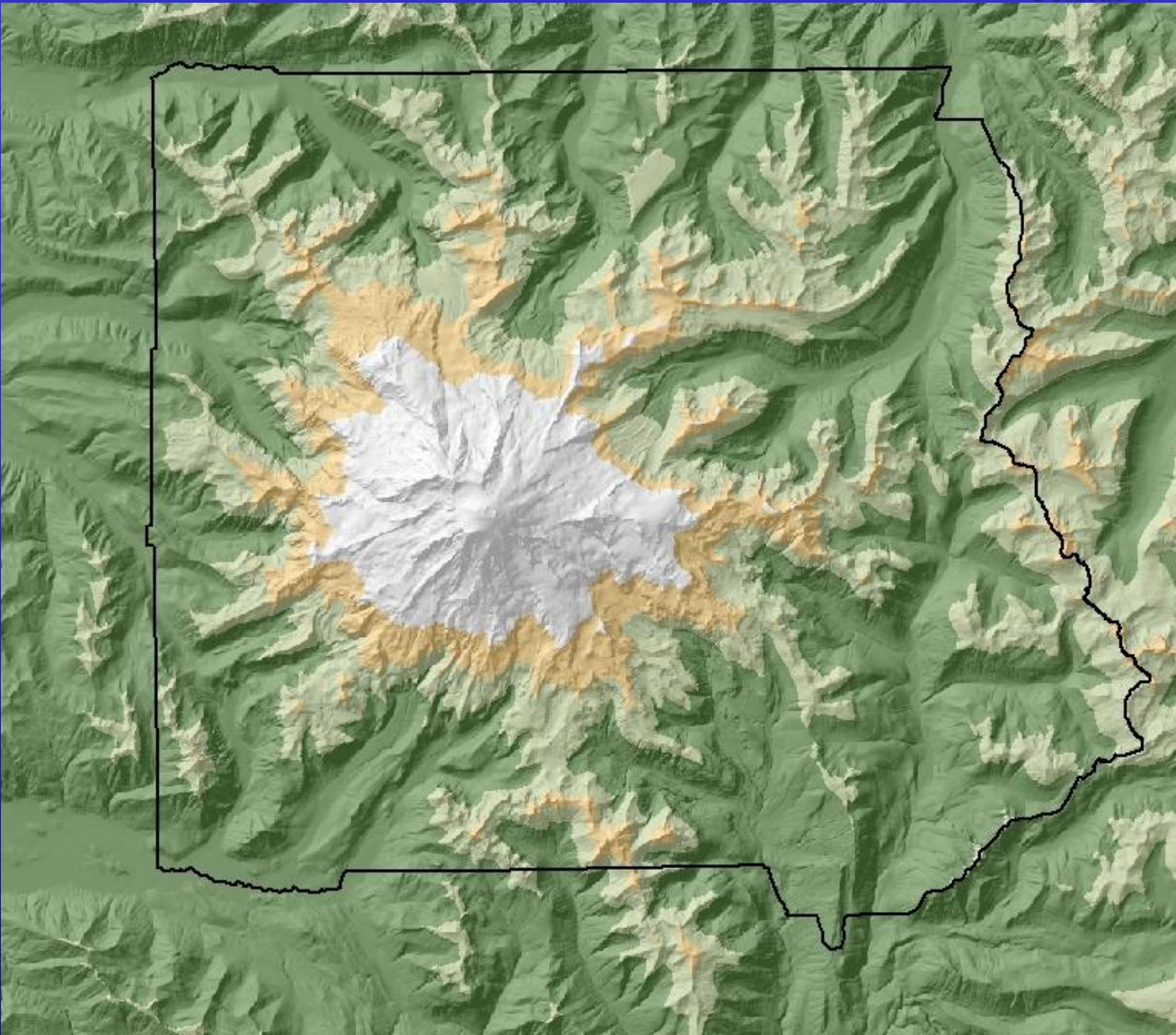


0 c°

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

1000's of Years B.P.

← Cooler → Warmer →





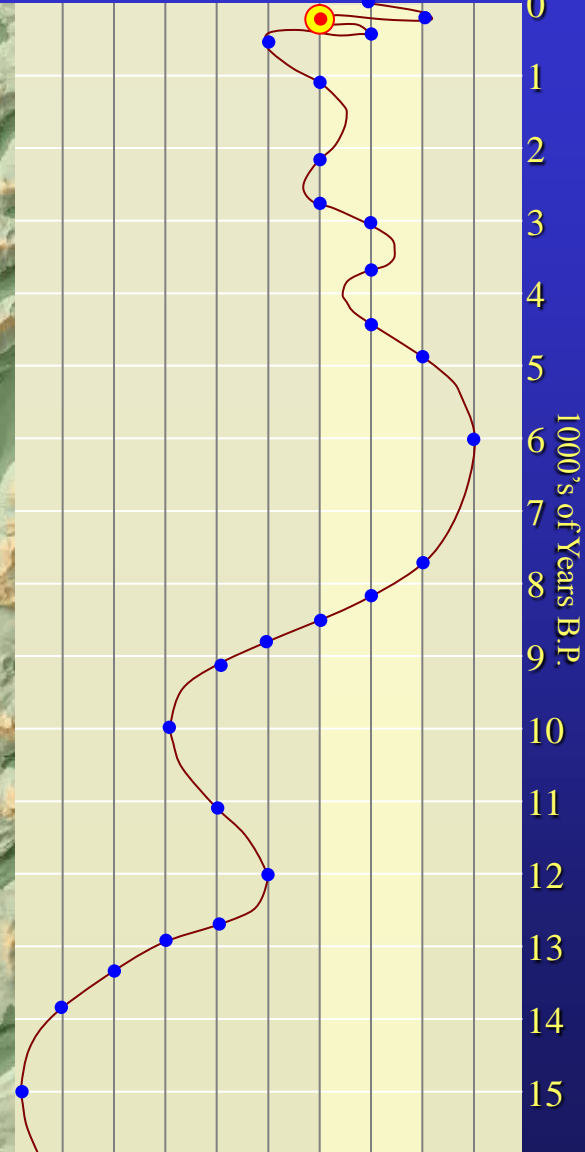
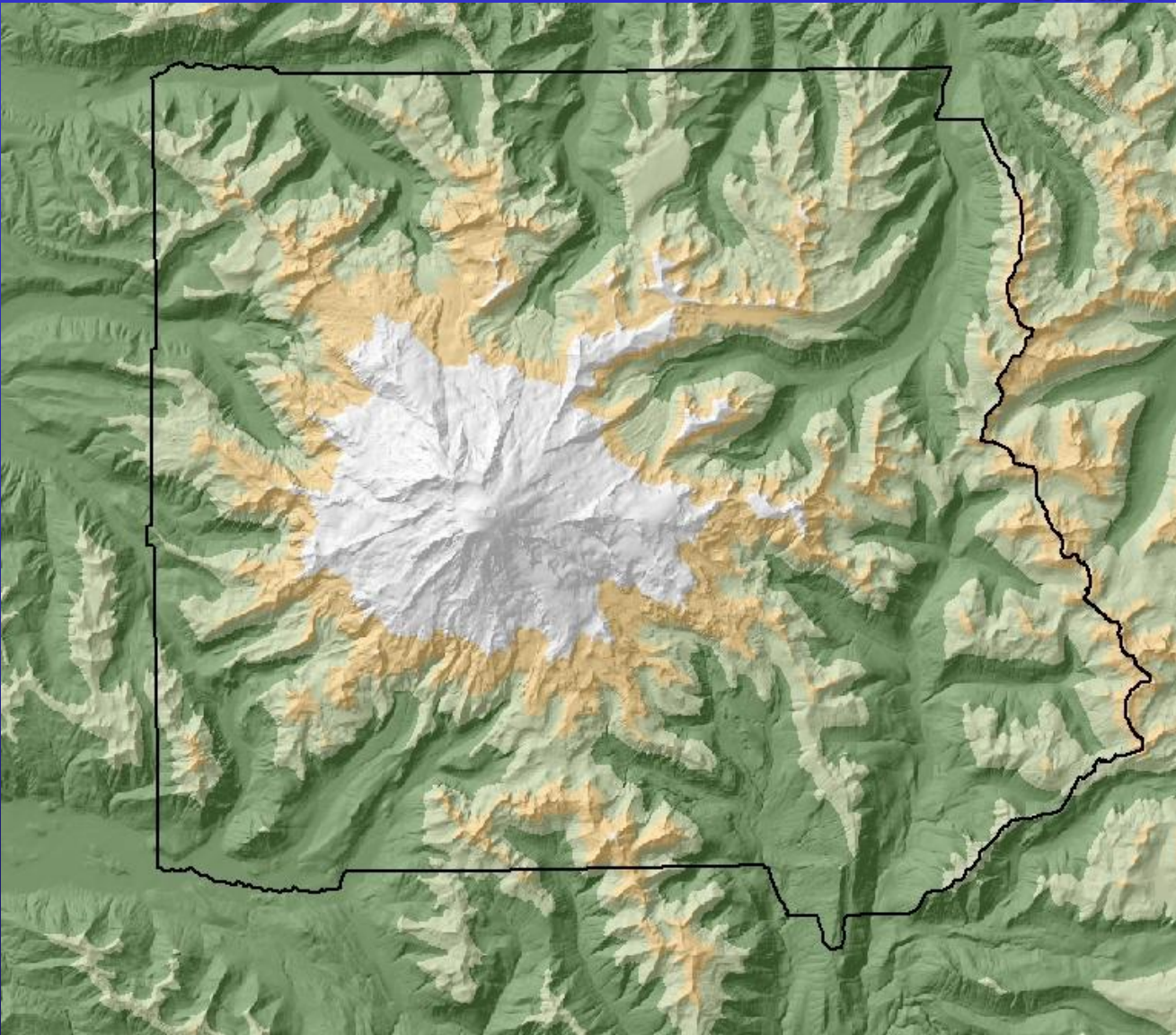
-1 c°

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

1000's of Years B.P.

← Cooler

Warmer →

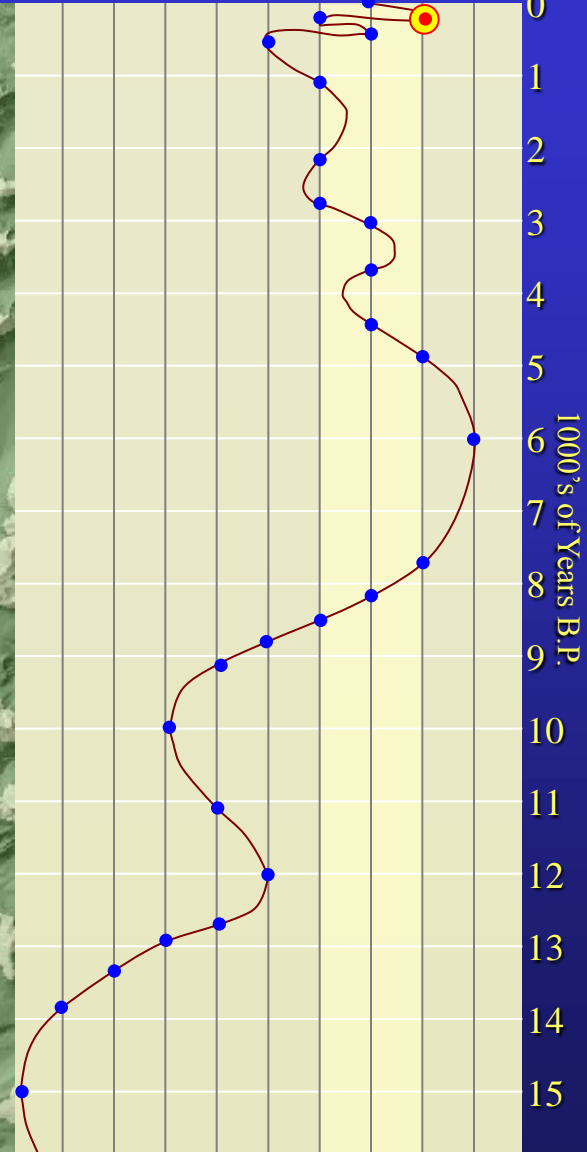
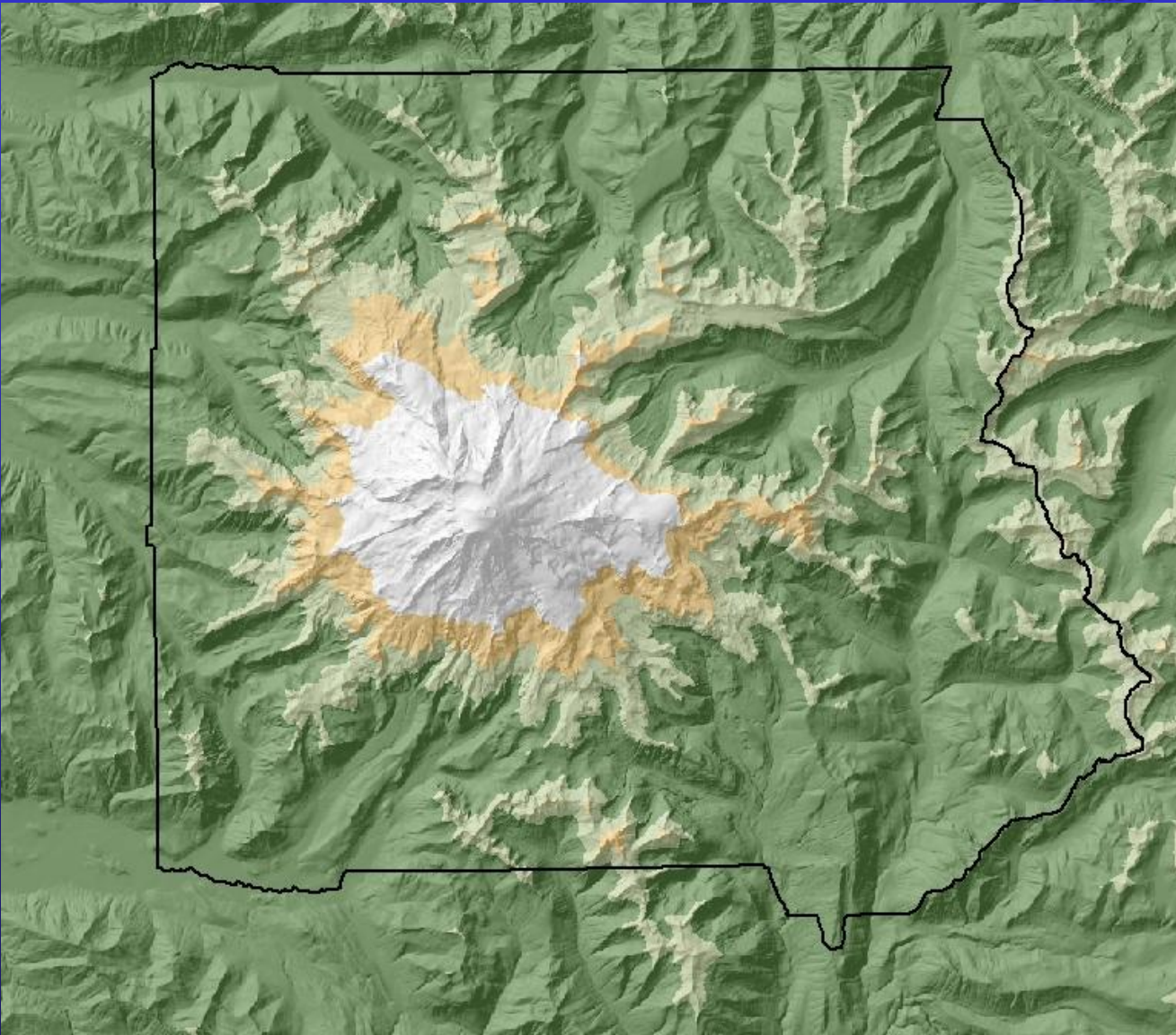




Celsius → -7 -6 -5 -4 -3 -2 -1 0 1 2 3 0

1000's of Years B.P.

← Cooler → Warmer →



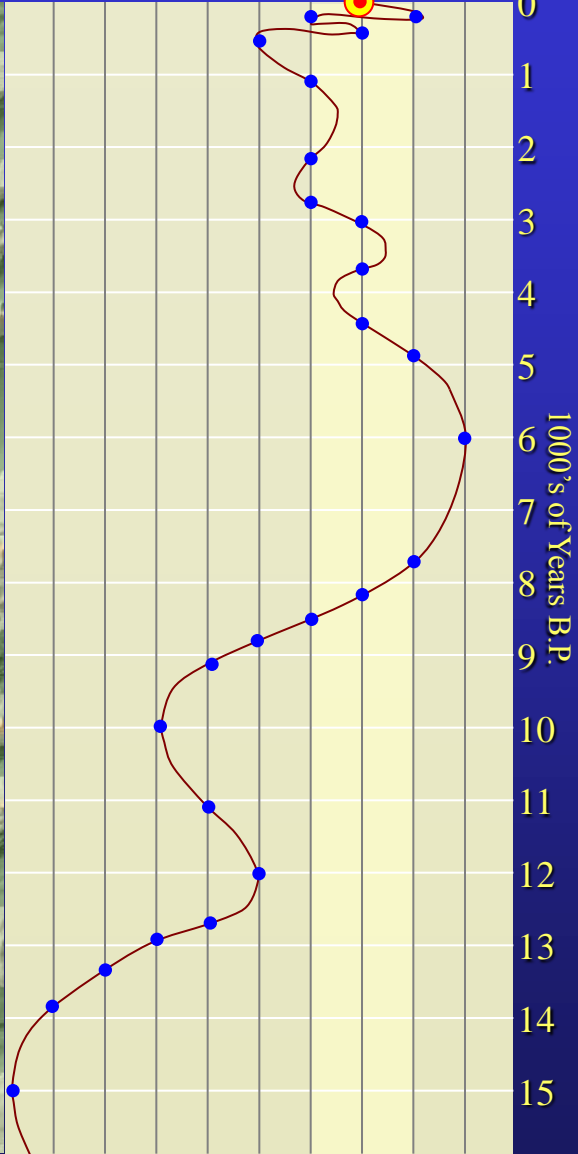
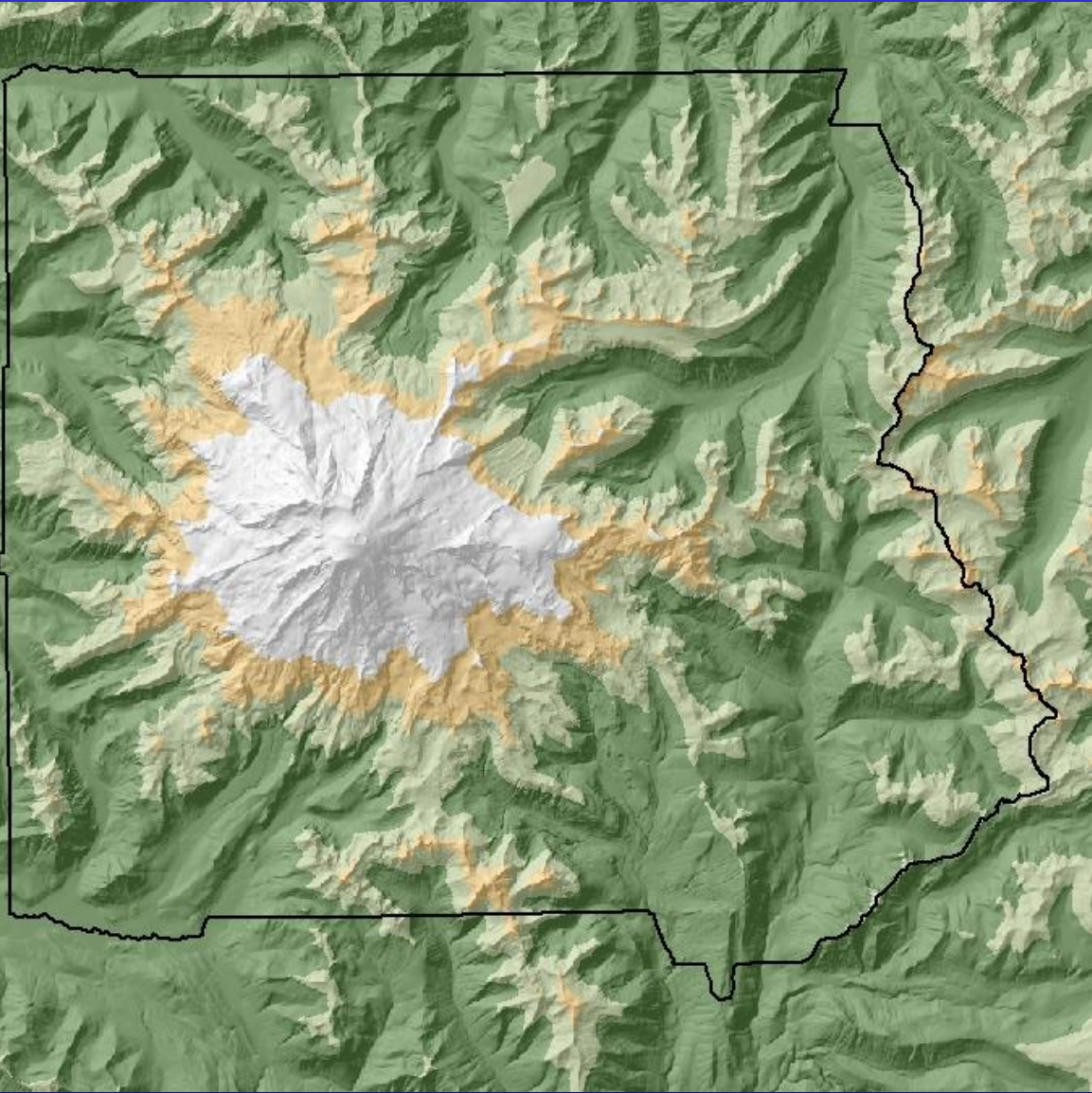


0 c°

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

1000's of Years B.P.

← Cooler Warmer →



Back



References for this Presentation

- Tweiten, M. A. 2007. The interaction of changing patterns of land use, sub-alpine forest composition and fire regime at Buck Lake, Mount Rainier National Park, USA. Unpublished report for the Columbia Cascades System Support Office of the National Park Service, Seattle, WA. International Archaeological Research Institute, Inc., Honolulu, Hawai'i.
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