

Timeline of Diatom Evolution

Deep beneath the surface of Yellowstone Lake, scientists have found the most complete fossil record of the evolution of a new species.

Pollen tells us what the climate was like.



Grass, Poaceae



Sage, Asteraceae



Lodgepole pine
Pinus contorta



Sage, Asteraceae



Grass, Poaceae



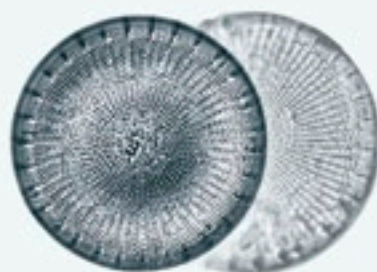
Lodgepole pine
Pinus contorta

14,000 years ago
Climate cold and wet

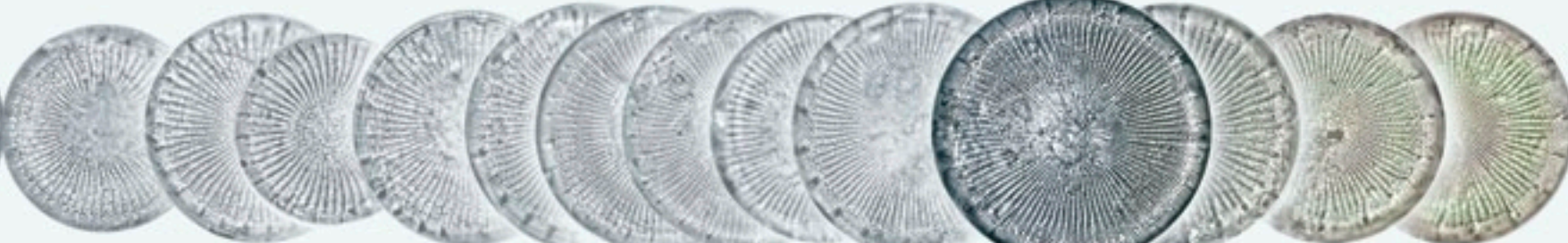
12,000 years ago
Climate warm and dry

10,000 years ago
Climate very warm and dry

Today
Climate warm



Ancient relative of
Stephanodiscus niagarae



Transitional forms



Stephanodiscus yellowstonensis



Stephanodiscus yellowstonensis

A new species of diatom evolved in response to climate change.