

Module 03 The Effects of Global Climate Change

Unit 02 Climate Change

Glacier Recession

Grinnell Glacier



1938

1981

1998

2009

2013

Glacier National Park in Montana is undergoing the retreat of many of its glaciers, a phenomenon known as glacier recession. In 1850, the area contained approximately 150 glaciers. By 2010, however, the park contained only about 24 glaciers greater than 25 acres in size. One of these glaciers is the Grinnell Glacier at Mount Gould. Between 1966 and 2005, the size of Grinnell Glacier shrank by 40 percent.

The effect of global warming can be seen in the continuing retreat of the Grinnell Glacier. The mean annual temperature in the park has increased 1.33 °C since 1900. The loss of a glacier results in the loss of summer meltwaters, sharply reducing seasonal water supplies and severely affecting local ecosystems.