

Grinnell Glacier



Grinnell Glacier From Mt. Gould - 1938

T.J. Hileman



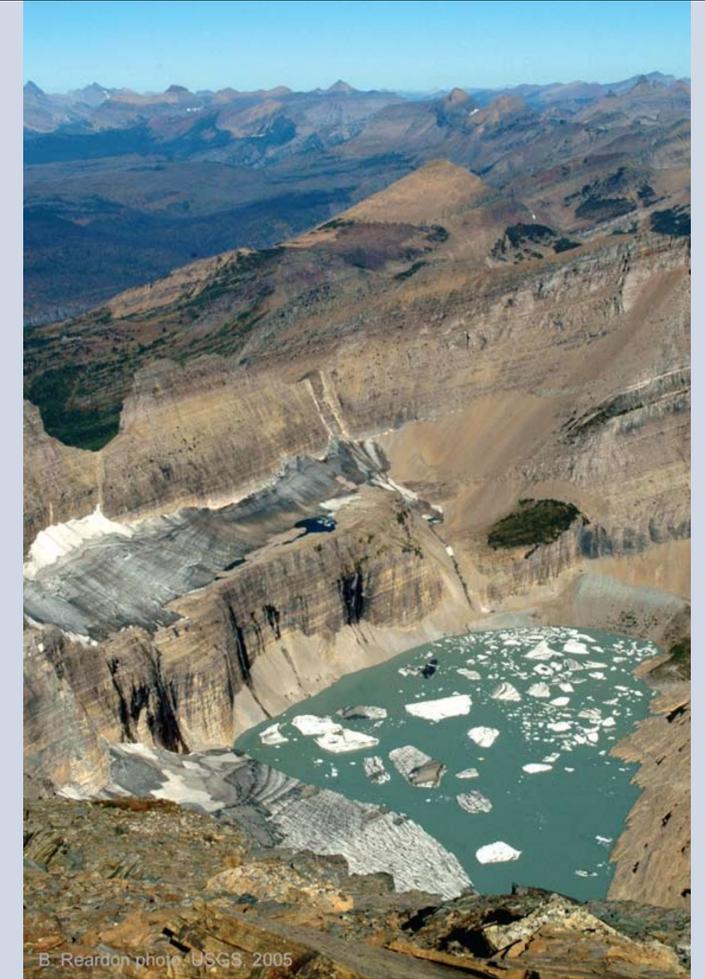
Grinnell Glacier From Mt. Gould - 1981

Carl Key, USGS



Grinnell Glacier From Mt. Gould - 1998

Dan Fagre, USGS



Grinnell Glacier From Mt. Gould - 2005

Blaise Reardon, USGS

If you haven't visited Grinnell Glacier in a while, be prepared for some dramatic differences. The changes in the glacier over the last few years may shock you. Take a picture! Even if you plan on returning next year, you may see a noticeable change.

The rapid retreat of mountain glaciers is happening worldwide, a clear sign that our planet's climate is warming. While Earth's climate has undergone cooling and warming cycles in the past, the rate and magnitude of change we are witnessing today has not occurred since hu-

man civilization began. Scientific evidence suggests much of the current warming trend is being "pushed" by human activities. Of major concern is the build up of carbon dioxide and other greenhouse gases in the atmosphere. Many human activities, especially those related

to burning fossil fuels, release greenhouse gases into the atmosphere. Therefore, any actions or choices you make that can reduce these emissions will help slow this process.

What is a Glacier?

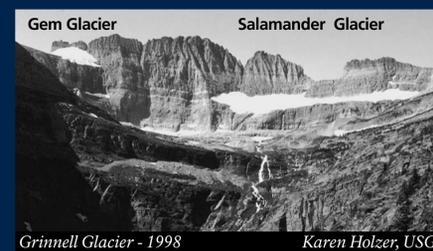
Glaciers form when more snow falls in winter than can melt in summer. Eventually, the layers of snow compress into ice. When the ice becomes thick enough, its own weight causes the bottom layers to move, fashioning a river of ice that slowly flows downhill. Once the ice starts to move it is called a glacier.

If more of the glacier melts each year than is created, the glacier appears to be retreating back up the mountainside. If it becomes too small and stops flowing it is no longer considered a glacier.



Grinnell Glacier - 1910

Fred Kiser



Grinnell Glacier - 1998

Karen Holzer, USGS

From the Trail

The views above show the retreat of Grinnell Glacier from the summit of Mt. Gould. The images to the left highlight the retreat of the glacier from the more common vantage point that hikers see. Sometime in the 1920s Grinnell Glacier split into a lower and an upper portion. The upper portion is now referred to as Salamander Glacier, while the lower portion is still called Grinnell.

For Your Safety!

Glaciers can be dangerous. Snowfields and glaciers may conceal numerous hazards. Weak snowbridges, cold rushing streams, and deep crevasses abound. Help may be a long way away and hypothermia and death may result from unanticipated slips and falls.