



A Geologist's Lifetime Field List

- **An erupting volcano.** Possible locations include Hawaii, Italy, or Iceland. "The man who feels smug in an orderly world has never looked down a volcano"
- **A glacier**, preferably continental
- **An active geyser**, such as those in Yellowstone or the type locality of Iceland
- **The Cretaceous/Tertiary (KT) boundary.** Possible locations include Gubbio, Italy, Stevns Klint, Denmark, the Red Deer River Valley near Drumheller, Alberta
- **A river whose discharge is above bankful stage, or a catastrophic flash flood.** [See Cincinnati Flood photos](#)
- **A limestone cave.** Try Carlsbad Caverns in New Mexico, Lehman Caves in Great Basin National Park, or the caves of Kentucky or TAG (Tennessee, Alabama, and Georgia)
- **An open pit mine**, such as those in Butte, Montana, Bingham Canyon, Utah, Summitville, Colorado, Globe or Morenci, Arizona, or Chuquibambilla, Peru
- **A subsurface mine**
- **An ophiolite**, such as the ophiolite complex in Oman or the Troodos complex on the Island of Cyprus
- **An anorthosite complex**, such as those in Labrador, the Adirondacks, and Niger
- **A slot canyon.** Many of these amazing canyons are less than 3 feet wide and over 100 feet deep. They reside on the Colorado Plateau. Among the best are Antelope Canyon, Brimstone Canyon, Spooky Gulch and the Round Valley Draw
- **Antelope Canyon.** This excellent photograph of Antelope Canyon was taken by Jonathan Jasper, a graduate student in Karst studies at Western Kentucky University (he's the guy standing in the canyon!)
- **Varves**, whether you see the type section in Sweden or examples elsewhere
- **An exfoliation dome**, such as those in the Sierra Nevada
- **A layered igneous intrusion**, such as the Stillwater complex in Montana or the Skaergaard Complex in Eastern Greenland
- **Coastlines along the leading and trailing edge of a tectonic plate**
- **A ginkgo tree**, which is the lone survivor of an ancient group of softwoods that covered much of the Northern Hemisphere in the Mesozoic

Other Suggestions

- Living and fossilized stromatolites (Glacier National Park is a great place to see fossil stromatolites)
- A field of glacial erratics
- A large catastrophic mass-wasting event
- A sand dune more than 200 feet high
- A fjord
- A caldera
- A recently formed fault scarp
- Sizable breccias
- An actively accreting river delta (scenic photos)
- A natural bridge
- A large sinkhole

- A glacial outwash plain
- A sea stack
- A house-sized glacial erratic
- An underground lake or river
- The continental divide
- Fluorescent and phosphorescent minerals
- Petrified trees
- Lava tubes
- "Booming" sands...

The Best of the Rest:

other natural phenomena to see or experience

- **Totality!! A total solar eclipse** is claimed to be the single most spectacular phenomenon in all of nature. They occur somewhere on this planet at a rate of approximately one every 1.5 years (world map of total eclipse paths from 1997 to 2020). The next total solar eclipse paths to cross the North American continent will occur in the year 2017 and again in the year 2024 (map of total eclipse paths in North America for years 2001-2050). Also, a path of totality passes thru major population centers in Europe on August 11, 1999
- **Witness a tornado, firsthand.** (important rules of this game)
- **Witness a meteor storm**, a term used to describe a particularly intense (1000+ per minute) meteor shower . Meteor storms are extremely rare and hard to predict. The 1998 or 1999 Leonid showers are possibilities
- **View Saturn and its moons** through a respectable telescope
- **View a great naked-eye comet**, an opportunity which occurs only a few times per century (see "Great Comets in History" at this website). Both Comet Hale-Bopp (1997) and Comet Hyakutake (1996) fell into this category, two great comets in two years. For a brief time, Comet Hyakutake had a spectacular tail over 70 degrees long (only visible from dark skies). The only way to fully appreciate a bright comet is to get far away from the light pollution of the cities and suburbs.

Other Suggestions

- See a lunar eclipse
- View a distant galaxy through a large telescope
- Experience a hurricane
- See noctilucent clouds
- Walk through an ancient redwood grove
- See the green flash
- Witness a supernova
- Witness hail 3 inches or larger falling from the sky
- Ball lightning...

Source: http://www.artsci.uc.edu/departments/geology/discover-cinti--geology/field_list.html