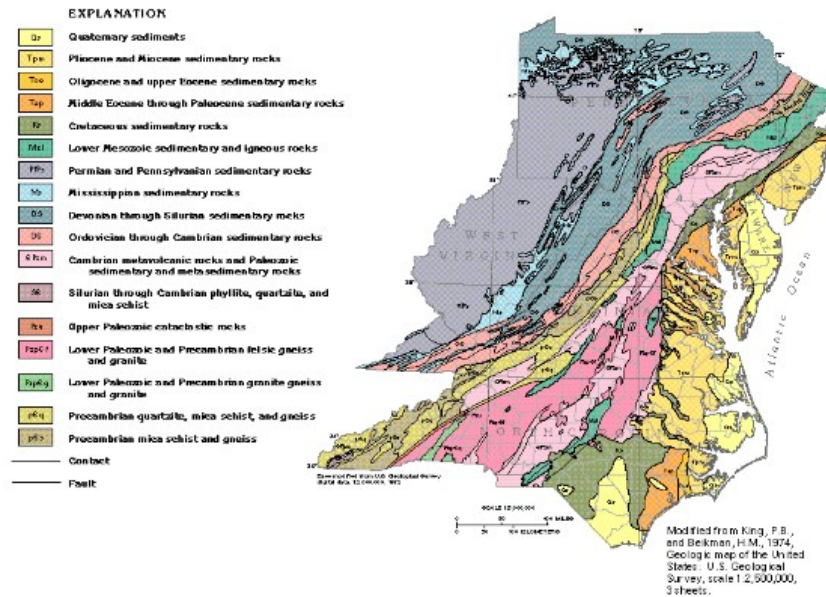


July 8, 2024

News and notes

I am still on my road trip vacation, so this week's posting will be a few items of news. We are travelling in the Eastern USA, here is a geological map of part of the area.



Mid-Atlantic Appalachian Rock Types

Credit: Figure 8 in [Trapp and Horn, 1997](#), [public domain](#)

And here is a picture from our travels, of the [Washington Monument](#).



Washington Monument – July 6, 2024

Research and News

- Geopolitical Risks: [Geospatial Data and Deep Learning Expose ESG Risks to Critical Raw Materials Supply: The Case of Lithium](#).
- The Great Oxidation Event: [Sustained increases in atmospheric oxygen and marine productivity in the Neoproterozoic and Palaeozoic eras](#).
- Mineralogy: [First-Principles Investigations of Antigorite Polysomatism Under Pressure](#); Phys.org summary [here](#).
- [Global 1 km land surface parameters for kilometer-scale Earth system modeling](#); Phys.org summary [here](#).

Sedimentology

- [Siderite from the Tibetan Himalaya: Evidence for a low sulphate ocean during Oceanic Anoxic Event 1a \(Early Aptian\)](#).
- [Complementary classifications of aeolian dunes based on morphology, dynamics, and fluid mechanics](#).
- [Upper-flow-regime deposits related to glacio-volcanic interactions in Patagonia: Insights from the Pleistocene record in Southern Andes](#).
- [The generation of a clotted peloidal micrite fabric by endolithic cyanobacteria in recent thrombolites from Cuatro Ciénegas, northern Mexico](#).
- [Sedimentary dolomite in Western Australia and the dolomite problem: Genesis of channel and playa uranium deposits](#).
- [Tectono-sedimentary history of the upper Cedar Mountain Formation, Central Utah, USA](#).
- Plate Tectonics: [Uplift of the Tibetan Plateau driven by mantle delamination from the overriding plate](#).

Paleontology

- Machine learning and evolution studies: [150-year-old conflict between Darwin and Wallace is resolved – by a machine](#); Nature article [here](#).
- [Arctic walnuts! Nuts of Juglans \(Juglandaceae\) from the middle Eocene of Axel Heiberg Island, Northern Canada](#); Phys.org summary [here](#)

Mining and Energy

- [Scientists drill for rare minerals in northeast Kansas](#).
- Ooh, shiny: [Gem Diamonds unearths 123-carat stone in Lesotho](#).

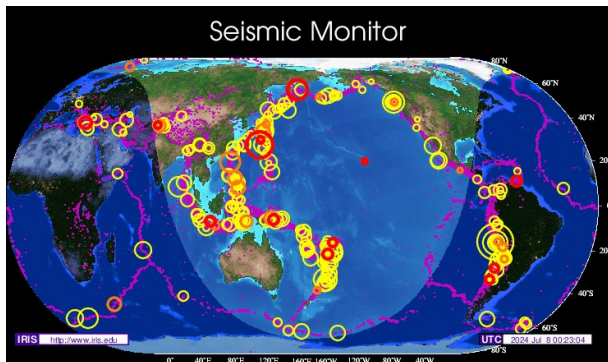
Environmental Geology and Hydrogeology

- Free book from the Groundwater Project: [Identifying International Legal Trends for Managing Transboundary Groundwater and Aquifers](#).

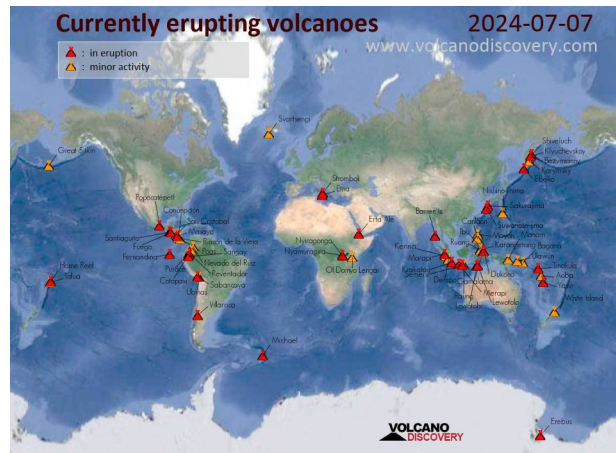
Glaciers and Climate Change

- Ice sheet-free West Antarctica during peak early Oligocene glaciation; Phys.org summary [here](#).
- Early Holocene climate change: [Climatic pacing of extreme Nile floods during the North African Humid Period](#).

Volcanoes, Earthquakes and Geohazards



[Seismic Monitor](#)



[Active Volcano Map](#)

- United States Geological Survey (USGS) Volcano Watch: [Cruising Chain of Craters Road: Recent earthquakes and past volcanism](#).
- USGS Yellowstone Volcano Observatory: [The hot and cold journey of silica begins in Yellowstone's rhyolite and ends in geyser cones, petrified trees, and algae](#).
- [Smithsonian / USGS Weekly Volcanic Activity Report](#).
- [Euro-Mediterranean Seismological Centre](#)
- [Earthquakes Monitoring Live Worldwide](#).

Standard Caveat

The purpose of my weblog postings is to spark people's curiosity in geology. Don't entirely believe me until you've done your own research and checked the evidence. If I have sparked your curiosity in the subject of this posting, follow up with some of the links provided here. If you want to, go out into the field and examine some rocks on your own with the help of a good field guide. Follow the evidence and make up your own mind.

In science, the only authority is the evidence.