

July 15, 2024

## News and notes



View from the [Great Goose](#) at [Wawa Ontario](#), July 12, 2024

I just got back from vacation, so the posting this week will just be news items that I thought were interesting.

## Geopolitics

- Things are getting serious: [What to know about Donald Trump's apparent assassination attempt](#); also [Photo Appears to Capture Path of Bullet Used in Assassination Attempt](#).
- Video: [The NEW African Country Nobody Likes \(Sahel Confederation\)](#).
- This anti-immigration song has been popular with German football fans, now it is banned: [Watch "AUSLÄNDER RAUS! \(Blackpilled Edit\)"](#).

## Research and News

- [EGU response to Science article](#).
- [GAC-MAC-PEG 2024 Brandon Meeting: Abstracts, Volume 47](#).
- [Upper Paleozoic komatiites near Mashhad, NE Iran](#).

- [Elemental Geochemistry on Paleoenvironment Reconstruction: Proxies on Miocene-Pliocene of Marine to Fluvial Sediment in Serpong, Banten, Indonesia.](#)
- [Pongola Supergroup dolostones from the Buffalo River inlier, South Africa: facies, composition and implications for Mesoarchean carbonate deposition.](#)
- [Provenance of the late Jurassic to Cenomanian sedimentary succession of the Araripe Basin \(NE Brazil\) and implication for the geodynamic evolution of Western Gondwana.](#)
- [AI model harnesses physics to autocorrect remote sensing data.](#)
- [The Holocene to Modern Fraser River Delta, Canada: Geological History, Processes, Deposits, Natural Hazards, and Coastal Management.](#)
- [ESR chronology of the endokarstic deposits of Galería complex \(Sierra de Atapuerca, Spain\); Phys.org summary \[here\]\(#\).](#)
- From the British Geological Survey: [New research reveals the secrets of the seabed off the East Anglian coast.](#)
- [Not all shell beds are made equal: Recognizing singular event-concentrations in megalakes.](#)

## Geophysics

- [How P-Wave Scattering Throughout the Entire Mantle Mimics the High-Frequency  \$P\_{diff}\$  and Its Coda.](#)
- [Reprocessing and interpretation of legacy seismic data using machine learning from the Granada Basin, Spain.](#)
- [Quantum data assimilation: a new approach to solving data assimilation on quantum annealers.](#)
- [Contributions of core, mantle and climatological processes to Earth's polar motion.](#)

## Plate Tectonics

- [Two stages of late Paleoproterozoic A-type granites at the southern North China Craton: Geochemical constraints and implications for supercontinent breakup.](#)
- [Paleomagnetism of the Peloritan Terrane \(NE Sicily\): From Greater Iberia to the Neo Apennine-Maghrebide Arc.](#)
- [The Davis Strait proto-microcontinent: The role of plate tectonic reorganization in continental cleaving; Phys.org summary \[here\]\(#\).](#)
- Hydrothermal vent field: [Discovery of the first hydrothermal field along the 500-km-long Knipovich Ridge offshore Svalbard \(the Jøtul field\); Live Science summary \[here\]\(#\).](#)
- [Hadean aged zircon from the Jack Hills of Australia: \[Ancient crystals point to a surprisingly early start for plate tectonics.\]\(#\)](#)

- [Sediment subduction in Hadean revealed by machine learning.](#)

## Paleontology

- [Gnathia is the only green-boned dinosaur found on the planet. She will be on display in LA.](#)
- Birds: [The osteology of the wrist of \*Heyuannia huangi\* \(Oviraptorosauria\) and its implications for the wrist folding mechanism.](#)
- Bony fishes: [Middle Devonian Actinopterygians from Lithuania and Belarus.](#)
- Evolution: [The nature of the last universal common ancestor and its impact on the early Earth system.](#)
- [Recurrent gene flow between Neanderthals and modern humans over the past 200,000 years](#); Live Science summary [here](#).
- [Comptonatus chasei, a new iguanodontian dinosaur from the Lower Cretaceous Wessex Formation of the Isle of Wight](#), southern England: Sci Tech Daily summary [here](#).
- [Saurodesmus robertsoni Seeley 1891-The oldest Scottish cynodont](#); Phys.org summary [here](#).
- [The First Occurrence of a Basal Tyrannosauroid in Southeast Asia: Dental Evidence from the Upper Jurassic of Northeastern Thailand](#); Sci News summary [here](#).

## Mining and Energy

- Mining is dangerous; [Poland: Miner found alive two days after tremor.](#)
- Mine safety geology: [Numerical simulation on transient electromagnetic response of separation layer water in coal seam roof.](#)
- Price competition: [Indonesian onslaught wipes out Australia's nickel industry.](#)
- [A review of high-purity quartz for silicon production in Australia.](#)
- [West Red Lake hits high-grade gold at Madsen mine.](#)
- [World would need 55 per cent more copper mines to meet EV transition goals: study.](#)
- This could upset the lithium craze: [Fast-charging, cheap, solid-state sodium battery bursts onto the scene.](#)
- Geology of a natural gas deposit: [Three-pressure prediction method of jointing well-seismic data in JT1 well area of Sichuan Basin in China.](#)
- They need the electricity: [Three Mile Island considers nuclear restart as Pa. lawmakers look to new tech to meet demand.](#)
- Geothermal heating systems: [Geologic Thermal Performance in Geothermal Systems.](#)

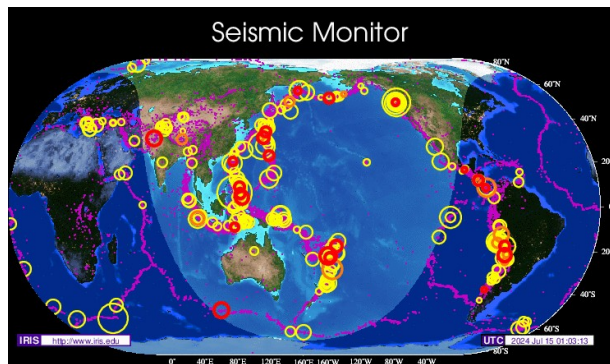
## Environmental Geology and Hydrogeology

- Free books from the Groundwater Project: [Canada's Groundwater Resources](#) and [Groundwater Pollution: Theory, Methodology, Modelling and Practical Rules](#).

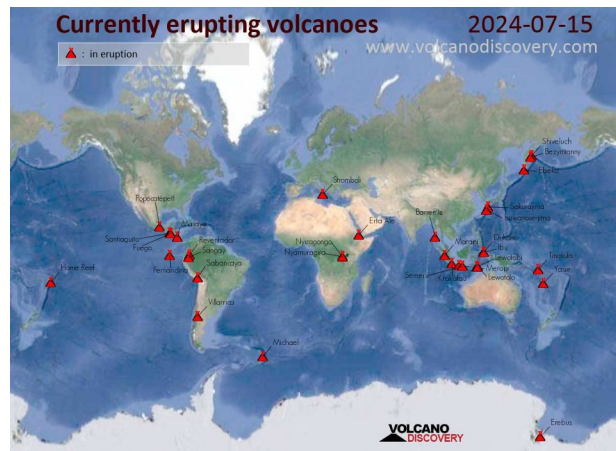
## Glaciers and Climate Change

- [Characteristics of methane and carbon dioxide in ice caves at a high-mountain glacier of China](#); Phys.org summary [here](#).
- [Studies unravel climate pattern impacts on the Antarctic Ice Sheet](#); papers [here](#) and [here](#).
- [Australian geologist Viv Forbes breaks down why so many geologists reject the climate scam](#).
- Dendrochronology and the climate record: [The influence of North Atlantic sea surface temperature fluctuations on the climate of the Qinling-Bashan Mountains, China based on a 250 year tree-ring record](#); Phys.org summary [here](#).

## Volcanoes, Earthquakes and Geohazards



[Seismic Monitor](#)



[Active Volcano Map](#)

- United States Geological Survey (USGS) Volcano Watch: [More shaking on Kilauea's south flank, did you feel it?](#)
- USGS Yellowstone Volcano Observatory: [Solving the mystery of the "Pearlette volcanic ash"](#).
- [Smithsonian / USGS Weekly Volcanic Activity Report](#).
- [Why Mount Rainier is the US volcano keeping scientists up at night](#).
- [Crustal Structure of Etna Volcano \(Italy\) From P-Wave Anisotropic Tomography](#); Phys.org summary [here](#).
- [Mechanically Consistent Model of the 2018 Christmas Volcano-Tectonic Event at Etna](#).
- [Euro-Mediterranean Seismological Centre](#)

- [Earthquakes Monitoring Live Worldwide](#).
- [M6.7 earthquake strikes between South Africa and Antarctica](#); USGS summary [here](#).
- [Swarm offshore Vancouver Island punctuated by M6.4 earthquake](#); USGS summary [here](#).
- [LA may be spared 'horrifying' fate of the 'Big One' from San Andreas, simulation suggests](#).
- [Integration of Machine learning and equal differential time method for enhanced hypocenter localization in earthquake early warning systems: application to dense seismic arrays in Taiwan](#).
- Geohazards: [Exploring the Behaviors of Initiated Progressive Failure and Slow-Moving Landslides in Los Angeles Using Satellite InSAR and Pixel Offset Tracking](#); Phys.org summary [here](#).

### Upcoming Events

- [Goldschmidt 2024, August 18-24, Chicago IL](#), organized by the Geochemical Society and the European Association of Geochemistry.
- [Groundwater Week 2024](#), December 10-12 in Las Vegas, Nevada.

### 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.