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### **Geoscience Bulletin Board – 28 January 2019 – compiled by Elaine J. Hanford**

2019 Roebling Medal awarded to Dr Peter Buseck – my geochemistry mentor!

- <https://asunow.asu.edu/20181214-asu-news-peter-buseck-awarded-2019-roebing-medal>
- <http://www.minsocam.org/msa/Awards/Roebling.html>

Interactive maps of: water resources, spills, groundwater recharge, geology, etc...

- <https://www.americangeosciences.org/critical-issues/maps/interactive-map-water-resources-across-united-states>

Listen to the sounds recorded by seismometers buried in the Antarctic Ross Ice Shelf

- <http://geographical.co.uk/nature/polar/item/3021-antarctic-song>

Photo-essay: Landslides on the White Bluffs in Hanford Reach National Monument - video

- <https://blogs.agu.org/landslideblog/2019/01/20/white-bluffs-river/>
- Video: <https://www.youtube.com/watch?v=7BmXEOhN18w>

Photo-essay: Once again waters freeze at Niagara Falls

- <https://www.canberratimes.com.au/environment/weather/like-the-movie-frozen-niagara-falls-freezes-up-20190123-p50t1q.html>

Blue-green Earth might have been purple billions of years ago

- <https://www.treehugger.com/natural-sciences/earth-was-once-purple-nasa-study.html>

Reconstruction of Nazca Ocean plate that was subducted beneath the Andes

- <https://phys.org/news/2019-01-scientists-reconstruct-ancient-lost-plates.html>
- Paper: <https://www.nature.com/articles/d41586-019-00160-7>

Oman ophiolite suggests subduction started with a “shove”

- <https://www.earthmagazine.org/article/oman-ophiolite-suggests-subduction-started-shove>

Blasting begun to clear landslide that blocked Bureya Reservoir – landslide likely triggered by reservoir operations

- <http://www.transrivers.org/2019/2518/>
- Photos: <https://www.nature.com/articles/d41586-019-00160-7>

Locals could run tsunami warning sensors in Indonesia

- <https://www.straitstimes.com/asia/se-asia/geologists-say-local-communities-could-help-run-tsunami-warning-sensors-in-indonesia>

Predicting the future of the Greenland Ice Sheet

- <https://phys.org/news/2019-01-uncovering-future-greenland-ice-sheet.html>

New EQ hazard map of Turkey may not accurately depict risks

- <http://www.hurriyetdailynews.com/scientists-raise-objections-to-turkeys-updated-earthquake-map-over-risk-areas-140711>

“Simultaneous” EQs confuse Geonet quake monitoring system

- <https://www.radionz.co.nz/news/national/380782/two-earthquakes-at-the-same-time-confuse-quake-monitoring-system>

Geologic character of borders

- <http://blogs.discovermagazine.com/rockyplanet/2019/01/22/geology-boundaries-and-the-international-nature-of-rocks/>

Shallow mantle creep & seismic swarms & aseismic slip precede big earthquakes

- [https://www.eurekalert.org/pub\\_releases/2019-01/osu-sa012019.php](https://www.eurekalert.org/pub_releases/2019-01/osu-sa012019.php)

Geologic Column: Muinntir a' ghlinne so

- <https://www.earthmagazine.org/article/geologic-column-muinntir-ghlinne-so>

Strain in Saint Lawrence Valley may be concentrated along structures from inherited intraplate tectonic structures

- <https://eos.org/research-spotlights/ancient-faults-amplify-intraplate-earthquakes>

Leonardo da Vinci depicted accumulated geological knowledge as his drawing “landscape with waterfall” evolved

- <https://www.forbes.com/sites/davidbressan/2019/01/19/leonardo-da-vincis-geological-secrets-revealed-by-forensic-science/#2e6c378c2fd7>

Drapner wave observed January 1995 in North Sea – recreated in the laboratory – resembles Great Wave off Kanagawa

- [http://www.spacedaily.com/reports/Famous\\_freak\\_wave\\_recreated\\_in\\_laboratory\\_mirrors\\_Hokusai\\_Great\\_Wave\\_999.html](http://www.spacedaily.com/reports/Famous_freak_wave_recreated_in_laboratory_mirrors_Hokusai_Great_Wave_999.html)

Humpback whale songs are subarctic feeding areas are complex & progressive

- <https://www.sciencedaily.com/releases/2019/01/190123082230.htm>

First successful drilling over two km through ice sheet to sediment in West Antarctica using hot water

- <https://www.sciencedaily.com/releases/2019/01/190124084928.htm>

Major explosive eruption in Red Hills on Isle of Skye may have contributed to global spike in temperature around 56 myo – Paleocene-Eocene Thermal Maximum (PETM)

- <https://www.sciencedaily.com/releases/2019/01/190124084743.htm>

Hagfish date back at least 300 million years – secret to survival is rate & volume of slime it produces

- <https://www.sciencedaily.com/releases/2019/01/190122125604.htm>

Study of *Sulfolobus islandicus* gives insight into archaea potential ancestry with eukaryotes

- <https://www.sciencedaily.com/releases/2019/01/190124111001.htm>

Debunking the solar cycle – North Atlantic Oscillation (NAO) winter weather connection

- <https://phys.org/news/2019-01-debunking-solar-cyclenorth-atlantic-winter-weather.html>

Cooling effect of aerosols in cumulus and MSC clouds is twice as much as previously thought

- <https://phys.org/news/2019-01-cooling-effect-aerosols-cumulus-msc.html>

*Eretmorhipis carrolldongi* – Early Triassic platypus-like reptile had tiny eyes

- <https://www.sciencenews.org/article/tiny-eyes-make-bizarre-ancient-platypus-reptile-even-weirder>

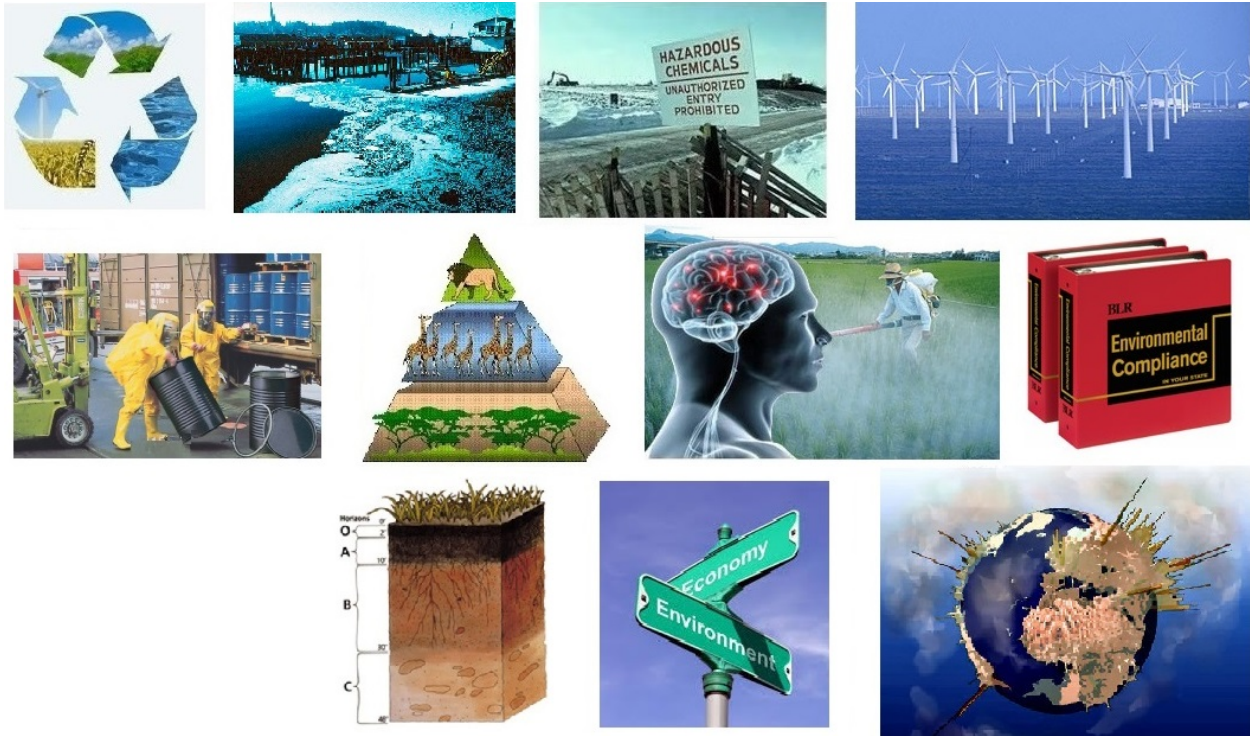
50 years ago, scientists tried to control earthquakes with earthquakes

- <https://www.sciencenews.org/article/50-years-ago-scientists-tried-control-earthquakes-with-earthquakes>

Desalination facilities discharging about 142 billion liters of brine every day

- <https://www.sciencenews.org/article/desalination-pours-more-toxic-brine-ocean-previously-thought>

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## Environmental Science Bulletin Board – 28 January 2019 – compiled by Elaine J. Hanford

Fortified border fence between Morocco & Spain is under pressure from migrants & smugglers

- <https://www.msn.com/en-us/news/world/fortified-morocco-spain-border-fence-is-under-pressure-from-african-migrants/ar-BBSrcWv>

Illegal pipeline tap in central Mexico leads to fireball & death of at least 65 & 85 missing

- <https://www.msn.com/en-us/news/world/fireball-at-illegal-mexico-pipeline-tap-kills-66-85-missing/ar-BBSrwL7>

China will cut number of climbers on Mount Everest as part of major cleanup of garbage on the peak

- <https://apnews.com/2d83497bda9743eaaedbfaa37842fca0>

China denounces & university fires scientist who CRISPR-Cas9 gene-edited babies – ethics?

- <https://news.yahoo.com/chinese-scientist-made-gene-edited-babies-evaded-oversight-091531507.html>

US Army COE proposing to build islands near head of Lake Pepin using Mississippi River dredge material intended to restore backwater fish & wildlife habitat

- [https://lacrossetribune.com/news/state-and-regional/mn/army-corps-of-engineers-pursues-lake-pepin-island-project/article\\_c3165491-ea63-5063-a9b8-838c6d9649aa.html](https://lacrossetribune.com/news/state-and-regional/mn/army-corps-of-engineers-pursues-lake-pepin-island-project/article_c3165491-ea63-5063-a9b8-838c6d9649aa.html)

Link between loss of happiness & air quality in China - along with premature deaths & economic costs

- <https://phys.org/news/2019-01-china-link-happiness-air-quality.html>

Arsenic in drinking water & rice in Asia may be linked to increased neural-tube defects in newborns



- <https://sciencetrends.com/does-arsenic-in-drinking-water-and-rice-in-asia-increase-the-risk-of-neural-tube-defects/>

Biomes in arid & semi-arid regions respond to changing climatic conditions

- <https://sciencetrends.com/what-does-the-future-hold-for-our-arid-and-semi-arid-ecosystems/>

Animals – not just microbes - help disassemble or mineralize dead bodies & litter fall in soil

- <https://sciencetrends.com/soil-fauna-can-support-both-litter-decomposition-and-soil-organic-matter-accumulation/>

Broken water-drainage system causes another sinkhole along Mariner East 1 natural gas pipeline

- <http://www.philly.com/news/pennsylvania/chester-county-sinkhole-mariner-east-pipeline-pennsylvania-20190121.html>

Research aimed at developing better engineering & roofing for improved tornado resistance

- <https://canada.constructconnect.com/dcn/news/technology/2019/01/western-u-research-aims-tornado-resistant-communities>

Tourists behave badly and cause damage – are tourists worth the costs?

- <https://www.msn.com/en-us/travel/news/a-tourist-family's-bad-behavior-has-new-zealand-rethinking-its-welcome-mat/ar-BBSA4Ko>

Winter vegetation clearing in anticipation of Keystone XL Pipeline north section

- <https://www.ogj.com/articles/2019/01/neb-approves-winter-clearing-work-for-keystone-xl-s-north-section.html>

Port Authority agency plans to install 10+ MW solar power at JFK International Airport

- <https://www.internationalairportreview.com/news/80203/jfk-solar-panels-reduce-emissions/>

US Army COE planning \$175M project to prevent possible erosion at spillway of Pipestem Dam

- <https://www.jamestownsun.com/news/government-and-politics/4558817-bolstering-pipestem>

\$93M contract for preliminary & final engineering design of estimated \$17B California WaterFix 15-yr program – “most controversial and expensive water project in California history”

- <https://www.dallasnews.com/business/jobs/2019/01/22/dallas-engineering-firm-goes-work-solving-californias-water-problem>

Outbreak of virus on Oasis cruise ship among worst in a decade – 592 passengers & crew sickened

- <https://www.msn.com/en-us/travel/news/oasis-of-the-seas-norovirus-outbreak-among-worst-in-a-decade-but-are-cruises-getting-cleaner/ar-BBSACVN>

Harold Richardson Redwoods Reserve to open to the public in 2021

- <https://www.msn.com/en-us/travel/tripideas/this-ancient-redwood-forest-will-open-to-the-public-for-the-first-time/ar-BBSyr6U>

Land-for conservation deal saved Riverina wetlands from conversion to cotton or rice farms  
<https://bit.ly/2DDrarE>

Water bird numbers in long-term decline along with health of Menindee Lakes

- <https://www.canberratimes.com.au/environment/conservation/water-bird-numbers-reveal-long-term-decline-of-menindee-lakes-health-20190121-p50snu.html>

Fear is illogical and often dumb since it is often uninformed – “attitudinal inoculation”

- [https://www.huffingtonpost.com/entry/politics-fear-race-religion\\_us\\_5c3e2077e4b0bc885f74afda](https://www.huffingtonpost.com/entry/politics-fear-race-religion_us_5c3e2077e4b0bc885f74afda)
- <https://www.npr.org/2019/01/22/687487496/concern-about-global-warming-among-americans-spikes-report-says>
- <https://arstechnica.com/science/2019/01/to-fight-climate-misinformation-point-to-the-man-behind-the-curtain/>

Our recycling system is broken

- <https://www.treehugger.com/plastic/recycling-bs-update-even-aluminum-recycling-mess.html>

Betsy the rodeo cow escaped to the wilds of 4,000-acre Far North Bicentennial Park in Anchorage

- <https://www.treehugger.com/animals/betsy-cow-escapes-rodeo-has-lived-woods-months.html>

“Toxic resiliency” focuses on healing from mold and mental health issues of storms

- <https://www.ehn.org/lingering-long-after-a-storm-mold-and-mental-health-issues-2625546179.html>

Impacts of poor sanitation across the world

- <http://news.trust.org/item/201901023010057055-rdobu/>

Update: Ebola outbreak in Eastern Congo – 680+ cases and 414 deaths

- <https://www.vox.com/science-and-health/2019/1/18/18188199/drc-ebola-outbreak>

Doomsday clock retains two minutes – a visual metaphor of potential human-caused calamity

- <https://www.msn.com/en-us/news/world/doomsday-clock-has-world-at-two-minutes-from-armedon/ar-BBSGuIC>

Vaping contains fewer (10-20 vs 2000) toxic chemicals than cigarettes but is still BAD for your health

- <https://www.msn.com/en-us/health/wellness/8-things-vaping-can-do-to-your-body/ar-BBSEsxm>

Emergency declared for outbreak of measles in those who are not vaccinated in Clark County, Washington

- <https://www.msn.com/en-us/health/health-news/emergency-declared-over-measles-in-anti-vax-hotspot/ar-BBSEpAP>

PG&E wants judge to not impose restrictions on their equipment & operations that cause wildfires

- <https://www.forbes.com/sites/davidbressan/2019/01/19/leonardo-da-vincis-geological-secrets-revealed-by-forensic-science/#2e6c378c2fd7>

Human mutation rate is significantly slower than for closest primate relatives

- [http://www.terraily.com/reports/Human\\_mutation\\_rate\\_has\\_slowed\\_recently\\_999.html](http://www.terraily.com/reports/Human_mutation_rate_has_slowed_recently_999.html)

Forest soil takes up to 8 decades to recover from wildfires & logging impacts

- [http://www.terraily.com/reports/Forest\\_soil\\_takes\\_decades\\_to\\_recover\\_from\\_wildfire\\_logging\\_999.html](http://www.terraily.com/reports/Forest_soil_takes_decades_to_recover_from_wildfire_logging_999.html)

Population of China grew at slower rate in 2018 despite two-child policy

- [http://www.terraily.com/reports/Chinas\\_population\\_growth\\_slows\\_despite\\_two-child\\_policy\\_999.html](http://www.terraily.com/reports/Chinas_population_growth_slows_despite_two-child_policy_999.html)

Attempting to halt the next pandemic by genetically editing chickens – futile?

- <https://www.reuters.com/article/us-health-pandemic-chickens/scientists-make-gene-edited-chickens-in-bid-to-halt-next-pandemic-idUSKCN1PG007>

Update: African Swine fever – more cases & spreading across Asia

- <https://www.pigprogress.net/Health/Articles/2019/1/ASF-China-Virus-reaches-Ningxia-more-cases-in-Mongolia-385039E/>

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**Coastal Zone Management Bulletin Board – 28 January 2019 – compiled by Elaine J. Hanford**

10s of thousands of golf balls litter the ocean floor off Pebble Beach in California

- <https://www.msn.com/en-us/sports/more-sports/diver-removes-amazing-sum-of-golf-balls-off-pebble-beach-in-study/ar-BBSqZmk>

Anchorage port project nearly doubles to near \$2B

- <https://www.ktva.com/story/39817196/port-modernization-project-could-cost-nearly-dollar2-billion>

US Federal Court ruling bars processing of offshore seismic testing permits during gov't shutdown

- <https://www.offshore-technology.com/news/us-atlantic-seismic-permits-shutdown/>

Aftershocks still rattling southern Alaska after M7.0 EQ

- <https://nypost.com/2019/01/21/aftershocks-still-rattling-alaska-weeks-after-massive-earthquake/>

Corrosion causing underground leaks in 23 geothermal heat projects for Dutch homes

- <https://www.dutchnews.nl/news/2019/01/corrosion-hits-geothermal-heat-projects-inspectors-promise-new-rules/>

Loons getting squeezed into small habitats by wind farms in the German North Sea

- <https://www.hakaimagazine.com/news/loons-are-getting-squeezed-by-wind-farms/>

Coastal wetlands and beaches of the ACE Basin on the Atlantic Coast are constantly changing

- <https://www.hakaimagazine.com/videos-visuals/shifting-acelines-a-photo-essay/>

Illegal fishing operations may be pinpointed by tracking bunker fuel vessels

- <https://www.hakaimagazine.com/news/fuel-tankers-help-highlight-illegal-fishing-hotspots/>

New \$250M Bonner Bridge over Oregon Inlet links mainland & the Outer Banks

- [https://pilotonline.com/news/local/transportation/article\\_8b211c00-1b36-11e9-880b-5b5563df6971.html](https://pilotonline.com/news/local/transportation/article_8b211c00-1b36-11e9-880b-5b5563df6971.html)

Proposed Galveston Bay LNG export terminal & supporting 97-mile Galveston Bay Pipeline

- <https://www.chron.com/business/energy/article/NextDecade-gives-first-public-glimpses-of-13548929.php>

Plan to build 9 artificial islands for “European Silicon Valley” in Copenhagen

- <https://www.businessinsider.com/copenhagen-denmark-islands-silicon-valley-2019-1>

State of Maine argues over coastal development – culture of development phobia with good reason

- <https://bangordailynews.com/2019/01/23/business/the-world-is-watching-while-maine-argues-over-coastal-development/>

Worried about “loss of value” of coastal properties in Rhode Island – sea level rise of 1 mm per year

- <https://www.providencejournal.com/news/20190122/washed-away-rising-water-in-ri-begins-to-erode-worth-of-coastal-homes>

Indian Navy & Coast Guard conducted first mega-defense exercise along 7,500 km of coastline & EEZ

- <https://economictimes.indiatimes.com/news/defence/navy-carries-out-first-mega-coastal-defence-exercise-covering-over-7500-kms-of-coastline/articleshow/67644802.cms>

Mooers Coastal Ocean & Atmospheric Prediction Workshop was held at Mount Hood, Oregon



- <https://eos.org/meeting-reports/challenges-and-opportunities-in-coastal-prediction>

Tracking migrating birds across the Gulf

- <https://www.wwno.org/post/coastal-news-roundup-tracking-birds-across-gulf-and-more>

Drilling halted after blowout preventer incident in Barents Sea – under investigation

- <https://thebarentsobserver.com/en/industry-and-energy/2019/01/equinor-halts-drilling-barents-sea-well-after-incident>