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Geoscience Bulletin Board – 9 July 2018 – compiled by Elaine J. Hanford

John Wesley Powell had wisdom, a good understanding of water in the West & and a visionary plan – shame no one listened – Book Review: “The Promise of the Grand Canyon”

- <https://www.smithsonianmag.com/smithsonian-institution/visionary-john-wesley-powell-had-plan-developing-west-nobody-listened-180969182/>

Kilauea

- <https://www.usgs.gov/news/k-lauea-volcano-erupts>
- <http://www.newsweek.com/hawaii-volcano-kilauea-update-fissure-8-flow-lava-summit-1003327>
- <http://www.newsweek.com/kilauea-volcano-lava-boats-float-down-molten-rivers-1004970>

Mt. Agung on island of Bali has resurgence of volcanic activity

- Images: <https://qz.com/1320272/bali-volcano-erupton-mount-agung-spews-more-ash-and-lava/>
- <http://www.thejakartapost.com/news/2018/07/03/volcanology-center-raises-mt-agung-alert-to-third-highest-siaga.html>
- <https://www.reuters.com/article/us-indonesia-volcano/volcano-on-indonesian-island-of-bali-hurls-out-ash-and-lava-idUSKBN1JS2PS>
- <https://www.afp.com/en/news/2265/balis-mount-agung-spews-orange-lava-fresh-eruption-doc-17130h1>

Just for fun: voting in the 2018 Geology World Cup Group Stage

- <http://blogs.discovermagazine.com/rockyplanet/2018/07/03/2018-geology-world-cup-round-of-16/>

Why the magnetic field of Earth reverses periodically

- <http://www.newsweek.com/earth-magnetic-field-reversal-1001034>
- <https://theconversation.com/the-earths-magnetic-field-reverses-more-often-now-we-know-why-96957>

The ocean is home to the USS George H W Bush and its “Sea Wiz” – defending freedom

- <https://www.smithsonianmag.com/videos/category/innovation/this-aircraft-carrier-cannon-fires-4500-rou/>

New method of processing seismic data to view oil reserves

- <http://www.iom3.org/materials-world-magazine/news/2018/jul/01/what-lies-beneath>

Poggioreale, Sicily, remains “frozen in time” 40 years after deadly 1968 EQ

- <https://www.9news.com.au/world/2018/07/01/20/59/poggioreale-sicily-earthquake-ruins>

Royal Observatory which sits astride the Prime Meridian has new telescope that filters out light pollution & interference

- <https://www.smithsonianmag.com/smart-news/now-smog-has-lifted-astronomy-returns-londons-royal-observatory-180969467/>

Anticipating eruption of Nevados de Chilla – volcanic complex in southern Chile

- <https://in.reuters.com/article/us-chile-volcano/volcanic-complex-in-chiles-south-could-erupt-within-days-government-idINKBN1JT26K>

The future of fiber optics in seismology

- https://www.eurekalert.org/pub_releases/2018-07/ggph-aba062918.php

US Senators call NSF \$4M “Climate Matters” grants program propaganda in violation of 1939 Hatch Act

- https://www.huffingtonpost.com/entry/climate-denying-gop-senators-accuse-nsf-climate-propaganda_us_5b2be8e5e4b0321a01cf2b8e

An array of devices that may utilize tidal power to produce energy

- <https://www.theguardian.com/environment/2018/jul/04/does-the-moon-hold-the-key-to-the-earths-energy-needs>

Sea ice modifies biological processes of phytoplankton in South Atlantic

- <https://oceanbites.org/sea-ice-modifies-biological-processes/>

Judge rules sea level rise does not fall under public nuisance laws

- <https://arstechnica.com/science/2018/06/federal-judge-dismisses-cities-climate-case-against-oil-companies/>

NSF marks role in study of oceans and ocean resources

- https://www.nsf.gov/news/news_summ.jsp?cntn_id=295899&org=GEO&from=news

Gulf Stream eddies provide source of iron captured from North American continental slope

- http://www.spacedaily.com/reports/Gulf_Stream_eddies_as_a_source_of_iron_999.html

New calculations suggest 45% more area of rivers and streams across the World

- http://www.terradaily.com/reports/Global_surface_area_of_rivers_and_streams_is_45_percent_higher_than_previously_thought_999.html

Exploring the North Pacific Subtropical front where cold fresh waters meet warm salty waters

- <https://www.sciencedaily.com/releases/2018/07/180703110044.htm>

Understanding environmental impacts of fracking when oil and water mix

- <http://www.geosociety.org/gsatoday/science/G361A/article.htm>

Longest lunar eclipse of 21st century will occur on July 27 in full view in the Eastern Hemisphere

- <https://www.smithsonianmag.com/smart-news/centurys-longest-lunar-eclipse-180969498/>

Why there are waves in the ocean

- <http://earthsky.org/earth/what-are-ocean-waves-video>

Paper: Bio-mineralization strategy in calcareous foraminifera that agglutinate sedimentary particles

- <https://www.nature.com/articles/s41598-018-28400-2>

Did you miss celebrating International Asteroid Day?

- <https://researchmatters.in/sciqs/international-asteroid-day>

Geology helped the landing forces in Normandy, France, for D-Day Invasion

- <https://www.forbes.com/sites/davidbressan/2018/06/06/how-geology-influenced-the-landing-in-normandy-on-d-day/#608d046519d6>

More than 2,800 active erosion sites in southeast Nigeria

- <https://www.premiumtimesng.com/regional/ssouth-east/274938-over-2800-active-erosion-sites-in-south-east-nigeria-group.html>

Enhancing gypsum precipitation in compacted montmorillonite using electro-kinetic method

- <https://sciencetrends.com/enhancing-gypsum-precipitation-in-a-compacted-montmorillonite-using-an-electrokinetic-method/>

Phaeodarians play major role in transporting silica in marine nutrient cycle

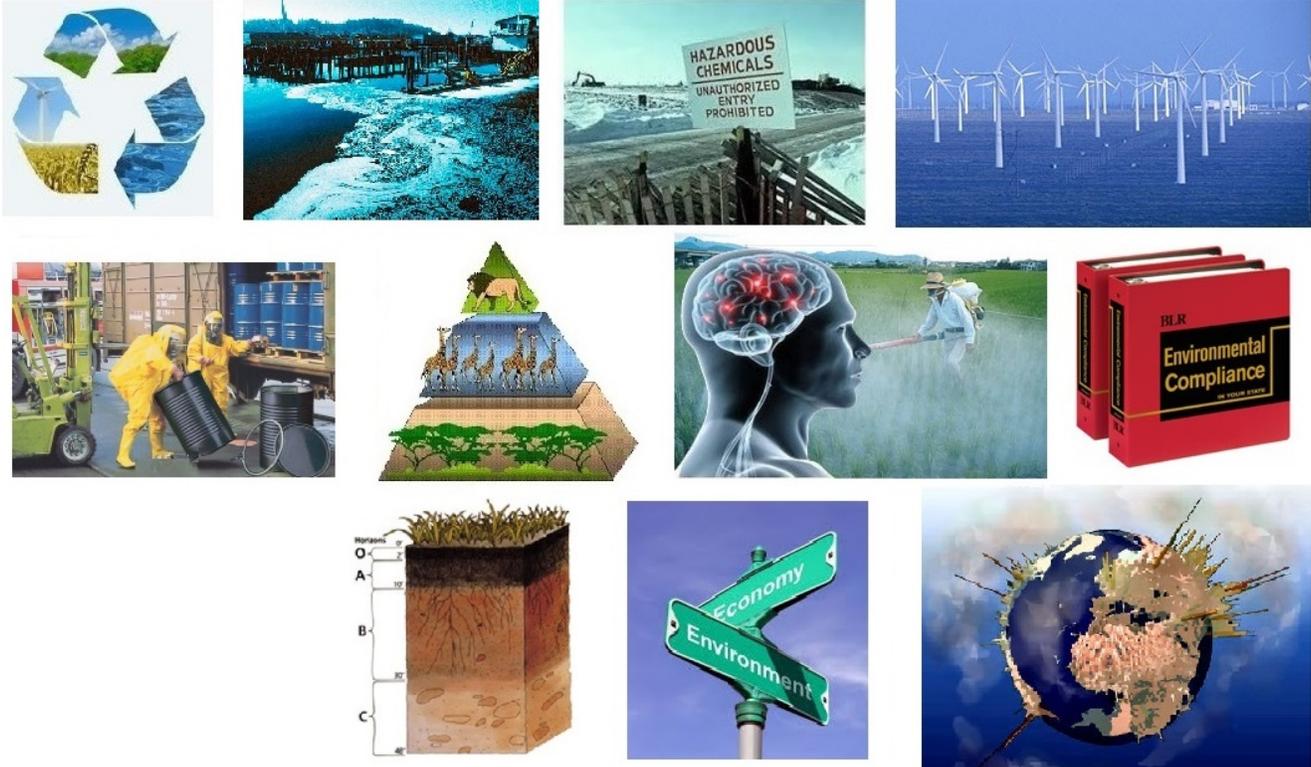
- <https://eos.org/research-spotlights/the-tiny-organisms-that-transport-silica-across-earths-oceans>

Fault geometry & slip rate analysis show deformation in Yakima Fold Province offering insight into EQ recurrence intervals in Central Washington

- <https://eos.org/research-spotlights/constraining-central-washingtons-potential-seismic-hazard>

How far away was that lightning strike?

- <https://theconversation.com/how-far-away-was-that-lightning-97289>



Environmental Science Bulletin Board – 9 July 2018 – compiled by Elaine J. Hanford

Marking 100 years since the greatest pandemic in modern history – 1918 Flu pandemic

- <https://theconversation.com/the-greatest-pandemic-in-history-was-100-years-ago-but-many-of-us-still-get-the-basic-facts-wrong-89841>

4th of July fireworks produce some of the worst air pollution

- <https://phys.org/news/2018-07-july-fourth-year-worst-air.html>

John Wesley Powell had wisdom, a good understanding of water in the West & and a visionary plan – shame no one listened – Book Review: “The Promise of the Grand Canyon”

- <https://www.smithsonianmag.com/smithsonian-institution/visionary-john-wesley-powell-had-plan-developing-west-nobody-listened-180969182/>

Habitat fragmentation & habitat loss can promote disease outbreaks

- <https://twin-cities.umn.edu/news-events/research-brief-habitat-fragmentation-can-promote-disease-outbreaks>

13 facts about bald eagles

- <https://www.treehugger.com/slideshows/readers-photos/photo-13-beautiful-facts-about-bald-eagles/>

OK given to restart Fukushima Daiichi nuclear power plant hit by 2011 tsunami – Tokai No. 2 plant

- <https://japantoday.com/category/national/nuclear-watchdog-oks-restart-of-aging-nuclear-plant-hit-by-tsunami>

Searching for possible cache of buried barrels of Agent Orange in New Brunswick, Canada

- <https://www.cbc.ca/news/politics/agent-orange-soldier-1.4729007>

The average human lifespan doubled in the 20th century – no wonder the Earth is over-populated

- <https://www.smithsonianmag.com/smart-news/study-suggests-theres-no-limit-longevity-getting-super-old-still-tough-180969488/>

US Army Corps of Engineers alternatives for fish passages for New Savannah Bluff Lock and Dam in Georgia

- <http://www.augustachronicle.com/news/20180703/corps-unveils-options-for-lock-and-dam>

H. longicornis – longhorned tick – invasive species that reproduces by essentially cloning itself & feeding on livestock, wildlife, and humans

- https://www.nj.com/news/index.ssf/2018/07/this_is_how_dna_helps_rutgers_scientists_crack_the.html

Perspective: Wishful thinking that urbanization can be sustainable and that science can make that happen

- <https://www.nature.com/articles/d41586-018-05605-z>
- <https://www.nature.com/articles/d41586-018-05607-x>
- <https://www.nature.com/articles/481142a>

“Stolen Generations” tells of Aboriginal abductions & assimilation programs – Daisy Kadibil (1923-2018)

- <https://www.nytimes.com/2018/06/27/obituaries/daisy-kadibil-95-whose-australia-trek-inspired-a-film-dies.html>
- <https://www.smithsonianmag.com/smart-news/daisy-kadibil-aboriginal-australian-who-escaped-assimilation-camp-has-died-95-180969489/>

Possible solution to the “Gaia puzzle”

- <https://phys.org/news/2018-07-scientists-solution-gaia-puzzle.html>

Non-binary animals have a multitude of ideas about sex & reproduction

- <https://www.smithsonianmag.com/science-nature/alternatives-heterosexual-pairings-brought-you-non-human-animals-180969481/>

Apalachicola River - #1 on most endangered rivers list

- http://www.wtxl.com/news/apalachicola-river-saving-an-american-treasure/article_f356c0a4-677c-11e8-bcd2-6f205adb0f3a.html

Mustard for your 4th of July hot dog evolved as product of evolutionary warfare between plants and caterpillars

- <https://www.smithsonianmag.com/smart-news/mustard-product-evolutionary-warfare-between-plants-and-caterpillars-180955697/>

2017 was 2nd worst on record for loss of trees in the Tropical Forests

- <https://blog.globalforestwatch.org/data/2017-was-the-second-worst-year-on-record-for-tropical-tree-cover-loss>

Impacts of growing pot in California could also include driving Humboldt martens to extinction

- <http://www.newsweek.com/marijuana-pot-cannabis-cultivation-marten-extinction-1005438>

Lake Okeechobee impacted by growing algal bloom

- <https://www.wunderground.com/news/2018-06-27-lake-okeechobee-algae-bloom-noaa-image>
- <http://sanibel-captiva-islander.com/page/content.detail/id/584094/Public-weighs-in-on-reservoir-south-of-Lake-Okeechobee.html?nav=5051>

“Delta Conveyance Design & Construction Authority” created to oversee California Delta Tunnels

- <https://www.newsdeeply.com/water/articles/2018/07/03/meet-the-new-entity-in-charge-of-californias-water-tunnels-project>
- WaterFix: <https://www.californiawaterfix.com/>

Maintaining river flows is critical for maintaining the environment & wildlife, especially water birds

- <https://www.canberratimes.com.au/environment/conservation/waterbirds-at-risk-as-irrigation-saps-floods-in-murray-darling-wetland-20180702-p4zp09.html>

Beaver were hunted to near extinction in the West – bountiful benefits of bringing them back

- <https://www.npr.org/2018/06/24/620402681/the-bountiful-benefits-of-bringing-back-the-beavers>

Ghost towns of Chernobyl are havens for wolves that are dispersing to wider range

- <https://www.treehugger.com/animals/ghost-towns-chernobyl-wonderland-wolves.html>

Efforts to stem the tide of plastic pollution – 9B tons produced since 2000 with 75% going to waste

- <https://www.bloomberg.com/view/articles/2018-07-02/plastic-pollution-european-union-stems-the-tide>

USFS offers Nestlé 3-year permit to continue extracting millions of gallons of water from San Bernardino National Forest

- <https://www.npr.org/2018/06/28/624156334/nestle-offered-permit-to-continue-taking-water-from-california-stream>

As US farming becomes more industrialized, pollution increases – fighting back in Court

- <https://theconversation.com/rural-americans-struggles-against-factory-farm-pollution-find-traction-in-court-98226>

60% of waterways & lakes in Europe fail water quality tests

- <https://www.theguardian.com/environment/2018/jul/03/most-of-europes-rivers-and-lakes-fail-water-quality-tests-report>
- Report download: <https://www.eea.europa.eu/publications/state-of-water/>

Assessing the impact of the Obama Connectivity Report on “Clean Water Rule”

- <https://www.eenews.net/stories/1060087683>

A plan to tow an iceberg to ease drought in Cape Town, South Africa

- http://www.spacedaily.com/reports/The_tow-an-iceberg_plan_being_floated_to_ease_Cape_Town_drought_999.html

Ivory Coast announces 1B euro, 10-year investment to replace forest cover cleared for cocoa plantations

- http://www.terradaily.com/reports/ICoast_to_invest_1_billion_euros_to_replenish_forest_cover_999.html

Soils in Salt Lake Valley in Utah are not yet saturated with nitrogen

- http://www.seeddaily.com/reports/Utah_soils_slippery_grip_on_nutrients_999.html

Needing to rethink the carbon cycle – needs to account for CO2 impact on life

- http://www.terradaily.com/reports/Climate_models_fail_to_account_for_CO2s_impact_on_life_scientists_say_999.html

Lions 1 – Game poachers 0 – Lions suspected of killing rhino game poachers in Sibuya Reserve

- <https://www.bbc.com/news/world-africa-44728507>

Hero? Man took 3 small children to collect tern eggs on Sentry Island & was mauled to death by Polar Bear

- <http://www.newser.com/story/261498/man-killed-protecting-kids-from-polar-bear.html>



Coastal Zone Management Bulletin Board – 9 July 2018 – compiled by Elaine J. Hanford

Baby harbor seals being spotted along New England coast

- <https://www.necn.com/news/new-england/Baby-Seals-Found-Alone-in-Boston-Other-Coastal-Areas-487174601.html>

“Coast 360: A Virtual Day in the Delta” provides virtual experience of the Louisiana delta

- <http://blogs.edf.org/growingreturns/2018/07/03/louisiana-360-video-resilience/>
- Video: <http://mississippiriverdelta.org/media-resources/360-degrees-coast/>

Boca Grande beach in Florida marked by hundreds of dead fish and dead manatees due to red tide

- <https://www.wptv.com/news/state/dead-manatees-turtles-hundreds-of-fish-wash-up-on-boca-grande-beach>

Considering one million new homes in towns along the Thames Estuary

- http://www.clactonandfrintongazette.co.uk/news/south_essex_news/16319896.plans-for-a-million-new-homes-in-estuary-towns/

Increasing tourism is placing pressure on coastal landscapes in southern New Zealand

- <https://www.stuff.co.nz/southland-times/news/104678787/pressure-comes-on-southern-coastal-landscapes>

Algae bloom moving along Florida coast

- <https://www.news-press.com/story/news/2018/06/25/algae-bloom-blue-green-caloosahatchee-river-lake-okeechobee/730294002/>
- <http://www.floridatrend.com/article/24890/gov-scott-takes-more-action-to-combat-algal-blooms>
- <https://bellegladesun.com/lake-okeechobee/algae-coming-from-many-discharge-sources/>

Report issued on decades of contamination in Delaware Inland Bays

- <https://www.delawareonline.com/story/news/local/2018/06/29/mountaire-farms-water-contamination-accusations-lawsuits/742371002/>

Six Pacific Coast species threatened by pipelines

- <https://www.greenpeace.org/international/story/17277/6-incredible-species-threatened-by-pipelines-in-the-salish-sea/>

Connecticut DEEP asking people to stay away from nesting birds at the beach

- <https://www.theday.com/local-news/20180629/deep-asks-people-to-stay-away-from-nesting-birds-at-beach>

How the beach became a cultural ritual instead of a place of fear

- <https://www.smithsonianmag.com/history/inventing-beach-unnatural-history-natural-place-180959538/>

Ports are destinations for goods but can also be ports of entry for invasive parasites – deadly blood-sucking varroa bee parasite discovered at Port of Melbourne

- <https://www.canberratimes.com.au/environment/sustainability/deadly-blood-sucking-bee-parasite-discovered-at-port-of-melbourne-20180629-p4zomn.html>

Dozens of hammerhead shark pups found dead on shores of Keehi Lagoon in Honolulu, Hawaii

- <https://www.canberratimes.com.au/environment/conservation/dozens-of-hammerhead-shark-pups-found-dead-in-hawaii-20180628-p4zo7l.html>

Fisherman working together to protect lagoons – 22-minute video

- <https://www.nationalgeographic.com/video/shorts/see-how-fishermen-are-working-together-to-protect-these-lagoons/>

US Army Corps of Engineers gives final authorization to dredge & widen channels to Port of Virginia

- <http://www.virginiabusiness.com/news/article/port-of-virginia-deepening-project-receives-u.s.-army-corps-of-engineers-ap>

Tracking bird flu in migratory birds on the sands of Delaware Bay

- <https://abcnews.go.com/Technology/wireStory/migrating-birds-create-flu-bonanza-scientists-study-56222987>

Upper estuaries store carbon & serve as significant sink for blue carbon

- <https://eos.org/research-spotlights/upper-estuaries-found-to-be-significant-blue-carbon-sink>