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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 & 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/kilauea-volcano-lava-boats-float-down-molten-rivers-1004970

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

Just for fun: voting in the 2018 Geology World Cup Group Stage
Why the magnetic field of Earth reverses periodically
- [http://www.newsweek.com/earth-magnetic-field-reversal-1001034](http://www.newsweek.com/earth-magnetic-field-reversal-1001034)
- [https://theconversation.com/the-earths-magnetic-field-reverses-more-often-now-we-know-why-96957](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

New method of processing seismic data to view oil reserves

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

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

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

The future of fiber optics in seismology

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](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

Sea ice modifies biological processes of phytoplankton in South Atlantic
- [https://oceanbites.org/sea-ice-modifies-biological-processes/](https://oceanbites.org/sea-ice-modifies-biological-processes/)

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

NSF marks role in study of oceans and ocean resources
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_perce
nt_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

Enhancing gypsum precipitation in compacted montmorillonite using electro-kinetic method

Phaeodarians play major role in transporting silica in marine nutrient cycle
• https://eos.org/research-spotlights/the-tiny-organisms-that-transport-silica-across-earthos-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

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

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

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

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


Possible solution to the “Gaia puzzle”

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

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

2017 was 2nd worst on record for loss of trees in the Tropical Forests
Impacts of growing pot in California could also include driving Humboldt martens to extinction

Lake Okeechobee impacted by growing algal bloom

"Delta Conveyance Design & Construction Authority" created to oversee California Delta Tunnels

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

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

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

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

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

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

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

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

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

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Coastal Zone Management Bulletin Board – 9 July 2018 – compiled by Elaine J. Hanford
Baby harbor seals being spotted along New England coast

"Coast 360: A Virtual Day in the Delta" provides virtual experience of the Louisiana delta
- Video: [http://mississippiriverdelta.org/media-resources/360-degrees-coast/](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

Considering one million new homes in towns along the Thames Estuary

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

Algae bloom moving along Florida coast

Report issued on decades of contamination in Delaware Inland Bays

Six Pacific Coast species threatened by pipelines

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

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

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

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

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