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Geoscience Bulletin Board – 26 March 2018 – compiled by Elaine J. Hanford

Try resolving the geological riddle of this island volcano

- <https://www.popularmechanics.com/science/math/a19561360/riddle-of-the-week-54-the-hardest-logic-puzzle-ever/>

Rainbow in Taiwan sets new Guinness Record - lasted 9 hours (time-lapse video)

- <https://www.smithsonianmag.com/smart-news/9-hour-rainbow-sets-new-guinness-record-180968527/>

Forensic Geology & the unsolved 1978 murder of Italian Politician Aldo Moro

- <https://www.forbes.com/sites/davidbressan/2018/03/16/forensic-geology-and-the-unsolved-murder-of-italian-politician-aldo-moro/#2ca5d73814ab>

Evidence unearthed of the coastline of Great Britain from 56M years ago

- <https://www.gov.uk/government/news/hs2-workers-discover-ancient-coastline-in-west-london>

Ibaraki Museum uses projection mapping to illustrate the geology of Japan

- <http://www.asahi.com/ajw/articles/AJ201803200010.html>

Native American legend of Thunderbird and a gigantic whale reflects large tsunami in the year 1700

- <https://www.forbes.com/sites/robinandrews/2018/02/27/the-orphan-tsunami-and-the-ghost-forest-is-geologys-greatest-legend/#6568dcc3506f>

Radar satellite imagery shows significant ground movement across 4,000-sq mi of West Texas Permian Basin oil patch over last few years – up to 40 inches displacement

- <https://phys.org/news/2018-03-radar-images-large-swath-texas.html>

New understanding of geology of Kenya

- <https://www.sciencedaily.com/releases/2018/03/180316100454.htm>

O&G seismic surveys in the ocean can destroy plankton

- <https://www.irishtimes.com/news/environment/new-research-finds-seismic-testing-for-oil-and-gas-at-sea-can-destroy-plankton-1.3432997>

Geodynamic measurements in eastern Cuba – a step toward seismic hazard calculation

- <http://www.plenglish.com/index.php?o=rn&id=25809&SEO=first-geodynamic-measurements-in-eastern-cuba>

New study on the mantle plume beneath Yellowstone

- <http://www.natureasia.com/en/research/highlight/12417>
- <http://dx.doi.org/10.1038/s41561-018-0075-y>

Transported air-borne soot minimally contributes to melting of some Antarctic glaciers

- https://www.nsf.gov/news/news_summ.jsp?cntn_id=244808&org=GEO&from=news

Spectroscopy of garnet may reveal metamorphic processes that release water in subduction zones

- <https://news.rpi.edu/content/2018/03/15/garnet-reveals-source-water-fuel-powerful-volcanoes-and-earthquakes>

Concern that paleontologist are naming too many species

- http://www.spacedaily.com/reports/Are_palaentologists_naming_too_many_species_999.html

Arctic sea ice is becoming a springtime hazard for ships in the North Atlantic

- http://www.spacedaily.com/reports/Arctic_sea_ice_becoming_a_spring_hazard_for_North_Atlantic_ships_999.html

ESA supported pan-African initiative to collect & interpret satellite data & imagery to assess geology & mineral resources

- http://www.spacedaily.com/reports/Sentinels_helping_to_map_minerals_999.html

New procedures & designs for obtaining energy from deep marine currents

- <https://www.sciencedaily.com/releases/2018/03/180320102402.htm>

Extreme weather linked to 11-year solar cycle

- <https://phys.org/news/2018-03-extreme-winter-weather-beast-east.html>
- Paper: <https://www.nature.com/articles/s41598-018-22854-0>

Location & humidity affect precipitation patterns of rain and snow

- <https://phys.org/news/2018-03-humidity-difference.html>

New interactive map shows spatio-temporal changes in climatic conditions across the globe

- https://www.eurekalert.org/pub_releases/2018-03/uoc-nim032118.php
- ClimateEx map: <http://sil.uc.edu/webapps/climateex/>

Evidence of one of the largest floods in Earth history in the central Mediterranean seafloor

- https://www.eurekalert.org/pub_releases/2018-03/uom-efa032118.php
- Paper: <https://www.nature.com/articles/s41598-018-19446-3>

“Ocean warming” reaches the abyss – of course, remember the ocean circulates

- <https://www.earthmagazine.org/article/disrupting-deep-ocean-warming-reaches-abyss>

JPL app predicts how melting ice might impact your city – do you even care about predictions?

- <https://www.earthmagazine.org/article/geomedia-web-how-will-melting-ice-impact-your-city>
- Online tool: <https://vesl.jpl.nasa.gov/sea-level/slr-gfm/>

Seismologists developed REEF (Radiated Energy Enhancement Factor) as measure variations in amount & duration of slip along earthquake ruptures

- <https://phys.org/news/2018-03-seismologists-earthquake-ruptures.html>

Relax and enjoy natural hot springs

- <https://www.metro.us/lifestyle/travel/worlds-best-hot-springs-natural-healing-relaxation>

80% of ocean remains unexplored & unmapped – Seabed 2030 Project to map entire ocean floor

- <https://www.ncei.noaa.gov/news/mapping-our-planet-one-ocean-time?position=1&list=6OED-qg5KwmvCkMdVCTOCyrLJZyGvVP3s2rLe537Ams>

New collaborative study to improve understanding of watersheds in California

- <https://phys.org/news/2018-03-effects-climate-california-watersheds.html>

New rifting at Suswa if reflection of another weak spot along the Great Rift Valley of Africa

- <https://www.allestafrica.com/2018/03/20/kenya-is-splitting-and-this-rift-at-suswa-is-just-the-beginning/>

2B year old rock salt reveals new information on oxygenation of the atmosphere of Earth

- <https://www.sciencedaily.com/releases/2018/03/180322150306.htm>

Volcanic gas emissions from Ijen volcano poison at least 30 people in Indonesia

- <https://www.sciencedaily.com/releases/2018/03/180322150306.htm>
- <https://www.express.co.uk/news/world/935711/indonesia-volcano-eruption-mount-ijen-toxic-gas-bondowoso-east-java>

Why having a geologist in the house is a good thing

- <https://www.sciencenews.org/article/why-its-great-have-geologist-house>

Modern earthquake early warning (EEW) systems have inherent tradeoffs

- <https://phys.org/news/2018-03-tradeoffs-inherent-earthquake-early.html>

1832 geological journey with Adam Sedgwick was a decisive event in the career of Charles Darwin

- <https://www.forbes.com/sites/davidbressan/2015/08/05/this-1831-geological-journey-was-decisive-for-darwins-scientific-career/#337546f425d2>

Colobops noviportensis – 200 myo reptile discovered in Connecticut – small but with a big bite

- <https://news.yale.edu/2018/03/23/paleontologists-put-bite-ancient-reptile-new-england>
- Paper: <https://www.nature.com/articles/s41467-018-03508-1>

New chronology for mid-Pleistocene glacial cycles beginning 450,000 years ago in central Germany

- <https://www.mpg.de/11983544/middle-pleistocene-glacial-cycles?c=2249>

Perspective: On the meaning of “glacial”

- <https://aeon.co/ideas/the-swiftness-of-glaciers-language-in-a-time-of-climate-change>

How vulnerable is deep sea life to extinction?

- <https://www.sciencedaily.com/releases/2018/03/180322150319.htm>

Were early birds too hefty to sit on their eggs?

- Paper: <https://www.nature.com/articles/d41586-018-03447-3>

3-D variations in slab geometry & EQ distributions in Cascadia subduction system

- Paper: <https://www.nature.com/articles/s41467-018-03655-5>

Parts of San Francisco are sinking at rates up to 1 inch per year

- <https://sese.asu.edu/about/news/article/3278>
- Paper: <http://advances.sciencemag.org/content/4/3/eaap9234.full>

Mt Etna is “sliding toward the sea” – basement sliding may result in sector collapse

- <http://www.dailymail.co.uk/news/article-5539449/Mount-Etna-sliding-Mediterranean-Sea.html>



Environmental Science Bulletin Board – 26 March 2018 – compiled by Elaine J. Hanford

Antibiotic drugs can be very toxic and even deadly for some humans – I speak from experience

- <https://www.nature.com/articles/d41586-018-03267-5>

Silent Spring refrain: pesticide chemicals decimate insects that birds rely on for food – bird populations decline catastrophically

- <https://www.smithsonianmag.com/smart-news/pesticides-have-led-catastrophic-decline-frances-bird-populations-180968562/>

Paul Ehrlich: “Collapse of civilization is a near certainty within decades” – over-population & over-consumption

- <http://www.ehn.org/paul-ehlich-collapse-of-civilisation-is-a-near-certainty-within-decades-cities-the-guardian-2551351075.html>

Every day should be Conserve Water Day – 20 ways to conserve water at home

- <https://www.care2.com/greenliving/20-ways-to-conserve-water-at-home.html>

Regulators approve new massive wind farms along Texas-New Mexico border

- http://www.newspressnow.com/news/business/ap/new-mexico-regulators-ok-massive-wind-farms-near-texas/article_2c349320-1f39-5621-adbc-9d6c04e684a9.html

Sudan, the last male northern white rhino, was euthanized due to health issues & age (45) – only 2 individuals of the subspecies remain in the World

- <https://www.livescience.com/62068-sudan-last-northern-white-rhino-dies.html>

There is no genetic basis for distinguishing races amongst humans

- <https://www.nationalgeographic.com/magazine/2018/04/race-genetics-science-africa/>

Mountain goats in Kenai Peninsula test positive for *Mycoplasma ovipneumonia* – but no sign of illness yet

- <https://www.adn.com/alaska-news/wildlife/2018/03/18/a-pathogen-that-can-kill-wild-sheep-and-goats-has-never-turned-up-in-alaska-until-now/>

5th Circuit Court of Appeals lifts halt on construction of Bayou Bridge Pipeline

- http://www.oaoa.com/news/us_news/article_36b7945f-9800-542e-ae90-88510ab2e67a.html

New Zealand now has Code of Welfare for horses and donkeys – minimum standards & best practices

- <https://thehorse.com/156611/new-zealand-issues-horse-and-donkey-welfare-code/>

Wiped out by disease & non-native predators, the quoll is re-introduced to mainland Australia

- <http://www.abc.net.au/news/2018-03-15/quolls-returned-to-australian-mainland-on-nsw-south-coast/9542266>
- <https://www.smithsonianmag.com/smart-news/super-cute-eastern-quoll-returns-mainland-australia-180968513/>

You are what you eat – human evolution shaped by cheese, wheat & alcohol

- <https://www.smithsonianmag.com/science-nature/how-cheese-wheat-and-alcohol-shaped-human-evolution-180968455/>

M9.0 EQ offshore on the Portland Hills fault, would impact estimated say at 17,000 to 85,000 people

- <https://www.opb.org/news/article/npr-portland-earthquake-study-estimates-wide-variation-in-impact-depending-on-timing/>

California says taller Shasta Dam to increase water storage is against California law

- <http://www.latimes.com/politics/la-na-pol-shasta-dam-trump-20180315-story.html>

Interactive western hemisphere map for migratory birds

- <https://www.nationalgeographic.com/magazine/2018/03/bird-migration-interactive-maps/>

Almost everything you might need to know about your toothbrush & brushing teeth – just use one that does NOT contain Triclosan

- <http://www.dailymail.co.uk/health/article-5520055/The-jaw-dropping-truth-toothbrush.html>

\$1.6B contract signed for construction of generating station & spillways at Site C dam in British Columbia

- <http://vancouversun.com/news/local-news/b-c-hydro-seals-trio-of-site-c-contracts-worth-more-than-1-6-billion>

Myanmar elephants are poached for their skins – population being decimated due to human greed

- <https://www.smithsonianmag.com/science-nature/myanmar-elephants-are-being-poached-their-skin-not-tusks-180968535/>

Giant Sequoia (California Redwoods) have held humans in awe, including John Muir – until they cut them down

- <https://www.smithsonianmag.com/science-nature/how-california-giant-sequoia-tell-story-americans-conflicted-relationship-nature-180968389/>
- Book: “King Sequoia” <https://www.amazon.com/King-Sequoia-Inspired-Created-National/dp/1597143510>

Government takes action to stop 1M tonnes of rubbish from being trucked across the state line

- <https://www.coffscoastadvocate.com.au/news/sharpe-words-over-nsw-government-waste-policy/3366668/>

A decline in hunters is a good thing – one consequence is less money for conservation

- <https://www.npr.org/2018/03/20/593001800/decline-in-hunters-threatens-how-u-s-pays-for-conservation>

New FEMA 2018-2022 Strategic Plan does not use the term “climate change” – does not change their responsibilities and responses to disasters

- <https://www.npr.org/2018/03/20/593001800/decline-in-hunters-threatens-how-u-s-pays-for-conservation>
- <https://www.fema.gov/media-library/assets/documents/160940>

Olympic National Park is good place to re-establish gray wolves

- <https://www.earthfix.info/news/article/olympic-national-park-washington-gray-wolves/>
- Rewilding carnivores paper: <http://rsos.royalsocietypublishing.org/content/5/3/172235>

Versace follows Gucci and will no longer use fur in its fashions

- <http://www.canberratimes.com.au/environment/animals/versace-to-drop-fur-from-its-fashions-donatella-versace-says-20180315-p4z4le.html>

A century of dam-building, over-fishing, habitat loss & hatchery fish has cut average size of Chinook salmon in half – no more “human-sized” 100 pounders

- <https://www.npr.org/sections/thesalt/2018/03/12/591222003/this-is-why-you-dont-see-people-sized-salmon-anymore>

New York still battling to remove PFOs (fire-fighting foam chemical) from drinking water source

- https://www.huffingtonpost.com/entry/newburgh-water-pfos_us_5aa0368ce4b0e9381c14d4f7

Major distilleries join fight to ban plastic straws

- <https://www.treehugger.com/plastic/alcohol-makers-join-fight-against-plastic-straws.html>

36 facts about water

- <https://www.treehugger.com/clean-water/36-eye-opening-facts-about-water.html>

How do we stop Antarctica from melting? - The answer: we don't and shouldn't even try

- <https://www.treehugger.com/climate-change/how-do-we-stop-antarctica-melting.html>
- <http://www.iflscience.com/environment/36-percent-of-the-worlds-glaciers-are-going-to-melt-no-matter-what-we-do/all/>

You are what you eat – but fat storage is also influenced by chemicals in your environment

- <http://www.ehn.org/dieting-and-exercise-arent-enough-chemicals-are-making-us-fat-2550463702.html>

A review of hormone-disrupting chemicals found near fracking wells

- <http://wvpublic.org/post/study-finds-hormone-disrupting-chemicals-near-fracking-wells#stream/0>
- <https://doi.org/10.1186/s12940-018-0368-z>

Natural hazards also impact insects and other invertebrate species – slow to recover in short term

- http://www.terradaily.com/reports/When_natural_disaster_strikes_can_insects_and_other_invertebrates_recover_999.html

All should share in responsibility for flood protection? The concept of socio-hydrology

- <https://www.sciencedaily.com/releases/2018/03/180321094740.htm>

Governments in low-income countries could benefit from mapping population

- <https://www.sciencedaily.com/releases/2018/03/180321110900.htm>

20% of Americans responsible for almost half of US diet-related GHG emissions

- <https://phys.org/news/2018-03-percent-americans-responsible-food-related-greenhouse.html>

New report says Florida ranked top in nation for building codes – better to withstand hurricane damage

- <http://www.orlandosentinel.com/classified/realestate/os-bz-florida-home-construction-20180319-story.html>
- Rankings: <https://disastersafety.org/ibhs-public-policy/rating-the-states/>

Why are cockroaches so hard to kill? They have evolved a massive genome

- <https://www.smithsonianmag.com/smart-news/cockroach-genome-shows-why-they-are-impossible-kill-180968554/>

Study suggests catching the flu on an airplane is a low risk – quantifying passenger movement

- <https://www.smithsonianmag.com/smart-news/study-maps-how-flu-virus-moves-around-plane-180968541/>

Consuming artificial sweeteners may lead to obesity – bodies not evolved to process them like sugar

- <https://www.smithsonianmag.com/science-nature/artificial-sweeteners-may-make-you-fat-180968552/>

Chemicals from excess fish feed identified as cause of frequent fish die-offs caused hypoxia

- <https://news.mongabay.com/2018/03/in-bali-fish-die-offs-researchers-spot-a-human-hand/>

Ethical and scientific reasons to not clone your dog

- <https://www.smithsonianmag.com/science-nature/why-cloning-your-dog-so-wrong-180968550/>

Exploring the history and ingredients of artist pigments – The alchemy of color

- <https://www.smithsonianmag.com/smart-news/cow-urine-just-one-many-strange-ingredients-centuries-old-pigments-180968549/>

Testing new “solutions” to carcass disposal resulting from culling (slaughter) of mass numbers of animals in response to food-animal disease outbreaks

- <https://www.news.iastate.edu/news/2018/03/22/aerobicdigestion>

Reducing too much US Army Corps of Engineers regulation is a good thing

- <https://www.ocregister.com/2018/03/22/how-reducing-red-tape-improves-infrastructure/>

2018 budget includes increased funding for Chickamauga lock replacement in Chattanooga, Tennessee

- <http://www.timesfreepress.com/news/breakingnews/story/2018/mar/22/budget-bill-doubles-funding/466596/>



Coastal Zone Management Bulletin Board – 26 March 2018 – compiled by Elaine J. Hanford

In Miami Beach, unpermitted seawall is at least \$5M over budget and behind schedule

- <http://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article205234764.html>

Longshore currents of recent Nor'easters created temporary jetty beach at Ocean City Inlet

- <https://mdcoastdispatch.com/2018/03/15/inlet-jetty-beach-back-now/>

San Francisco wants to rebuild crumbling Embarcadero seawall from Fisherman’s Wharf to Mission Creek – anticipated costs of \$5B

- <https://www.sfchronicle.com/politics/article/Assemblyman-Chiu-seeks-250-million-in-state-12762811.php>

Coastal Community Festival focus on emergency preparedness in Cannon Beach, Oregon

- http://www.dailyastorian.com/Local_News/20180320/first-ever-coastal-community-festival-focuses-on-emergency-preparedness-in-cannon-beach

Port Townsend agenda includes jetty work & environmental impact of Navy projects

- <https://www.peninsuladailynews.com/news/eye-on-jefferson-point-hudson-jetty-work-topic-at-port-meeting/>

Trying to stave off the inevitable shoreline erosion at Nantucket

- <https://www.pri.org/stories/2018-03-19/nantuckets-bluffs-and-beaches-are-crumbling-face-storms-and-rising-seas>

Erosion is causing threat to US Air Force long-range radar sites along the North Slope of Alaska

- <https://www.adn.com/alaska-news/environment/2018/03/20/erosion-is-creeping-toward-alaskas-coastal-radar-sites/>

Non-profit organization partners with Division of Marine Fisheries to help recycle oyster shells

- <https://www.coastalreview.org/2018/03/recycle-oyster-shells-at-coastal-federation/>

Yet another Nor'easter to hit the Eastern Seaboard – severe weather warnings issued

- <http://www.travelandleisure.com/travel-news/another-noreaster-east-coast-storms-travel-waiver>

US F&WS wants to expand Coastal Barrier Resources System of protected wetlands, barrier islands & aquatic habitat of Delaware, Massachusetts, New Hampshire & New Jersey

- <http://www.rstreet.org/2018/03/20/fws-wants-to-expand-the-coastal-barrier-resources-system-by-136000-acres/>

Concerns about return of brown tide algae bloom in Indian River Lagoon, Florida

- <https://www.tcpalm.com/story/sports/2018/03/10/slow-death-critical-estuary-facing-dark-time-again/411917002/>

New birdhouses installed as part of habitat restoration on Somass Estuary as migratory birds return to Port Alberni

- <https://www.albernavalleynews.com/community/birdhouses-built-on-the-somass-estuary/>

Perspective: Outbreak of red tides is cause for concern

- <http://www.heraldtribune.com/sports/20180321/outdoors-recent-red-tide-outbreaks-puzzling>

Citizen science to be part of estuary photo-monitoring project at Herron Point in Western Australia

- <http://www.mandurahmail.com.au/story/5298264/citizen-science-plays-a-role-in-coastal-erosion-battle/>

Plan for systematic, long-term data collection to conserve & expand Pichavaram mangrove forest

- <http://indiaclimatedialogue.net/2018/03/21/protecting-pichavaram-mangroves-coastal-tamil-nadu/>

Major drop in salinity in estuary at Dauphin Island on the Gulf Coast

- <http://www.wkrg.com/weather/bay-water-salinity-or-lack-thereof/988781811>

Amount of plastic garbage in the ocean and coastal areas predicted to triple over next decade

- <http://myfox8.com/2018/03/21/ocean-plastic-predicted-to-triple-within-a-decade/>
- Report: <https://www.gov.uk/government/collections/future-of-the-sea>

Sea defenses may be reducing erosion along Corton coastline

- <http://www.edp24.co.uk/news/environment/expert-allays-fears-for-erosion-devastation-at-corton-coastline-1-5446984>
- <http://www.edp24.co.uk/news/environment/communities-in-norfolk-talk-about-living-with-the-fear-of-coastal-erosion-1-5446237>
- <http://www.greatyarmouthmercury.co.uk/news/photographer-highlights-coastal-erosion-norfolk-and-suffolk-1-5448781>