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Geoscience Bulletin Board – 11 February 2019 – compiled by Elaine J. Hanford

15 meteor impact sites in the US

- <https://www.msn.com/en-us/news/technology/see-15-incredible-meteor-impact-sites-in-the-us/ss-BBT2PHV>

New explanation for the formation of the Panama land bridge between North & South America

- <https://www.sciencedaily.com/releases/2019/02/190205102540.htm>

MERMAIDS reveal that Galápagos volcanoes are fed by deep mantle plume

- <https://www.sciencedaily.com/releases/2019/02/190204085936.htm>
- <https://newatlas.com/mermaid-seismic-floats/58342/>

Monitoring response of feldspar minerals to rapid compression by simulating meteorite impacts

- <https://www.sciencedaily.com/releases/2019/02/190201114149.htm>

Just how did predatory plankton survive “Snowball Earth” glaciations?

- <https://www.sciencedaily.com/releases/2019/02/190201114135.htm>

Antarctanax shackletoni – 250 myo iguana-sized dinosaur cousin discovered

- <https://www.sciencedaily.com/releases/2019/01/190131084252.htm>

Coprolites of archosaur *Smok wawelski* contain numerous chewed up bone fragments

- <https://www.sciencedaily.com/releases/2019/01/190130161643.htm>

Hunga Tonga-Hunga Ha'apai volcanic island persists after 3 years – ground truthing

- <https://www.popularmechanics.com/science/environment/a26147266/hthh-island-nasa-dan-slayback/>

10 tips for better drone photography

- <https://petapixel.com/2019/02/05/10-pro-tips-for-taking-your-drone-photography-to-new-heights/>

2018 Sulawesi M7.5 earthquake rupture promulgated at speed of 9,600 mph

- <https://www.nytimes.com/2019/02/05/science/earthquake-tsunami-indonesia.html>
- <https://www.iflscience.com/environment/scientists-uncover-what-caused-the-devastating-indonesian-earthquake-and-predict-what-it-means-for-the-future/>

New technique for dating flowstones which sandwich early hominid fossil-bearing sediment layers

- <https://www.earthmagazine.org/article/cradle-humankind-fossils-can-now-be-dated>

Evidence of Ice Age in Namibian desert – drumlins from late Paleozoic

- <http://www.eurasiareview.com/05022019-uneearthed-an-ice-age-in-african-desert/>
- Paper: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0210673>

Early update for World Magnetic Model in advance of WMM 2020 to ensure safe navigation

- https://www.upi.com/Science_News/2019/02/05/6611549336507/

Magnetic field of Earth was anomalously weak prior to around 560 myo

- <https://arstechnica.com/science/2019/01/earths-magnetic-field-nearly-died-during-critical-transition/>

Rembrandt used lead mineral called plumbonacrite to create thick paste-like paint for “impasto” technique

- <https://arstechnica.com/science/2019/02/scientists-solve-the-mystery-of-rembrandts-impasto-paint-recipe/>

Low-level helicopter high-resolution airborne geophysical survey of Mississippi Alluvial Plain delayed by weather

- <https://www.usgs.gov/news/postponed-due-weather-ask-questions-and-learn-more-about-low-level-helicopter-flying-above>

Model forecasts shift in phytoplankton species and ocean color

- http://www.terraily.com/reports/Study_Much_of_the_surface_ocean_will_shift_in_color_by_end_of_21st_century_999.html

Is the “polar vortex” a sign of climate change? It is debatable

- http://www.terraily.com/reports/US_shivers_as_extreme_cold_invades_but_is_this_climate_change_999.html

Dept Natural Resources, Mines & Energy announces completion of 3rd annual update of satellite map of Queensland, Australia

- http://www.spacedaily.com/reports/Earth_i_Updates_Satellite_Map_of_Queensland_Australia_999.html

Bajadasaurus pronospinax - spiky backboned sauropod dinosaur discovered in Argentina

- <https://gizmodo.com/newly-discovered-spiked-dinosaurs-from-south-america-lo-1832359748>

Private funding for developing & acquiring water infrastructure in Permian Basin in Texas

- <https://www.chron.com/business/energy/article/Permian-Basin-water-infrastructure-company-13593726.php>

Myanmar is transforming in how it monitors earthquakes

- <https://www.nature.com/articles/d41586-019-00501-6>

Perspectives: The “Hockey Stick” & The 1978-1997 warming trend is an artifact of instrumentation

- https://www.americanthinker.com/blog/2019/01/two_decades_of_the_hockey_stick.html
- https://www.americanthinker.com/blog/2019/02/the_19781997_warming_trend_is_an_artifact_of_instrumentation.html

30-km long Mount Vettore fault in central Apennine Mountains may have caused EQ that damaged Roman Colosseum in 443 AD

- <https://www.nature.com/articles/d41586-019-00480-8>

Some changes occurring in ice cave near Haines Junction in the Yukon

- <https://www.cbc.ca/news/canada/north/yukon-ice-cave-changing-melt-1.5011862>

Geology of Jules Verne’s journey to the center of the Earth

- <https://www.forbes.com/sites/davidbressan/2019/02/08/the-geology-of-jules-vernes-journey-to-the-centre-of-the-earth/#4d14d0ea5197>

Submarine landslides may creep

- <https://blogs.agu.org/landslideblog/2019/02/08/submarine-landslides-can-creep-too-my-latest-paper/>

Glacial lake outburst flooding becoming more deadly

- <https://www.forbes.com/sites/ericmack/2019/02/07/a-type-of-flood-youve-never-heard-of-is-becoming-more-common-and-more-deadly/#f0527566a42c>

Defining geological features in the Southern Ocean & exploring the Indian Ocean

- <https://phys.org/news/2019-02-southern-ocean-geological-features.html>
- <https://phys.org/news/2019-02-voyage-unknown-explores-indian-ocean.html>

Is “stable landslide” a contradiction in terms?

- <https://phys.org/news/2019-02-drought-deluge-stable-landslide-disaster.html>

Maybe the Vikings were not all that tough – Greenland was relatively warm between 985 and 1450 CE

- <https://phys.org/news/2019-02-vikings-warmer-greenland.html>

The difficulties of using models to predict sea level change

- <https://arstechnica.com/science/2019/02/studies-question-worst-case-sea-level-rise-but-lower-rise-aint-great/>

Rate of river migration through meandering is directly linked to the sharpness of the bends

- http://www.terradaily.com/reports/Sharp_bends_make_rivers_wander_999.html

Link between earthquakes and the carbon cycle revealed at deep sea trench

- http://www.spacedaily.com/reports/Deep_sea_reveals_linkage_between_earthquake_and_carbon_cycle_999.html

Miniature autonomous underwater explorers (M-AUEs) are “eyes in the sea” collecting data

- <https://www.earthmagazine.org/article/eyes-sea-swarms-floating-robots-observe-oceans>

New definition for major Indian monsoon season: 6 November to 13 March

- https://www.eurekalert.org/pub_releases/2019-02/fsu-scr020819.php

Perovskites have potential as new solar-cell materials

- https://www.eurekalert.org/pub_releases/2019-02/miot-upp020719.php

Extent & characteristics of landslides in Puerto Rico triggered by Hurricane Maria

- https://www.eurekalert.org/pub_releases/2019-02/gsoa-ltb020619.php
- Paper: <https://www.geosociety.org/gsatoday/science/G383A/article.htm>

Characterizing dust in the desert in the Middle East

- <https://sciencetrends.com/desert-dust-in-the-middle-east/>

Vanadium in shallow groundwater – a potentially dangerous pollutant

- <https://sciencetrends.com/vanadium-in-shallow-groundwaters-a-potentially-dangerous-pollutant/>

Arsenic in groundwater in Ireland traced to areas rich in sandstone

- <https://www.irishexaminer.com/breakingnews/ireland/arsenic-levels-up-in-sandstone-rich-areas-903248.html>



Environmental Science Bulletin Board – 11 February 2019 – compiled by Elaine J. Hanford

Growing & emboldened wild boar population in Hong Kong poses dilemma in Year of the Pig

- http://www.terradaily.com/reports/Porcine_pickle_Hong_Kongers_divided_over_citys_emboldened_wild_boars_999.html

Multi-drug resistant “superbugs” found in remote Arctic soil

- https://www.eurekalert.org/pub_releases/2019-02/uok-sru020519.php

Their math doesn't quite add up – but still blame invading Europeans for Little Ice Age

- <https://www.msn.com/en-us/weather/topstories/european-colonizers-mass-killing-of-native-americans-caused-change-in-climate-study/ar-BBT3Up2>
- Paper: <https://www.sciencedirect.com/science/article/pii/S0277379118307261#!>

Top 10 global health threats listed by World Health Organization

- <https://www.idse.net/Policy-Public-Health/Article/01-19/WHO-Top-10-Health-Threats-Facing-the-World/53891>

4,000 square mile salt flat in Bolivia to mine lithium for high tech – economic gain & environmental costs

- <https://www.nationalgeographic.com/magazine/2019/02/lithium-is-fueling-technology-today-at-what-cost/>

Lu Guang photographed environmental threats in China until he went missing

- <https://www.nationalgeographic.com/culture/2019/01/where-is-disappeared-chinese-photographer-lu-guang/>

NE Australia is land of snakes & crocodiles & flood waters forced them onto roads as houses were devastated by monsoons – military deployed

- <https://www.msn.com/en-us/news/world/20000-homes-feared-lost-in-australia-floods-as-crocodiles-and-snakes-wash-up/ar-BBT99Lk>
- http://www.terradaily.com/reports/Military_steps_in_as_Australia_floods_bring_crocs_to_the_streets_999.html

Rome, Italy, is drowning in trash

- <https://www.msn.com/en-us/travel/news/why-is-rome-drowning-in-trash/ar-BBT5vdG>

4th year in a row, Chicago tops list of most rat-infested cities in the US

- <https://www.msn.com/en-us/lifestyle/lifestyle-buzz/this-is-the-most-rat-infested-city-in-america/ar-BBTbv7e>

Environmental regulations to preserve nature may have unintended consequence in energy production

- <https://www.sciencedaily.com/releases/2019/02/190204124200.htm>

Weather & snowpack dynamics affect Pika populations in the Pacific Northwest

- <https://www.sciencedaily.com/releases/2019/02/190204124211.htm>

Charismatic introduced & invasive species may be more difficult to manage

- <https://www.sciencedaily.com/releases/2019/02/190204114646.htm>

Ecuador balancing risks & rewards to increase mining GDP

- <https://www.bnamerica.com/en/news/miningandmetals/special-report-mining-in-ecuador-balancing-risks-and-rewards/>

Hunter illegally killed wolf in Grand Teton National Park – convicted

- <https://www.msn.com/en-us/news/crime/hunter-convicted-of-illegal-wolf-kill-in-grand-teton-national-park/ar-BBTiSa8>

History of Haiti marked by resilience and survival

- <https://www.statesmanjournal.com/story/news/2019/02/01/u-s-feared-slave-revolt-would-spread-haiti-southern-states/2471829002/>

Two landslides in Bolivia caused 14 deaths – seven still missing

- http://www.terradaily.com/reports/14_dead_seven_missing_in_Bolivian_landslides_999.html

More military troops sent to southern US border to ensure national security

- http://www.terradaily.com/reports/US_sends_3750_more_troops_to_Mexico_border_Pentagon_999.html

Will new toll bridge really solve traffic problems in Baton Rouge, Louisiana?

- <http://www.wafb.com/2019/02/06/what-could-new-baton-rouge-bridge-look-like/>

US Senate panel advances Andrew Wheeler nomination to lead US EPA

- <https://thehill.com/policy/energy-environment/428497-senate-panel-advances-wheelers-nomination-to-be-epa-chief>

Lone Star ticks are now surviving winters in southern Maine – deer tick range expanding

- <https://www.newscentermaine.com/article/news/health/tracking-ticks-experts-say-deer-ticks-are-surviving-maine-winters/97-644c828f-aa98-4454-8bc7-04454ee362a8>

In the aftermath of Hurricane Michael, unexpected deaths of livestock being reported

- <http://www.wsfa.com/2019/02/04/cattlemen-monitoring-livestock-loss-following-hurricane-michael/>

Perspective: What happened to the scientific method and ethics? Talk about systematic fraud

- <https://www.nature.com/articles/d41586-019-00439-9>

Residents of southern California worried about their chickens and deadly Newcastle disease

- <https://www.pe.com/2019/02/06/worried-about-their-chickens-hundreds-crowd-norco-meeting-on-deadly-newcastle-disease/>

This cardinal is a bilateral gynandromorph – body is half male & half female “half-sider”

- <https://www.nationalgeographic.com/animals/2019/01/half-male-half-female-cardinal-pennsylvania/>

Is it “climate change” or “just the weather” – weather can include extremes

- <https://arstechnica.com/science/2019/02/how-do-we-know-when-climate-change-makes-weather-disasters-worse/>

Personal Care Products are source of chemical exposure – time for a regulatory make-over?

- <https://www.nytimes.com/2019/02/09/opinion/cosmetics-safety-makeup.html?smtyp=cur&smid=tw-nytopinion>

Book Review: “Empty Planet” – the future of the human population?

- <https://www.wired.com/story/the-world-might-actually-run-out-of-people/>

35% of rural US counties experiencing protracted significant population loss

- <https://www.sciencedaily.com/releases/2019/02/190206115611.htm>

Third-hand smoke exposes children to toxic chemicals – indoor smoking ban does not help

- <https://www.sciencedaily.com/releases/2019/02/190207150003.htm>

Nuclear waste continues to pile up around the world – 250,000 tons

- http://www.nuclearpowerdaily.com/reports/Storage_of_nuclear_waste_a_global_crisis_report_999.html
- <https://www.japantimes.co.jp/news/2019/01/31/world/storage-nuclear-waste-global-crisis-stockpile-reaches-250000-tons-greenpeace-warns/#.XF-BX3dFyUk>
- Report:
http://m.greenpeace.org/belgium/Global/belgium/report/2019/REPORT_NUCLEAR_WASTE_CRISIS_ENG_BD.pdf

Gypsum is good source of calcium & sulfur for agricultural crops

- http://www.seeddaily.com/reports/Gypsum_as_an_agricultural_product_999.html

More rapid flood forecasting improves responses by those impacted

- <https://www.earthmagazine.org/article/comment-faster-flood-forecasting-improve-responses>

Rating river corridors as “escape routes” for animal migration

- https://www.eurekaalert.org/pub_releases/2019-02/uow-rrc020819.php

Perspective: Green New Deal is the Dr. Oz of environmental policy

- <https://www.acsh.org/news/2019/02/07/green-new-deal-its-dr-oz-environmental-policy-13795>
- <https://www.inverse.com/article/53120-green-new-deal-positives-and-negatives>

PFAS chemicals are common in US drinking water – contaminants of emerging concern (CECs)

- <https://www.nature.com/articles/d41586-019-00441-1>
- <https://www.sciencemag.org/news/2019/02/worrisome-nonstick-chemicals-are-common-us-drinking-water-federal-study-suggests>
- Paper: <https://www.sciencedirect.com/science/article/pii/S004896971834141X#ec0005>

Indigenous lands under threat in Brazil – government plan to weaken protections

- <http://science.sciencemag.org/content/363/6427/592.1.full>



Coastal Zone Management Bulletin Board – 11 February 2019 – compiled by Elaine J. Hanford

Hawaii developing a tsunami design zone map for coastal areas on O’ahu

- <http://www.hawaiipublicradio.org/post/state-developing-tsunami-design-zone-map>

A multi-disciplinary approach to assessing permafrost coastal erosion in Alaska

- <https://phys.org/news/2019-02-exploring-permafrost-coastal-erosion-arctic.html>
- <https://csengineermag.com/exploring-permafrost-coastal-erosion-in-the-arctic/>

Public comment period for 4-year coastal waters conservation & management plan in Alabama

- <https://www.al.com/news/mobile/2019/02/public-comment-open-on-coastal-waters-management-plan.html>
- Plan: http://www.mobilebaynep.com/what_we_do/ccmp/

Plastic pellets called “nurdles” wash up on Texas beaches & can be harmful

- <https://www.kiiitv.com/article/news/local/scientist-organizing-nurdle-patrol-on-coastal-bend-beaches/503-f44afc97-bf53-4107-a03c-1a5df54b9f25>

Warm water & low-level chemical exposure influence genetics across generations of coastal fish

- <https://www.sciencedaily.com/releases/2019/01/190131162455.htm>

Hearing delayed until April for Coastal GasLink pipeline protesters in British Columbia

- <https://calgaryherald.com/pm-news-pmn/canada-news-pmn/hearing-put-over-to-april-for-coastal-gaslink-pipeline-protesters-in-b-c/wcm/c87a272a-23d1-422e-a9d9-376485404619>

“Sea level rise” must recognize contribution of coastal subsidence in areas like Southern Louisiana

- <https://www.nola.com/environment/2019/02/sea-level-rise-is-underestimated-in-southern-louisiana-tulane-study-finds.html>
- Paper: <https://www.ocean-sci.net/15/61/2019/>

Mega-ship hub to be built in Port of Savannah

- <https://www.marinelink.com/news/savannah-port-build-mega-ship-hub-462621>

Progress in construction of Harbor Bridge project in Corpus Christi, Texas

- <https://www.caller.com/story/news/local/2019/02/03/new-cranes-tower-lifts-appear-harbor-bridge-project-site/2748376002/>

Exxon-Mobil & Qatar Petroleum to proceed with \$10B Golden Pass LNG export facility on Texas Gulf Coast

- <https://www.chron.com/business/energy/article/Exxon-Mobil-to-proceed-on-major-Gulf-Coast-LNG-13590815.php>

Florida legislation will be effective 2021 to ban sunscreens that harm barrier reef ecosystem

- <https://www.treehugger.com/ocean-conservation/key-west-ban-sunscreen-coral-harming-chemicals.html>

Streamer lines helped reduce seabird by-catch in Alaskan fisheries by 78%

- <https://www.treehugger.com/conservation/simple-trick-has-saved-1000s-rare-seabirds-death.html>

Cocoa Beach volunteers to plant sea oats to reduce beach erosion

- <https://www.mynews13.com/fl/orlando/news/2019/02/09/brevard-residents-sea-oats-prevent-future-beach-erosion>

Strong storm could produce waves up to 60-feet in height & coastal flooding in Hawaii

- <https://www.staradvertiser.com/2019/02/07/breaking-news/chance-of-thunderstorms-today-as-high-surf-winds-expected-to-buffet-hawaii-friday/>
- <http://www.hawaiinewsnow.com/2019/02/07/approaching-storm-expected-push-surf-up-above-warning-levels-north-west-shores/>

Toxic brines from desalination threaten local marine ecosystems

- <https://www.scientificamerican.com/article/slaking-the-worlds-thirst-with-seawater-dumps-toxic-brine-in-oceans/>

Plan to spray pesticide on oyster beds opposed by federal scientists – but politicians in Washington State may exempt the spraying from environmental review

- <https://www.seattletimes.com/seattle-news/environment/politics-has-science-on-the-run-and-not-just-in-the-other-washington/>