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Geoscience Bulletin Board – 18 May 2020 – compiled by Elaine J. Hanford

Online Workshop 19 May 2020 – Seasonal heat storage with geothermal battery concept

- <https://www.thinkgeoenergy.com/seasonal-heat-storage-with-geothermal-battery-concept-online-workshop-may-19-2020/>

May & June Virtual Field Trips of underwater marine parks – from Florida to California & beyond

- <https://sanctuaries.noaa.gov/live/watch.html>

National Park Service Geoscientist-in-the-Parks (GIP) program applications due 15 June 2020

- https://www.geosociety.org/GSA/Education_Careers/Field_Experiences/gip/GSA/fieldexp/gip.aspx

6.5M EQ 56 k west of Tonopah, Nevada – Walker Lane strike-slip event

- <https://earthquake.usgs.gov/earthquakes/eventpage/nn00725272/executive>
- <https://www.msn.com/en-us/news/us/nevada-earthquake-magnitude-64-temblor—and-several-large-aftershocks—have-struck-near-tonopah/ar-BB14816F>

Tectonic setting of Puerto Rico means earthquakes are inevitable on complex fault systems

- <https://blogs.scientificamerican.com/rosetta-stones/why-puerto-ricos-tectonic-setting-makes-earthquakes-inevitable/>

150 myo volcano discovered on seafloor off the coast of The Netherlands – named “Mulciber”

- <https://nltimes.nl/2020/05/09/ancient-volcano-discovered-dutch-seafloor>

300 myo Warboys volcano in the Cambridgeshire, England

- <https://www.heritagedaily.com/2020/05/the-ancient-volcano-thats-81-miles-from-london/128964>

How to become a fossil

- <https://www.lastwordonnothing.com/2020/05/08/how-to-become-a-fossil/>

Emergence of earthworms in Central Lombok is sign of the weather – not an imminent earthquake

- <https://www.thejakartapost.com/news/2020/05/07/emergence-of-thousands-of-earthworms-in-lombok-sign-of-weather-changes-not-earthquake-bmkg.html>

Complex tectonic activity of the Afar region is uncertain – possible transition from rift to ridge?

- <https://eos.org/articles/are-we-seeing-a-new-ocean-starting-to-form-in-africa>

Evidence for 4.55 byo sodium-rich alkaline fluids in Tagish Lake meteorite

- <http://www.sci-news.com/space/ancient-molecular-fluids-tagish-lake-meteorite-08419.html>

“Uplift of the Tibetan Plateau” is a myth – product of overly simplistic modelling

- https://www.spacedaily.com/reports/Why_the_uplift_of_the_Tibetan_plateau_is_a_myth_999.html

Using SAR radar technique to monitor methane release from Arctic lakes

- https://www.spacedaily.com/reports/New_technique_uses_radar_to_gauge_methane_release_from_Arctic_lakes_999.html

Two styles of volcanism in the Mediterranean – Santorini vs Aegina, Methana & Poros lava domes

- https://www.spacedaily.com/reports/A_tale_of_two_kinds_of_volcanoes_999.html

Seismic data suggests Inner Core of Earth is rotating

- <https://www.sciencedaily.com/releases/2020/05/200512134530.htm>
- <https://phys.org/news/2020-05-mountains-shifting-ground-earth-core.html>

Proliferation of Edmontosaurus duck-billed dinosaur in the Arctic – “caribou of the Cretaceous”

- <https://www.sciencedaily.com/releases/2020/05/200506162212.htm>
- Paper: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0232410>

Oxygen-rich core samples of shungite challenge long-standing models of oxygenation of Earth

- <https://www.sciencedaily.com/releases/2020/05/200512134528.htm>

Paleogene palynological records help unravel shift to monsoon climate in southern China

- <https://phys.org/news/2020-05-major-environmental-shift-middle-eocene.html>

Pūhāhonu – “turtle surfacing for air” is broad shield volcano exposed as small islands

- <https://www.sciencemag.org/news/2020/05/world-s-biggest-volcano-barely-visible>
- <https://phys.org/news/2020-05-reveal-largest-hottest-shield-volcano.html>

How Pangaea broke apart

- <https://theconversation.com/how-the-earths-last-supercontinent-broke-apart-to-form-the-world-we-have-today-131632>

Understanding floods

- <http://all-geo.org/highlyallochthonous/2020/05/a-riverine-flooding-cookbook-volume-1-meteorological-floods/>

Tolbachik volcano erupted tiny diamonds

- <https://www.discovermagazine.com/planet-earth/theres-a-russian-volcano-that-erupts-diamonds>

Photo-essay: Waterford, New York landslide

- <https://blogs.agu.org/landslideblog/2020/05/11/waterford-landslide-1/>

Mineralogical & geochemical characteristics of hydrocarbon-bleached rocks in mud volcanoes

- <https://phys.org/news/2020-05-scientists-reveal-mineralogical-geochemical-characteristics.html>

How conglomerates form

- <https://wickershamsconscience.wordpress.com/2020/05/10/geology-101-how-conglomerates-happen/>

Dr. Patrick Abbot creates video on Mission Trails Regional Park “Rise & Fall of the Mountains”

- <https://missiontimescourier.com/mission-trails-geology-video-debuts-online/>
- Video: <https://www.youtube.com/watch?v=G86d0SuZ0uA>

Oldest known tsunami victims in East Africa

- <https://www.nationalgeographic.com/science/2020/05/1000-year-old-bones-oldest-known-east-africa-tsunami-victims/>

Volcanoes of the Cascades (57-minute video)

- <https://oregonwild.org/about/blog/webcast-volcanoes-cascades>

Debunking one myth associated with The Great Unconformity

- <https://www.futurity.org/great-unconformity-geologic-record-2360262/>

Virtual gem Gallery Tour: 423-carat “Logan Sapphire”

- <https://thejewelerblog.wordpress.com/2020/05/11/423-carat-logan-sapphire-is-the-next-stop-in-our-series-of-smithsonian-virtual-tours/>
- Virtual Tour: https://naturalhistory2.si.edu/vt3/NMNH/z_tour-119.html

Airborne electromagnetic (AEM) survey to be flown west of Cheyenne, Wyoming

- <https://www.wyomingnewsnow.tv/content/news/Eye-in-the-Sky-Airborne-Electromagnetic-Survey-570395871.html>

New model may more accurately predict dates of historic earthquakes

- <https://phys.org/news/2020-05-accurately-date-historic-earthquakes.html>

Newly recognized mechanism for very rapid formation of atmospheric particles

- <https://phys.org/news/2020-05-rapid-mechanism-atmospheric-particle-formation.html>
- Paper: <https://www.nature.com/articles/s41586-020-2270-4>

Why the North Magnetic Pole might be accelerating toward Russia – flux lobe elongation

- <https://phys.org/news/2020-05-explanation-earth-north-magnetic-pole.html>

Even small atmospheric disturbances may trigger hurricane formation

- <https://phys.org/news/2020-05-small-disturbances-trigger-catastrophic-storms.html>
- Paper: <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2019MS002020>

ICESat-2 measures sea ice thickness & snow cover on the Arctic Ocean

- <https://www.heritagedaily.com/2020/05/icesat-2-measures-arctic-oceans-sea-ice-thickness-snow-cover/129129>

“Dormant” Mauna Kea volcano has exhibited tiny earthquakes for decades

- <https://www.sciencenews.org/article/mauna-kea-volcano-dormant-tiny-earthquakes-gas-magma>

Planetary Geology: What Mars might be made of & how did it form?

- https://www.u-tokyo.ac.jp/focus/en/press/z0508_00109.html
- Paper: <https://www.nature.com/articles/s41467-020-15755-2>

Glaciers that yield meltwater to the North Water Polynya are retreating

- <https://www.arctictoday.com/the-glaciers-that-feed-the-north-water-polynya-are-rapidly-retreating/>

Icebergs – vitamins of the sea

- <https://jewishlinknj.com/features/37803-icebergs-vitamins-of-the-sea>

Necessity for archiving geological samples

- <https://www.nature.com/articles/d41586-020-01366-w>

Impacts of giant meteorites melted and formed parts of the crust of the Moon

- <https://phys.org/news/2020-05-evidence-giant-meteorite-impacts-moon.html>
- <https://www.sciencealert.com/the-formation-of-ancient-moon-rocks-is-linked-to-giant-meteorite-smashes>

In Memoriam: Dennis Lee Garnett (1948-2020) – mining geologist and seasonal guide

- https://billingsgazette.com/lifestyles/announcements/obituaries/dennis-lee-garnett/article_c167b415-b970-5a9e-809c-aed66de1d71b.html

Rock chip samples from Mount Isa Project show 6.7 grams gold per 1,000 kg and 28.2% copper

- <https://www.businessnews.com.au/article/28-per-cent-copper-rock-chips-in-QLD-for-Hammer>

The Great Masters likely prepared their ultramarine pigment from lapis lazuli

- <https://www.miragenews.com/how-did-old-masters-make-their-ultramarine/>

1980 eruption of Mount St Helens changed the future of volcanology

- <https://www.usgs.gov/news/mount-st-helens-1980-eruption-changed-future-volcanology>

Electric charge released by Cold War atomic testing radiation increased rainfall on Shetland

- <https://www.theguardian.com/world/2020/may/13/atomic-tests-cold-war-increased-rainfall-on-shetland>

Brief guide to Grad School Admissions in the Geosciences

- <https://www.geosociety.org/gsatoday/groundwork/G410GW/GSATG410GW.pdf>



Environmental Science Bulletin Board – 18 May 2020 – compiled by Elaine J. Hanford

Critically endangered red wolf pups born in North Carolina

- <https://www.yahoo.com/entertainment/north-carolina-zoo-celebrates-birth-175046762.html>

Syndrome-based intervention combined with Antimicrobial stewardship program (ASP) intervention seem to be effective

- <https://www.idse.net/Review-Articles/Article/03-20/The-Changing-Antimicrobial-Landscape/58033>

Enjoying solitude whether in the wilderness or in quarantine

- <https://www.theguardian.com/travel/2020/may/09/solitude-lockdown-enthral-me-like-wilderness-coping-skills>

Minnesota Board of Animal Health has jurisdiction over mass slaughter of healthy animals

- <https://www.agweek.com/news/government-and-politics/6479876-Mass-disposal-of-carcasses-gives-Minnesota-Board-of-Animal-Health-unique-jurisdiction>

Air pollution spikes 10-fold above average are tied to soccer fans barbecuing in Santiago, Chile

- <https://eos.org/articles/pollution-spikes-in-chile-tied-to-soccer-fans-barbecuing>

Book Review: “The Human Planet” – where is Nature?

- <https://www.npr.org/sections/goatsandsoda/2020/05/03/849102188/a-flying-photographer-looks-down-on-earth-in-awe-and-sorrow>

“Murder Hornets” is 99% media hype

- https://www.huffpost.com/entry/murder-hornets-hype-experts_n_5eb48f72c5b66504cc83b641

Why geckos can zip along vertical walls and run across water

- <https://arstechnica.com/science/2020/05/geckos-soft-hairy-toes-reorient-to-help-it-stick-to-different-types-of-surfaces/>

“The Story of Plastic” – a global catastrophe

- <https://www.treehugger.com/plastic/story-plastic-moving-film-reveals-where-plastic-comes-and-where-it-goes.html>
- <https://www.treehugger.com/plastic/plastics-industry-booming-right-now.html>

Farmers in New Zealand offended by new climate change curriculum

- <https://www.treehugger.com/sustainable-agriculture/farmers-new-zealand-are-offended-climate-change-curriculum.html>

Macrobrachium rosenbergii – gender-bending species of giant river prawns – Enzootic breeding technique

- <https://arstechnica.com/science/2020/05/can-gender-bending-israeli-super-prawns-help-feed-the-world/>

Evidence vital to understanding human migration during the Last Glacial Maximum

- <https://phys.org/news/2020-05-remnants-bering-strait-human-migration.html>

Another “destructive” new dam planned for the Mekong River

- <https://phys.org/news/2020-05-laos-destructive-mekong.html>

Can humans make peace with sloth bears in India? Already extinct in Bangladesh and perhaps Bhutan

- <https://www.msn.com/en-us/news/world/how-to-make-peace-with-the-worlds-deadliest-bears/ar-BB13XIF2>

Britain considering invoking citizens army to stop invasive species

- <https://currently.att.yahoo.com/att/government-considering-hiring-two-million-224122415.html>

Building safer tailings dams? Learning from past failures

- <https://www.engineerlive.com/content/what-future-tailings-dams>

Serious consequences of illegal action – entered Yellowstone National Park & fell into hot spring

- <https://www.msn.com/en-us/news/us/woman-falls-into-thermal-feature-at-yellowstone-national-park-closed-due-to-the-coronavirus/ar-BB140haR>

Argentine black and white tegus are invasive species in Florida & now gaining foothold in Georgia

- <https://www.yahoo.com/news/large-invasive-lizard-gaining-foothold-193556527.html>

Work of Florence Nightingale in military hospital in Turkey lead to International Classification of Diseases

- <https://www.abc.net.au/news/2020-05-12/florence-nightingales-true-legacy-statistics-not-nursing/12235460>

True value of Nature should be included in all development and economic growth – value not equal to price

- <https://www.nature.com/articles/d41586-020-01390-w>
- Dasgupta report:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/882222/The_Economics_of_Biodiversity_The_Dasgupta_Review_Interim_Report.pdf

Creating GMO pigs to try to stop replication of African Swine Fever virus

- <https://www.pigprogress.net/Health/Articles/2020/5/Transgenic-pigs-tested-to-stop-ASF-virus-replication-583070E/>

Alternatives (scPFCAs) to ozone-depleting chemicals (CFCs) are getting into our food and water supplies

- <https://phys.org/news/2020-05-ozone-depleting-chemical-alternatives-food.html>
- Paper: <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020GL087535>

To construct an integrated model of human impacts on mega-river systems of Asia

- <https://eos.org/science-updates/asias-mega-rivers-common-source-diverse-fates>

Understanding how a septic tank works can help minimize problems with the system

- https://www.cadillacnews.com/news/having-issues-with-your-septic-tank-youre-not-alone/article_2cba05b9-22c1-55df-a1e2-f918825d389b.html

24 species that became endangered over the past decade

- <https://www.businessinsider.com/photos-animals-became-endangered-species-decade-2019-11>

Quest of Walter Raleigh for El Dorado – story of insatiable greed

- <https://www.livescience.com/walter-raleighs-quest-for-el-dorado.html>

CORONAVIRUS

Coronavirus COVID-19 statistics by country (click on USA to get State statistics)

- <https://www.worldometers.info/coronavirus/>

Small-time drug dealers adjusting strategies

- <https://www.msn.com/en-us/news/world/small-time-drug-dealers-rethink-strategies-for-the-virus-era/ar-BB13RATV>

Tenderloin District sues San Francisco since sidewalks are “unsanitary, unsafe, & often impassable”

- <https://www.msn.com/en-us/news/us/san-francisco-neighborhood-sues-over-300-percent-jump-of-homeless-sidewalk-tents-during-coronavirus-outbreak/ar-BB13S1Re>

What happens to all the waste PPE? – single-use everything mostly made of plastic

- <https://theconversation.com/what-happens-to-waste-ppe-during-the-coronavirus-pandemic-137632>

Sioux Nation refuses order to take down “illegal” checkpoints – Sioux Nation is sovereign nation – Governor recognizes Sioux sovereignty by offering “compromise”

- <https://www.yahoo.com/news/coronavirus-south-dakota-sioux-refuse-094607130.html>
- <https://www.msn.com/en-us/news/us/south-dakota-checkpoint-standoff-governor-offers-possible-compromise/ar-BB142jC3>

58 straight days in New York City with no pedestrian deaths

- <https://www.msn.com/en-us/news/us/new-york-city-breaks-record-58-straight-days-with-no-pedestrian-deaths/ar-BB141A3u>

Perspective: Legal immunity for COVID-19 issues is a terrible idea

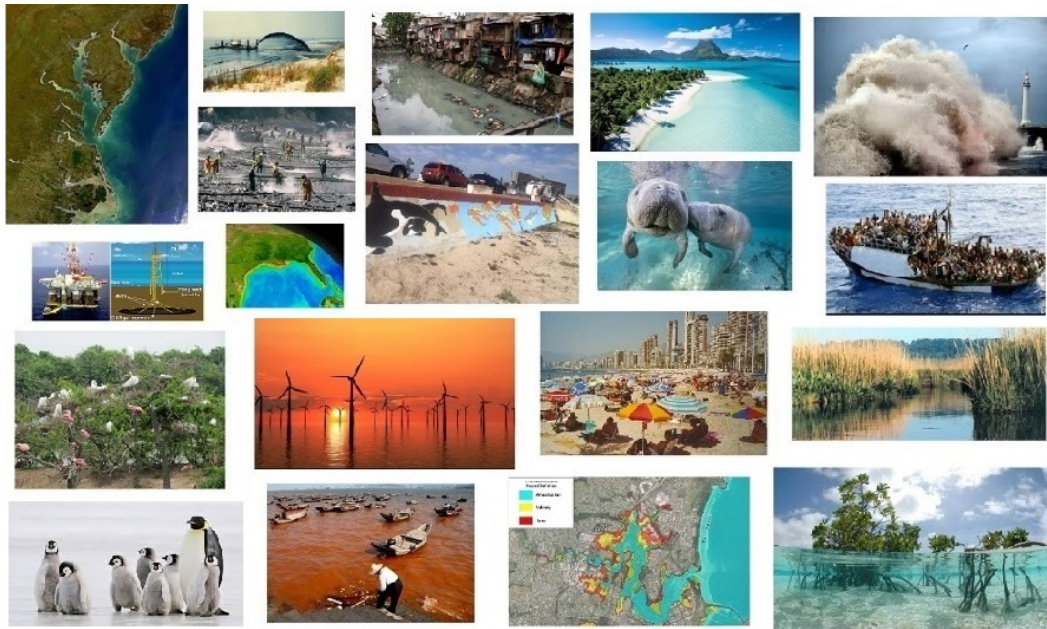
- <https://www.msn.com/en-us/news/us/editorial-legal-immunity-for-covid-19-issues-is-a-terrible-idea/ar-BB144qcv>

Expending energy & money to test for virus in raw sewage in Colorado – fecal surveillance

- <https://coloradosun.com/2020/05/13/looking-at-poop-for-coronavirus-clues/>

FDA suspends Seattle Coronavirus Network project founded by Bill Gates – cannot protect software from viruses but promises to protect personal health information – is this “big brother” in action?

- <https://www.fr24news.com/a/2020/05/bill-gates-supported-coronavirus-tracking-project-suspended-due-to-fda-concerns.html>
- <https://www.gatesnotes.com/Health/Seattle-Coronavirus-Assessment-Network>



Coastal Zone Management Bulletin Board – 18 May 2020 – compiled by Elaine J. Hanford

May & June Virtual Field Trips of underwater marine parks – from Florida to California & beyond

- <https://sanctuaries.noaa.gov/live/watch.html>

Indian mooring buoys network in Arabian Sea & Bay of Bengal in need of maintenance

- <https://www.newindianexpress.com/cities/chennai/2020/may/10/scientists-miss-crucial-periodic-servicing-of-indian-mooring-buoys-network-2141422.html>

634M people living on coastal plains and deltas – at risk if sea level were to significantly rise

- <https://goodmenproject.com/featured-content/prehistoric-alert-for-future-sea-level/>

People and their trash inundating Brevard County, Florida, beaches – 13,000 pounds of trash

- <https://www.msn.com/en-us/news/us/returning-beachgoers-left-13000-pounds-of-trash-on-floridas-cocoa-beach-prompting-crackdown/ar-BB13QZCE>

Millions of endangered baby Olive Ridley turtles cross the Rushikulya Beach to the sea (video)

- <https://www.msn.com/en-us/video/animals/millions-of-endangered-baby-turtles-cross-lockdown-cleared-beach-to-sea/vi-BB13RnyL>

New \$922+M lock under construction at the Soo Locks in the Upper Peninsula of Michigan

- <https://www.mlive.com/news/2020/05/new-922m-lock-under-construction-at-the-soo.html>

American Shad restoration efforts continue along the East Coast

- <https://www.coastalreview.org/2020/05/american-shad-restoration-efforts-continue/>

Oregon invites nominations of rocky coastal areas for protection

- <https://www.pewtrusts.org/en/research-and-analysis/articles/2020/05/07/oregon-invites-public-to-nominate-rocky-coastal-areas-for-protection>

Wilmington, NC, will be reimbursed \$3.6M+ for Hurricane Florence repairs to flood control systems

- <https://www.coastalreview.org/2020/05/wilmington-gets-3-6m-for-drainage-repairs/>

San Diego not required to obtain coastal development permit for transitional housing project

- <https://www.jdsupra.com/legalnews/no-coastal-development-permit-required-83877/>

£22m Fairhaven to Church Scar Coastal Protection Scheme completed

- <https://www.dredgingtoday.com/2020/05/11/church-scar-coastal-protection-scheme-completed/>

Lagoon Hull proposed as flood defense project for Humber estuary in Hull, England

- <https://www.theengineer.co.uk/lagoon-hull-flood-defence-humber/>

Milwaukee Estuary Area of Concern finds PFAS in sediments & water samples – limit eating fish

- <https://www.wqpmag.com/pfas/milwaukee-estuary-area-concern-sees-pfas-surface-water>
- <https://milwaukeecourieronline.com/index.php/2020/05/09/pfas-found-in-sediment-and-surface-water-at-milwaukee-estuary-area-of-concern/>

Dover, Portsmouth & Rochester filed comments against EOA Great Bay Total Nitrogen General Permit

- <https://www.seacoastonline.com/news/20200511/dover-portsmouth-rochester-push-back-on-epa-great-bay-permit>

Georgia DNR completed first phase of large oyster bed restoration

- https://thebrunswicknews.com/news/local_news/crd-completes-first-phase-of-oyster-bed-restoration-project/article_0b21ef77-fe71-5b4f-948a-cfcf3b7af9e3.html
- <https://www.pewtrusts.org/en/research-and-analysis/articles/2020/05/12/15-facts-about-oysters-and-the-need-to-protect-them>

The River and the Real World – Hudson River is tidal stream

- <https://landscapearchitecturemagazine.org/2020/05/12/the-river-and-the-real-world/>

Battle continues over limits on water extraction from the Sacramento-San Joaquin River Delta

- <https://scvnews.com/judge-throws-water-on-california-bid-to-slow-delta-pumping/>

Dry season has potential to harm key plant species in Caloosahatchee River and estuary

- <https://www.winknews.com/2020/05/07/dry-season-has-potential-to-harm-key-plant-species-in-caloosahatchee/>
- <https://www.news-press.com/story/tech/science/environment/2020/05/08/after-destructively-dry-spring-caloosahatchee-get-more-fresh-water/5172181002/>
- <https://www.palmbeachpost.com/opinion/20200509/point-of-view-lake-o-water-levels-low-due-to-little-rain-farm-irrigation>

Caught on video – Dublin litter louts dump waste into Broadmeadow Estuary where swans nest

- <https://www.dublinlive.ie/news/dublin-news/litter-video-dublin-breakingnews-illegal-18221134>

6,000 years of climate history from what was huge lake in Lower Murray River in Murray Darling Basin

- <https://phys.org/news/2020-05-years-climate-history-ancient-lake.html>

Kaituna River re-diversion project is successful in returning “freshwater lifeforce” to estuary

- https://www.nzherald.co.nz/bay-of-plenty-times/news/article.cfm?c_id=1503343&objectid=12331356

Small remnant of prehistoric river channel preserves ancient tidal channel Ballona Wetlands

- <https://patch.com/california/marinadelrey/ballona-lagoon-ballona-wetlands-ancient-tidal-channel>

San Diego will receive \$300M to address Tijuana sewage seepage pollution

- <https://www.nbcsandiego.com/news/local/san-diego-secures-300m-to-address-tijuana-sewage-seepage/2323730/>

Glaucus atlanticus “Blue Dragon sea slug” washes ashore on Padre Island National Seashore

- <https://www.yahoo.com/news/enchanting-dangerous-blue-dragon-washes-215700921.html>

\$5.8M phase of project attempting to stabilize coastal bluffs at Del Mar, California

- <https://www.delmartimes.net/news/story/2020-05-12/work-begins-on-next-phase-of-project-to-stabilize-del-mar-bluffs>

Port Everglades \$1.6B expansion & infrastructure projects proceeding

- <https://www.progressiverailroading.com/intermodal/news/Port-Everglades-infrastructure-projects-on-track--60442>

Thick layer of sea foam hampered rescue of 5 surfers

- <https://currently.att.yahoo.com/att/xandr/five-surfers-die-netherlands-huge-113644481.html>

New York MTA beginning hurricane preparedness by testing tunnel flood gates

- <https://www.silive.com/coronavirus/2020/05/mta-tests-tunnel-flood-gates-ahead-of-above-average-hurricane-season.html>

Probing impacts of technological infrastructure on the ocean floor on society

- <https://phys.org/news/2020-05-probes-repercussions-seafloor-society.html>

Novel solutions proposed for reducing coastal wave energy in North Bay Village, Florida

- <https://news.miami.edu/stories/2020/05/teams-tackle-sustainability-for-north-bay-village.html>