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Geosciences Bulletin Board – 24 April 2017 - compiled by Elaine J. Hanford

On the 111th anniversary of the 1906 San Francisco Earthquake (and fire) – photo essay

Just 50 years ago, continental drift was beginning to gain acceptance as a theory
  •  https://www.sciencenews.org/article/50-years-ago-continental-drift-began-gain-acceptance

Humans have created enough garbage to define the Anthropocene, then littered space, and now we can see the garbage left behind on Mars

Oroville Dam spill was doomed due to serious design, construction & maintenance defects

Legacy of the 1997 Red River Valley floods in Fargo-Moorhead, North Dakota/Minnesota
  •  http://bismarcktribune.com/news/state-and-regional/without-flood-would-fight-have-failed-first-big-one-s/article_0fc7234-c0ef-5612-a2bb-43a5a7e44caf.html

Engineer tries to create Atmospheric Vortex Engine (AVE) to use tornadoes to create electricity

"Afterslip" observed on San Andreas fault in California for up to 12 years after M6 Parkfield EQ

Particulate pollution plays a significant role in orographic precipitation along the Sierra Nevada

New project to predict volcanic eruptions will monitor all land volcanoes from space
- [http://www.bbc.co.uk/newsround/39654167](http://www.bbc.co.uk/newsround/39654167)

The shape of glaciers may help predict their susceptibility to thinning

Ingrid Ukestins of University of Iowa lived on & sampled active Yasur volcano in Vanuatu archipelago
- [https://www.sciencedaily.com/releases/2017/04/170419170412.htm](https://www.sciencedaily.com/releases/2017/04/170419170412.htm)

Millions of seahorses die as by-catch in fishing nets each year

Mt. Fuji is not only a majestic volcano, but also a strong cultural force

Seismic surveys in the ocean force marine life to flee

Did you know a 400-m wide asteroid streaked past Earth last week? (video)

Potash deposit discovered in Michigan may be multi-billion dollar discovery

Understanding how gold deposits formed in the Witwatersrand Basin in South Africa

Chinese fossil site that yields earliest Cambrian animals is threatened by phosphate mining

Ranking hazardous asteroid effects from least to most destructive
NAS report outlines limits of ability to predict timing, duration, type, size & consequences of volcanic eruptions


Trace fossils (ichnites) of several groups of reptiles help define early Mesozoic in the Lleida Pyrenees


Retreat of Kashawulsh Glacier in Canada has triggered first known modern case of “river piracy”


Peru hit by floods, mudslides and earthquakes – death toll at 113 since beginning of 2017

- [http://www.spacedaily.com/reports/Death_toll_rises_to_113_in_Peru_floods_mudslides_999.html](http://www.spacedaily.com/reports/Death_toll_rises_to_113_in_Peru_floods_mudslides_999.html)

Suggesting mechanism for the origins of banded iron formations on early Earth

- [http://www.terradaily.com/reports/A_rusty_green_early_ocean_999.html](http://www.terradaily.com/reports/A_rusty_green_early_ocean_999.html)

New mineral named “rubinite” identified in oldest solar system solids from primitive meteorites

- [https://www.sciencedaily.com/releases/2017/04/170418114622.htm](https://www.sciencedaily.com/releases/2017/04/170418114622.htm)

Loss of coral reefs associated with seafloor erosion and subsidence – my question: which is cause and which is effect?


What global warming??!!! Storms bring deep winter conditions back to the Alps


430 million years ago, the original sea monsters were Eurypterids or sea scorpions

- [https://www.sciencedaily.com/releases/2017/04/170418125753.htm](https://www.sciencedaily.com/releases/2017/04/170418125753.htm)

The extinct giant sloth Megatherium subsisted exclusively on a vegetarian diet

- [https://www.sciencedaily.com/releases/2017/04/170418094855.htm](https://www.sciencedaily.com/releases/2017/04/170418094855.htm)

Preparations underway in Bulgaria for 26th Antarctic Expedition


Arctic Ocean is a “dead end” for floating plastics in the North Atlantic branch of thermohaline circulation

- [https://www.eurekalert.org/pub_releases/2017-04/aaf-t-o041717.php](https://www.eurekalert.org/pub_releases/2017-04/aaf-t-o041717.php)
Deep sea life may give us clues as to what aliens would be like

Snowpack in the Sierra Nevada is bigger than the last four years combined

Underwater deposit of diverse minerals about 500 km off the Canary Islands contains vast amounts of tellurium that is used for solar panels, wind turbines & electronics
• http://www.mining.com/british-scientists-find-sub-sea-minerals-treasure-trove/

EPA will review rule limiting methane emissions at O&G drilling sites
• http://thehill.com/policy/energy-environment/329473-epa-begins-review-of-key-obama-methane-rule

Environmental Science Bulletin Board – 24 April 2017 – compiled by Elaine J. Hanford

New Book: “Environmental Realism: Challenging Solutions” - looks like an excellent perspective
• https://books.google.com/books?id=cfuODgAAQBAJ&printsec=frontcover#v=onepage&q&f=false

Over-pumping reduced groundwater storage in California causing land subsidence in Central Valley and permanently reducing storage capacity – a reminder that the drought is NOT over yet
Rematriating native seeds allows Native Americans to collect, plant & trade foods that strengthen their heritage

Yellowstone & Glacier National Parks draw multitudes of tourists, but Native American history lies not far away

Necropsy report not quite definitive on death of 3,000-4,000 snow geese in Berkeley Pit in Montana in 2016

Tribunal in The Hague found Monsanto guilty of environmental & human rights abuses

Californians have been drinking water contaminated with TCP (1,2,3-trichloropropene) for 28 years

One more merger and just three countries will control most of world food supply

Bighorn ram euthanized after contacting domestic sheep in Idaho – preventive measure to stop potential transfer of disease from domestic to wild animals

Three rivers in the Cameron Highlands declared biologically dead & only 10% of 123 rivers are healthy

Lots of people tweeted for Earth Day….but did they do anything to reduce their impacts?

Looking into Medieval history for possible new antibiotics
NSF Special Report: “April Showers Bring … The Science of Spring” – spring flowers, thunderstorms & tornadoes


Outbreak of mumps spread across several states likely not due to failure of vaccine

- http://www.huffingtonpost.com/entry/mumps-outbreak-2017-texas_us_58f52241e4b0da2ff8627302

Six of the ten cities in the US with the highest levels of short-term particulate pollution are in California – oh, yeah, Reno ranks #10...must be all that stuff blowing over the Sierra!


How did the wild mustang become a pest?


Fish farms can be incubators for disease and resistance in parasites


Trapping deemed success in reducing feral hog population by 2,332 in 3 months in Missouri


Bacteria-infected mosquitoes were released into the wild in the Florida Keys in attempt to control Zika and other viruses


Study reveals high levels of mercury in 96% of women of childbearing age in 4 Pacific Island countries – likely from diet high in consumption of predatory fish


This orchid smells like “a thousand dead elephants rotting in the sun”


President Teddy Roosevelt used executive orders for conservation, quadrupling protected lands


You are what you eat! So eliminate as much sugar as possible and be healthier!

Burgeoning blueberry industry brings jobs, but uncontrolled growth & demand for water creates significant impacts on North Coast of New South Wales


 Genome of the dingo will be sequenced


 Humans need to remember they are not alone when living in the countryside – wild animals get hungry

- [https://uk.news.yahoo.com/mum-daughter-12-woken-mountain-140106517.html](https://uk.news.yahoo.com/mum-daughter-12-woken-mountain-140106517.html)

 Allergy research has primarily focused on peanuts (legumes), eggs and dairy -- tree nut allergies may be massively over-diagnosed


 Development of shale gas poses threat of fragmentation to forests in northern Appalachians

- [https://www.sciencealert.com/releases/2017/04/170419100836.htm](https://www.sciencealert.com/releases/2017/04/170419100836.htm)

 You are what you eat! Trans fat bans link to fewer heart attacks & cardiovascular deaths


 Climate change may put human societies and a multitude of species “on the brink” if they don’t adapt


 Synthetic blood is to begin human trials

- [http://www.huffingtonpost.com/entry/synthetic-blood-is-about-to-go-through-human-trials_us_58ee654be4b0a3bddd60a645](http://www.huffingtonpost.com/entry/synthetic-blood-is-about-to-go-through-human-trials_us_58ee654be4b0a3bddd60a645)

 Images from space of some of our National Parks


 Prolonged exploitation of sand & gravel in rivers is putting dyke system in Vietnam at risk

- [http://vietnamnews.vn/society/374959/overexploitation-of-riverbeds-puts-dyke-systems-at-risk.html#OLt8MHVt4PCIwiqa.97](http://vietnamnews.vn/society/374959/overexploitation-of-riverbeds-puts-dyke-systems-at-risk.html#OLt8MHVt4PCIwiqa.97)

 Czech Government policy of arable land protection has failed and soil erosion results in loss of arable land

Where did Charles Darwin go when he sailed on the round-the-world expedition on the HMS Beagle?


Energy Department says coal retirements have destroyed jobs & diminished energy diversity


Eels navigate from Sargasso Sea to North Africa & Scandinavia by using the magnetic field of Earth

- [http://www.spacedaily.com/reports/With_magnetic_map_young_eels_catch_a_free_ride_to_Europe_999.html](http://www.spacedaily.com/reports/With_magnetic_map_young_eels_catch_a_free_ride_to_Europe_999.html)

Using DNA of algae to track water pollution in rivers and lakes

- [https://www.sciencedaily.com/releases/2017/04/170418114344.htm](https://www.sciencedaily.com/releases/2017/04/170418114344.htm)

Fire-prone ecologic regions may exhibit inhibited vegetation recovery & loss of plant diversity


Banned solvent methyl chloroform is proxy for hydroxyl radicals in atmosphere that impact methane content


Used increasingly, Neonicotinoid pesticides escape into the environment


Oklahoma passes legislation to end tax credit subsidy for wind power


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Sea otters have returned to Glacier Bay after 250 year absence

California will need massive amounts of sand to “save” its beaches
• https://www.hakaimagazine.com/article-short/californias-surf-spots-are-heading-wipeout

Continued protection of manatees and their habitat may help the species survive for another 100 years
• http://www.terradaily.com/reports/Florida_manatees_likely_to_persist_for_at_least_100_years_999.html

Population growth in coastal South Carolina slows, but not in Myrtle Beach

Coastal Massachusetts considers coastal connections in a changing climate
• http://www.salemnews.com/opinion/columns/column-earth-day-coastal-connections-in-a-changing-climate/article_b40c547a-3a52-5a80-bf31-34b344294f78.html

What is the initiative for sustainable development of the “blue economy” in the Western Mediterranean?
Making a business case for building disaster resilience in the coastal cities of Asia

Population of sharks is on the rise in coastal waters of the Southeastern US

Oysters built the East Coast…and now, entrepreneurs are rebuilding the oyster beds

Forty years later, the sleepy fishing village of Shenzhen, China, is now a city of nearly 12 million

In 1817 the Mississippi Gulf Coast was a frontier, by 1917 it was a tourist destination

Pining for cleaner air in the fjords of Norway – the transition from diesel to low-emission ferries

Will renaming it a “swamp” solve a water quality problem in North Carolina port of Wilmington?

Bickering about the view when US Wind proposes installation of wind turbines of the Ocean City coast

Possible solution offered for the waterway pollution from Lake Okeechobee discharges to the canals and estuaries in Florida

Imagine….health of coral reef linked to stability of ocean floor linked to erosion of beaches linked to…

Louisiana proclaims disappearing coastline in a “state of emergency”

Marsh pond expansion a significant factor in loss of Mississippi Delta land
• [https://www.sciencedaily.com/releases/2017/04/170421210830.htm](https://www.sciencedaily.com/releases/2017/04/170421210830.htm)