

Signs on the Road...: WCN 6

This is your section, so send in submissions. Find articles that you want to share with your fellow members that you feel serve as signs on the road to the Red Skies. The main headings are Tom Brown's and the idea for your sharing is his. Please submit your articles with links to:

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Food and Water Shortage / Disease / Storms / War / Earth Upheavals / Loss of Faith in Institutions

This map shows the locations of documented earthquakes in the US since 1568 along with the 63 US nuclear power plants.

<http://www.greenpeace.org/usa/en/news-and-blogs/campaign-blog/new-maps-of-nuclear-power-plants-and-seismic-/blog/33826/>

Darpa is making a long-shot request for an all-out replacement to antibiotics, the decades-old standard for killing or injuring bacteria to demolish a disease. In its place: the emerging field of nanomedicine would be used to fight bacterial threats. The agency's "Rapidly Adaptable Nanotherapeutics" is after a versatile "platform capable of rapidly synthesizing therapeutic nanoparticles" to target unknown, evolving and even genetically engineered bioweapons.

<http://www.wired.com/dangerroom/2011/11/darpa-nano-antibiotics/>

CBSD has been classified as one of the seven most dangerous plant diseases in the world for the impact it can have on food and economic security across Africa. Cassava brown streak virus (CBSV).

<http://www.ibtimes.com/articles/251662/20111117/cassava-virus-epidemic-africa.htm>

<http://www.bbc.co.uk/news/science-environment-15763330>

The H5N1 virus has been circulating among birds and other animals in recent years. It's also infected about 500 people. More than half died. But this dangerous virus has not caused widespread human disease because, so far, sick people haven't been very contagious.

If the virus evolves to spread as easily between people as seasonal flu, however, it could cause a devastating global pandemic. So in an attempt to stay ahead of H5N1, scientists have been tweaking its genes in the lab to learn more about how this virus works, and what it is capable of.

In September, one scientist made a stunning announcement. At a flu conference held in Malta, he said he'd done a lab experiment that resulted in bird flu virus becoming highly contagious between ferrets — the animal model used to study human flu infection. It seemed that just five mutations did the trick.

For example, the December issue of the Journal of Virology includes a study in which researchers at St. Jude Children's Research Hospital in Memphis inserted the hemagglutinin gene from a 1997 Hong Kong strain of H5N1 virus into a pandemic 2009 H1N1 virus. When this hybrid was grown serially in human lung epithelial cells, it became more pathogenic in mice, "suggesting that these viruses may easily adapt

to humans and become more virulent," the report says. The authors concluded that natural reassortment between circulating 2009 H1N1 and H5N1 viruses could lead to viruses with increased pathogenicity in mammals.

<http://www.npr.org/blogs/health/2011/11/17/142453447/bird-flu-research-rattles-bioterrorism-field>

<http://www.cidrap.umn.edu/cidrap/content/influenza/avianflu/news/nov1711board.html>

"We can now track the progress of solar storms in 3 dimensions as the storms bear down on Earth," says Michael Hesse, chief of the GSFC Space Weather Lab and a speaker at the forum. "This sets the stage for actionable space weather alerts that could preserve power grids and other high-tech assets during extreme periods of solar activity." Speaking at the forum, Allen called for a new kind of forecast: "We could use All Clear alerts. In addition to knowing when it's dangerous to go outside, we'd also like to know when it's safe. This is another frontier for forecasters--not only telling us when a sunspot will erupt, but also when it won't."

http://www.nasa.gov/mission_pages/sunearth/news/next-solarstorm.html

The results, published in the journal Cell Research, showed that the subjects' bloodstream contained approximately 30 different microRNAs from commonly eaten plants. It appears that they can also alter cell function: a specific rice microRNA was shown to bind to and inhibit the activity of receptors controlling the removal of LDL—"bad" cholesterol—from the bloodstream. Like vitamins and minerals, microRNA may represent a previously unrecognized type of functional molecule obtained from food.

<http://www.scientificamerican.com/article.cfm?id=vitamins-minerals-and-microrna>

The latest groundwater map, released on Nov. 29, shows large patches of maroon over eastern Texas, indicating severely depressed groundwater levels.

<http://www.sciencedaily.com/releases/2011/11/111130171100.htm>

Researchers at the University of Gothenburg's Sahlgrenska Academy have discovered a brand new tick-borne infection. Since the discovery, eight cases have been described around the world, three of them in the Gothenburg area, Sweden.

<http://www.sciencedaily.com/releases/2011/12/111206131404.htm>

The most common tick-borne disease in humans is Lyme borreliosis. Extensive field and laboratory tests have revealed that the Borrelia bacterium is present in a larger proportion of ticks than has been shown by earlier studies. Another finding is that migratory birds play an important role in the spreading of ticks and pathogenic agents borne by ticks.

Ticks are to be found in most parts of the world, and more than 900 species have been identified so far. The geographic distribution of these many tick species varies and the most prevalent species in Norway is the forest tick (Ixodes ricinus), which can be the bearer of a number of bacteria and viruses that can infect animals and humans and cause disease.

<http://www.sciencedaily.com/releases/2011/06/110624083512.htm>

Climate change will alter the mix of vegetation on 49 percent of Earth's land surface by the end of this century, scrambling and shifting existing ecosystems, according to a new study. Researchers at NASA

and the California Institute of Technology say the changing climate will also convert 37 percent of the world's land ecosystems from one type -- such as tundra, forest or grassland -- into another by 2100.

<http://www.scientificamerican.com/article.cfm?id=changing-climate-massive-shift-earth-vegetation>

Experts have long known that northern lands were a storehouse of frozen carbon, locked up in the form of leaves, roots and other organic matter trapped in icy soil — a mix that, when thawed, can produce methane and carbon dioxide, gases that trap heat and warm the planet. But they have been stunned in recent years to realize just how much organic debris is there.

A recent estimate suggests that the perennially frozen ground known as permafrost, which underlies nearly a quarter of the Northern Hemisphere, contains twice as much carbon as the entire atmosphere.

http://www.nytimes.com/2011/12/17/science/earth/warming-arctic-permafrost-fuels-climate-change-worries.html?_r=2&pagewanted=1&ref=general&src=me

The rise of the farmed fish industry in recent years has been accompanied by the emergence of many infectious diseases of fish. One of the most recent and serious diseases is the marine viral disease, Infectious Salmon Anaemia (ISA). First detected in Atlantic salmon farmed along the southwest coast of Norway in 1984, it has since spread throughout the world.

http://www.theecologist.org/News/news_analysis/1165637/warning_as_infectious_salmon_disease_spreads_from_europes_fish_farms_to_canada.html

"Humans have more than doubled the rate of nitrogen inputs into global ecosystems, relative to pre-industrial periods, and have changed the amounts of circulating phosphorus (like nitrogen, a key limiting ingredient for crops and other plants) by about 400 percent due to mining to produce fertilizers," Elser said. The result has been immediate and widespread, he added.

<http://www.sciencedaily.com/releases/2011/12/111215232720.htm>

Preliminary estimates from the Texas Forest Service show the year-long drought in Texas may have claimed as many as a half-billion trees. The agency surveyed forestry professionals from regions around Texas, which has a total tree population of about 4.9 billion. Researchers analyzing the information have determined from 100 million to 500 million, or from 2 to 10 percent of all trees, have been lost.

<http://www.kvue.com/news/state/Drought-may-have-claimed-500-million-Texas-trees-135879273.html>

The first to die was Enver Simsek , 38, a flower vendor shot in the face in Nuremberg in 2000. The last was Halit Yozgat, 21, shot in the head in the Internet café he ran in Kassel, six years later. In between, seven more people — mostly Turks — were murdered across Germany in killings that police had surmised were the work of drug syndicates, money launderers or homicidal relatives. Law enforcement appeared to ignore the possibility of right-wing terrorism, in spite of Germany's legacy of decades of periodic violence against minorities by neo-Nazis. But the recent discovery that the killings were the work of neo-Nazis has led to soul searching and shame among German officials and rage in the Turkish-German community.

<http://content.usatoday.net/dist/custom/gci/InsidePage.aspx?cld=app&sParam=52083006.story&source=nletter-news>

The new data show a sharp increase from a previous study that stunned the American public when it was published 44 years ago by criminologist Ron Christensen. That study found 22% of youth would be arrested by age 23. The latest study finds 30.2% of young people will be arrested by age 23.

<http://content.usatoday.net/dist/custom/gci/InsidePage.aspx?cld=app&sParam=52055700.story&source=nletter-news>

Increasing numbers of domestic livestock and more resource-intensive production methods are encouraging epizootics (epidemics in animals) around the world, a problem that is particularly acute in developing countries, where livestock diseases present a growing threat to the food security of already vulnerable populations, according to new assessments reported February 10 at the International Conference on Leveraging Agriculture for Improving Nutrition & Health. "Wealthy countries are effectively dealing with livestock diseases, but in Africa and Asia, the capacity of veterinary services to track and control outbreaks is lagging dangerously behind livestock intensification,"

<http://www.sciencedaily.com/releases/2011/02/110210141210.htm>

The Ministry of Health and Population of Egypt has notified WHO of a case of human infection with avian influenza A (H5N1) virus. The case is a 29-year-old male from Dakahlia Governorate. He developed symptoms on December 1 and was admitted to hospital on December 2, where he received oseltamivir treatment. He was in critical condition and died on December 4.

http://www.who.int/csr/don/2011_12_21/en/index.html

Residents of Youngstown, Ohio, received an extra surprise on Christmas Eve and again on New Year's Eve—earthquakes, measuring 2.7 and 4.0 on the Richter scale, respectively. No one was injured and only a few cases of minor damage were reported after the Dec. 31 event. Scientists have quickly determined that the likely cause was fracking—although not from drilling into deep shale or cracking it with pressured water and chemicals to retrieve natural gas. Rather, they suspect the disposal of wastewater from those operations, done by pumping it back down into equally deep sandstone.

http://www.scientificamerican.com/article.cfm?id=ohio-earthquake-likely-caused-by-fracking&WT.mc_id=SA_DD_20120105

Suspected gunmen from a radical Muslim sect attacked a town hall Friday in rural northeast Nigeria, killing at least 20 people who had gathered for a meeting of a Christian ethnic group, police said. The attack at noon targeted a town hall where Christian Igbo people were holding a meeting, with gunmen chanting "God is great" as they fired Kalashnikov rifles. The killings come after a spokesman for the sect known as Boko Haram threatened to begin specifically targeting Christians living in the country's Muslim north in its increasingly bloody sectarian fight with Nigeria's weak central government. That could further inflame religious tensions in an uneasy nation already gripped by civil unrest.

<http://content.usatoday.net/dist/custom/gci/InsidePage.aspx?cld=app&sParam=52415848.story&source=nletter-news>

The global economy could withstand widespread disruption from a natural disaster or attack by militants for only a week as governments and businesses are not sufficiently prepared to deal with unexpected events, a report by a respected think-tank said.

<http://www.reuters.com/article/2012/01/06/us-disasters-economy-idUSTRE8050QF20120106>

A short list of the living weapons and the living bullets they could be jerry-rigged to carry reads like something out of a Tom Clancy novel. Business Wire reports:

- Feral pigs can be used to carry the Nipah virus and spread disease to humans, cattle and wildlife.
- The heartwater pathogen, a microbe that can cause heart and pulmonary edema, and carried by the tropical bont tick, can kill deer, cattle or other wildlife, and potentially be transmitted to humans.
- Striga, a plant parasite that can destroy corn crops, and subsequently devastate commodity markets and bio-fuel production.
- Barberry plants that are eaten by birds whose droppings spread wheat stem rust, which can cause a decline or destruction of wheat production.

<http://www.takepart.com/article/2011/11/10/swine-warfare-are-feral-pigs-next-weapon-mass-destruction>

<http://www.aiu.edu/applications/DocumentLibraryManager/upload/Military%20Aspects%20of%20Biological%20weapons.pdf>

Scientists say nearly 75 percent of emerging infectious diseases in humans originate in animals and the majority originate in wildlife, such as the 2003 SARS outbreak, which was traced to Chinese restaurant workers butchering the cat-like masked palm civet.

<http://www.takepart.com/article/2012/01/11/smuggled-african-bushmeat-sneaks-herpes-hiv-usa>

<http://www.ens-newswire.com/ens/jan2012/2012-01-10-091.html>

Analyses of bees found dead in and around hives from several apiaries over two years in Indiana showed the presence of neonicotinoid insecticides, which are commonly used to coat corn and soybean seeds before planting. The research showed that those insecticides were present at high concentrations in waste talc that is exhausted from farm machinery during planting.

The insecticides clothianidin and thiamethoxam were also consistently found at low levels in soil -- up to two years after treated seed was planted -- on nearby dandelion flowers and in corn pollen gathered by the bees, according to the findings released in the journal PLoS One this month

<http://www.sciencedaily.com/releases/2012/01/120112112722.htm>

Freed and Cann report that birds are now so food-deprived that they take up to twice as long to replace their feathers, an annual process known as molt. The authors confirmed the hypothesis that Japanese white-eye (*Zosterops japonicus*) birds are effectively competing with most species of native birds. Their research found that both young and adult birds took longer to complete their molt. Young birds normally complete their juvenile molt in five months, beginning before June and ending in October. Now it is taking the birds as late as March of the following year to finish that molt. Adults are also taking that much longer to replace their feathers. Freed and Cann propose that this change in molt matches those in studies that experimentally starve birds.

<http://www.sciencedaily.com/releases/2012/01/120119163259.htm>

Rising human carbon dioxide emissions may be affecting the brains and central nervous system of sea fishes with serious consequences for their survival, an international scientific team has found. Carbon dioxide concentrations predicted to occur in the ocean by the end of this century will interfere with fishes'

ability to hear, smell, turn and evade predators, says Professor Philip Munday of the ARC Centre of Excellence for Coral Reef Studies and James Cook University. "For several years our team have been testing the performance of baby coral fishes in sea water containing higher levels of dissolved CO₂ -- and it is now pretty clear that they sustain significant disruption to their central nervous system, which is likely to impair their chances of survival," Prof. Munday says.

<http://www.sciencedaily.com/releases/2012/01/120120184233.htm>

The global average surface temperature in 2011 was the ninth warmest since 1880, according to NASA scientists. The finding continues a trend in which nine of the 10 warmest years in the modern meteorological record have occurred since the year 2000. NASA's Goddard Institute for Space Studies (GISS) in New York, which monitors global surface temperatures on an ongoing basis, released an updated analysis that shows temperatures around the globe in 2011 compared to the average global temperature from the mid-20th century. The comparison shows how Earth continues to experience warmer temperatures than several decades ago. The average temperature around the globe in 2011 was 0.92 degrees F (0.51 C) warmer than the mid-20th century baseline.

<http://www.sciencedaily.com/releases/2012/01/120119152353.htm>

In a first-of-its-kind study, scientists are reporting that the indoor air in offices is an important source of worker exposure to potentially toxic substances released by carpeting, furniture, paint and other items. Their report, which documents a link between levels of these so-called polyfluorinated compounds (PFCs) in office air and in the blood of workers, appears in ACS' journal Environmental Science & Technology. Michael McClean and colleagues explain that PFCs, used in water-repellent coatings on carpet and furniture, may have adverse effects on human health. The substances are widespread in the environment and in humans around the world. Scientists know that potential sources of exposure include food, water, indoor air, indoor dust and direct contact with PFC-containing objects. But the link between levels in air and blood had not been explored previously, so McClean's group set out to fill that gap with a study of 31 office workers in Boston.

<http://www.sciencedaily.com/releases/2012/01/120118112003.htm>

In the cosmetics industry, the biocide methylisothiazolinone or MIT, is considered safe at concentrations of less than 100 parts per million. Lab studies, however, have found that lower concentrations affected the growth of animal neurons. Picking up from there, the Brown researchers performed a series of experiments to investigate how 10 days of exposure at concentrations as low as 1.5 ppm would affect whole, living tadpoles as they develop. Their results appear in advance online in the journal Neuroscience.

<http://www.sciencedaily.com/releases/2012/01/120110151714.htm>

Birth defects are significantly more common in areas of mountaintop coal mining and are on the rise as the practice becomes more common, according to a study by researchers at Washington State University and West Virginia University. The researchers, led by Melissa Ahern, health economist and associate professor in WSU's College of Pharmacy, found 235 birth defects per 10,000 births where mountaintop mining is most common in four central Appalachian states. That's nearly twice the rate of 144 defects per 10,000 in non-mining areas.

Previous studies have found low birth weights and increased levels of adult disease and death in coal mining areas. This study offers one of the first indications that health problems are disproportionately

concentrated specifically in mountaintop mining areas. The findings "contribute to the growing evidence that mountaintop mining is done at substantial expense to the environment, to local economies and to human health," the authors conclude in the current issue of the peer-reviewed journal Environmental Research.

<http://www.sciencedaily.com/releases/2011/06/110623090001.htm>

The fungi of the Candida genus, known to millions of patients worldwide for their ability to cause serious infections, were once all thought to be asexual. Even after scientists discovered that the mating habits of Candida albicans were many and varied, they remained convinced that many of the more infectious ones did not mate. Now with the first report that Candida tropicalis can mate sexually as well, the chastity of the whole genus comes into further doubt. The at least occasionally sexual nature of C. tropicalis may mean that the species can evolve faster than scientists thought it did, Bennett said. That means it may also be more capable of developing increased virulence or drug resistance.

<http://www.sciencedaily.com/releases/2011/12/111205165905.htm>

A strange illness has made a dozen teenage girls sick at the same high school in upstate New York.

Doctors in La Roy are trying to figure out what caused 12 girls to have severe ticks, almost like Tourette syndrome.

<http://www1.whdh.com/news/articles/national/12006451774014/12-ny-girls-suffering-from-tourette-like-symptoms>

The New York State Health Department has been investigating the case for more than three months and says the school building is not to blame. Officials from the LeRoy Junior-Senior High School in upstate New York, where all the girls attended when their symptoms began, have released environmental reports, conducted by an outside agency, showing no substances in any of the school buildings that could cause health problems.

Health officials ruled out carbon monoxide, illegal drugs and other factors as potential causes. Officials say no one at the school is in any danger.

"We have conclusively ruled out any form of infection or communicable disease and there's no evidence of any environmental factor," r . Gregory Young of the New York ep artment of ea lth told NBC News.

<http://todayhealth.today.msnbc.msn.com/ news/2012/01/18/10181277-teen-girls-mystery-illness-now-has-a-diagnosis-mass-hysteria>

A 2010 outbreak of Legionnaires' disease in Wisconsin has been linked to a decorative fountain in a hospital lobby, according to a study published in the February issue of Infection Control and Hospital Epidemiology, the journal of the Society for Healthcare Epidemiology of America.

<http://www.sciencedaily.com/releases/2012/01/120109145911.htm>

Investors bought less an a third of the 3.5 billion Egyptian pounds (US\$580 million) worth of Treasury bills offered to the market on January 22, a red flag warning that Egypt's foreign exchange position is close to the brink. Yields on Egyptian government debt maturing in nine months jumped to nearly 16%, but the government could not place its local-currency debt to Egyptian investors, even at that exorbitant rate.

This is a new and ominous decline in the financial position of the most populous Arab country. I have been warning since last May that "Egypt is running out of food, and, more gradually, running out of the money with which to buy it."

http://www.atimes.com/atimes/Middle_East/NA24Ak02.html

Extraordinarily cold temperatures in the winter of 2010/2011 caused the most massive destruction of the ozone layer above the Arctic so far: The mechanisms leading to the first ozone hole above the North Pole were studied by scientists of the KIT Institute of Meteorology and Climate Research (IMK). According to these studies, further cooling of the ozone layer may enhance the influence of ozone-destroying substances, e.g. chlorofluorocarbons (CFC), such that repeated occurrence of an ozone hole above the Arctic has to be expected.

<http://www.sciencedaily.com/releases/2012/01/120119133759.htm>

The basic point of entanglement is that the behavior of objects at spatially separated locations is random yet coordinated. Two (or more) particles behave as a single indivisible system, no matter how far apart they are. Indeed, even to speak of "particles" in the plural is a falsehood; we see them as individual parts, but they possess collective properties that cannot be partitioned. In the 1930s, Albert Einstein argued that for entangled particles to behave in such a coordinated way, either their behavior must be choreographed in advance or they must surreptitiously influence each other on the fly. This influence cannot pass through the intervening space—it would be, as Einstein put it, "spooky action at a distance." Three decades later, physicist John Bell devised an experiment that rules out the first possibility, leaving the spooky one as a creepy fact of nature.

http://blogs.scientificamerican.com/observations/2012/01/30/george-and-johns-excellent-adventures-in-quantum-entanglement-video/?WT_mc_id=SA_DD_20120130

A few weeks ago a clinic in Mumbai claimed to have identified a dozen patients with a strain of tuberculosis (TB) resistant to all known treatments. TB is a highly contagious lung infection that kills about 1.5 million people each year worldwide, according to the World Health Organization (WHO), so the development of a totally untreatable form of the disease would be cause for alarm. "It conveys that there is no hope, that not a single drug works," says Madhukar Pai, a tuberculosis researcher at McGill University in Montreal. Fortunately, it does not appear that the Mumbai cases are completely untreatable. After evaluating the cases last week, India's Ministry of Health and Family Welfare reported that the patients actually had "extensively drug-resistant" tuberculosis, a form of the disease that is difficult to treat, but not incurable. Although three of the 12 patients have died, the other nine are reportedly being treated with antibiotics used to treat extensively drug-resistant TB, such as clofazimine and rifabutin. Still, the case has prompted WHO to schedule a meeting in March to discuss the merits of creating a new "totally drug-resistant" category of tuberculosis. Most likely, "extensively drug-resistant," or XDR, will remain the top level of tuberculosis threat. For one thing, current laboratory tests for determining drug-resistant TB are not reliable enough to rule out all TB drugs conclusively, particularly three of the six classes of second-line drugs. "The tests aren't highly reproducible," says Peter Cegielski, head of the U.S. Centers for Disease Control and Prevention's drug-resistant TB program. "You can even get different results from the same patient specimen."

http://www.scientificamerican.com/article.cfm?id=fear-resistance-how-worried-should&WT.mc_id=SA_DD_20120130

Snowy owls — majestic, 2-foot tall creatures normally seen in the Arctic tundra — are showing up all across lower Michigan this winter as an unusually large number of the birds have flown farther south in search of food. With their regal pose, piercing yellow eyes and fluffy, feathered legs, the owls are an unexpected winter attraction. The owls are showing up in places they aren't always seen, exciting birders and non-birders alike. They've been seen in many spots in lower Michigan, and some have made it as <http://content.usatoday.net/dist/custom/gci/InsidePage.aspx?clid=app&sParam=52872558.story&source=newletter-breakingnews> far as Texas and Hawaii.

Certain disease outbreaks, including some of the worst pandemics of the 20th century, are linked to weather patterns in the Pacific Ocean, according to new research. Scientists said tracking these climate changes can help officials anticipate and plan for surges in illnesses. The El Niño-Southern Oscillation (ENSO) cycle causes ripples through the global climate, changing rainfall and air currents. These shifts, in turn, can cause disease carriers to interact in new ways, creating novel pathogens. Weather changes can also increase the number of people exposed to a disease, increasing the likelihood of an outbreak.

http://www.scientificamerican.com/article.cfm?id=el-nino-climate-pattern&WT.mc_id=SA_DD_20120130

A new NASA study underscores the fact that greenhouse gases generated by human activity -- not changes in solar activity -- are the primary force driving global warming. The study offers an updated calculation of Earth's energy imbalance, the difference between the amount of solar energy absorbed by Earth's surface and the amount returned to space as heat. The researchers' calculations show that, despite unusually low solar activity between 2005 and 2010, the planet continued to absorb more energy than it returned to space.

<http://www.sciencedaily.com/releases/2012/01/120130172611.htm>

A flesh-eating form of pneumonia that is easily passed between healthy people on public transport is spreading across the UK, experts have warned. The deadly strain of MRSA called USA300 passes easily through skin-to-skin contact. It can also survive on surfaces and so has the potential to be picked up on crowded buses and tubes. It was first seen in the U.S but cases are now being reported in the community and not just hospitals in Britain.

<http://www.dailymail.co.uk/health/article-2094983/MRSA-strain-USA300-Flesh-eating-bug-spread-coughs-sneezes-spread-U-S-UK.html>

A new NASA study revealed that the oldest and thickest Arctic sea ice is disappearing at a faster rate than the younger and thinner ice at the edges of the Arctic Ocean's floating ice cap.

<http://www.physorg.com/news/2012-02-thickest-arctic-ice-cap-faster.html>

the incidence of psychopathy among CEOs is about 4 percent, four times what it is in the population at large. these people [ie. psychopaths] are different than human beings. They lack the things that make you human: empathy, remorse, loving kindness. ... he was a man who seemed to enjoy firing people, not to mention the stories from his first marriage — telling his first wife he wanted to know what human flesh tastes like, not going to his parents' funerals. Then you realize that because of this dysfunctional capitalistic society we live in those things were positives. He was hailed and given high-powered jobs, and the more ruthlessly his administration behaved, the more his share price shot up.

<http://www.forbes.com/sites/jeffbercovici/2011/06/14/why-some-psychopaths-make-great-ceos/>

The eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*), a candidate for protection under the federal Endangered Species Act, suffers from habitat loss and environmental stresses wherever it is found, said University of Illinois comparative biosciences visiting instructor and wildlife veterinarian Matthew Allender, who led the health investigation. Long-term population studies of the snake -- in Illinois and elsewhere -- had never turned up evidence of debilitating fungal infections. But in 2008, biologists studying the snake reported to Allender that they had found three sick snakes in a park in southern Illinois, all with disfiguring lesions on their heads. The snakes died within three weeks of their discovery. A fourth snake with a similar syndrome was discovered in the same park in the spring of 2010.

<http://www.sciencedaily.com/releases/2012/02/120221151543.htm>

A strain of the potentially deadly antibiotic-resistant bacterium known as MRSA has jumped from livestock to humans, according to a new study involving two Northern Arizona University researchers. The research focused on methicillin-resistant *Staphylococcus aureus* CC398, also known as pig MRSA or livestock-associated MRSA because it most often infects people with direct exposure to swine or other livestock. It is likely that MRSA CC398 started as an antibiotic-susceptible strain in humans before it jumped to livestock. After transferring to livestock, MRSA CC398 became resistant to two important antibiotics, tetracycline and methicillin, which are used for treating staph infections. The resistance likely is a result of the routine antibiotic use that characterizes modern food-animal production. The animals commonly are given antibiotics to prevent infection and promote growth.

<http://www.sciencedaily.com/releases/2012/02/120221124711.htm>

Humans kept Red Junglefowl as livestock about 8000 years ago. Evolutionarily speaking, the sudden emergence of an enormous variety of domestic fowl of different colours, shapes and sizes has occurred in record time. The traditional Darwinian explanation is that over thousands of years, people have bred properties that have arisen through random, spontaneous mutations in the chickens' genes. Linköping zoologists, with Daniel Nätt and Per Jensen at the forefront, demonstrate in their study that so-called epigenetic factors play a greater role than previously thought. The study was published in the journal BMC Genomics. They studied how individual patterns of gene activity in the brain were different for modern laying chickens than the original form of the species, the red jungle fowl. Furthermore they discovered hundreds of genes in which the activity was markedly different. Degrees of a kind of epigenetic modification, DNA methylation, were measured in several thousand genes. This is a chemical alteration of the DNA molecule that can affect gene expression, but unlike a mutation it does not appear in the DNA structure. The results show clear differences in hundreds of genes.

<http://www.sciencedaily.com/releases/2012/02/120229091844.htm>

A methicillin-resistant *S. aureus* (MRSA) strain known as livestock-associated (LA)-ST398 is a cause of severe infections in people in Europe who have close contact with swine, but the bacterium does not transmit well from person to person. More recently, a variant of LA-ST398 that presently is susceptible to methicillin has emerged as a significant cause of community-associated infections in several countries, including the United States, Canada and China. The new strain primarily infects the skin and soft tissue, but it can cause more severe disease.

<http://www.sciencedaily.com/releases/2012/02/120228114314.htm>

The levels of the environmental pollutant perfluorooctanoic acid (PFOA) that mothers had in their blood during pregnancy increased the risk of obesity in their daughters at 20 years of age. The findings come from a recent study of Danish women in which the Norwegian Institute of Public Health participated. In

recent decades, there has been a sharp increase in the number of overweight children and adults worldwide. It is suspected that diet and exercise alone cannot explain this large weight increase. Researchers suggest that the increasing levels of endocrine disrupters in the environment may be a possible contributing factor. Therefore, this study was established and discovered the following: Daughters of mothers with the highest concentrations of PFOA in the blood during pregnancy were three times as likely to be overweight at the age of about 20 years as daughters of mothers with the lowest PFOA levels. The calculations took into account many variables, such as maternal weight and lifestyle factors. An association was also found between PFOA exposure before birth and elevated levels of insulin and leptin, two hormones that are linked to obesity.

<http://www.sciencedaily.com/releases/2012/02/120221103745.htm>

A Washington State University researcher has demonstrated that a variety of environmental toxicants can have negative effects on not just an exposed animal but the next three generations of its offspring. The animal's DNA sequence remains unchanged, but the compounds change the way genes turn on and off -- the epigenetic effect studied at length by WSU molecular biologist Michael Skinner and expanded on in the current issue of the online journal PLoS ONE.

<http://www.sciencedaily.com/releases/2012/03/120302101821.htm>

A series of studies conducted by psychologists at the University of California, Berkeley and the University of Toronto in Canada reveal something the well off may not want to hear. Individuals who are relatively high in social class are more likely to engage in a variety of unethical behaviors. That is the finding of new research published in Proceedings of the National Academy of Sciences. "Our studies suggest that more positive attitudes toward greed and the pursuit of self-interest among upper-class individuals, in part, drive their tendencies toward increased unethical behavior," said lead researcher Paul Piff of UC Berkeley. The research revealed that relative to the lower class, upper-class individuals are more likely to break the law while driving, more likely to exhibit unethical decision-making tendencies, more likely to take valued goods from others, more likely to lie in a negotiation, more likely to cheat to increase their chances of winning a prize and more likely to endorse unethical behavior at work. "The relative privilege and security enjoyed by upper-class individuals give rise to independence from others and a prioritization of the self and one's own welfare over the welfare of others--what we call 'greed,'" explained Piff, whose research was funded in part by a National Science Foundation Graduate Research Fellowship.

<http://www.sciencedaily.com/releases/2012/03/120307145432.htm>

Nanoparticles are everywhere. From cosmetics and clothes, to soda and snacks. But as versatile as they are, nanoparticles also have a downside, say researchers at Binghamton University and Cornell University in a recent paper published in the journal Nature Nanotechnology. These tiny particles, even in low doses, could have a big impact on our long-term health. "What we found was that for brief exposures, iron absorption dropped by about 50 percent," said Mahler. "But when we extended that period of time, absorption actually increased by about 200 percent. It was very clear -- nanoparticles definitely affects iron uptake and transport."

<http://www.sciencedaily.com/releases/2012/03/120308174647.htm>

With the increase in solar flares and expert warnings over the threat of asteroids, volcanoes, and earthquakes, it's understandable to be concerned about the future of the earth and mankind alike. What many experts and publications are forgetting, however, is that these disasters may actually be less threatening than the harm placing on our own bodies. Known by some as the 'infertility timebomb', men

are increasingly becoming infertile at an astounding rate that worries many scientists. We can't control the trajectory of asteroids, but we can control what we put into our bodies. Scientific reports have been revealing that men are rapidly on the path to infertility at an alarming pace. One in five men between the 'healthy' ages of 20 and 40 were reported to produce abnormal sperm counts, with only 10 to 15% of their sperm healthy enough to be classified as 'normal' by the World Health Organization.

<http://www.infowars.com/forget-asteroids-volcanoes-chemically-induced-infertility-threatens-humanity/>

Nodding disease gets its name from the strange nodding-like symptoms that children display in the first stages of a seizure. But doctors on the ground and at the U.S.-based Centers for Disease Control and Prevention (CDC) say that is the least profound effect. Severe epilepsy-like seizures grip the children, they struggle to eat, and they become shells of their former selves. It is a progressive and debilitating syndrome that robs children of their future. The seizures are triggered in strange ways, say community members, such as when unfamiliar food is brought to the children or when the weather changes. There are other bizarre symptoms. Often the children will wander off by themselves and get lost in the bush. And other children will start fires, according to parents and medics in the field. Others appear confused and traumatized.

http://www.cnn.com/2012/03/19/world/africa/uganda-nodding-disease/index.html?hpt=hp_c1

Since the early 1960s, there have been reports of a mysterious disease affecting children in Africa, which causes uncontrolled head nodding (particularly in the presence of food), seizure-like activity, and in many cases, death. This illness is referred to as "Nodding Syndrome" after its most notable symptom. In late 2009, reports from Northern Uganda suggested that over 2,000 children were afflicted with this unusual illness.

[www.cdc.gov/globalhealth/stories/noddingsyndrome.html#usual_illness.](http://www.cdc.gov/globalhealth/stories/noddingsyndrome.html#usual_illness)

An earthquake rocked central Mexico on Tuesday, cutting electricity and phone service and sending startled residents into the streets from the capital to the Pacific resort city of Acapulco. The magnitude-7.4 quake struck 12 miles below ground, about halfway between Acapulco and the colonial town of Oaxaca, according to the U.S. Geological Survey.

<http://content.usatoday.net/dist/custom/gci/InsidePage.aspx?clid=app&sParam=53677306.story&source=nlletter-breakingnews>

An assessment reflecting the joint judgment of federal intelligence agencies says the risk of water issues causing wars in the next 10 years is minimal even as they create tensions within and between states and threaten to disrupt national and global food markets. But beyond 2022, it says the use of water as a weapon of war or a tool of terrorism will become more likely, particularly in South Asia, the Middle East and North Africa.

The report is based on a classified National Intelligence Estimate on water security, which was requested by Secretary of State Hillary Rodham Clinton and completed last fall. It says floods, scarce and poor quality water, combined with poverty, social tension, poor leadership and weak governments will contribute to instability that could lead the failure of numerous states.

Those elements "will likely increase the risk of instability and state failure, exacerbate regional tensions, and distract countries from working with the United States on important policy objectives," said the report, which was released at a State Department event commemorating World Water Day.

<http://www.npr.org/templates/story/story.php?storyId=149136530&sc=emaf>

http://www.dni.gov/press_releases/ODNI%20Releases%20Global%20Water%20Security%20ICA.pdf

A recent flurry of eruptions on the sun did more than spark pretty auroras around the poles. NASA-funded researchers say the solar storms of March 15th through 17th dumped enough energy in Earth's upper atmosphere to power every residence in New York City for two years.

<http://www.physorg.com/news/2012-03-solar-storm-dumps-gigawatts-earth.html>

Bottlenose dolphins in Barataria Bay are showing signs of severe ill health, according to NOAA marine mammal biologists and their local, state, federal and other research partners, NOAA announced today. Barataria Bay received heavy and prolonged exposure to oil during the 2010 Gulf spill after the Deepwater Horizon rig exploded.

http://www.nola.com/environment/index.ssf/2012/03/dolphins_in_barataria_bay_poll.html

Treated wastewater from the city of Lausanne -- around 90,000 m³ per day -- is released into Vidy Bay (Lake Geneva); the discharge point is located 700 m offshore, at a depth of 30 m. The Lausanne region does not have a pharmaceutical industry or intensive animal production. However, the Lausanne treatment plant receives wastewater not only from the region's 214,000 inhabitants and a number of smaller healthcare centres, but also from a major healthcare facility -- the University Hospital of Canton Vaud (CHUV). As studies from the hospital and veterinary medicine sectors have indicated an increasing prevalence of antibiotic resistance, a group of researchers have now investigated whether resistance genes also enter the environment -- specifically, Lake Geneva -- via wastewater treatment plants[1]. Resistance testing was performed using both traditional culture methods and elaborate genetic analysis.

<http://www.sciencedaily.com/releases/2012/03/120322100027.htm>

In a 2005 report (pdf) written for the Department of Energy, researcher Robert Hirsch wrote that total economic meltdown wasn't an inevitable consequence of peak oil. Yet he also pointed out that most economic recessions in the United States after 1969 were preceded by a spike in oil prices, and that every jump in oil prices was followed by a recession. There's a key quotation from the paper that really drives home the kind of risks we're talking about: "Economically, the decade following peaking may resemble the 1970s, only worse, with dramatic increases in inflation, long-term recession, high unemployment, and declining living standards." The 1970s, only worse. That's the pleasant outlook. Even that won't be possible, Hirsch says, if we don't start changing the way we make and use energy now.

<http://www.scientificamerican.com/article.cfm?id=merriam-kansas-peak-oil-and-climate-change&offset=7>



Cannibalism of Interns Has Started at Classes?

Hope & Encouragement

This page is not intended to minimize the items on the Belly of the Beast page. However, there are still people, legislatures, and countries making a difference, making the world a more hope-filled place. We're not alone in helping to change the world and these items are a reminder of that.

People still pick up trash with no personal incentive. A flash mob set up a situation and then waited for such a person. <http://www.youtube.com/watch?v=GYnd5JRu86E>
"Recycling a bottle, flashmob style! Instead of the people pictured, think of the spirit-that-moves-through-all things reacting like this!

26 Real People Making a Real Difference. These people have taken a passion and turned it into a cause. They're an inspiration of what can be done by regular citizens!
<http://www.thedailygreen.com/environmental-news/latest/green-local-heroes-2010>

A carbon tax has passed! Australia passed a carbon price law on 11/8/11. The tax is \$23.78 a ton, and will raise as much as \$15.5 billion by 2015.

<http://www.reuters.com/article/2011/11/08/us-australia-carbon-idUSTRE7A60PO20111108>

Clean Energy Stunner: Renewable Power Tops Fossil Fuels for First Time. November, 2011 <http://thinkprogress.org/romm/2011/11/26/376250/clean-energy-renewable-power-tops-fossil-fuels-for-first-time/>

Bolivia and Ecuador Grant Equal Rights to Nature: Is “Wild Law” a Climate Solution? <http://thinkprogress.org/romm/2011/11/21/373273/bolivia-and-ecuador-equal-rights-to-nature-wild-law-climate-solution/>

Obama sends tar sands bill back to the State Department. <http://thinkprogress.org/romm/2011/11/10/366693/obama-keystone-xl-back-to-state-mckibben/>

CNN Heroes 2011. These people chose to make a difference. They ran with thier passion and changed the world a little bit. <http://www.cnn.com/SPECIALS/cnn.heroes/archive11/index.html>

German Solar Output Increases by 60% in 2011. <http://thinkprogress.org/romm/2012/01/01/395922/german-solar-output-increases-2011/>

The World Pays Ecuador Not to Extract Oil From Rainforest. <http://www.climatecentral.org/news/partner-news/world-pays-ecuador-not-to-extract-oil-from-rainforest>

California woman beats Honda in court over mpg. http://www.cbsnews.com/8301-505263_162-57370196/calif-woman-beats-honda-in-court-over-mpg/

Defense Fund Helps Scientists Targeted by Lawsuits <http://www.climatecentral.org/news/legal-defense-fund-created-to-aid-environmental-scientists/>

Ecuador Appeals Court Upholds \$18 Billion Verdict Against Chevron For Amazon Destruction. <http://www.desmogblog.com/ecuador-appeals-court-upholds-18-billion-verdict-against-chevron-amazon-destruction>

In the long fight against malaria, progress finally seems to be coming, if incrementally. The number of people who died from malaria in 2010 fell 5 percent from the previous year and has dropped 26 percent from 2000 levels, according to a new World Health Organization (WHO) report.

The decline might seem modest given the \$2 billion that has been given to fight the disease in the past year. But even this small most recent dip suggests that “investment

in malaria control brings results,” Margaret Chan, director-general of the WHO, said in a statement.

The parasitic disease killed approximately 655,000 people in 2010, most of whom were children under the age of 5. The preponderance of malaria cases is still in Africa, where people are also more likely to succumb to the disease.

<http://blogs.scientificamerican.com/observations/2011/12/16/malaria-deaths-falling-slowly-who-report-says/>

