

From: [Ellie Cohen](#)
To: [Ellie Cohen](#)
Subject: Ecology, Climate Change and Other News Updates July 20 2012
Date: 07/20/2012 10:47 AM
Attachments: [Climate Funding Opportunities July2012.pdf](#)

Hi all –
FYI-
All the best-
Ellie

Ecology, Biodiversity, Climate Change and Related News Updates July 20, 2012

[Highlight of the Week](#)

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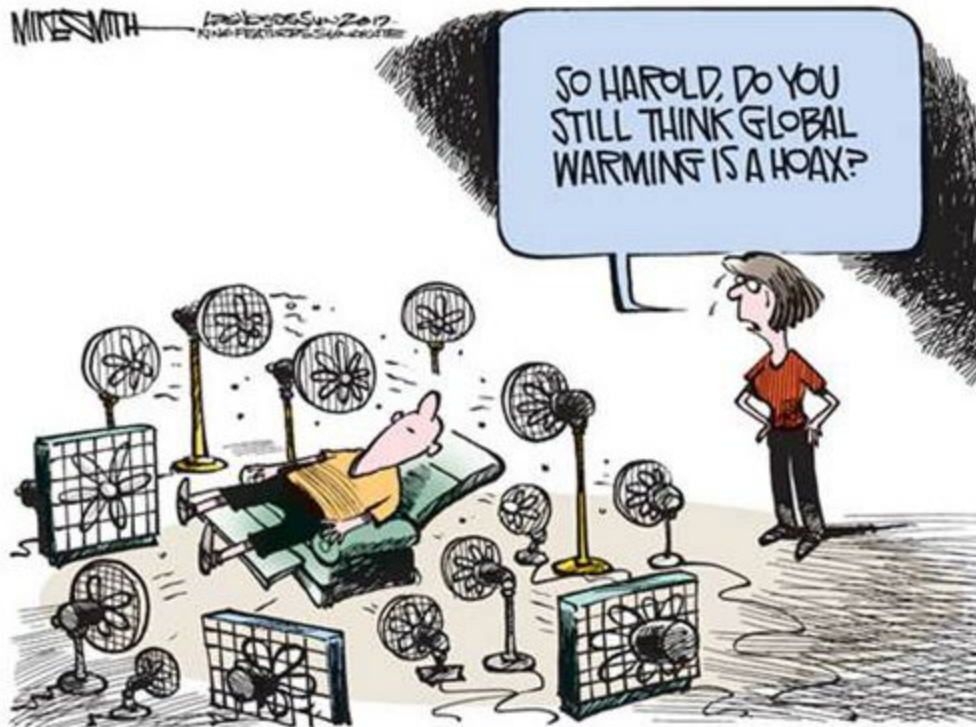
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NOTE: Please feel free to pass on my weekly news update for [PRBO Conservation Science](#) staff. The information contained in this update was drawn from [www.sciencedaily.com](#), [SER The Society for Ecological Restoration](#), [http://news.google.com](#), [www.climateprogress.org](#), [www.slate.com](#), [www.sfgate.com](#), [The Wildlife Society NewsBrief](#), [www.blm.gov/ca/news/newsbytes/2012/529.html](#)

and other sources as indicated. This is a compilation of articles and other information available on line, which were not verified and are not endorsed by PRBO Conservation Science. Please email me directly if you want your name dropped from or added to this list.

Highlight of the Week....



1. ECOLOGY

PRBO and partners in the news:

[Feds to reroute SF Bay *ships* to protect whales](#)

By JASON DEAREN — July 15, 2012. *SAN FRANCISCO* (AP) —

Scientists studying the carcass of a 47-foot fin whale that washed up on a beach in the Point Reyes National Seashore last month found the creature's spine and ribs severed, likely from the propeller of one of the huge cargo ships that sail those waters.

There have been many victims of such accidents in recent years as migrating blue, fin and humpback

whales have been lured close to California's shore by plentiful krill, the shrimp-like organisms they eat. All three species are endangered.

Now, after a two-year effort spurred by the uptick in accidents, federal maritime officials have approved a plan to protect whales in and around San Francisco Bay. It includes rerouting shipping traffic and establishing better ways to track whale locations.

The changes crafted by the National Oceanic and Atmospheric Administration, shipping industry representatives, whale researchers and the Coast Guard will likely take effect next year, after a final review by the United Nations International Maritime Organization.

"In 2010 it really struck home when a female blue whale carrying a calf was found dead on the beach," said Maria Brown, NOAA's superintendent for the Gulf of the Farallones National Marine Sanctuary. "And blue whales' numbers are so small — to lose a female and a new whale coming into the population really sent home the message that we needed to look at the whale strike issue." ...

There are believed to be about 2,000 blue whales in the northeast Pacific, and about 10,000 worldwide. The largest animals on Earth, blue whales can grow up to 90 feet long, still a fraction of the size of cargo ships that can stretch 1,200 feet. There also are about 2,000 fin whales in the northeast Pacific, and about 2,500 humpbacks.

While fin and humpback whales have seen gains in population since the 1990s, the number of blues has declined or remained flat.

How many whales die from collisions each year isn't known because most accidents go undocumented and whales that are hit often sink. Whale researchers use population models that factor a species' reproductive rate and its natural mortality to come up with an estimate of how many are likely dying.

In 2010 there were just five confirmed fatal collisions recorded in the area outside San Francisco Bay. But the number of actual strikes of all whale species is likely 10 times higher, Calambokidis said.

PRBO Conservation Science, an environmental research group, conducts annual surveys of whales and other marine life in the sanctuaries around San Francisco Bay. Research director Jaime Jahncke said the number of blue and others whales is four to five times greater than in 2004, increasing the likelihood of ship strike. These surveys and other data were used to help map the new shipping lanes by showing vessel owners and federal officials where the whale grounds and shipping lanes were overlapping.

There currently are three shipping lanes coming in and out of San Francisco Bay.

The westbound shipping lane currently ends at the relatively shallow continental shelf, where ships disperse. The new westbound lane would extend three miles past the continental shelf, and contain traffic to a defined area over the whale feeding grounds. The new northbound lane would also be extended miles beyond the shelf, keeping vessels sailing in a straight line for a longer time, rather than allowing them to disperse where the whales congregate....

- **Whale mapping data:** <http://www.accessoceans.org>

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[How to make global fisheries worth five times more](#) (July 13, 2012) -- Rebuilding global fisheries would make them five times more valuable while improving ecology, according to a new University of British Columbia study, published July 13 in the online journal *PLoS ONE*. By reducing the size of the global fishing fleet, eliminating harmful government subsidies, and putting in place

effective management systems, global fisheries would be worth US\$54 billion each year, rather than losing US\$13 billion per year. "Global fisheries are not living up to their economic potential in part because governments keep them afloat by subsidizing unprofitable large scale fishing fleets with taxpayer money," says study lead author Rashid Sumaila, a fisheries economist and director of the UBC Fisheries Centre. "This is like sinking money into a series of small, cosmetic fixes in an old home rather than investing in a complete, well thought-out renovation that boosts the home's value." ... > [full story](#)

[Green plants reduce city street pollution up to eight times more than previously believed](#) (July 18, 2012) -- Trees, bushes and other greenery growing in the concrete-and-glass canyons of cities can reduce levels of two of the most worrisome air pollutants by eight times more than previously believed, a new study has found. ... > [full story](#)



[Environmental concerns increasing infectious disease in amphibians, other animals](#) (July 18, 2012) -- Climate change, habitat destruction, pollution and invasive species are all involved in the global crisis of amphibian declines and extinctions, researchers suggest in a new analysis, but increasingly these forces are causing actual mortality in the form of infectious disease. ... > [full story](#)

[Poisons on public lands put wildlife at risk](#) (July 13, 2012) -- Rat poison used on illegal marijuana farms may be sickening and killing the fisher, a rare forest carnivore that makes its home in some of the most remote areas of California, according to veterinary scientists. ... > [full story](#)

[What we know and don't know about Earth's missing biodiversity](#) (July 17, 2012) -- Most of the world's species are still unknown to science although many researchers grappled to address the question of how many species there are on Earth over the recent decades. Estimates of non-microbial diversity on Earth provided by researchers range from 2 million to over 50 million species, with great uncertainties in numbers of insects, fungi, nematodes, and deep-sea organisms. ... > [full story](#)

[Gas from pollutants, forest fires at potentially toxic levels](#) (July 16, 2012) -- Forest fires and emission of air pollutants, which include fumes from vehicles running on diesel and slow burning of coal and charcoal, release isocyanic acid in the troposphere. In 2011, scientists first detected isocyanic acid in the ambient atmosphere at levels that are toxic to human populations; at concentrations exceeding 1 parts-per-billion by volume (ppbv), human beings could experience tissue decay when exposed to the toxin. ... > [full story](#)

[The Ecology of Disease](#)

By [JIM ROBBINS](#) NY Times Published: July 14, 2012 [114 Comments](#)

THERE'S a term biologists and economists use these days — **ecosystem services** — which refers to **the many ways nature supports the human endeavor. Forests filter the water we drink, for example, and birds and bees pollinate crops, both of which have substantial economic as well as**

biological value.



[Hot Spots for Emerging Diseases](#)

If we fail to understand and take care of the natural world, it can cause a breakdown of these systems and come back to haunt us in ways we know little about.

A critical example is a developing model of infectious disease that shows that most epidemics — AIDS, Ebola, West Nile, SARS, Lyme disease and hundreds more that have occurred over the last several decades — don't just happen. They are a result of things people do to nature. Disease, it turns out, is largely an environmental issue. Sixty percent of emerging infectious diseases that affect humans are zoonotic — they originate in animals. And more than two-thirds of those originate in wildlife.

Teams of veterinarians and conservation biologists are in the midst of a global effort with medical doctors and epidemiologists to understand the "ecology of disease." It is part of a project called Predict, which is financed by the United States Agency for International Development. Experts are trying to figure out, based on how people alter the landscape — with a new farm or road, for example — where the next diseases are likely to spill over into humans and how to spot them when they do emerge, before they can spread. They are gathering blood, saliva and other samples from high-risk wildlife species to create a library of viruses so that if one does infect humans, it can be more quickly identified. And they are studying ways of managing forests, wildlife and livestock to prevent diseases from leaving the woods and becoming the next pandemic.

It isn't only a public health issue, but an economic one. The World Bank has estimated that a severe influenza pandemic, for example, could cost the world economy \$3 trillion.

The problem is exacerbated by how livestock are kept in poor countries, which can magnify diseases borne by wild animals. A [study released earlier this month](#) by the International Livestock Research Institute found that more than two million people a year are killed by diseases that spread to humans from wild and domestic animals.

[Mill Fire expected to be contained next week](#) Ukiah Daily Journal, 7/13/12

The Mill Fire in the Mendocino National Forest grew to more than 18,000 acres Thursday, and firefighters battled to stop its spread, especially on its eastern edge." Firefighters from the "U.S. Forest Service, the National Park Service and the Bureau of Land Management are working alongside crews from the California Department of Forestry and Fire Protection and local agencies to fight the Mill Fire, which started nearly a week ago on July 7.

[Largest ancient dam built by Maya in Central America](#) (July 16, 2012) -- Archeologists have identified the largest ancient dam built by the Maya in Central America. They reveal new details about sustainable water and land management among the ancient Maya. ... > [full story](#)

[Rodent robbers good for tropical trees](#) (July 16, 2012) -- A groundbreaking yearlong study in Panama suggests that squirrel-like agoutis have taken on the seed-spreading role of extinct mastodons and other elephant-like creatures, helping the black palm tree survive in the rainforest. ... > [full story](#)

[First ever videos of snow leopard mother and cubs in dens recorded in Mongolia](#) (July 12, 2012) -- For the first time, the den sites of two female snow leopards and their cubs have been

located in Mongolia's Tost Mountains, with the first known videos taken of a mother and cubs, located and recorded. ... > [full story](#)

[Solomon Islands 'launders' exotic birds](#)

BBC News - July 17, 2012

The Solomon Islands is exporting thousands of wild **birds** each year claiming they are captive-bred, concludes an investigation by wildlife trade experts.

[A World Without Coral Reefs](#)

By ROGER BRADBURY Published: July 13, 2012 NY Times opinion

Canberra, Australia"IT'S past time to tell the truth about the state of the world's coral reefs, the nurseries of tropical coastal fish stocks. They have become zombie ecosystems, neither dead nor truly alive in any functional sense, and on a trajectory to collapse within a human generation. There will be remnants here and there, but the global coral reef ecosystem — with its storehouse of biodiversity and fisheries supporting millions of the world's poor — will cease to be....

[50000 wild birds smuggled through Solomons: group](#)

Phys.Org - July 18, 2012

More than 54000 wild **birds**, including critically endangered species, were laundered through the Solomon islands into the global wildlife trade between 2000 and 2010, a wildlife group said Tuesday.

[Promiscuous squid fatigued after mating](#) (July 18, 2012) -- In order to pass on their genes, southern dumpling squid engage in up to three hours of mating with each partner, but researchers have found that this results in a reduced ability to swim for up to 30 minutes afterwards. ... > [full story](#)

2. CLIMATE CHANGE AND EXTREME EVENTS

[Record Amount of Arctic Sea Ice Melted in June, Plus Amazing Video Of Greenland Ice Melt](#)

Posted: 15 Jul 2012 09:20 AM PDT

Andrew Freedman, via [Climate Central](#)

The Arctic melt season is well underway, and sea ice extent — a key indicator of global warming — declined rapidly during June, **setting a record for the largest June sea ice loss in the satellite era. Sea ice extent is currently running just below the level seen at the same time in 2007, the year that set the record for the lowest sea ice minimum in the satellite era.**

stated....During June, the Arctic lost a record total of about 1.1 million square miles of ice — an area

about as large as the combined land area of Alaska, California, Florida, and Texas. At the end of the month, Arctic sea ice extent was 456,000 square miles below the 1979-to-2000 average. The past three years have seen the lowest June ice extents on record, and this year, sea ice loss is running about three weeks ahead of schedule. The ice extent recorded for June 30 would normally be expected on July 21, based on the 1979-2000 average, the NSIDC said....

Widespread Drought Is Likely to Worsen

By [JOHN ELIGON](#) Published: July 19, 2012

KANSAS CITY, Mo. — The drought that has settled over more than half of the continental United States this summer is the most widespread in more than half a century. And it is likely to grow worse.

Joe Romm Testimony For House Hearing On Bark Beetles, Drought And Wildfires

By [Joe Romm](#) on Jul 20, 2012 at 9:43 am You can watch the testimony [live on CSPAN 2 here](#).

Oral Testimony of Joseph J. Romm

Mr. Chairman, members of the Committee. Thank you for inviting me to testify.

Four score and seven years ago our grandfathers **and** grandmothers were enjoying life in the roaring 20s. Now **imagine** you are in Congress back then and **imagine** that the nation's leading scientists are warning that **human** activity – **years** of bad land management practices – has left our topsoil vulnerable to the forces of the wind. And that the next time a major drought hits, much of our farmland will turn to **dust**. Dust in the wind. YOU WOULD TAKE ACTION.....

Scientists connect seawater chemistry with ancient climate change and evolution

(July 19, 2012) -- Humans get most of the blame for climate change with little attention paid to the contribution of other natural forces. Now, scientists are shedding light on one potential cause of the cooling trend of the past 45 million years that has everything to do with the chemistry of the world's oceans. ... > [full story](#)

Global warming harms lakes (July 16, 2012) -- Global warming affects lakes. Based on the example of Lake Zurich, researchers have demonstrated that there is insufficient water turnover in the lake during the winter and harmful Burgundy blood algae are increasingly thriving. The warmer temperatures are thus compromising the successful lake clean-ups of recent decades. ... > [full story](#)

Forest Feedback: Rising CO2 In Atmosphere Also Speeds Carbon Loss From Forest Soils, Research Finds

Posted: 15 Jul 2012 07:37 AM PDT

Underappreciated player in carbon storage should be included in global change models, researcher says

– *Indiana University* [news release](#). Study [here](#) Elevated levels of atmospheric carbon dioxide accelerate carbon cycling and soil carbon loss in forests, new research led by an Indiana University biologist has found. **The new evidence supports an emerging view that although forests remove a substantial amount of carbon dioxide from the atmosphere, much of the carbon is being stored in living woody biomass rather than as dead organic matter in soils.**

Richard P. Phillips, lead author on the paper and an assistant professor of biology in the IU College of Arts and Sciences, said ... **“It’s been suggested that as trees take up more carbon dioxide from the**

atmosphere, a greater amount of carbon will go to roots and fungi to acquire nutrients, but our results show that little of this carbon accumulates in soil because the decomposition of root and fungal detritus is also increased," he said. Carbon stored in soils, as opposed to in the wood of trees, is desirable from a management perspective in that soils are more stable over time, so carbon can be locked away for hundreds to thousands of years and not contribute to atmospheric carbon dioxide increases.....**The authors also report that nitrogen cycled faster in this forest as the demand for nutrients by trees and microbes became greater under elevated CO2....**

[Rain 'almost apocalyptic' for wildlife, says National Trust](#)

15 July 2012 Last updated at 20:02 ET



PA Puffins have drowned in their burrows after relentless wet

weather

The UK's recent rainy weather has been "almost apocalyptic" for some wildlife in 2012, the National Trust has said. Cold, wet conditions have left many bees, bats, birds, butterflies and wildflowers struggling - with next year looking bleak too, it said. But the National Trust pointed to some of wildlife's winners, including slugs and snails, which have managed to thrive in the inclement weather.

The news comes after the wettest April-June on record, and heavy rain in July.

The rain has been good for the UK's greenery, with gardeners tackling fast-growing lawns and the countryside booming with nettles, bracken and brambles, the National Trust said.

Mosses and plants such as early gentian and bee orchids, and twayblade, pyramidal and common spotted orchids have been thriving along the trackways of Whipsnade Downs in Bedfordshire.

But Matthew Oates, the trust's conservation adviser warned that the list of wet weather losers was far longer, and could lead to local extinctions of rare or isolated species, including butterflies.

Puffins drowned

The breeding season has been particularly catastrophic, with sea birds being blown off cliffs by gales and garden birds unable to find food for their young.

Adult terns nesting in Strangford Lough, in Northern Ireland, have struggled to keep eggs and chicks dry and warm - potentially wiping out common, Arctic and Sandwich tern fledglings from the site this year.

Relentless wet weather has also devastated puffin colonies on the Farne Islands - which are managed by the National Trust - with 90% of burrows lost on Brownsman Island, and puffins drowned in about half of burrows left flooded on other islands.

Meanwhile, bats have been hit by the cold conditions, particularly lesser and greater horseshoe bats

- leading to a slow-down of pregnancies.

Bat pups could be in danger of being born underweight, failing to grow enough to go into hibernation as mothers struggle to provide enough nutrition, Mr Oates warned.

Heavy rain has also left butterflies, bees, bumblebees, hoverflies and moths scarce this summer.

After a dry start to the year helped amphibians to breed, the April downpours filled dry ponds with water which was too cold for frogs, newts and toads.

And it is not just birds and animals that have suffered in the adverse weather.

Delicate summer flowers have died in the deluge, although fields where agricultural spraying has failed in the rain have seen large displays of poppies.

Mr Oates said: "This is turning out to be an almost apocalyptic summer for most of our much-loved wildlife - birds, butterflies, bees.

"So much so that the prospects for many of these in 2013 are bleak. Our wildlife desperately needs some sustained sunshine, particularly beneficial insects."

Insects have also been in decline after two years of poor weather, and a better summer next year is important to rebuild populations, he added.

"We desperately need the sun on our backs."

[Soil moisture and hot days examined globally](#) (July 17, 2012) -- For the first time, scientists in Switzerland have examined globally the connection between soil moisture and extreme heat with measured data. Their study shows that precipitation deficits increase the probability of hot days in many regions of the world. The results will help to better assess heat risks. ... > [full story](#)

[Drought in U.S. reaching levels not seen in 50 years, pushing up crop prices](#)



[View Photo Gallery — The drought of 2012: Effects of the drought are growing. Here is a look at the drought and at effects that may cost the U.S. economy \\$50 billion.](#)

By [Peter Whoriskey](#) and Michael A. Fletcher, Published: July 16

A drought gripping the Corn Belt and more than half the United States has reached proportions [not seen in more than 50 years](#), the government reported Monday, jacking up crop prices and threatening to drive up the cost of food. Though agriculture is a small part of the U.S. economy, the shortfall comes as the nation [struggles to regain its economic footing](#). Last week, the Agriculture Department declared more **About 55 percent of the continental United States is now designated as in moderate drought or worse, the largest percentage since December 1956, according to the National Climatic Data Center, and the outlook is grim.**



[Glacier break creates ice island twice size of Manhattan](#) (July 17, 2012) -- An ice island twice the size of Manhattan has broken off from Greenland's Petermann Glacier, according to researchers. This marks the second massive break in two years. ... > [full story](#)

[Glacial Change Ain't What It Used To Be: Petermann Calves Another Huge Chunk of Greenland Ice](#) Posted: 16 Jul 2012 03:14 PM PDT



Petermann Glacier has calved another gigantic ice island, larger than twice the size of Manhattan, not quite as large as the calving of [two years ago](#). A study this month found that the melting of the Greenland Ice Sheet is nearing a critical "[tipping point](#)," by Neven, via the [Arctic Sea Ice Blog](#)

This second big calving (spotted this time by [Arcticice80](#)) is another spectacular event on Greenland, after retreats of the Jakobshavn Glacier and lowest reflectivity of the Greenland ice sheet on record (see [blog post](#)), leading to unprecedented [flooding](#) in the southwest of Greenland....

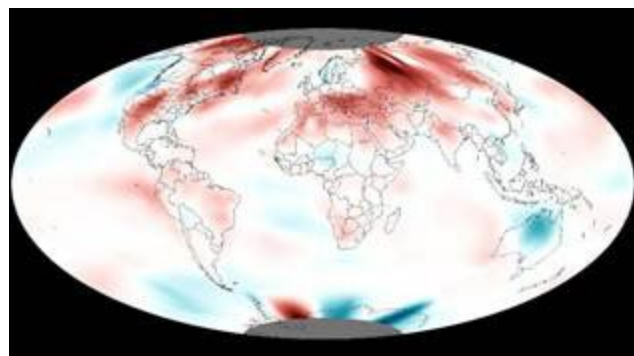
[No evidence of polar warming during penultimate interglacial](#) (July 16, 2012) -- The Atlantic Meridional Overturning Circulation (AMOC), driven by temperature and salinity gradients, is an important component of the climate system; it transfers an enormous amount of heat via ocean currents and atmospheric circulation to high northern latitudes and hence has bearing on climate in the region. ...
> [full story](#)

[NOAA: June global temperatures fourth highest on record](#)

Arctic lost record amount of ice during June

According to NOAA scientists, the globally-averaged temperature for June 2012 marked the fourth warmest June since record keeping began in 1880. It also marks the 36th consecutive June and 328th consecutive month with a global temperature above the 20th century average.

Most areas of the world experienced much higher-than-average monthly temperatures, including most of North America and Eurasia, and northern Africa. Only Australia, northern and western Europe, and the northwestern United States were notably cooler than average. In the Arctic, record June sea ice loss occurred, resulting in the second lowest June sea ice extent on record. ENSO (El Niño-Southern Oscillation)-neutral conditions continued in the equatorial Pacific Ocean in June. However, according to NOAA's Climate Prediction Center, there is an increasing



NOAA: June 2012 was 4th warmest on record for the globe.
[High resolution](#). (Credit: NOAA Visualization Lab)

likelihood for the El Niño warm ocean phase to appear by September. In addition to influencing seasonal climate outcomes in the United States, El Niño is often, but not always, associated with higher-than-normal global temperatures. [This monthly analysis \(summary, full report\)](#) from NOAA's

National Climatic Data Center is part of the suite of climate services NOAA provides government, business and community leaders so they can make informed decisions...

[Nuclear weapons' surprising contribution to climate science](#) (July 13, 2012) -- Nuclear weapons testing may at first glance appear to have little connection with climate change research. But key Cold War research laboratories and the science used to track radioactivity and model nuclear bomb blasts have today been repurposed by climate scientists. ... > [full story](#)



[Sinking carbon: Researchers publish results of an iron fertilization experiment](#) (July 18, 2012) -- Scientists have shown that a substantial proportion of carbon from an induced algal bloom sank to the deep sea floor with iron fertilization, contrary to earlier findings. These results, which were thoroughly analyzed before being published, provide a valuable contribution to our better understanding of the global carbon cycle. ... > [full story](#)

[Record Heat Wave Pushes US Belief in Climate Change to 70%](#)

Businessweek July 18 2012

In the four months since March there has been a jump in U.S. citizens' belief that **climate change** is taking place, especially among independent voters and those in southern states such as Texas, which is now in its second year of record drought ...

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[Leaders say climate is changing Native way of life](#)

CBS News - July 20, 2012

WASHINGTON - Native American and Alaska Native leaders told of their villages being under water because of coastal erosion, droughts and more on Thursday during a Senate hearing intended to draw attention to how **climate change** is affecting tribal ...

3. OIL SPILLS AND RELATED

[High dolphin deaths in Gulf of Mexico due to oil spill and other environmental factors, study finds](#) (July 19, 2012) -- The largest oil spill on open water to date and other environmental factors led to the historically high number of dolphin deaths in the Gulf of Mexico, concludes a two-year scientific study. ... > [full story](#)

[Can fracking pollute water? Study tries to answer](#) Associated Press in San Diego Union-Tribune, 7/11/12 A new study being done by the Department of Energy may provide some of the first solid

answers to a controversial question: Can gas drilling fluids migrate and pose a threat to drinking water? A drilling company in southwestern Pennsylvania is giving researchers access to a commercial drilling site," letting them "conduct baseline tests," add tracing elements to hydraulic fracturing fluids and monitor the results. "That should let scientists see whether the drilling fluids move upwards or sideways from the Marcellus Shale, which is 8,100 feet deep at that spot.

[Fracking's footprint on Pennsylvania forests](#) (July 16, 2012) -- As the natural gas extraction process known as fracking surges across Pennsylvania, scientists are trying to understand what the short- and long-term consequences could be for the state's forests and watersheds. ... > [full story](#)

4. **POLICY**

[Call for comments on draft Ocean Acidification Strategic Research Plan](#) (Public Comment Period closes **Sept 10**)

[Farm Bill Update: Senate Passes Bill, House Introduces Their Version](#)

In late June, the U.S. Senate passed its version of the [2012 Farm Bill](#) by a vote of 64 to 35, according to the Wildlife Management Institute. It is projected that this legislation would save about \$23 billion over the next 10 years when compared to the 2008 Farm Bill. About \$6 billion of that savings will come largely by consolidating 23 conservation programs into 13. While conservation programs sustained significant reductions, many in the conservation community are generally pleased that these programs did not suffer more cuts in the name of federal deficit reduction. [Read More >>](#)

[Yosemite would expand greatly under bill](#)

San Francisco Chronicle July 18 2012

Yosemite National Park would grow by 1,575 acres under a bill written by a California legislator and backed by local [Republicans](#). The legislation could have a leg up on some of the myriad other national park bills being shopped around Congress. But in an environment where public lands ownership also can push political buttons, advocates have their work cut out for them.

"This is a challenging Congress to move things through," [Laurie Wayburn](#), president and co-chief executive officer of San Francisco's [Pacific Forest Trust](#), said Tuesday. She added, though, that "this is one of those rare, common-ground movements. Yosemite has a very special place in Californians' hearts." The legislation introduced last month by Rep. [Jim Costa](#), D-Hanford (Kings County), authorizes the [National Park Service](#) to expand Yosemite's western boundary through the addition of several adjacent Mariposa County parcels. The park service could buy the designated land, located near an existing resort development called Yosemite West; in theory, the agency also could accept donated property or acquire it through a land swap. The Pacific Forest Trust currently owns about half of the 1,575 acres covered by the bill, and a consortium of medical professionals owns the other half.

Yosemite currently spans 761,266 acres, ranking it 17th among all parks nationwide.... M

[Many Americans entering middle age shrug off climate change -- poll](#)

Evan Lehmann, E&E reporter Published: Tuesday, July 17, 2012

Just more than 20 percent of Generation X members are very concerned about climate change, a number that caught one researcher, who expected it to be higher, by surprise.

The age group, which ranges from about 32 to 52 years old, is believed to be one of the best-equipped generations to grasp the complexities of climate change and, perhaps, to do something about it. Its members are more educated in science than any group of Americans to precede them, providing a valuable complement for a generation that came of age as research on rising temperatures was expanding. However, a group of roughly 5,000 Gen-Xers who entered a long-term survey project in 1985, when many of them were in seventh grade, express confusion today about the impacts of greenhouse gases and whether using fossil fuels is causing a problem. In short, their views are similar to most Americans'. "I guess I was a little bit more optimistic," Jon Miller, a social science professor at the University of Michigan, said of the **results being published today in the Generation X Report....**

[Boxer introduces Northern California conservation bill](#) Santa Rosa Press Democrat, 7/12/12 The Berryessa Snow Mountain National Conservation Area Act would mandate creation of a single management plan for the land, currently under the split management of three federal agencies, according to an analysis of the bill, introduced Wednesday. The Bureau of Land Management would be the primary administrator of the multi-agency plan but all would remain involved. The management plan would be created with public input, according to the analysis."

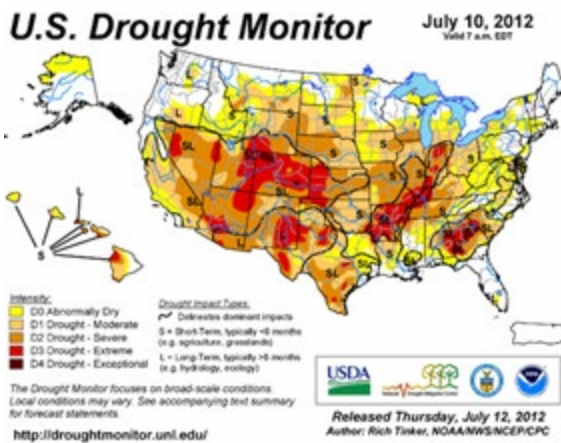
[New Report: Interior activities contributed \\$385 billion to economy. supported over 2 million jobs in FY 2011](#) Department of the Interior, 7/9/12

From facilitating energy development to managing America's public lands for tourism and outdoor recreation to assisting Indian tribes with education and economic growth, the activities of the Department of the Interior contributed \$385 billion to the U.S. economy and supported more than 2 million jobs in 2011, according to a new report. *The Department of the Interior's Economic Contributions* highlights the impacts of the Department's broad mission.

[Will The Epic Drought 'Darken Obama Reelection Prospects'?](#)

Posted: 14 Jul 2012 12:44 PM PDT

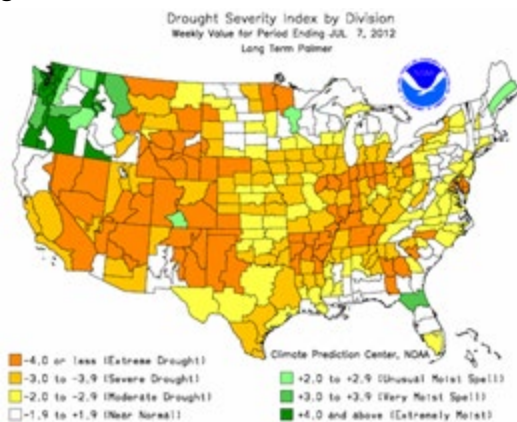
... inspired by a *Christian Science Monitor* [story](#), and this stunning map of US drought conditions:



The story, "Drought threatens to darken Obama reelection prospects," [opines](#) in its sub-hed:

With nearly two-thirds of the US enduring drought conditions, food prices are expected to jump ahead of the November election. That could add to voter anxieties about the economy.

Certainly one of the biggest impacts of warming-driven drought and extreme weather is food insecurity (see "[Climate Story of the Year: Warming-Driven Drought and Extreme Weather Emerge as Key Threat to Global Food Security](#)" and links below). And this drought is (almost) as brutal as it gets:



The PDSI [Palmer Drought Severity Index] in the Great Plains during the Dust Bowl apparently spiked very briefly to -6, but otherwise rarely exceeded -3 for the decade (see [here](#)). Nearly half the country is now -3 or worse.

If you want to see how these drought indices stack up against the historical record since 1895, [click here](#). For the nation as a whole, the PDSI is in the lowest 1%. Over much of the Midwest is just about the worst drought ever. The *Monitor* story explains the impact of the current drought on crops: "Record-setting heat waves that have fueled fires in the Mountain West have also had a dramatic effect on the corn crop at a particularly vulnerable time. Currently, 30 percent of the corn crop in the 18 chief corn-growing states is now in poor condition, up 8 percentage points from a week earlier."

"In the hottest areas last week, which were generally dry, crop conditions deteriorated quickly," wrote Rich Tinker, author of the Drought Monitor.

In places like Egypt where, food consumes 40% or more of family income, so a jump in food prices can obviously be devastating — and that certainly can have political impact (see [The Economist: "The high cost of food is one reason that protesters took to the streets in Tunisia and Egypt"](#)).

Drought would also appear to be having an impact in Syria (see [Syria: Climate Change, Drought and Social Unrest](#)).

Americans, however, are more impervious to food price fluctuation from extreme weather because we are the breadbasket of the world and the wholesale price of food is generally a small fraction of the price consumers pay in the market....

[Low Water Levels On The Mississippi River A Major Threat To Commerce: 'This Is Absolutely Not Normal'](#) Posted: 16 Jul 2012 11:13 AM PDT

Companies operating along the Mississippi River are seeing a drastic cut in business as severe drought lowers water levels and makes shipping increasingly difficult.

The drought, which now covers more than 1,000 counties across the US, has dropped water levels 50 feet below last year's levels in some places. Last winter's lack of snow, the absence of any major tropical storms from the Gulf of Mexico, sweltering temperatures, and the lack of rain this spring and summer are [to blame](#) for the shallow water. The Mississippi is a major trade conduit through the central U.S. Barges, which are often cheaper to operate than trains or trucks, carry [goods such as](#) grain, corn, soybeans, steel, rubber, coffee, fertilizer, coal, and petroleum products in and out of the interior of the country. As the water levels fall, barges have run aground near Vicksburg, Mississippi, where the water is already [less than 5 feet deep](#), and shipping companies have been forced to curtail their business. The *Wall Street Journal* [reports](#):...



[Pfizer Refuses To Pull Funding From Anti-Science Front Group, Says \\$45,000 Grant To Heartland Is 'Best For Shareholders'](#) Posted: 13 Jul 2012 10:49 AM PDT

After Pfizer Contribution, Heartland Continues Attacks On Climate Science And Tobacco Risks By Brad Johnson, campaign manager of *Forecast the Facts*

Despite rising pressure from scientists and doctors, top Pfizer executives defended their affiliation with the Heartland Institute, brushing aside concerns that the group mocks the risks of tobacco smoking and vilifies climate scientists...

[Logger reaches record \\$122.5 million settlement for California wildfire](#)

Reuters - 18-Jul-12 Mary Slosson

Logging company Sierra Pacific Industries agreed to pay the United States \$122.5 million in damages to settle a lawsuit over a 2007 wildfire that was among the most devastating in California history, the Department of Justice said on Tuesday.

The settlement is the largest ever received by the United States for damages caused by a wildfire, the so-called Moonlight Fire that charred 65,000 acres in September 2007.

The blaze was sparked by employees of the logging company and a contractor who struck a rock with a bulldozer, prosecutors said, sending sparks into the dry ground on a day the National Weather Service had issued a red flag warning, indicating a high fire danger.

The smoldering fire went unnoticed because the employees skipped a company-required fire patrol,

prosecutors said.

5. RESOURCES

Climate funding opportunities – attached

[Indianapolis Prize Seeks Next Animal Conservation Hero](#)

Nominations for the 2014 Indianapolis Prize Now Open, Close Next February July 18, 2012

INDIANAPOLIS – Nominations for the 2014 [Indianapolis Prize](#), the world's leading award for animal conservation, will be accepted from now through February 28, 2013. The \$100,000 biennial award is given to an individual animal conservationist who has made significant achievements in advancing sustainability of an animal species or group of species. It represents the largest individual monetary award for animal conservation in the world and is given as an unrestricted gift to the chosen recipient.

Anyone can nominate a candidate for the Indianapolis Prize. To be accepted as a nominee, individuals must have accomplished a personal achievement or series of achievements that have resulted in a demonstrable positive impact on a species or group of species that is likely to improve the species' likelihood of long-term survival. For complete guidelines and to learn more about the nominating process, send an email to akerrick@indyzoo.com or call (317) 630-2710. Once your request has been received, a nomination form with instructions will be sent by return email, if applicable.

....The Indianapolis Prize was first awarded in 2006 to Dr. George Archibald, the co-founder of the [International Crane Foundation](#). The 2008 winner was George Schaller, Ph.D., senior conservationist for the [Wildlife Conservation Society](#) and Vice President of the [Panthera Foundation](#). In 2010, the Indianapolis Prize was awarded to Iain Douglas-Hamilton, Ph.D., founder of [Save the Elephants](#), who pioneered research in elephant social behavior and established the African elephant bill, the most successful funding program for the species to date. Past nominees and finalists for the Indianapolis Prize are representative of the most significant conservationists throughout the world. Among the more than 100 outstanding scientists who have been nominated are 2012 nominees Russell Mittermeier, one of the first academic primatologists to become concerned with the sustainability and conservation of primates; Carl Jones, personally credited with the leading role in saving a dozen species from extinction including the Mauritius kestrels, pink pigeons and echo parakeets; and Rodney Jackson, the world's foremost expert on the mysterious and endangered snow leopard.

#

The Indianapolis Prize was initiated by the Indianapolis Zoo as a significant component of its mission to empower people and communities, both locally and globally, to advance animal conservation. This biennial award brings the world's attention to the cause of animal conservation and the brave, talented and dedicated men and women who spend their lives saving the Earth's endangered animal species. The recipient also receives the Lilly Medal, an original work of art that signifies the winner's contributions to conserving some of the world's most threatened animals. The

Indianapolis Prize has received support from the Eli Lilly and Company Foundation since its inception in 2006.

Adapting to Rising Tides (ART) white paper

[“Addressing Social Vulnerability and Equity in Climate Change Adaptation Planning.”](#)

This white paper is the culmination of many months of work and feedback from the ART working group, project staff and equity partners across the San Francisco Bay Area. It summarizes the available literature and case studies, and describes the approach taken in the ART Project to address equity. Finally, it provides recommendations for integrating equity into planning for sea-level rise. Check out our new webpage on equity and sea level rise!

<http://www.adaptingtorisingtides.org/equity/>

[Global Warming's Six Americas, March 2012 and November 2011](#)

The final report from our March 2012 survey - which also includes previously unreleased data from our November 2011 survey - is an update on our Global Warming's Six Americas series (which was last updated in May 2011). The size of the audience segments has remained relatively stable since May 2011, with two exceptions: Disengaged Americans are now only 6% of the adult population (down from 10% last May); and Cautious Americans have increased in size to 29% of the population (up from 24% last May). Another noteworthy change is that, once again (for the first time since Fall 2008), the proportion of Alarmed Americans (13%) has become larger than the proportion of Dismissive Americans (10%). The report can be downloaded here:

<http://environment.yale.edu/climate/files/Six-Americas-March-2012.pdf>

[Corps of Engineers Releases New National Wetland Plant List](#)

The U.S. Army Corps of Engineers (USACE) recently released a revised National Wetland Plant List (NWPL) for use in determining if the hydrophytic vegetation parameter is met when conducting wetland determinations for compliance with Section 404 of the Clean Water Act. The 2012 NWPL supersedes the *National List of Vascular Plant Species that Occur in Wetlands: 1988 National Summary* and the 1996 draft revision of the 1988 list. It provides the hydric indicator status (i.e., likelihood of occurrence in a wetland or upland) for over 8,000 plant species. Click on [California](#) and [Nevada](#) to find those state's lists. The NWPL for each state in the U. S. is available at the USACE's [NWPL website](#).

[New SJV website unveiled!](#)

The Sonoran Joint Venture is excited to announce the unveiling of our new website! Please come take a look around and let us know what you think!

<http://sonoranjv.org>

Inauguración del nuevo sitio web del SJV

¡El Sonoran Joint Venture se alegra en anunciar la inauguración de nuestro nuevo sitio web! Le invitamos a echar un vistazo y decirnos qué le parece.

ICLEI WEBINAR:

On climate adaptation work in Chula Vista, CA and NYC —

[Making Climate Adaptation Work: Planning Around Local Capacities and Constraints.](#)

You can find more information and register for the event at the link below:

<http://www.icleiusa.org/training-events/making-climate-adaptation-work-planning-around-local-capacities-and-constraints>

[NOAA WEBINARS:](#)

- [July 24, 2012: Climate Change and Potential Ecosystem Change in Alaska, The Yukon, and The Northwest Territories](#)
- [July 25, 2012: Modeling Effects of Climate Change on Fisheries: Future Survival of Larval Cod](#)
- [July 26, 2012: RipCur: Smartphone App for Rip Current Reporting](#)
- [July 26, 2012: Communication Tools for Principal Investigators](#)

[Restore America's Estuaries is pleased to announce the availability of scholarships](#) for the 6th National Conference on Coastal and Estuarine Habitat Restoration: *Restoring Ecosystems, Strengthening Communities* in Tampa, Florida, October 20-24, 2012 - www.estuaries.org/conference.

Scholarships will be awarded based on demonstrated need and geographical location of the recipient. Staff and volunteers of non-profit organizations and students are especially encouraged to apply. Scholarship award amounts may **be up to or less than** a complimentary registration. No travel funds will be awarded in 2012. [Conference info at www.estuaries.org/conference](http://www.estuaries.org/conference)
Program details at http://www.estuaries.org/images/RAE_2012_draft_program_list_6-28-12.pdf

[*** Beating the Heat: Effective Approaches to Heat Island Reduction](#)

Date: Wednesday, August 8, 2012

Time: 2:00 PM – 4:00 PM EDT

[Reserve your webcast seat now.](#)

The heat island effect can increase summertime energy use, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and mortality, and reduce water quality. In this webcast:

Learn about the benefits of taking local action to reduce heat islands,
Hear from local governments and organizations about heat island reduction strategies, monitoring and evaluation, and Listen in as cities share lessons learned on how to design and implement effective programs and policies, including cool pavements, shade trees, and cool roofs.

[Government Run Amok Cutting Down Millions of Levee Trees – VIDEO-You Tube](#)

[The Story of Change](#) -- just released--from Annie Leonard



Then be sure to share it with everyone you know!

We made [The Story of Change](#) to inspire our viewers, Community members and others to step out of the consumer mindset and into our full power as citizens to build a better future.

That's because too often, when faced with daunting environmental and social problems (say, disruption of the global climate) many of us instinctively flex our power in the only way we know how: as consumers. Plastic garbage choking the oceans? Carry our own shopping bag. Formaldehyde in baby shampoo? Buy the brand with the green seal. Warming planet? Change our lightbulbs. Without a doubt, those are all good things to do. But the fact is, better shopping isn't going to change the world. If we really want to build a better future, we have to move beyond voting with our dollars and come together to demand rules that work....

6. RENEWABLES AND RELATED

[Harmful effects of CFL bulbs to skin; Energy-efficient bulbs safest when placed behind additional glass cover](#) (July 18, 2012) -- In a new study, researchers looked into the potential impact of healthy human skin tissue (in vitro) being exposed to ultraviolet rays emitted from compact fluorescent light (CFL) bulbs. Results revealed significant levels of UVC and UVA, which appeared to originate from cracks in the phosphor coatings, present in all CFL bulbs studied. ...

> [full story](#)

[Wind Turbines Waste Much Less Energy Than Fossil Fuels](#) Posted: 15 Jul 2012 05:34

AM PDT by Zoë Casey, via [Renewable Energy World](#)

Wind energy opponents who say that producing electricity using the power of the wind is not efficient would do well to take a look at a new graphic published on the Guardian's [data blog](#) using UK Government data. 'Up in smoke: how energy efficient is electricity produced in the UK?' shows that thermal sources of electricity – gas, coal, nuclear, waste/biomass, oil and other – lose massive amounts of energy as waste heat, compared to almost 0% for renewables. Gas accounts for 48% of the UK's electricity supply and, of the 372 Terra-Watt hours of electricity it produces per year, 54% of this is lost as heat. Coal, meanwhile, accounts for 28% producing 297 TWh, loses an even higher proportion – 66%. Nuclear – accounting for 16% of the energy supply with 162 TWh, loses 65% and

oil – 3% of the supply with 51 TWh – loses 77%. **Contrast these figures with renewable energy – which all together account for 4% of the UK's electricity supply producing 14 TWh – they lose less than one percent. So, under this measure, renewable energy is 100% efficient.**

[Wind farm called threat to condors](#) Courthouse News Service, 7/6/12

California illegally approved a giant wind farm in the Tehachapi Mountains that will kill California condors and golden eagles, environmentalists claim in Kern County Court The wind farm at issue includes the North Sky River and Jawbone Wind energy projects, which stretch across a combined 13,353 acres of windy desert roughly 200 miles north of Los Angeles Some of the project land is public, owned by the Bureau of Land Management. The privately held land belongs to North Sky River Landholdings, a subsidiary of NextEra Energy, which owns around 100 wind farms throughout the state.

7. OTHER NEWS OF INTEREST

[100 miles of trails: Redding paves way to outdoor recreation](#) Redding Record Searchlight, 7/7/12 More than 100 miles of trails have been developed in and just beyond Redding in the past 30 years, many emerging since 2000 Trails are being linked to each other and to neighborhoods. Connections also are being made between Redding's trails and the city's identity and economic viability It's been a collaborative effort. Redding, Shasta County, Bureau of Land Management, McConnell Foundation, Redding Foundation, Whiskeytown, Bureau of Reclamation and others have been involved.

[Global health impacts of the Fukushima nuclear disaster](#) (July 17, 2012) -- In the first detailed analysis of the global health effects of the Fukushima Daiichi nuclear power plant disaster, researchers estimate the number of deaths and cases of cancer worldwide resulting from the release of radiation. ... > [full story](#)

[Now your smartphone can help you find the ol' swimming hole](#) Stockton Record, 7/9/12 In the past year, "tens of thousands of people a month" have used the Sierra Nevada Geotourism Mapguide -- which lists 1,400 locations," including the Electra white-water run on the Mokelumne River and sites "known mostly to locals." Jim Eicher, associate field manager for the BLM's Mother Lode field office, said "that in the past decade, many outdoor enthusiasts have become sophisticated users of online data such as specialized websites showing river flows important to kayakers." The guide now offers a new app, for iPhone and Android.

*Meet the Author **Jack Gibson** Thursday, July 26, 7:00 pm*

Book Passage 51 Tamal Vista Blvd., Corte Madera, CA

Author and MMWD Director Jack Gibson will share some of his favorite stories from MMWD's 100 years of history at this special event and sign books purchased at the event. Proceeds from book sales benefit the Mt. Tamalpais Watershed. Refreshments served. On April 25, 1912,

MMWD received its charter as the first municipal water district in California. Today, MMWD serves 185,000 people in a 147-square-mile area of Marin County. MMWD's mission is to manage its natural resources in a sustainable manner and to provide customers with reliable, high quality water at a reasonable price.

[Lack of Exercise as Deadly as Smoking, Study Finds](#)

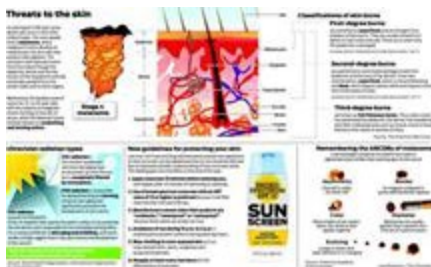
By Alice Park | @aliceparkny | July 18, 2012 | + TIME - When it comes to being couch potatoes, Americans aren't alone. Physical inactivity has become a global pandemic, say researchers in a series of related papers published in the journal Lancet.....

[Melanoma treatment shows promise at UCSF](#)- Stephanie M. Lee San Francisco Chronicle July 18 2012 The mole, a quarter-inch in diameter, had always marked [David Amoroso](#)'s forehead. But under the sun's glare, it grew dark and jagged. By last spring, it had ballooned into a late-stage melanoma tumor. Plagued with the deadliest form of skin cancer, the olive-skinned retired construction worker could have gone with the conventional route of drugs. But he feared they would have made him sick. Instead, the 72-year-old Woodside resident chose a treatment being tested in a small clinical trial by UCSF researchers. The procedure, called electroimmunotherapy, sends electric forces deep into the skin to eradicate melanoma tumors. In his stage of melanoma, Amoroso has a 24 percent chance of living to see the next decade. Had he reached the next stage, metastatic melanoma, his chance of survival would have been reduced to 10 to 15 percent. Since he started in the study in March, electroimmunotherapy has seemingly zapped all but two of the six cancerous lumps that are evident. "The fact that four tumors are gone," he said, "to me, seems successful." Preliminary results from the approach, also known as electroporation, suggest patients have a reason for hope, say scientists on the project. Other scientists agree, but note the treatment is designed to attack only known tumors and may be most effective with other melanoma drugs that have either recently been approved or are being tested...

[Melanoma patient: Protect skin from sun](#)

Stephanie M. Lee

Updated 07:39 a.m., Wednesday, July 18, 2012



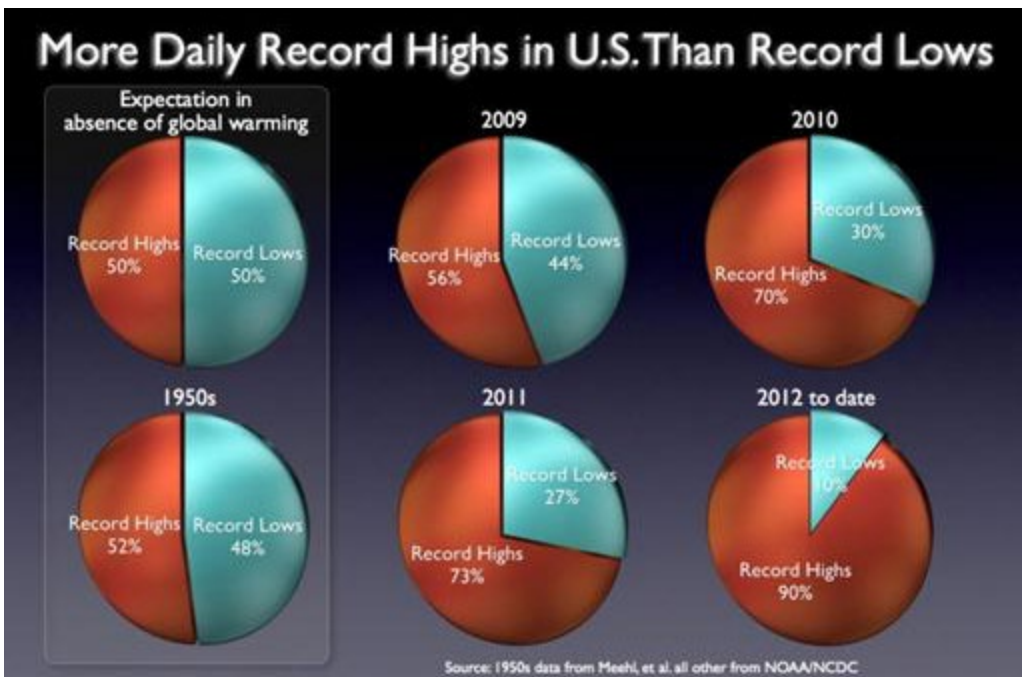
[How exercise improves heart function in diabetics](#) (July 17, 2012) -- A detailed study of heart muscle function in mice has uncovered evidence to explain why exercise is for heart function in type 2 diabetes. The research team found that greater amounts of fatty acids used by the heart during stressful conditions like exercise can counteract the detrimental effects of excess glucose and improve the diabetic heart's pumping ability in several ways. The findings also shed light on the complex chain of events that lead to diabetic cardiomyopathy, a form of heart failure that is a life-threatening complication of type 2 diabetes. ... > [full story](#)

[Five-second rule has plenty of bugs, says expert](#) (July 18, 2012) -- Dropped grill items, ice cream cones that topple, pacifiers that fit the floor -- most of us have employed the five-second rule at some point to salvage a lost item. An infection disease expert takes five on the five-second rule. ...
> [full story](#)

8. IMAGES OF THE WEEK

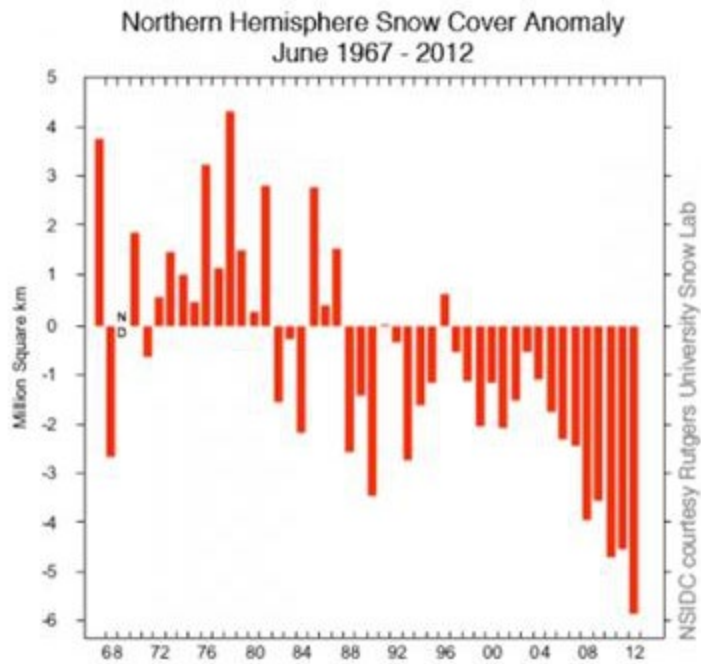
[Illustrating The Explosion Of Daily High Temperature Records](#)

Posted: 17 Jul 2012 08:48 AM PDT



The shifting odds in favor of more daily record high temperatures being set compared to daily record low temperatures. Click on the image for a larger version. Credit: Climate Central.

by Andrew Freedman, via [Climate Central](#)



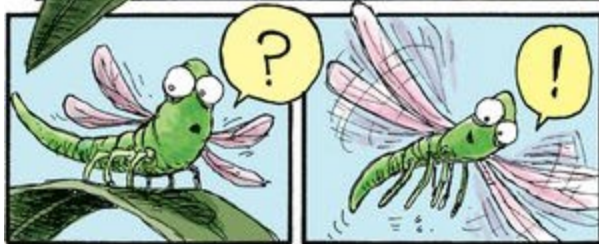
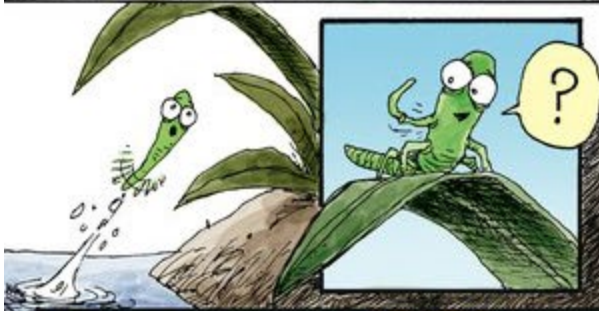
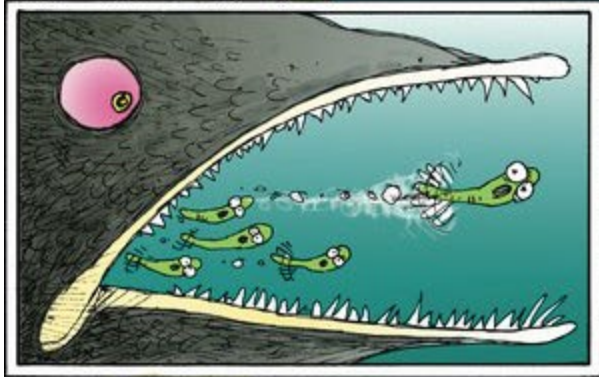
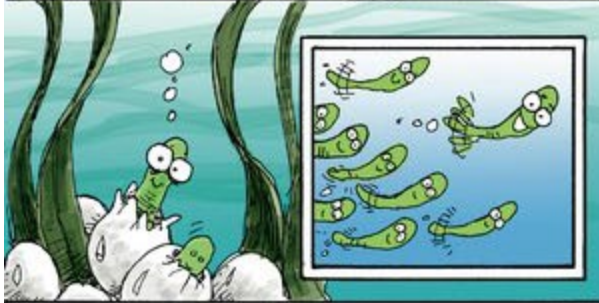
Northern Hemisphere June snow cover anomalies, showing the record low in 2012. Credit: NSIDC.

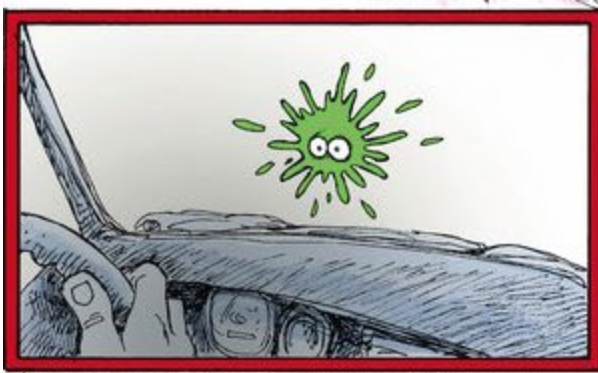


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