Hi All,

Last Cop for the year. Given the time of year I did a search on “Christmas and soil” most returns were for a “Christmas cactus”. The CoP is taking a break and will not be bothering you again until February 2015.

Merry Christmas

Brian

What Kind of Soil Should I Use to Grow a Christmas Cactus?

by Jenny Harrington, Demand Media

Water, soil, light and temperature affect the cactus' health and flowering.

Christmas cactus (Schlumbergera bridgesii) blooms in winter, producing red, pink or orange flowers on the tips of its succulent leaves. Although hardy in U.S. Department of Agriculture plant hardiness zones 10b through 11, it is grown most often as an indoor holiday plant. A Christmas cactus requires repotting every three years in spring. Planting your Christmas cactus in the correct type of potting soil will help the plant remain healthy.

http://homeguides.sfgate.com/cut-back-christmas-cactus-90146.html

Barren deserts can host complex ecosystems in their soils

22 Dec 2014 by Adam Hadhazy, Astrobio.net

A biological soil crust in Hovenweep National Monument, a region located in southwestern Colorado and southeastern Utah. Credit: Nationalparks (Transferred by Nihonjoe)/Wikipedia

"Biological soil crusts" don't look like much. In fact, people often trample right over these dark, or green-tinted, sometimes raised patches in the desert soil. But these scruffy stretches can house delicate ecosystems as varied and complexly interwoven as that of a lush, tropical rainforest.

Read more at: http://phys.org/news/2014-12-barren-host-complex-ecosystems-soils.html#jCp

https://www.facebook.com/UNFAO/photos/a.448783138585.250602.46370758585/10152985394843586/

Legume has potential to turn sandy soils into productive land

Dec 19, 2014 by Hayley Mayne

After a decade of research, scientists from Murdoch University are excited by a perennial legume that has the potential to turn poor soils into profitable areas suitable for farming.

Read more at: http://phys.org/news/2014-12-legume-potential-sandy-soils-productive.html#jCp

2015: The Year of Soils

By Marshall Matz

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The United Nations-Food and Agriculture Organization (FAO) has declared 2015 the International Year of Soils. The year kicked off on 5 December 2014, with events in Rome, New York and Chile, all in an effort to raise awareness and promote more sustainable use of this critical resource. “Healthy soils are critical for global food production, but we are not paying enough attention to this important silent ally,” said FAO Director-General José Graziano da Silva.

The specific FAO objectives for the Year of the Soils are to:

Raise the awareness among society and policy makers about the importance of soil for human life;

Promote effective policies and actions for sustainable management and protection of soil resources;

Promote investment in sustainable soil management; and

Encourage soil health information and monitoring at all levels of government.

http://www.agri-pulse.com/Matz-2015-The-year-of-soils-12222014.asp

Community-based wind erosion monitoring across Australia

OEH 2014/0850

DustWatch Report – October 2014

Dust activity – increased at some sites, large in Walgett & Birdsville.
Wind strength –windier than last month and windier than average.
Groundcover – reduction across all states.
Rainfall – below in central and eastern Australia, above in the west.
Land Management – crop growth finished, cereal harvest started.

Dust Activity

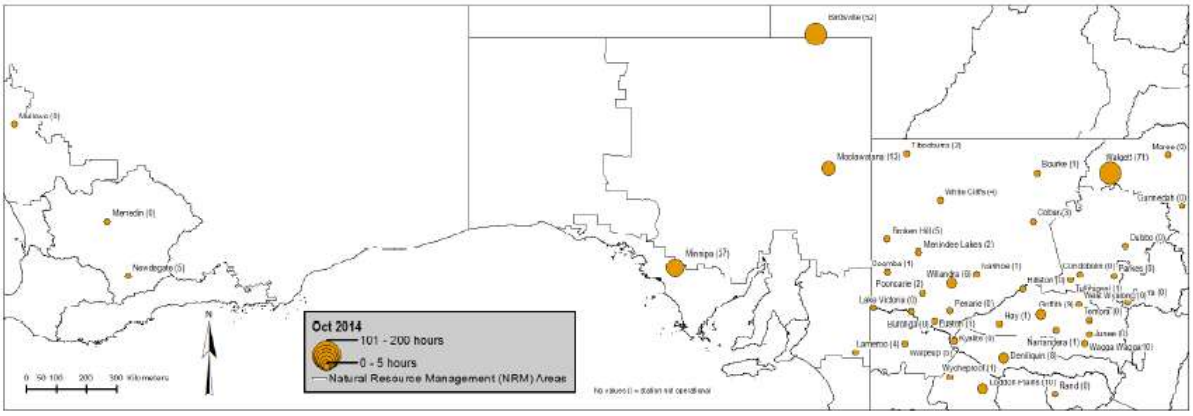
Dust activity in general was subdued for this time of the year. In **New South Wales** some of the southern and western stations recorded between one and nine hours of dust. The exception being the Walgett station that recorded a whooping 71 hours.

The area around Walgett has been in drought for a long period of time and the groundcover values in the area are correspondingly low (Figure 2).

Dust from Lake Eyre in **South Australia** was detected to the south at the Minnipa site (37h) and to the north at the **Queensland** Birdsville site.

Western Australia, in line with the above average rainfall, only had minor dust (5h) at the Newdegate site.

Figure 1. Hours of dust (number in brackets) with visibility less than 10 km recorded at each DustWatch site in October 2014



Community-based wind erosion monitoring across Australia

OEH 2014/0850

Groundcover

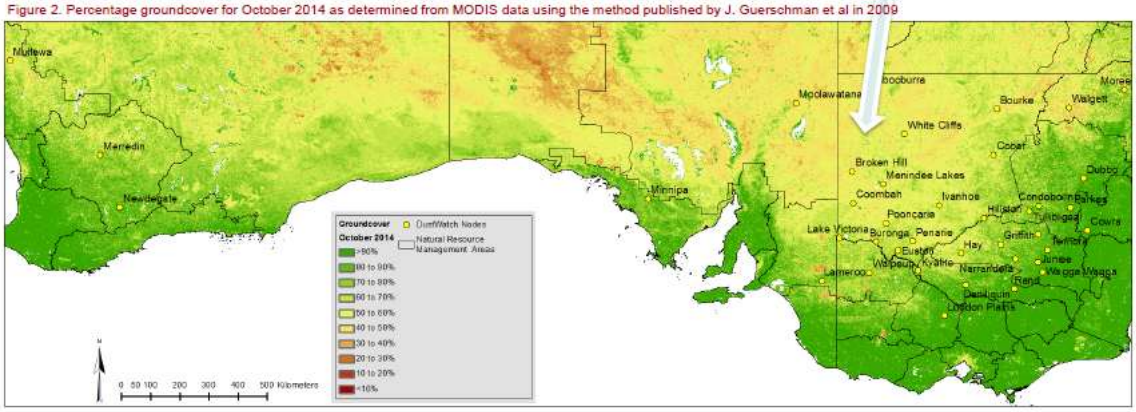
Overall groundcover across inland Australia remains better than anticipated, given the very hot and dry conditions experienced during spring 2014. Photo 1 on the right was taken on a recent DustWatch maintenance trip and shows good groundcover in the north western corner of **New South Wales.**

In contrast the landscapes between Bourke, Walgett and Moree are showing large bare areas in line with the much below average rainfall.

Groundcover in north western **South Australia** and around Lake Eyre is declining and we are receiving more frequent reports of dust storms from the area.

Photo 1. Good groundcover in north Western NSW (Packsaddle)

Figure 2. Percentage groundcover for October 2014 as determined from MODIS data using the method published by J. Guerschman et al in 2009



http://www.environment.nsw.gov.au/resources/dustwatch/140850DWNL.pdf

http://www.smithsonianmag.com/science-nature/see-how-humans-have-reshaped-globe-interactive-atlas-180952971/?utm_source=facebook.com&no-ist

Whistleblower at Jordan Cove LNG-terminal site warns of contaminated soil

The Jordan Cove Energy Project, a $7 billion liquefied natural gas export proposal, plans to dredge 2.3 million cubic yards of material out of the North Spit of Coos Bay to accommodate its shipping berth. It plans to use resulting spoils to build massive berms that would elevate its gas liquefaction and power plants out of the tsunami inundation zone. The site is a former log sorting and waste disposal site for a closed paper mill, and a former environmental coordinator on the site says soil contamination issues are being ignored and swept under the rug. *(Courtesy of Jordan Cove)*

 By **Ted Sickinger| tsickinger@oregonian.com**
Email the author | **Follow on Twitter**
on 19 December 2014 at 5:01 AM, updated December 19, 2014 at 7:07 PM

A biologist and environmental inspector who worked at the site of the massive liquefied natural gas terminal proposed for Coos Bay told federal regulators this week that project engineers were ignoring and possibly hiding contaminated soil issues at the site.
http://www.oregonlive.com/business/index.ssf/2014/12/whistleblower_at_jordan_cove_l.html

New paper in Nature Geoscience

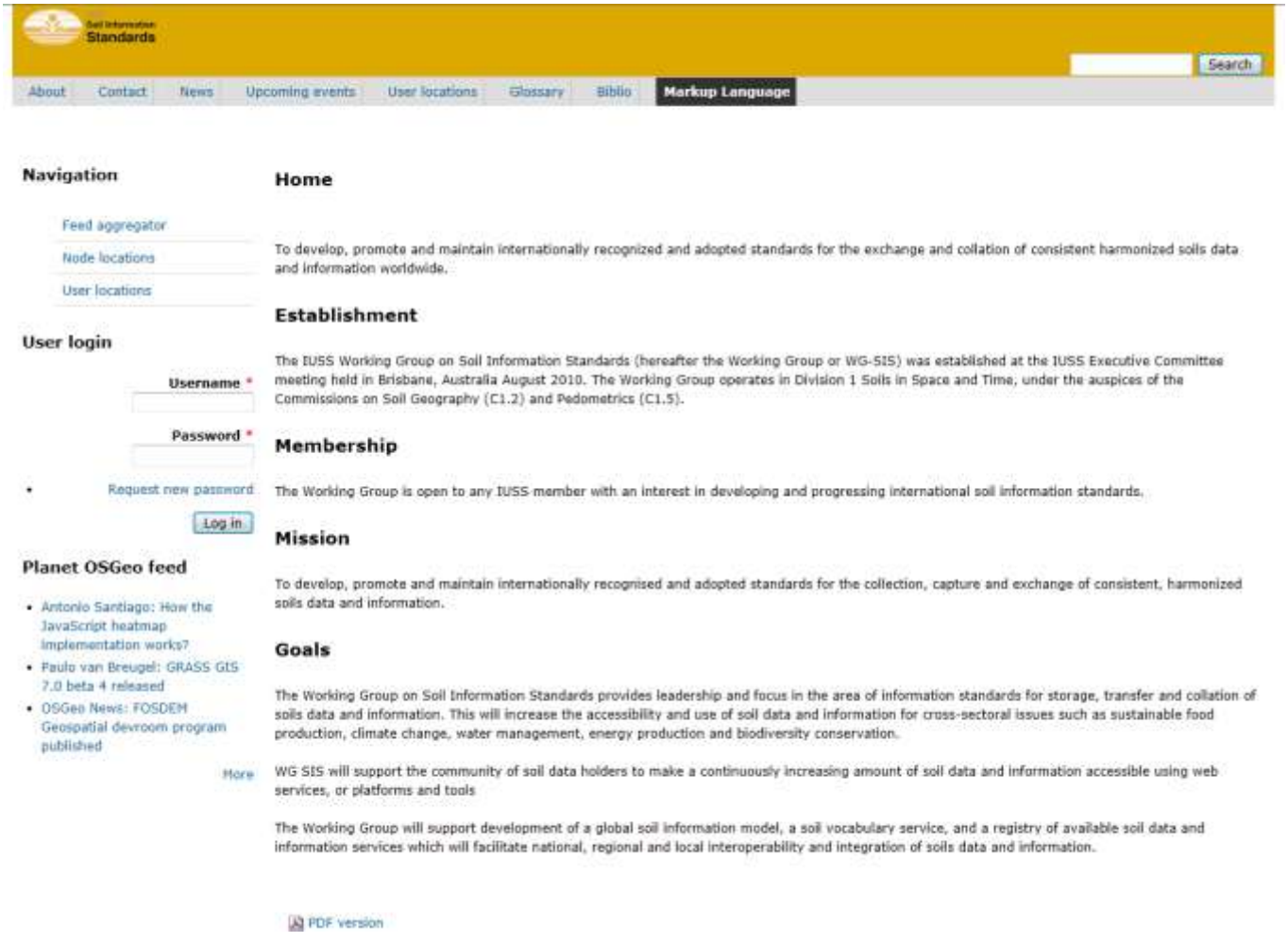
NET REGIONAL METHANE SINK

in High Arctic soils of northeast Greenland. We conclude that the ice-free area of northeast Greenland acts as a net sink of atmospheric methane, and suggest that this sink will probably be enhanced in a future warmer climate.

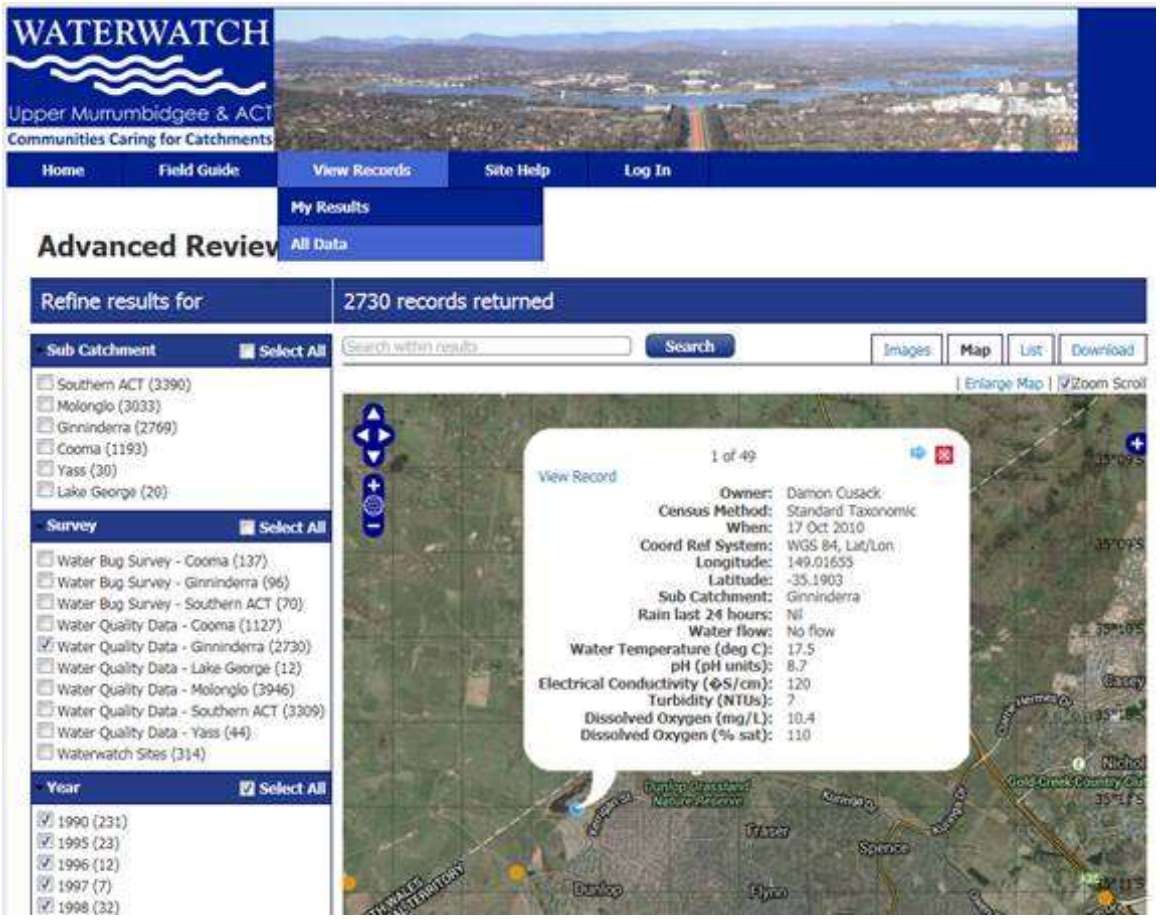
Arctic tundra soils serve as potentially important but poorly understood sinks of methane which act as an important greenhouse gas in the atmosphere. Improved knowledge on methane consumption in the dominating dry arctic soils is needed in order to understand the total methane exchange budget in the High Arctic which is conceptually biased as being a net methane emitter. In this CENPERM publication, we present measurements of rates of methane consumption in different soil and vegetation types

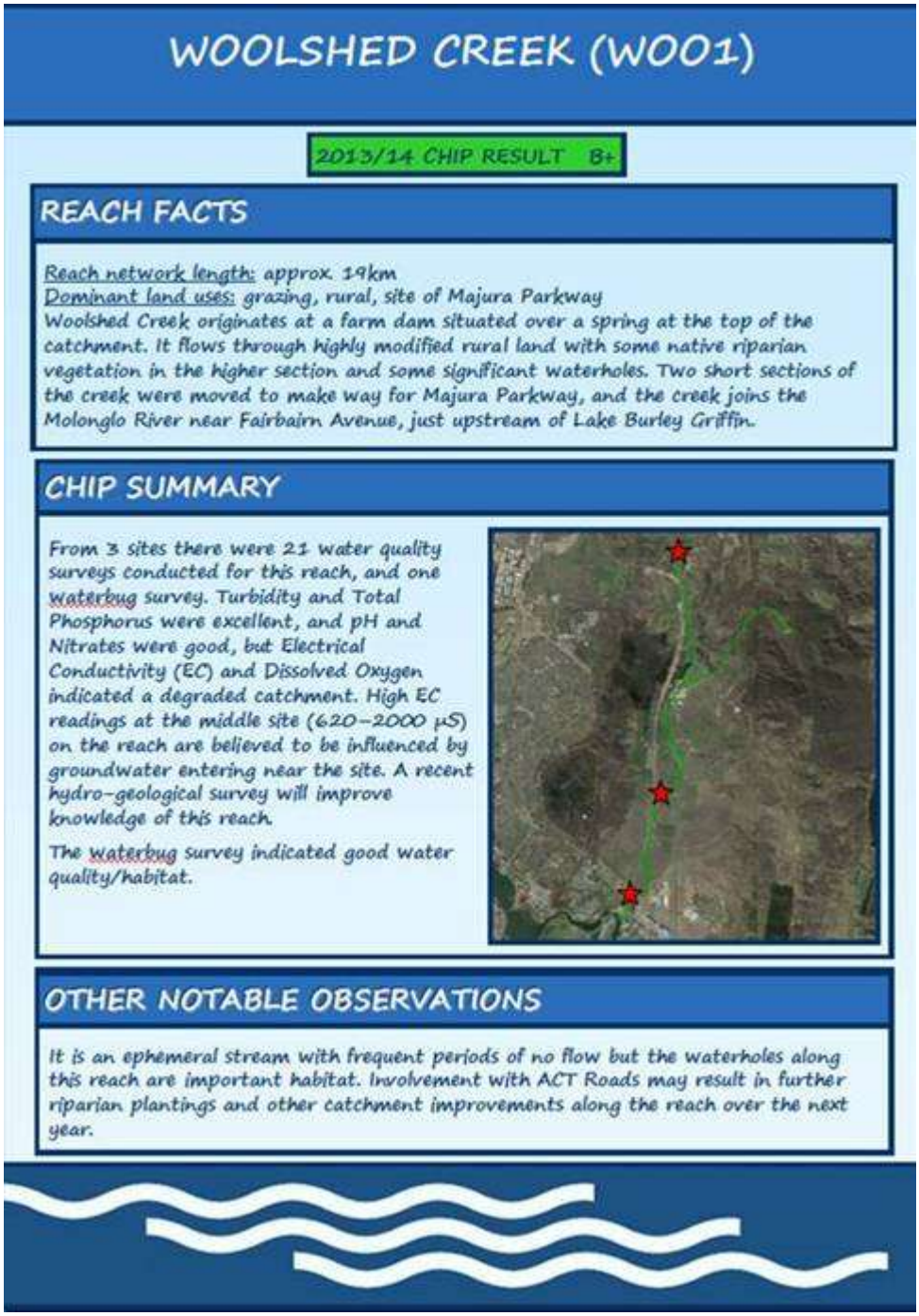
http://cenperm.ku.dk/news/nature-geoscience-publication/

https://www.facebook.com/UNFAO/photos/a.10150665462923586.420364.46370758585/10152932398403586/?type=1&theater#!/UNFAO/photos/a.10150665462923586.420364.46370758585/10151614869003586/?type=1&permPage=1



http://www.soilinformationstandards.org/


WATERWATCH
Upper Murrumbidgee & ACT
Communities Caring for Catchments
Home
Field Guide
View Records
Site Help
Log In
My Results
All Data
Advanced Review
Refine results for
2730 records returned
Sub Catchment
Select All
Southern ACT (3390)
Molonglo (3033)
Ginninderra (2769)
Cooma (1193)
Yass (30)
Lake George (20)
Survey
Select All
Water Bug Survey - Cooma (137)
Water Bug Survey - Ginninderra (96)
Water Bug Survey - Southern ACT (70)
Water Quality Data - Cooma (1127)
Water Quality Data - Ginninderra (2730)
Water Quality Data - Lake George (12)
Water Quality Data - Molonglo (3946)
Water Quality Data - Southern ACT (3309)
Water Quality Data - Yass (44)
Waterwatch Sites (314)
Year
Select All
1990 (231)
1995 (23)
1996 (12)
1997 (7)
1998 (32)
Search within results
Search
Images
Map
List
Download
Enlarge Map
Zoom Scroll
1 of 49
View Record
Owner: Damon Cusack
Census Method: Standard Taxonomic
When: 17 Oct 2010
Coord Ref System: WGS 84, Lat/Lon
Longitude: 149.01655
Latitude: -35.1903
Sub Catchment: Ginninderra
Rain last 24 hours: Nil
Water flow: No flow
Water Temperature (deg C): 17.5
pH (pH units): 8.7
Electrical Conductivity (ΦS/cm): 120
Turbidity (NTUs): 7
Dissolved Oxygen (mg/L): 10.4
Dissolved Oxygen (% sat): 110
Fraser
Spence
Dunlop
Flynn
Casey



The ACT has a very active community Waterwatch program (which reached into NSW into the Upper Murrumbidgee). That data is accessible to anyone through the Atlas of Living Australia (it is an amazing resource) – see link: http://root.ala.org.au/bdrs-core/umww/home.htm.

Receive the latest Australian Government environmental information news

Developed under the auspices of the National Plan for Environmental Information initiative, eXchange

is an e-newsletter about nationally important environmental information initiatives, products and services, data releases, publications and events. It is published by the Bureau of Meteorology three times per year. The December 2014 issue will be released next week.

Subscribe and view previous issues here

Healthier Soils Will Give Us - and the Planet -- a Healthier Century

Posted: 12/08/2014 2:14 pm EST Updated: 12/08/2014 2:59 pm EST

You may not quite realize it, but the dirt beneath your feet is teeming with life. In any given tablespoon of soil, there may be more than 50 billion microbes - bacteria, fungi, nematodes, mites, and more. Ninety percent of all the organisms on earth live underground. In a handful of healthy soil, there is more biodiversity than there is among all the above-ground animals in the Amazon Basin.

http://www.huffingtonpost.com/dr-robert-t-fraley/healthier-soils-will-give_b_6272482.html

https://www.unsw.edu.au/top5under40

Soil Science Society of America celebrating 2015 International Year of Soils

Posted: Thursday, 11 December, 2014 12:00 am | *Updated: 10:42 am, Thu Dec 11, 2014.*

Soil Science Society of America celebrating 2015 International Year of Soils 0 comments

The Global Soil Partnership at the Food and Agriculture Organization of the United Nations has declared 2015 the International Year of Soils. In celebration, the Soil Science Society of America is coordinating a series of activities throughout 2015 to educate the public about the importance of this precious natural resource.

“When GSP recognized the urgent need to raise awareness and promote sustainability of our limited soil resources by designating 2015 International Year of Soils, we knew this was our opportunity to make an impact with the public,” says David Lindbo, past president of SSSA, and a professor of soil science at North Carolina State University. “Soil—like air, water and sunlight—is one of the natural resources necessary for life,” Lindbo said. “By telling the story of what soil does for us as humans, we hope to increase the respect humans give back to soil, to protect it for future generations.”

http://www.hpj.com/crops/article_a957bf67-2663-547a-aa61-cd1062132753.html

Farming practices 'must change fast' to save our soils

By Western Daily Press | Posted: 10 December 2014

By SIMON COPP

Heavy modern machinery and spring crops are the chief concerns for soils in the developed world, with building and waste management also in the firing line with farmers

The world must take a hard look at the stuff beneath its feet, with academics warning that modern farming techniques are driving soils down a one-way street to infertility and leaching.

Aerial images from last year's flooding across the UK and water quality tests around the coast of the South West show the extent to which soils are losing the ability to retain nutrients, with farmers working their soils ever harder in response to growing demand for food and fuel.

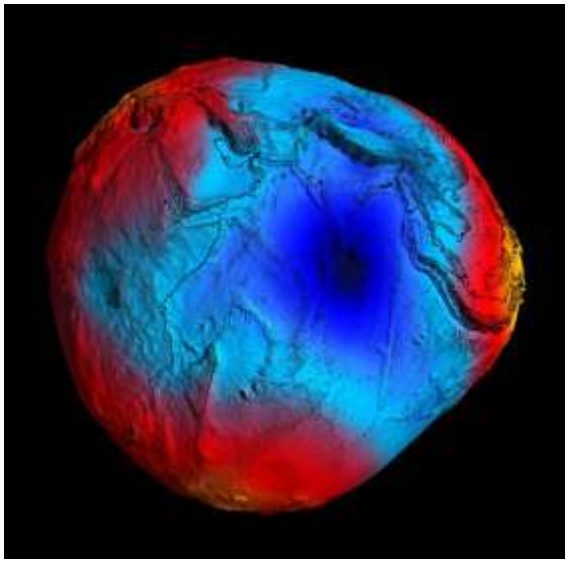
Read more: http://www.westerndailypress.co.uk/Farming-practices-change-fast-save-soils/story-25500793-detail/story.html#ixzz3Mlukgtj5

Supporting the Soil that Supports African People

When building food security and economic growth in Africa, the ground beneath your feet plays a crucial role. Modern studies, using remote sensing, show that 65 per cent of arable land in Africa is degraded, meaning it has an impaired ability to nurture plant life, including crops. This results in low yields and higher crop failure, which in turn have a direct impact on the health and economic growth of the populations dependent on that land. Across the region an estimated 180 million people are affected by the social and economic costs of degraded land.

http://www.farmingfirst.org/2014/12/supporting-the-soil-that-supports-african-people/

Most accurate ocean circulation model made from GOCE gravity map traces



26/11/2014

Scientists have produced what they say is the most accurate space view yet of global ocean currents and the speed at which they move. The information has been drawn from a range of satellites, but in particular from the European Space Agency's GOCE mission. This platform, which operated from 2009 to 2013, made ultra-precise measurements of Earth's gravity. It has detailed the role this force plays in driving ocean circulation.

A year after the satellite reentered the atmosphere, scientists using data from the GOCE satellite have made a breakthrough in our understanding of ocean currents.

http://www.siba.com.au/News/News-Articles/Most-accurate-ocean-circulation-model-made-from-GO.aspx

No-till boosts efficiency, helps save southern soils

LARRY STALCUP, Contributing Writer — Dec 12, 2014

EMAIL SHARE Tweet +1 Recommend 1 COMMENTS 0

"Erosion can be reduced by as much as 50 percent if 30 percent of the soil surface is covered with residue,when compared to bare soil. Fuel consumption and cost are minimal."

What is in this article?:

No-till boosts efficiency, helps save southern soils

Higher than average yield

LEAVING CORN RESIDUE on the soil surface allows it to decompose more slowly and protect soil particles from erosion for longer periods of time.

Clean soybean fields look great from the road. But a field with beans planted into sometimes-scrubby looking residue in a no-till system will likely dress up the bottom line.

Ernie Flint, regional agronomist with the Mississippi State University Extension Service in central Mississippi, says conservation tillage, and especially no-till, offer farmers the best chance of saving precious soil that often runs off during heavy rains that are typical across the Mid-South and other areas.

http://deltafarmpress.com/southern-corn-and-soybean-production-guide/no-till-boosts-efficiency-helps-save-southern-soils

Nature publisher hopes to end 'dark sharing' by making read-only papers free

John is a *Science* contributing correspondent.

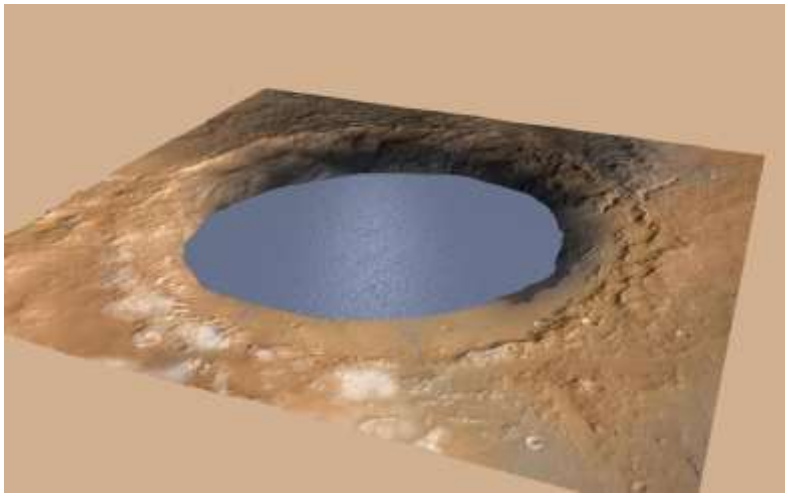
The publisher of the prestigious *Nature* family of scientific journals today unveiled a new approach to freely sharing papers that are normally protected by a paywall. The initiative seeks to provide an alternative to—and potentially end—so-called dark sharing, a practice that some scientific publishers find problematic.

It's an open secret that scientists routinely share papers from journals that require a subscription with people who haven't paid up. It's easy: A subscriber just downloads a PDF copy and e-mails it out, or drops it into a shared Internet folder.

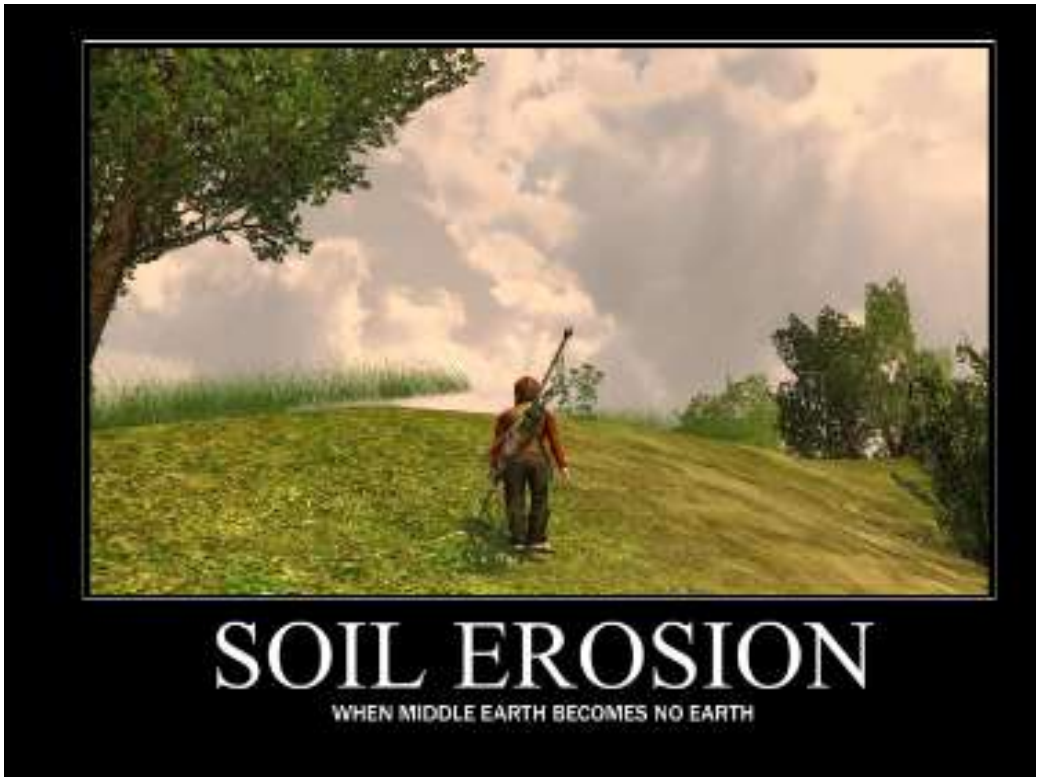
http://news.sciencemag.org/scientific-community/2014/12/nature-publisher-hopes-end-dark-sharing-making-read-only-papers-free

Simulated View of Gale Crater Lake on Mars

This simulation depicts a lake partially filling Mars' Gale Crater, receiving runoff from snow melting on the crater's rim. Evidence that NASA's Curiosity rover has found of ancient streams, deltas and lakes suggests the crater held a lake such as this more than three billion years ago.



http://mars.jpl.nasa.gov/msl/multimedia/images/?ImageID=6875



Soil is biodiversity - Greg Summerell 2014