

Gideon Lincecum Chapter Texas Master Naturalist™ *NEWS*



August/September, 2013

From the President:

Please join me in welcoming Sirkka Higgs to our TMN chapter corp of volunteers as an Honorary Member. Sirkka celebrated her 29th birthday in July, has Down's Syndrome, and, according to her mom,

Lemae, "is never happier than when she has a task". As the list of our chapter volunteer projects keeps growing, I look forward to working with Sirkka.



Yesterday, Sunday, September 18, at the annual Fayette County 4-H Banquet, Cindy Hobbs and I met Reagan Kuck, the La Grange 4-H club member our chapter sponsored to attend the South Texas Buckskin Brigade Leadership Camp in June. Reagan described his week at camp, "the best week of my life!" I have asked Reagan to present a synopsis of his learning experience to us at our next chapter meeting, Saturday, September 21, at the La Grange

AgriLife Building, 255 Svoboda Lane, La Grange

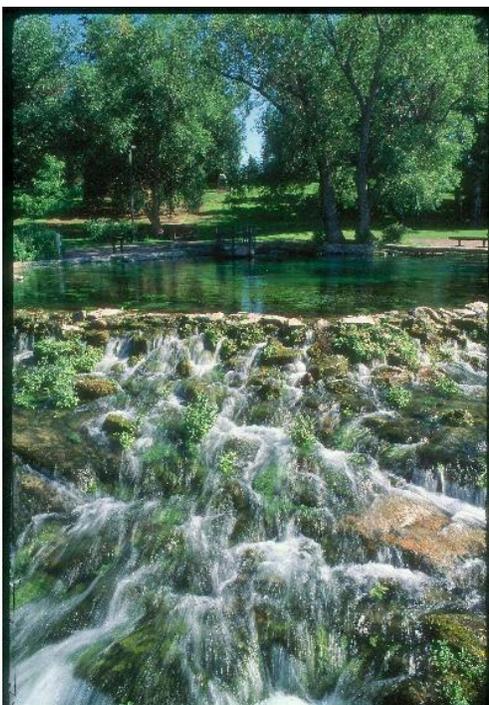
I was fortunate to be able to vacation in a cooler climate these past two weeks. Scott and I drove to Glacier National Park in Montana. Our journey included following trails of Lewis and Clark and the "Corps of Discovery", the expedition commissioned by President Thomas Jefferson to explore the Louisiana Purchase. We visited the Missouri Headwaters State Park and hiked to Fort Rock, which overlooks the convergence of the three forks of the Missouri River--the Jefferson, the Madison, and the Gallatin Rivers.

I saw what I thought looked like a robin in the bushes, but it was bigger and darker. I wonder if it might not have been a Lewis' Woodpecker? (http://www.allaboutbirds.org/guide/Lewis'_Woodpecker/id):

"Ornithologist Alexander Wilson, working with skins that Lewis and Clark's expedition had provided, described this species in his *American Ornithology* and named it Lewis' Woodpecker in honor of his fellow naturalist (Snow 1941, Farrand 1992, Mearns and Mearns 1992)." (<http://bna.birds.cornell.edu>)

We stopped at the Lewis & Clark National Historic Trail Interpretive Center in Great Falls, Montana on our way home. If you ever have the opportunity, I highly recommend this stop. We walked from the Interpretive Center to Giant Spring State Park.

"Giant Springs was founded during the Lewis and Clark expedition of the Louisiana Purchase in 1805. Giant Springs is a large first magnitude spring with an average discharge of 242 cubic feet of water per second or 156 million gallons per day. The spring has a constant temperature of 54F year around. The water originates from snowmelt in the Little Belt Mountains 60 miles away and according to radioisotope dating takes almost 2,900 years to travel underground before returning to the surface at the springs. The spring is the headwaters of the world's shortest river, the Roe River which is 200 feet long and flows into the Missouri river."



I have no idea what kind of fish we saw swimming in the upper, quieter pool, but they were pretty big!

The fish would have made good eating for the black bear we saw on the trail to Granite Park (off the Loop of the Going-to-the-Sun- Road). The trail was very curvy, sometimes a steep up hill grade, and narrow overlooking a deep crevasse! I was questioning why I ever agreed to attempt this feat when I rounded a curve and saw a black bear making its way down the hill above the trail and stopping approximately 300 yards ahead on the trail.

The bear and I looked at each other and it decided to turn right and move along the path toward Granite Park. I decided to turn left and return to the parking lot from whence I started!!

At Waterton Lakes National Park, the Canadian side of Glacier National Park, we-- among many other spectators and a park ranger--watched a Grizzly Bear with 2 cubs keeping their distance from the parking lot of the Prince of Wales Hotel.



I enjoyed seeing the nature and wildlife of the northwest US, and I'm glad to be home. I hope your summer has been as rewarding, maybe even as adventurous?

See you soon.

Cindy

P.S. Check out this heading:



[Common Myths About Climate Change](#)

Contributed by Wes Davenport

I have been studying Climate Change since 1993. I first became interested when I was studying for my second Master's Degree in Studies of the Future. I have followed Climate Change Science and Climate

Change Skeptics ever since. I came to the conclusion that the only facts that should be considered come from peer reviewed scientific papers published in reputable peer reviewed journals. When I started my study, I was undecided about the dangers of climate change, the extent to which man was responsible and the need for immediate action. I have followed closely the claims of climate change skeptics, as well as those who were convinced that Climate Change was happening, man was responsible and immediate action was needed to avoid climate disasters. I no longer have any doubt in my mind that Climate Change is real, man bears a significant part of the responsibility for the rapidity of the change and that we must act very soon or it will be too late to avoid or ameliorate the worst results.

Junk Science Detector

Is it a political opinion site?, Is the writer a scientist?, Is it in a Peer Reviewed journal? Does the author have a record of published papers on Climate in peer reviewed journals?

If the answer is yes, to the first, and no to any of the rest then you are getting political opinion – NOT SCIENCE.

Let's look together at some of the "Facts" provided by Climate Change Skeptics.

Myth: Volcanoes Produce Most of the CO₂ in the Atmosphere

Human activities produce many times the amount of CO₂ emitted by volcanoes.

- Volcanoes: 145-255 million tons per year
- Human Activities: 30 billion tons per year
- Human Activities produced 130 times the amount emitted by volcanoes

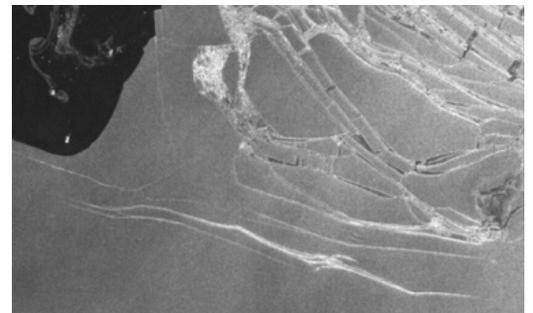
Terry Gerlach, "Volcanic Versus Anthropogenic Carbon Dioxide"; *Eos*, Vol. 92, No. 24 14 June 2011

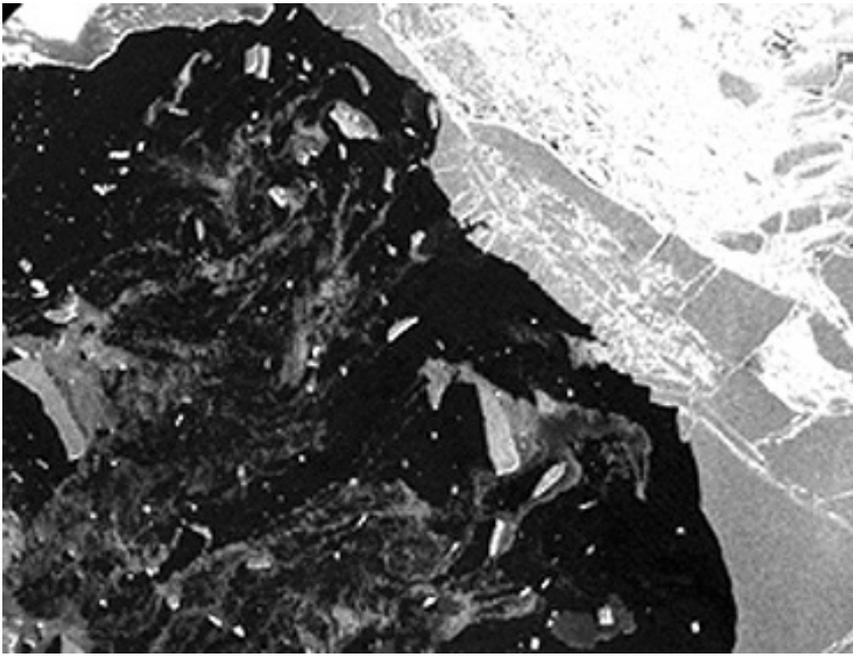
Myth: Antarctica is Getting Colder! – Snow is Increasing!

Snow is increasing in Antarctica, but not because Antarctica is getting colder, because it is getting warmer. Warmer air can hold more water vapor so an increase in snowfall is likely. To make a long story short, Antarctica is behaving as expected in current climate models.

Steig EJ & Orsi AJ. The heat is on in Antarctica. [*Nature Geoscience* 6, 87–88 \(2013\)](#)

Satellite imagery taken April 2, 2009 revealed more cracks in the Wilkins ice bridge, and icebergs detaching from the shelf. A collapsed ice shelf can accelerate the flow of glaciers into the sea, which can raise sea water levels.





This European Space Authority satellite image taken April 5, 2009 shows the Wilkins Ice Bridge collapsed.

Credit: *European Space Agency*

National Snow and Ice Data Center. (n.d.). [Ice Shelves](#). State of the Cryosphere. Retrieved April 6, 2010.

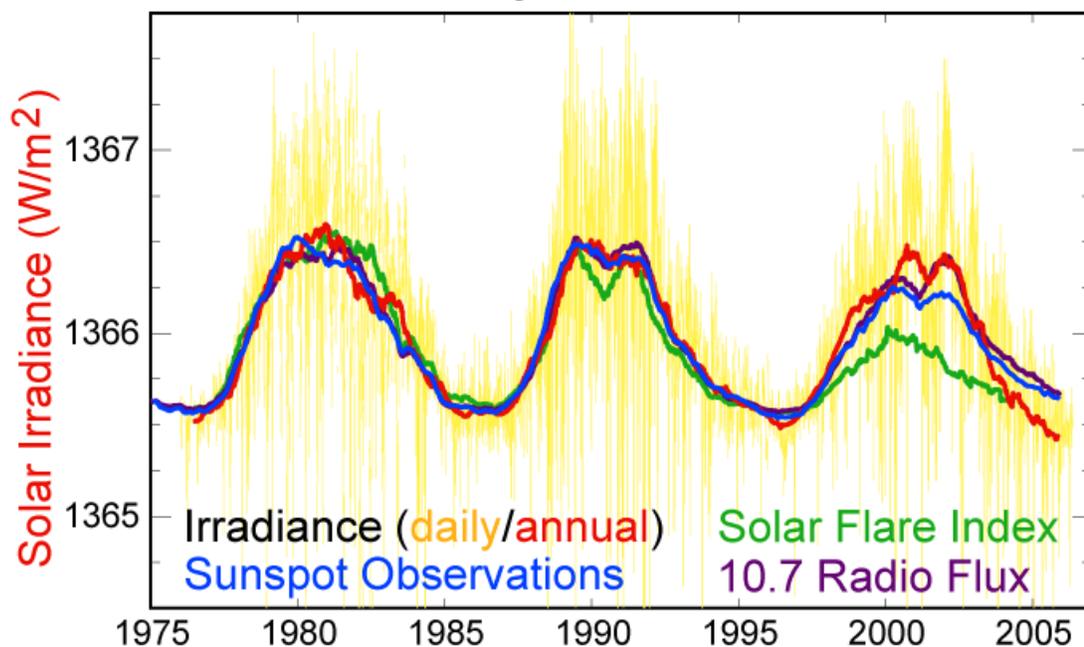
Myth: It's Cosmic Rays

Myth: It's the Sun Causing Warming

The Sun is not to blame for global warming. Nor is a decrease in galactic cosmic rays

Nature 448, 8-9 (5 July 2007) | doi:10.1038/448008a; Published online 4 July 2007

Solar Cycle Variations

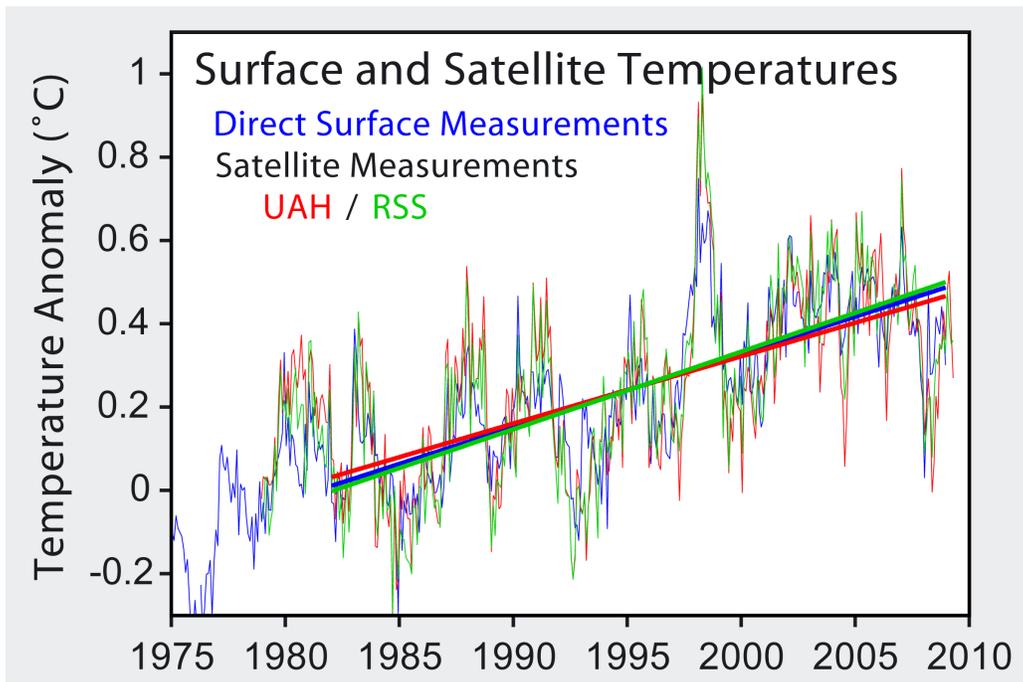


In the last 20 years, all the trends in the Sun that could have had an influence on the Earth's Climate have been in the opposite direction to that required to explain the observed rise in global mean temperature.

National Research Council. *The Effects of Solar Variability on Earth's Climate: A Workshop Report*. Washington, DC: The National Academies Press, 2012.

Myth: Satellites Do Not Show Warming

Early versions of satellites and radiosonde data showed little or no warming above the surface even though surface data showed substantial global-average warming. This discrepancy was traced to errors in the satellite and radiosonde data that have since been identified and corrected. New data sets do not show such discrepancies. A similar thing happened with satellite measurement of the ozone layer where the change was so great that it was ignored by the satellites because the programmer had set limits on the amount of increase thinking that higher increases were not possible. When the limits were removed the satellite data matched other ground data. After correction the satellite and surface data show close correlation.



This figure compares the global average surface [temperature record](#), as compiled by Jones and Moberg (2003; data set [TaveGL2v](#) with 2005 updates), to the [microwave sounder](#) (MSU) [satellite](#) data of lower [atmospheric](#) temperatures determined by Christy et al. (UAH 2003; data set [tltglhmam](#) version 5.2 with 2005 updates) and Schabel et al. (RSS 2002; data set [tlt_land_and_ocean](#) with 2005 updates). These two satellite records reflect two different ways of interpreting the same set of microwave sounder measurements and are not independent records.

Each record is plotted as the monthly average and straight lines are fit through each data set from January 1982 to December 2004. The slope of these lines are $0.187^{\circ}\text{C}/\text{decade}$, $0.163^{\circ}\text{C}/\text{decade}$, and $0.239^{\circ}\text{C}/\text{decade}$ for the surface, UAH, and RSS respectively.

It is important to know that the 5.2 version of Christy et al.'s satellite temperature record contains a significant correction over previous versions. In summer 2005, Mears and Wentz (2005) discovered that the UAH processing algorithms were incorrectly adjusting for [diurnal](#) variations, especially at low latitude. Correcting for this problem raised the trend line $0.035^{\circ}\text{C}/\text{decade}$, and in so doing brought it into much better agreement with the ground based records and with independent satellite based analysis (e.g. Fu et al. 2004). The discovery of this error also explains why their satellite based temperature trends had disagreed most prominently in the tropics

Myth: The Warming is from Cities. (Urban Heat Island Affect)

Several different problems have been found with such on site temperature observations including lack of uniformity or biases in the data that can lead to erroneous conclusions. When on site temperature observations are made that eliminate such lack of uniformity and bias, no statistically significant impact of urbanization is found in annual temperatures.

Assessment of Urban Versus Rural In Situ Surface Temperatures in the Contiguous United States: No Difference Found

Thomas C. Peterson

National Climatic Data Center, Asheville, North Carolina Peterson, Thomas C., 2003: Assessment of urban versus rural in situ surface temperatures in the contiguous united states: no difference found. *J. Climate*, **16**, 2941–2959. doi: [http://dx.doi.org/10.1175/1520-0442\(2003\)016<2941:AOUVRI>2.0.CO;2](http://dx.doi.org/10.1175/1520-0442(2003)016<2941:AOUVRI>2.0.CO;2)

Myth: Climate Models Are Unreliable

Early climate models did not take into account the manmade causes of warming considering only the natural causes. This led to climate models that did not match the observed temperature variations. When manmade causes are considered alone there is a closer match, but when natural and manmade causes are combined the result is a model that is sufficient to match observed actual temperature variations.

Zheng, X. and R.E. Basher, 1999: Structural time-series models and trend detection in global and regional temperature series. *J. Climate*, **12**, 2347-2358

... To be continued in October's Newsletter

Note from the Editor: Please be sure to mark your calendar for November 16. Wes will be our speaker at that meeting

[Report on June Chapter Meeting](#)

Contributed by Cindy Hobbs

The June 2013, Chapter Meeting and Advanced Training Program at Stephen F. Austin State Park, was extremely successful, with several members from other chapters in attendance, (Coastal Prairie, Gulf Coast, and Heartland Chapters). Programs included, Diane Russell, with the Coastal Prairie TMN Chapter, who educated us about Monarch Butterflies. She covered all stages of their development and had several plants with her that had Monarchs in different stages of development. Her rendition of a hatching adult Monarch was very entertaining.



Ken Kramm, with the Heartland TMN Chapter, presented a program on Turkey Vultures and Scavengers. The Texas species, Turkey and Black vultures were discussed at length, with many pictures and an amusing delivery. Once you have had this training you will never look at vultures the same again.

Many took advantage of their time at the park by participating in Shelly Wong's Archeological Stewardship Course, at the San Felipe de Austin Historic Site next door to the park. A film "Green Fire: Aldo Leopold and a Land Ethic for our Time", was offered from 1:00 to 2:00 PM and will be offered again in the future for those that missed it.

Finally, Sirrka Higgs, was presented her certificate of honorary membership into the Gideon Lindecum Chapter TMN, for all the volunteer hours she has contributed.

[Put on Your Thinking Cap!](#)

A Note from Cindy Rodibaugh

Within the next few months GLC-TMN will need to identify volunteers for 2014 officer positions. Please consider which position you'd like to try and help us keep the chapter enthusiasm vibrant.

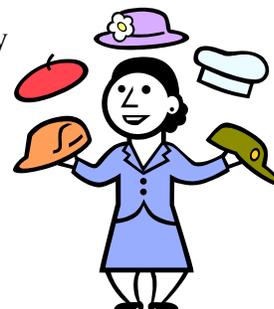
*If you who are currently serving would like to continue doing what you are doing--**GREAT!!***

*If any of you would like to change hats? **GREAT!!***

In either case, the chapter will benefit from your help.

Please contact Cindy Hobbs or Cindy Rodibaugh to report what hat you'd like to try on!

Thank you.



How to Make a Dripper for Your Bird Bath

Contributed by Dave Redden

If you are reasonably handy with plumbing tools, this is an easy job. If you are not handy and not interested in learning, then you probably need to hire a plumber or find a qualified friend.

First Steps

You need to have a water source where you want your bird bath dripper. If you have an automatic lawn irrigation system, you will have underground water piping going to each control box. Dig up the area around the control box until you find the supply line. You can cut and splice a tee into this line and make a riser to get water to the surface. This takes work and some experience. It may be something you need to pay for to accomplish.

An alternate way is to run a new line to where you want the bird bath. You could use a hose, but it will be exposed above ground and may be a bother every time you mow. You could also lay a separate ½-inch polypropylene irrigation line (available at the hardware stores) and bury it underground a few inches. They make a special shovel that is about 4-in wide just to make such trenches. It is pretty hard work, especially in clay, so you do not want to make your line very long, or you need to find someone who is suitably fit to do this. If you are using a hose, you just connect to a faucet outside, but you will need to get an adapter to go from the hose to the valve at the other end. If you are using the ½-inch line, you need to buy an adapter to get from your faucet connection to the pipe. Adapters are also available at hardware stores.

Once You Have a Water Line to the Base of the Bird Bath

After you have the water line to the bird bath location, the rest is pretty easy. Here is what you are trying to achieve.



GROWING PLANTS USING THE HYDROPONICS METHODS

Contributed by Lefty and LuAn Yarnold

In August, Lefty and LuAn Yarnold celebrated their 50th wedding anniversary with a trip to Disney World with their kids and grandkids.

While at Disney's Epcot, the Yarnolds went on "Behind the SEEDS" tour of *Living with the Land* greenhouses which demonstrated a variety of hydroponics growing methods. Hydroponics--growing plants without soil--is the method they used to grow over 60 different types of plants. The plants receive nutrients and water on a 24 hour-a-day basis. The run-off water is recycled by cleaning, cooling and re-pumping the water back over the plants. Produce grows larger and more quickly using hydroponics vs. soil because plants received continuous nutrients and water supply and the plants did not have to separate dirt from nutrients possibly losing some nutrients in the process.

Using hydroponics, lettuce from seed is grown in plastic gutter trays with holes punched in one side producing heads of lettuce in 4 weeks vs 10 weeks required if soil is used. Using a four-tray setup, 500 heads of lettuce can be produced in a week. Over an 11 month period, one Chinese cherry-tomato tree produced a record-breaking 32,000 cherry tomatoes (1,151 lbs). From seed, pumpkins are grown over trellises by hanging them in slings above the ground.

All produce is served in Epcot restaurants or recycled into compost piles. The hydroponics method of growing plants could possibly be the future of agriculture.





CALENDAR FOR THE NEXT MONTH OR 2?

Make sure you mark all of these on your calendar. Each opportunity here will increase your knowledge as a Master Naturalist. (The camaraderie is a big bonus too!) These are in date order:

Saturday, September 21 – GLC-TMN Chapter Meeting

NOTE: These meetings will be at the LaGrange AgriLife Building, 255 Svoboda Lane, La Grange, Texas

8:00Am – 9AM – Executive Board Meeting

9:00AM – 11AM - Business Meeting with Reagan Kuck presenting his Texas Brigades camp experience.

12N – 2PM – Advanced Training Program: Damsels and Dragonflies presented by Bob Honig and The Biological Inventory Team Project presented by Marsha May, TPWD Wildlife Diversity Program.

Friday, Saturday, Sunday, October 25-27 – Annual State Texas Master Naturalist Conference

T Bar M Conference Center, New Braunfels, Texas. For details go to:

http://www.regonline.com/TMN_14th_annual_meeting

Some of our Recent Activities

Edited by Carol Paulson



These are pumpkins? Wow!

**Happy 50th
Anniversary to the
Yarnolds (LuAn and
Lefty)**

