This past July marked a period where much of the state transitioned from flooding and heavy rains in June to much drier conditions (and not to mention consistent above normal temperatures during several heat waves). A persistent upper level ridge of high pressure was to blame for much of the lack of rain across the state. While some portions of the state fared decently with precipitation totals throughout the month, the central and eastern portions of the state suffered the most. The map below shows the observed precipitation totals for the entire month.

Areas near the Shelbyville and Indianapolis airports were also some of the locations that suffered the greatest from the lack of rain. The Shelbyville airport reported an astounding 0.06” for the entire month! The Indianapolis airport set a new record for the driest July ever: 0.47”. This narrowly beat the previous record of 0.49” set back in 1914! This intense dryness accompanied the 2nd hottest month of all time for the Indianapolis area: a blistering average temperature of 82.0 degrees. This was more than 6.5 degrees above normal. Through October, the Climate Prediction Center forecasts an equal chance for above, near, or below normal precipitation across the state, so let’s hope that the rest of the Summer and Fall help even things out!

With monthly totals of 0.50” or less shown in the blue shades and amounts less than 1.00” represented by the light green shade, you can easily see the extremely dry locations across much of the central and eastern areas. The wettest portion of the state proved to be in the southwest, where 8-10” was observed. Your observations helped build this map graphic above from the National Weather Service. Take a look at some of the notable monthly precipitation totals from Indiana CoCoRaHS reports across the state. You may even recognize your observing station!

**Lowest:**
- 0.26”, IN-MR-72, Marion Co.
- 0.33”, IN-GR-11, Grant Co.
- 0.35”, IN-SH-7, Shelby Co.

**Highest:**
- 9.62”, IN-JS-37, Jasper Co.
- 8.02”, IN-GB-8, Gibson Co.
- 7.79”, IN-PT-98, Porter Co.

**Inside this issue:**
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**Featured Daily Report Comment:**
IN-JS-47, (6/5/2011)
A devoted observer comments in regards to storms in early June:
“i will hurry to get this reported before we lose power again. it just came on, being out for 13 hours. not complaining for sure, we had little damage compared to others around us! temp reached 97* yesterday!”
CoCoRaHS Featured in Climate Workshop

Just this past June, CoCoRaHS was one of the various hot topics talked about at the Climate Services Workshop in Indianapolis, IN! Over 50 experts, students, and other climate service partners with the National Weather Service and Indiana State Climate Office gathered together for a day and a half of presentations and discussion. Local CoCoRaHS county coordinators and State coordinators from Illinois, Indiana, and Ohio were all present to discuss new avenues of where to take the program and its wonderful dataset of your consistent precipitation reports. CoCoRaHS data was shown to be included in several new ways that help the understanding and forecast of flooding, drought, and agricultural impacts.

The recent grant money that CoCoRaHS received has been helping with the latest efforts to better manage all the rain, hail, and snow reports and how to improve the latest and greatest observer resources and training materials available online. During the final portion of the climate workshop, the participants organized future steps for continuing action on the topics and ideas generated during the workshop. The meeting was a huge success and also gave Indiana CoCoRaHS great exposure. With all the latest involvement and achievements of this program, soon the sky looks to be the limit for where CoCoRaHS is headed, and it could not be possible without you!

The goals of the workshop included determining how climate services and climate data, such as your CoCoRaHS reports, could benefit others who may find helpful ways to utilize this information.

Ken’s Question Korner

The brains behind Indiana CoCoRaHS, Ken Scheeringa of the Indiana State Climate Office at Purdue, will answer your tough questions. Submit a question to Ken at cocorahs@purdue.edu

**Question:** Is zero really worth more than nothing?

**Answer:** This may seem a silly question, but not in the world of precipitation measurement! I am sure you have heard us emphasize the importance of reporting zero rainfall on dry days at your location but does it really matter? Can’t users of the data just assume no rain fell? No! Your CoCoRaHS neighbor may have reported a heavy shower but no report from your gauge could mean it rained but wasn’t reported or it truly was a dry day. Complete daily reports can become useful documentation. For example, county and state officials may consider applying for emergency haying and grazing status or other federal assistance in times of drought. That string of zeroes for the month on a complete CoCoRaHS report lends credibility to the extent of dryness in your area, whether for purposes of federal assistance, weather model verification, or other uses. Zero really is worth more than no data in the precipitation record!
Outreach: CoCoRaHS and Master Gardeners

In early August, CoCoRaHS was invited to be included at the Hamilton County Master Gardener Association’s event: “Gardens - More Than Just a Pretty Flower”. This event included guest speaker presentations in the topics of native plant and insect species, gourds, suburban gardens, and veggie gardening in small places. CoCoRaHS was there as one of the multiple information booths available for the many Master Gardeners to swing by and learn about. Such a venue is a wonderful environment for CoCoRaHS recruitment, since many of the gardeners already measured precipitation, but were not aware of our amazing program! Gardens can provide a convenient location for rain gauges as long as the gauge is away from any taller structures or vegetation. Our state will likely gain more observers soon, and we thank Hamilton County’s Master Gardener program for the opportunity. More information on the Master Gardener Program (in association with Purdue University) can be found at www.hort.purdue.edu/mg/ - check it out!

Congrats on Excellent Reporting!

You can take a look at the national map below from one morning this summer and tell several things about the Indiana observers - they are devoted, accurate, and all over the place!

Compared to many other states across the country, one can see how well our state is covered in both amount and distribution of observers. While there are still several regions across the state that could improve in spatial coverage by recruiting more observers, we should all be proud of how solid of a program we have. If you take a closer look at the state from this particular day just as an example, then you can notice something else to be proud of (grey = 0.00” reports)... The entire state accurately reported zeros for precipitation on a dry day! This follows exactly what Ken Scheeringa talks about in his Question Korner! Thanks to everyone for providing quality data during a time when information on the lack of rain greatly helps during a progressively dry period with concerns of drought. Please remember to submit Drought Impact Reports if you have any information you’d like to pass along.
Examples of Data Usage

The CoCoRaHS coordinator team is always looking to discover ways that you or other businesses and organizations are utilizing the precipitation data. Here are just a few...

* One person from Richmond, IN reported that the data from the CoCoRaHS website was used for determining rainfall amounts for their annual storm water reporting associated with their business.

* The NWS River Forecast Centers use your data along with radar estimates and several other resources when creating the daily observed precipitation maps.

Record Reports from June - July 2011

Below are some interesting record reports during the first portion of the summer (June - July 2011):

**Lowest 2-month total precipitation:**
3.20”, IN-DK-5 (De Kalb County, IN)

**Greatest 2-month total precipitation:**
13.97”, IN-WK-14 (Warrick County, IN)

**Greatest 24-hr total precipitation:**
6.71”, IN-JS-37 on July 23, 2011 (Jasper County, IN)

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**Oddest Thing Witnessed Near Gauge?**

So what was the oddest thing you’ve witnessed near your rain gauge? This question was posted on the state CoCoRaHS website following the last newsletter. One observer had a reply that involved anything but a normal daily precipitation reading: baby spiders! In fact, the observer was able to measure 0.02 inches of baby spiders. Apparently there had been a spider nest that had hatched, and, unfortunately the gauge was the final resting place for the little critters.

In addition, the National Weather Service Office in Indianapolis, IN has had a fair share of woodland creatures occasionally witnessed near the CoCoRaHS gauge during the morning observation time. One day, the furry fellow pictured below was perhaps observing the NWS staff member just as much as one would observe the gauge reading!

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Thanks to Ken Scheeringa and Al Shipe for newsletter contributions!