**April 2021 Statistics**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total observers reporting</td>
<td>539</td>
</tr>
<tr>
<td>Observers with no missing reports</td>
<td>316</td>
</tr>
<tr>
<td>Percent of total</td>
<td>59</td>
</tr>
<tr>
<td>Average Daily Reports per Day</td>
<td>425</td>
</tr>
<tr>
<td>Max # of Daily Reports and Day</td>
<td>482 / 28</td>
</tr>
<tr>
<td>Significant Weather Reports</td>
<td>13</td>
</tr>
<tr>
<td>Condition Monitoring Reports</td>
<td>21</td>
</tr>
<tr>
<td>E-T Reports</td>
<td>93</td>
</tr>
<tr>
<td>Max Daily Rainfall</td>
<td>3.07&quot; / 3.07&quot; (County) (Crawford)</td>
</tr>
</tbody>
</table>

Things have really ramped up with a few recent rain events. It's great to see everyone getting back involved and seeing all of the new observers jumping right in. We're still shooting to get that day of 500 reports and with 539 total observers, we can make it if we all work together!

Now that everything is also beginning to green up, your CoCoRaHS condition monitoring reports are also going to be a little easier to delineate the dry vs wet conditions. We highly recommend anyone and everyone to participate as it helps us on the state level as we look at local impacts during dry spells.

**April 2021 Precipitation in Indiana**

The April 2021 statewide precipitation was 2.88 inches -- 1.51 inches below the 1991-2020 normals. The map shown illustrates the percentage of the 1991-2020 normal precipitation for April 2021 where most of the state received only 50%-75% the amount of precipitation that would normally have fallen for the month. Of the observers that provided data every day, the greatest precipitation total for the month was 6.75 inches at BEDFORD 6.5 SE (Lawrence County), whereas the lowest monthly precipitation total was only 1.42 inches at PORTAGE 2.4 NNW (Porter County). Of those with complete monthly records, the maximum 1-day total was 3.07 inches on April 29th at ENGLISH 7.9 SSW (Crawford County).

**Accumulated Precipitation (in): Percent of 1991-2020 Normals**

- **April 1, 2021 to April 30, 2021**

**CoCoRaHS and the 1991-2020 Climate Normals**

By Steve Hilberg

There are CoCoRaHS stations that have been operating long enough that they were used in the calculation of the new climate normals for the 30-year period from 1991-2020. While no CoCoRaHS station has 30 years of data, those with ten years of data or more and meeting criteria for completeness of data were designated for provisional normals. Stations with provisional normals now have monthly-normal precipitation calculated. We are working on a web page that will explain the new normals from the National Centers for Environmental Information and have information on how you can access this data. The planned release for this web page is the first week of June, so watch for it to be announced on the CoCoRaHS website. Stay tuned!

**Keeping Birds at Bay**

By Steve Hilberg

It’s time for the annual hints at ways to keep birds from messing up your rain gauge. If you haven’t discovered this already, birds sometimes decide to use your rain gauge for a perch and/or a porta-potty. Although a properly perched bird or two can be a great photographic opportunity, more often than not they leave a mess. We have seen many ideas to keep birds away from rain gauges, including stuffed cats, real cats, plastic owls, rubber snakes, and more. Probably the easiest thing to do is use tape and attach tooth picks or thin, rigid wires to the rim of the gauge about every 1 ½ to 2 inches and sticking up about 2 inches above the rim. Here are some instructions on making the toothpick deterrent.

1. Get about a 14-inch long piece of ¾-inch duct tape. Since you won’t find duct tape in a ¾” width, you will need to rip a strip approximately that wide from a wider strip. Lay it adhesive side up on a flat surface, and fasten down each end with a small piece of tape.
2. Arrange toothpicks on the tape about 1” to 1 ½” apart. Round toothpicks are best – they have a little more heft to them. Press the toothpicks on to the tape so they adhere.
3. When you have arranged all the toothpicks, cut the strip free on both ends, inside of where you taped it down.
4. Wrap the tape with the toothpicks around the edge of the funnel, keeping the top edge of the tape at or just below the edge of the funnel. Overlap the ends, and then press firmly all around the funnel.

Another way to keep them off of your gauge is to provide them with some place else to perch that is higher than the top of your rain gauge. This suggestion came from one of our observers. You can put up a shepherd's hook nearby or rig up something else to give the birds a place to check out the surroundings without using your rain gauge. Here's what I did last year -- worked like a charm.

---

Keep a Local Record of Your Measurements

by Steve Hilberg

There was a recent discussion on the CoCoRaHS Facebook group about writing down your observations. Many observers do record their precipitation in a separate record each day, sometimes with other observations of temperature, etc. We recommend that everyone keep a separate record of their precipitation observations at their location. This will be helpful if we ever have to contact you with a question about one of your observations. No matter how careful you try to be, you will likely enter an observations incorrectly at some point in your CoCoRaHS "career". Mistakes happen, especially if you are in a hurry or otherwise distracted. We quality control CoCoRaHS data each day and most errors we find are reporting errors, not measurement errors. You don't have to keep the written record forever, just a month or two. An easy way to do that is to write it on a calendar you have. If you use a digital calendar, then enter it there when you submit your observation.

---

If you Move or Change your Email Address

If you are moving to a new home and want to continue to participate in CoCoRaHS, please let us know as soon as possible. Your observations are tied to a specific location, so we don't want observations from your new location associated with your previous location. The value of the observations is increased by their continuity at that location, so consider suggesting to the buyer or new tenant of your home that they participate in CoCoRaHS! We have a brochure that you can download, print and give to them. When you know your new address, let us know. When you are ready, we will close your old station and open a new station at your new address (DO NOT sign up for CoCoRaHS again). Once that's done, you can enter observations from your new location. If you are moving to a different state, we can help you get in touch with that state coordinator so you can get started there.

Let us know if you change your email address so that your record is up to date. You can update your email address in the CoCoRaHS database yourself by logging in and clicking on My Account in the top line menu. Click on Edit in the My Information box. Make any corrections, then click save.
Please also send a message to andrew.j.white@noaa.gov with the email change as well, so we can update your address on our newsletter mailing list. This list is maintained separately from the main CoCoRaHS database.

Andrew White (andrew.j.white@noaa.gov)
Kyle Brown (kyle.brown@noaa.gov)
Beth Hall (bethhall@purdue.edu)