

Colorado CoCoRaHS Newsletter Spring/Summer Edition: Fire and Ice



Hi there everyone,

This is your state CoCoRaHS coordinator, Peter, just checking in. The last time I sent out a newsletter was in March. I sent out a photo of a bird and asked folks to identify it. Apparently there is a lot of overlap between being excited about the weather and being excited about animals. I won't forget it! I learned a lot about Gray Jays (members of the camprobber family) from all of you.

Crazy weather we're having, eh? One thing's for sure: my job isn't boring right now! Over half of the state is in severe drought, and meanwhile Yuma, CO is having one of its wettest years on record. All the hail and fire makes me think of that Robert Frost poem about the world ending in fire or ice. It might also make you think "A Song of Ice and Fire" if you're an epic fantasy nerd. Is there a word in the English language that describes simultaneously being in awe of the power of nature, and worried for those in its path? For many of us, it may have been a single storm that incited your passion. If this is the case, feel free to email me letting me know what storm it was.

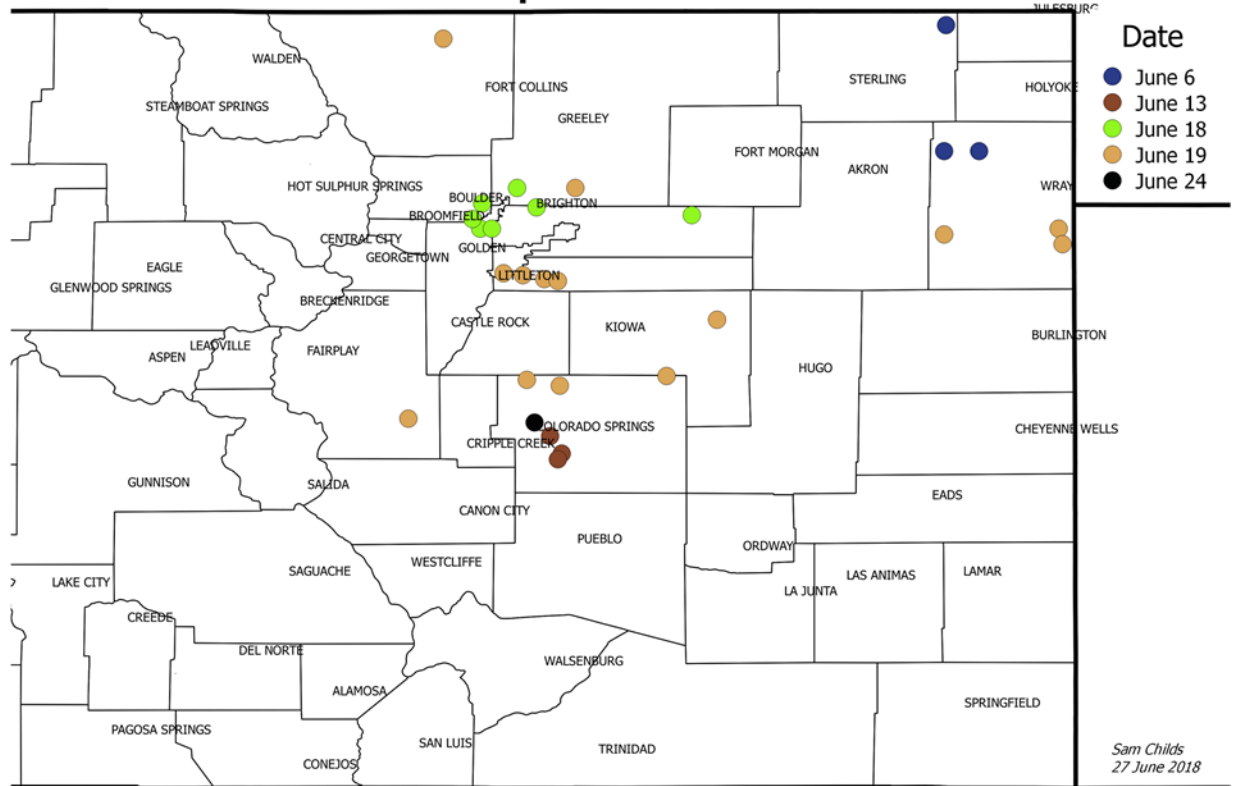
As I write this, the Spring Creek Fire rages on. It has burned over 103,000 acres. Wonderful progress has been made on its containment in the last two days, so odds are low of Spring Creek Fire passing the Hayman Fire as the "largest measured fire in Colorado history." Hayman holds the record at 137,760 acres burned. Our "silver medalist" is the West Fork Fire Complex, which took out 110,405 acres in 2013. Spring Creek has passed High Park of 2012 for third place.



Photo from "The Gazette"

Meanwhile, we've also recorded quite a bit of hail in northeast Colorado. The amount of hail reports greater than 2" in diameter has been higher than normal in 2018. Cars and roofs were totaled en masse in Louisville on the afternoon of June 18th. One of the most interesting cases happened on June 13th in the wee hours of the morning just south of The Springs. From 12:30 – 2:00 AM residents were woken up by large hail pounding on their roofs. How do storms like this happen after midnight? Isn't sunlight heating the surface a necessary ingredient for growing large thunderstorms? Usually yes, but a hailstorm in the middle of the night is like a quiche without eggs. If you have other key ingredients, and the right substitutes for eggs, you can still make a quiche. In this case, we had moisture-rich air flowing out of a thunderstorm complex in Kansas, and being lifted against our Rocky Mountain slopes. Add to that changes in wind direction with height, and a colder than normal upper atmosphere, and *vuella!* Nocturnal hail.

2"+ Hail Reports - June 2018



Were you impacted by hail? Do you have beautiful photos and or video of the event? Don't be bashful; send them in! You may be featured in the next newsletter. The photo below comes from an observer who was hit by hail near Colorado Springs. This picture is wonderful as it shows the different layers that comprise a large hailstone. Experts can look at photos like the one below and get a sense of not only the strength of the storm, but how many times the hailstone cycled through the top part of the storm cloud before falling.



Photo from CoCoRaHS observer

To add to the hail madness, tornadoes have been showing up in some strange places across the state this year. On June 22nd Jackson County, home to Walden and the North Park valley, received only its second documented tornado. Just two days later, an anomalous tornado touched down near Steamboat Springs. Just yesterday a tornado was documented near Fairplay (the 6th on record for Park County). Mountain tornadoes are rare, but not unheard of. They rarely come from as powerful of storms as those hitting the Central Plains, and probably won't inspire any blockbuster cinema, but are dangerous nonetheless.

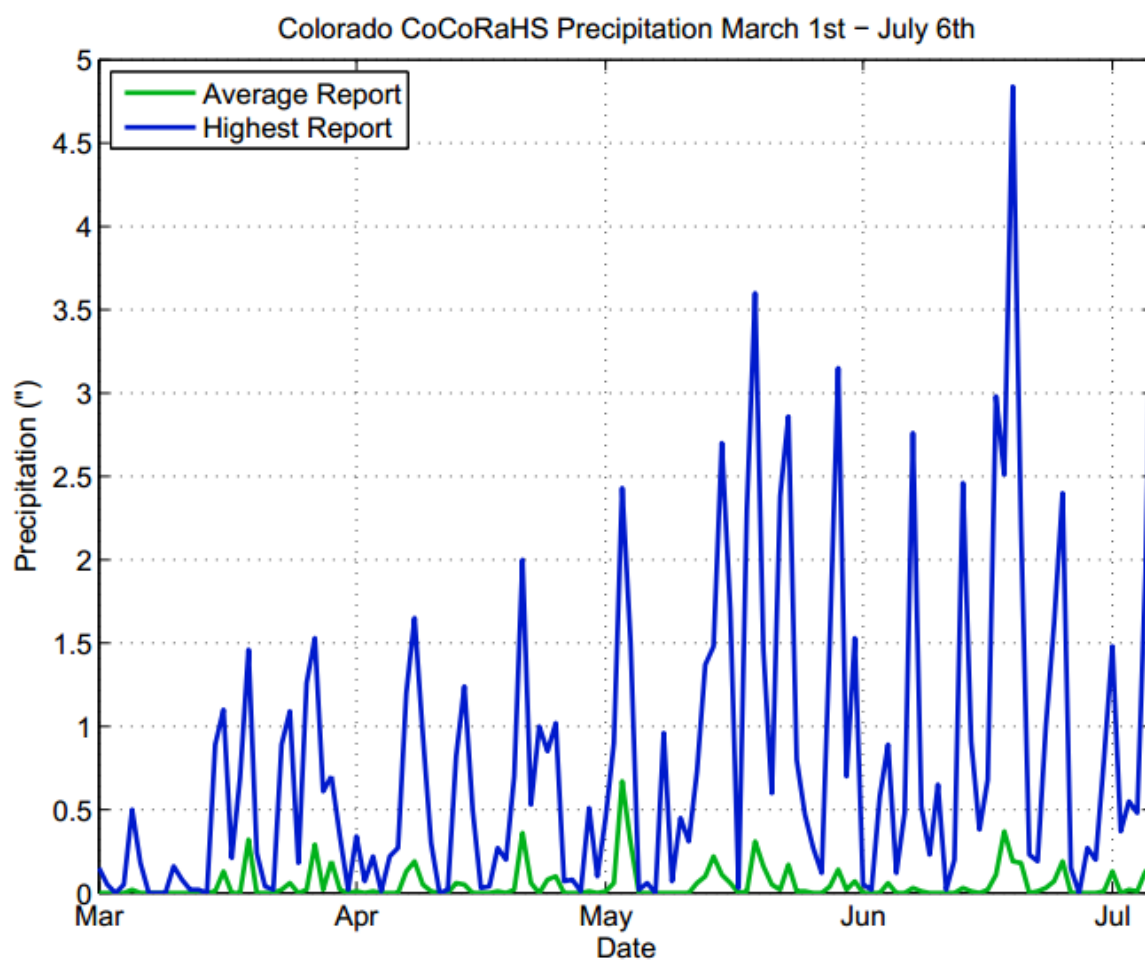


Credit: Soren Jespersen

We had a successful “March Madness” campaign. We recruited 41 new observers, which put us 10th in the nation, and 11th per capita. Sometimes it’s still tricky for folks to transition from signing up to actually reporting. Please feel free to direct questions about getting started to me. To those who might be interested in organizing training sessions for new observers, especially new county coordinators, feel free to chat with me (970-491-8312). My work takes me all over this state, and it’s possible I would be able to drop by and help out. A special thanks to those who have stuck with it since signing up in March. Thus far in 2018 we’ve had 77 folks make their first report, 27 reached the 100 mark, and 30 reach their 1000th daily report. Nice work!

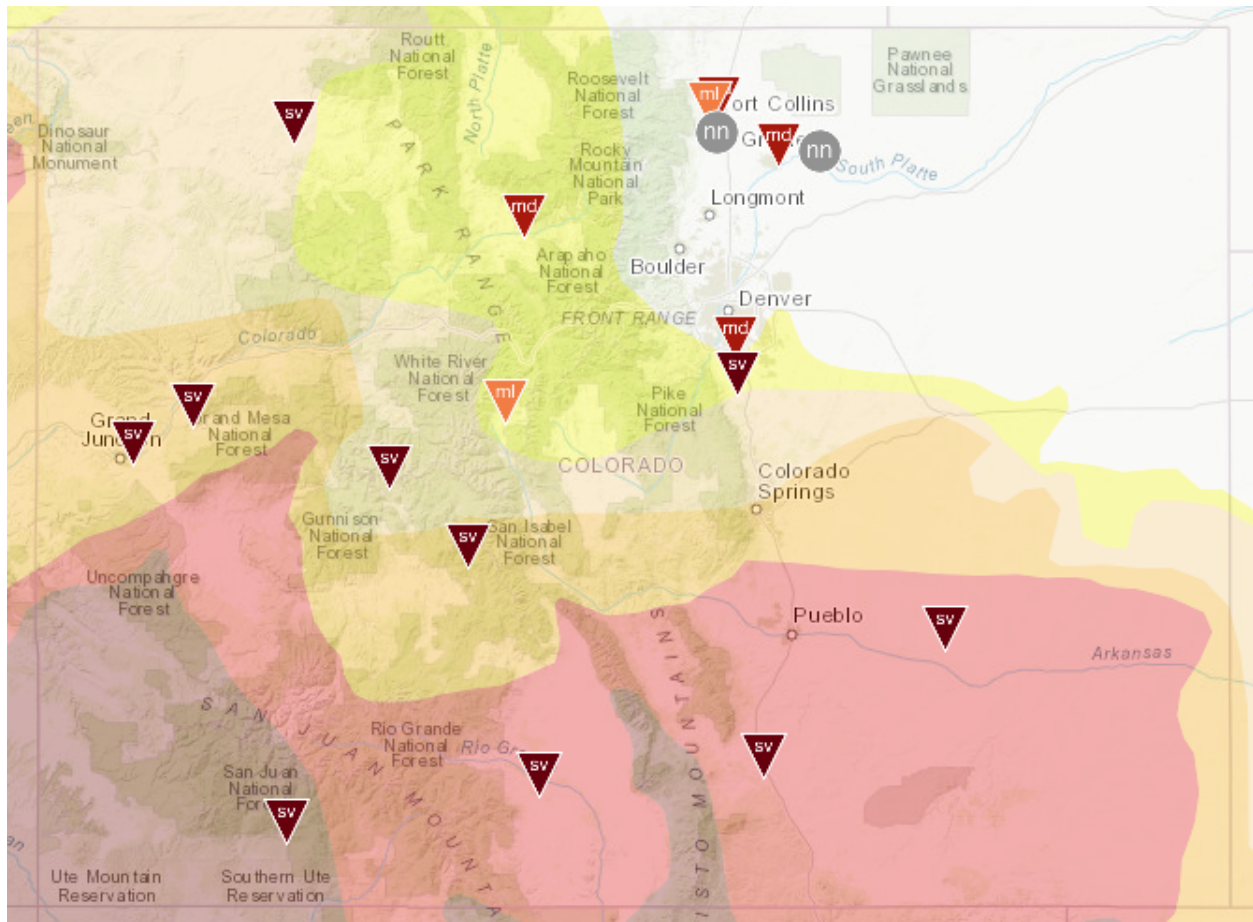
Last year we reached 1000 reports in the state 10 times between May and September (our numbers go up when it's warm outside). This year we've been sooo close! 999 reports on May 3rd! Anybody reading this with backlogged data to add to the webpage could send us into four digit territory. We all lead busy lives, but if you enjoy being a part of this community, we encourage you to tell your friends. Don't leave them hanging if they have questions. I'm always happy to lend a hand. peter.goble@colostate.edu or 970-491-8312.

Over our meteorologic spring, March 1st-May 31st, our wettest station was CO-DL-45 with 10.53" of precipitation and 79.8" of snowfall. This station sits on a mountain pass, and could see much more in a good year. For our storms season to date (tax day – present) our wettest conditions have been out on the eastern plains. CO-CH-34 leads the way with 11.67" of rain over this span. Our highest 24-hour report for 2018 to date is of 4.84" in Keensburg, CO on June 19th. That's a whopper of a storm, but as far as state records go, is very beatable. I would put the odds of one of you seeing 5" or more in 24 hours at some point in the next six weeks at greater than 50%. After that, the thunderstorm season will begin to subside, the atmosphere will cool and hold less moisture, and the precipitation we see will generally be more widespread and more gentle.



To those who keep reporting your zeros, thanks again! On June 27th we received 724 reports even though none of you had any rainfall, not even a trace! Zero is arguably the most sophisticated number, and our inclusion of zero revolutionized mathematics. The science of calculus is impossible without zero. Perhaps another way of saying it is “you don’t know what you’ve got ‘til it’s gone.” Some of you, especially in the southern half of the state, are probably just dead sick of reporting zero. To you, I would say “hang on.” Yes, this drought is a real doozie, and you’ve been on the short end of the stick for some time now, but the second half of July into August is the wettest time of year for much of southern Colorado. This is “monsoon season,” and while the phenomenon is better known for its footprint on Arizona, it impacts precipitation in our state too. The Climate Prediction Center is favoring a strong monsoon in their outlook for July-September with an increased likelihood of above average precipitation for western Colorado. Here’s hoping the dry ground has its thirst quenched.

If you are suffering from, and continue to suffer from drought impacts I would encourage you to let us know via CoCoRaHS’ condition monitoring report form. These reports are forwarded onto us and the National Drought Mitigation Center in Nebraska. Sure, we are able to look at drought using a cornucopia of high-tech tools, but reports from folks like you adds a whole new dimension to this information. For example, here’s a wonderful condition monitoring report that really adds to our understanding of your local impacts: “About as bad as it can be. Fire bans in place. Water levels dropping drastically. Smoke and dust in air at all times. Report of young antelope perishing. Cattle shipping to other areas or to the sale barns. Feed extremely hard to find.” When sending in drought recommendations for the region, I can’t get enough of this kind of info!



You've probably seen some of the material from our National Coordinator, Henry Reges, regarding the 20th anniversary of CoCoRaHS. We've now been doing this for two decades, or a score as Lincoln would say. Some of you have been with us since the very first day. That's special. Lots of things in life have diminishing returns. That second bowl of ice cream probably wasn't as satisfying as the first. On your third bowl? There's a stomach ache brewing. CoCoRaHS doesn't follow the law of diminishing returns. The longer you stick with it, the easier it gets, and the more cherished your data record becomes.

So long for now,

Peter Goble

Colorado CoCoRaHS Coordinator

