

Rain, Rain Rain
By Lisa Doner

2023 in New Hampshire has been, in one word, wet. I searched the National Centers for Environmental Information (<https://www.ncei.noaa.gov>) and found a weather station in Campton (US1NHGR0051) with data from this summer, just to check my sense of how wet it's actually been. Between June 1 to Oct 21 we've had 75 days with measurable precipitation (rain) and only 58 days without. So, yeah, there's good reason for feeling that we had a lost summer, cruddy weather for tourists, and garden plants and solar panels that struggled with the cloudy conditions. A mycologist friend told me that it's even been too wet for mushrooms. And now fall is here, a time usually filled with bright, clear, dry days and no mosquitoes or black flies, when we can really enjoy being outside - and the rain continues.

So, let's take a dive and ponder what this wet period does for the environment. For one thing, there's been low local forest fire danger, despite the long distance smoke reminding us of the risk for many months. Also, rivers and streams have stayed high. Migrating birds, especially waterfowl, had no trouble finding places to rest and forage for food well away from shoreline predators. Vernal pools stayed with us much of the summer, giving amphibians leisurely time to mature. Upland vegetation has thrived in the wet and, with the delayed frost this year, many plants have continued to grow, refusing to drop their leaves. The high lake levels floated docks and eroded shores, but the lakes also experienced less intense surface warming, weaker stratification and deeper mixing. This might bring some relief to lakes and ponds that struggle with bottom water oxygen depletion. At the same time, frequent rains carried nutrients from the soil to streams, lakes and wetlands at a fairly steady pace, reducing the tendency for boom-and-bust algal blooms and cyanobacteria outbreaks.

Going into the colder months, ground water levels in the soil remain high, causing issues for construction (puddles in foundation holes, site soil runoff), road agents (road beds that will frost heave, perpetual ice on some dirt roads) and residents (leach fields that freeze or are too saturated to work, wet cellars and mold). Problems with saturated ground as winter approaches aren't limited to the human realm. Frost heave damages the fine root hairs of trees and shrubs, slowing their ability to uptake water and nutrients in spring. Burrowing and hibernating animals may find fewer areas suitable for dry dens. Probably the greatest risk of saturated ground in fall is the risk of snowfall on trees still holding onto leaves and whose roots are in wet ground – any significant wind could upend them. And frozen soil means that any fall and winter rains will run off, not soak in, enhancing likelihood of flooding.

It's a race against the solstice now, as the sun's orbital path zooms towards the equator and the days shorten. It's important to realize that climate warming can delay the onset of freezing conditions but it does not change the length of day. Winter will come. Let's hope we get some drying out before the snow arrives.

Precipitation in Campton, NH

