

Tuftonboro Times
Summer 2022

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Warmer, Wetter, Wild Weather!

Wacky weather was a featured topic at the 2022 Lakes Congress held at Church Landing in Meredith in June 2022. Hosted by the New Hampshire Lakes Association, the Congress was attended by representatives from 54 lakes and ponds around New Hampshire including Mirror Lake residents Larry Gil and Kathy Sciarappa. All were treated to keynote speaker, Dr. Mary Stampone, who serves as the New Hampshire State Climatologist, as well as being an associate professor at UNH. Almost all states have an appointed Climatologist and some appointments date back to the 1800s. Dr. Stampone shared some sobering facts which help explain what Tuftonboro residents on Mirror Lake and Lake Winnepesaukee have been observing over the last few years, namely, that although New Hampshire typically receives 43 inches of precipitation, which can vary according to elevation and location, the weather in New Hampshire is clearly becoming warmer and wetter while simultaneously unleashing an increase in weather extremes. In fact, Dr. Stampone stated New Hampshire is one of the fastest warming regions in the United States, with the winter season warming the most quickly.

Even considering year-to-year variability, New Hampshire winters are running shorter and winter nighttime temperatures are proportionately warmer than daytime temperatures. Since 1901, there has been a 19% rise in precipitation in New Hampshire with an increasing number of “storms” over four inches since 1971. This combination of increased precipitation and warming has led to more flooding events and on Mirror Lake, we are tending to see higher lake levels for longer periods of time. Conversely, the summer droughts have resulted in lower than ever lake levels during the hottest months. The greater number of hot days is noticeable when compared with the cooler, steady summers of years gone by. Perhaps the most obvious change can be seen in the ice patterns on the lake. Ice in is later; ice out is earlier. Since the 1970s the average temperature in the region has risen one degree per decade. Although this may seem like a minor change, the water, woods and wildlife are experiencing these changes in more dramatic ways.

Climatologists predict the patterns will not only continue, but will accelerate impacting the quality and availability of water; increasing the severity of weather events and flooding; accelerating forest fires, and doubling the number of days over 90 degrees. The Northeast is particularly at risk because the established infrastructure is old and was not designed for increasingly severe weather. Climatologists further believe there is still time to lower unneeded weather risks and that the technology exists to slow or even reverse the changes, but that cultural and political forces need to be in alignment with scientific goals in order for change to occur. So far, that alignment has mostly alluded us.

One sad outcome of the changing weather patterns in the lakes regions was noted in another presentation entitled *“Loons in the Face of a Changing Climate”* where it was explained that increasing numbers of loons are being lured by warmer weather in autumn into staying on local lakes such as Mirror Lake and Lake Winnepesaukee thereby delaying their annual flight to winter on the ocean in Portsmouth. As a result, loons are either being caught in the ice as it freezes or molting their flight feathers and unable to make the trip. Sometimes loon rescuers are able to take distressed loons out of the water and bring them to the ocean, and sometimes not. Even in the spring loons are at risk in the changing climate because even in temperatures as low as 70 degrees loons can overheat and begin to pant. Loons will abandon nests if the weather becomes too hot and delicate loon eggs can essentially cook if the temperatures climb and nests are left vulnerable to the sun. Lately, the NH Loon Preservation Society has been providing nests with canopies to help protect loon eggs from the unforgiving sun. The Loon Society is not yet able to state conclusively if there is a direct relationship for the year 2021 as a

record low year for loon breeding success while also being a record high year for July temperatures, but that cause and effect is entirely possible.

Climate change is impacting Mirror Lake and Lake Winnepesaukee and we may not understand the full impact yet. But the Lakes Congress presenters agree individual residents can still do their part and make a difference. Weather awareness is the first step.