

Experiencing Climate Change in Southwest Florida

Residents of Southwest Florida have, for the most part, escaped the wrath of climate change. From the comfort of our homes we are spectators watching three West Coast states burn, Texas flood, and coastal sections of Louisiana and Texas being devastated by two powerful tropical weather systems – the second, Hurricane Laura, the strongest in more than a century.

In January of this year, Sarasota residents Jean Cannon and Roy Wysnewski implemented an outreach program aimed at educating and demonstrating to area residents the impact of climate change through the lens of local weather and climate. Utilizing a unique Tracking Climate Change procedure, residents see in real time the effect that accelerating record-high atmospheric temperature has in converting our local sub-tropical climate to a tropical one like Miami, Fl. (See attached graph).

The impact this decades-long transition has on area weather and ‘life’ is now coming into better focus. Although these transitional effects don’t compare to the devastation seen afar, they clearly reveal that our climate is changing. You might have felt the effects of rising temperatures in your summer outings, your air conditioning bills, or you may have noticed recently that certain items do not seem to last as long as they used to, i.e., car batteries, outside A/C compressors, etc.

Rapid atmospheric temperature increases in recent years combined with the current year’s extraordinary eight month-long heatwave led to the following two noteworthy climate change phenomena.

At the turn of the 21st century, an established weather pattern characteristic of Southwest Florida was the summertime day-to-day regularity of afternoon thunderstorms that progressed from inland Florida westward to the Gulf Coast. Native Floridians understood that this weather pattern had existed for decades, and perhaps even for centuries [It is worth noting that this pattern has been responsible for nearly 65-70% of Sarasota’s annual rainfall]. This unique weather/climate phenomenon continued for another 10-to-15 years when residents first observed fewer East-to-West storms each week. Then, during June

and July 2020, the aforementioned climate change tracking program exposed a serious disruption of the East-to-West weather pattern. For six consecutive weeks beginning June first, there was an absence of storms moving westward towards the Gulf Coast. This is unprecedented!

On the afternoon of July 5th several north Sarasota County residents observed a bizarre scene at a small lake in their community. Large Turkey Vultures lined the lake's banks checking out the scores of dead fish floating in the lake. Although this event was unprecedented at this location, other such incidents have been reported nearby in recent years. One example is an incident that occurred in August 2017 at two small lakes in Palm Aire. Interestingly, three common threads were identified between the lakes – record warm spring-time temperatures both years, scheduled chemical treatment of land adjacent to the lakes, and a major change in the summertime rainfall pattern (see the previous discussion). The combination of significant increases in water temperature and sudden periods of heavy rainfall triggered nutrient (chemical) runoff into the lakes followed by a deadly shift in water chemistry -- killing the fish.

This year's extended heatwave -- 170 days (70% of the time) above average atmospheric temperature -- presents a clear warning to Southwest Florida residents to be extra vigilant in the next two months. With the atmosphere becoming more 'active' and Gulf of Mexico's water temperature at record highs, **more frequently severe tropical storms are a distinct possibility!**

In addition to being prepared before the 'storm', then learning to 'adapt' afterwards, isn't it time for all of us to join, in whatever way possible, the worldwide movement to mitigate this accelerating existential climate change threat? There's still time!

Submit comments and questions about this article to mjcannon@gmail.com, roywys8@msn.com.

TRACKING CLIMATE CHANGE

