

MY INTRODUCTIONS TO CLIMATE CHANGE

I was one of the principals involved in the startup of the Environmental Concern Collective. Here, I would like to explain why I have come to believe in the threats arising from climate change.

My first exposure to climate change was when I had the opportunity to be a part of the Ross Ice Shelf Project. I was part of the team surveying the movement of the ice shelf. While I was in Antarctica, I had conversations with glaciologists and other researchers about the concerns of the collapse of the glaciers on sea level rise.

Later on, I was one of the archaeologists at Little Salt Springs, a sinkhole in North Port, Florida. Here, we had human occupation down to 50 feet below the current water level. The water level in the sinkhole was keyed to the changes in sea level from the melting glaciers at the end of the ice ages. Walking along the beaches around Venice, Florida, I found several times faunal remains and artifacts, and one time a Newnan Lake archaic period point washing up on the beach. The point had been washed around in the ocean long enough to smooth and eradicate the flake scars. This point could have come from one of the period sites lying under the waters of the Gulf Coast of Florida.

My next stop was the Outer Banks off of North Carolina. Here, I lived and worked as a surveyor, and more than once I saw houses disappear into the ocean and roads having to be moved back away from the threatening changes in tidal levels. My family had just moved into a house near the sound on part of Nags Head when Hurricane Charley moved up the sound going north and pushing the water ahead of him. When he moved into the interior of Virginia, the water came rushing back down the sound and flooded my yard. I had experienced damage to some of the electrical parts of my car, and I had to tie down the frame of the sandbox I had just built for my kids as it was wanting to float away. The rising water almost came into the house, but we did have blue crabs floating on the back porch. The only benefit was that the rising water washed away a big pile of used lumber left by the previous tenant.

From the Outer Banks, we moved to the Virgin Islands and had the experience of two hurricanes in about 10 days. These storms blew apart the islands and destroyed my family's house. My family was ok, but an associate died when his boat sank during the storms in the harbor at Saint Thomas. I was told that having two hurricanes hitting the same general region that close together was rare, but an indication of the potential changes in the frequency and number of storms as the world and the oceans heat up as one of the results of climate change.

Later on, I went to work in the Marshall Islands and got involved in the concerns of the Marshall Islands government and various agencies having facilities on the islands with the potential threats from rising sea levels and changes in weather patterns. Several times I saw drainage ditches back up from rising tides and flooding part of the island. I did measurements for NOAA on some of the rock walls surrounding the island. They wanted to have some idea of how much elevation parts of the island had above sea level. There is a concern that global warming is going to result in changes in the weather patterns in the region of the Marshall Islands. In the recent past, it was generally accepted that large storms would not occur in the area. During my period of occupation, there were two events of high waves washing over some of the islands, damaging a water plant and a cafeteria and producing injuries to several people.

I grew up in Nebraska, and I am currently reading a book on the situation with the Ogallala Aquifer. This is the principal source of water for much of the Great Plains, and I had friends that grew up on farms and ranches whose livelihood depends on this water. It is now estimated that the Aquifer has at best 50 to 100 years of water left. When it is dry, the economy of my state of Nebraska and many others will go into a serious depression, not to mention the threat to the food supply of not just the United States but parts of the world.

These are my personal experiences, and I know that many will say that most of these are just normal weather events and do not reflect changes in the climate. I have to admit that in some cases that may be true, but I still feel that some of them are a result of global warming and are an indication of further changes in climate. Whatever the case, they have resulted in me doing research into the developing threats from climate change and giving me the impetus to help start the Environmental Concern Collective. These personal experiences have also resulted in collecting volumes of data on three events in the past—events that I think show the impact on human communities from climate change. The events are the flooding of the Black Sea and Persian Gulf, and the volcano eruption on Thera in the Aegean.



Little Salt Springs, North Port Florida. Image Courtesy: National Register of Historic Places in the United States of America. Its reference number is 79000692



The debris and devastation scattered across St. Thomas from Hurricane Marilyn, Sept. 1995. Image Courtesy: U.S. National Oceanic and Atmospheric Administration