Human Caused Climate Change? A Skeptical Look at the Narrative

Individual Issues of the Narrative

(third PDF of 12)

Roger Golden Brown
Published June 21, 2023

Find all PDFs in this package & other Climate Related material on their website page.

Other PDFs on various subjects, exposing the machinations behind the mainstream narrative about our world, can be found here on my website.

Should anyone feel like supporting my continuing this work, a donation button is to be found on my website (left sidebar and on a page shown in the menu). Thank you.

Note: Please read the first PDF, *Introduction to Human Caused Climate Change? A Skeptical Look at the Narrative* first, where the intent and scope of this project are explained.

Note: Text that is indented both from the right and left (like this paragraph) is quoted from the noted source.

Included in this PDF are sections on some of the issues that anyone exposed to the alarmism and doom scenarios has heard in the news and even seen serious looking studies and reports on.

Sections

Wildfires

United States Fire Data

For use in this PDF I went to a bookmark on my search engine for a page on the National Interagency Fire Center website that I had bookmarked years ago. Lo and behold, the telltale information about the reality of wildfires in the United States had been disappeared; the page now showing only the records since 1983: Total Wildland Fires and Acres (1983-2022).

Using the Wayback Machine I was able to dredge up the original page I had bookmarked. See that page here: Total Wildland Fires and Acres (1926-2019). Also, to preserve the record, download a PDF I made of the information here.

From the data going back to 1926, it is clear that earlier in the 20th century the United States had far more fires and acres burnt than in recent years.

Here, in an article on Anthony Watts' Everything Climate website, Wildfires are far less frequent and severe than was the case throughout the first half of the 20th century, read about it, including his graph made from the original full records from the NIFC.

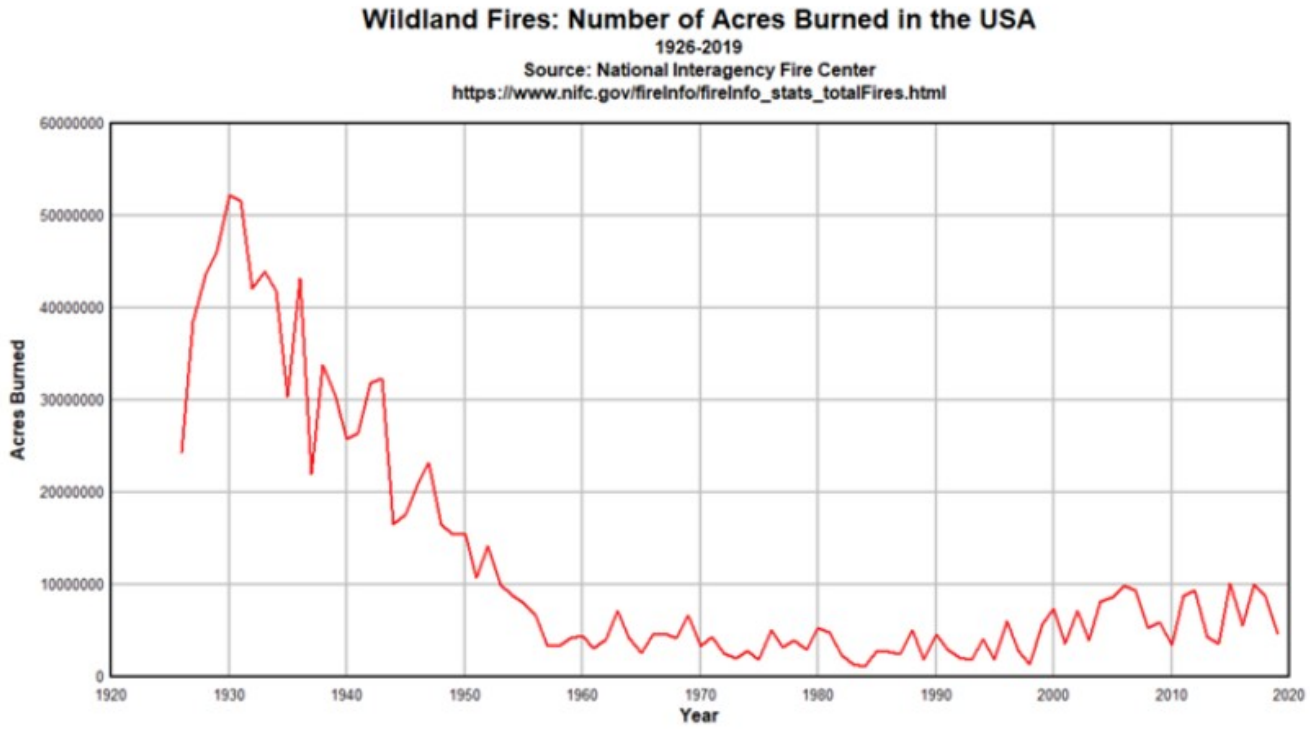


Figure 1: All available wildfire acreage burned by year in the United States, 1926 to 2019. Data from NIFC prior to disappearance in 2021. Graph by Anthony Watts

Frequency Of Forest Fires in the Southern Boreal Zone of Québec

The September 1993 paper found on the Sage Journals website, Decreasing frequency of forest fires in the southern boreal zone of Québec, and its relation to global warming since the end of the 'Little Ice Age', also concludes (using tree ring data) that there is no evidence that wildfires are increasing. From the paper, the Abstract:

> Although an increasing frequency of forest fires has been suggested as a consequence of global warming, there are no empirical data that have shown a climatically driven change in fire frequency since the warming that has followed the end of the 'Little Ice Age'. We present here evidence from fire and tree-ring chronologies that the post-'Little Ice Age' climate change has profoundly decreased the frequency of fires in the northwestern Québec boreal forest. A 300-year fire history (AD 1688-1988) from the Lake Duparquet area (48°28' N, 79°17' W) shows an important decrease, starting 100 years ago, in the number and the extent of fires. This decrease in fire frequency is also associated with a long- term increase in the mean ring width of northern white cedar (Thuja occidentalis L.) in the same area. Agreement between the standardized tree-ring chronology and fire years, together with a negative correlation with a drought index reconstructed for the AD 1913-1987 period, shows that the decrease in fire frequency may be related to a reduced frequency of drought periods since the end of the 'Little Ice Age'. The contradictory results between predicted and observed effects of warming on fire frequency call into question our present capability to generalize the effect of increasing CO2 levels on fire frequency.

And here's one more link to an article on the Landscape and Cycles website covering many aspects about wildfires: Fact Checking the Wildfire-Climate Link

Droughts

Western United States Droughts

First, from the same article linked to above about wildfires, Wildfires are far less frequent and severe than was the case ..., Anthony Watts continues to discuss the alarmism about climate change causing more or worse droughts. From the article:

> Drought for much of the west is normal. A study of tree ring data shows us droughts lasting as long as 200 years have occurred in the Western United States as seen in Figure 3.

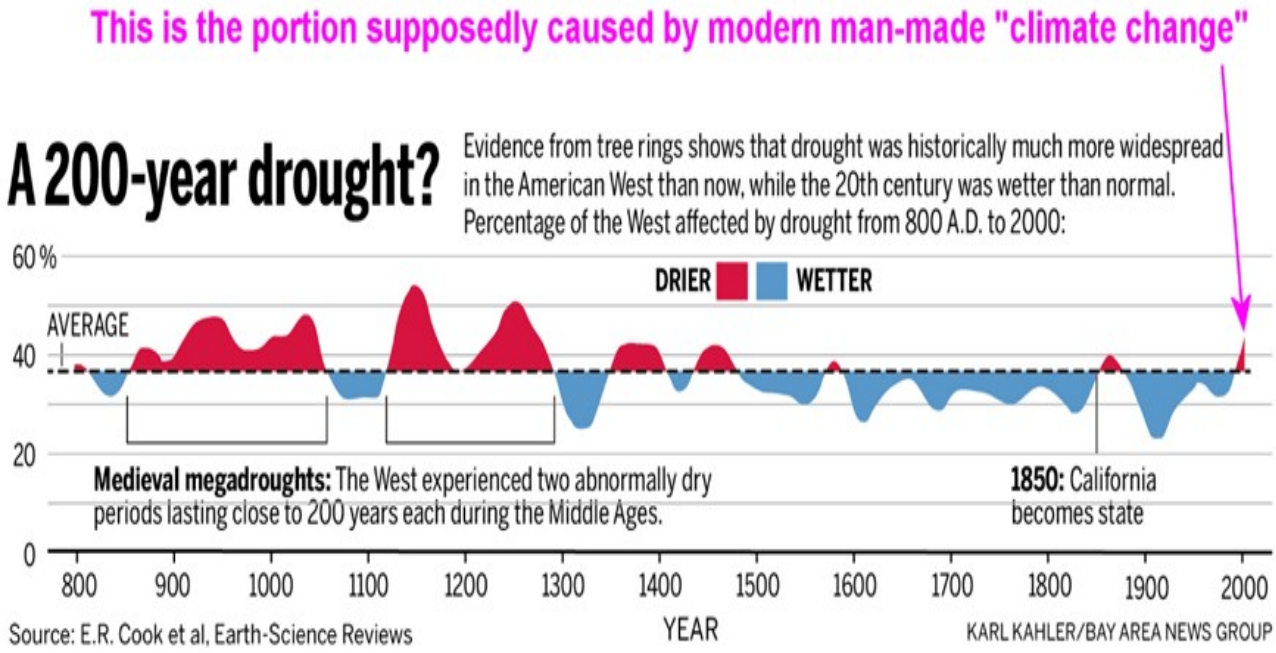


Figure 3: Tree ring drought reconstruction data from Cook et al., 2007, North American drought: Reconstructions, causes, and consequences

Continuing from Anthony Watts' article:

> In another study, [*Megadroughts in North America: placing IPCC projections of hydroclimatic change in a long-term palaeoclimate context*, Cook et al.] the author says: *"The USA has been in a state of drought over much of the West for about 10 years now. While severe, this turn of the century drought has not yet clearly exceeded the severity of two exceptional droughts in the 20th century. So while the coincidence between the turn of the century drought and projected drying in the Southwest is cause for concern, it is premature to claim that the [climate] model projections are correct.*
>
> *At the same time, great new insights into past drought variability over North America have been made through the development of the North American Drought Atlas from tree rings. Analyses of this drought atlas have revealed past megadroughts of unprecedented duration in the West, largely in the Medieval period about 1000 years ago.*"
>
> Clearly, drought is normal and natural for the Western United States. Recent claims of it being driven by "man-made climate change" related to recent increases in atmospheric CO2 warming the planet are unsupported by science.

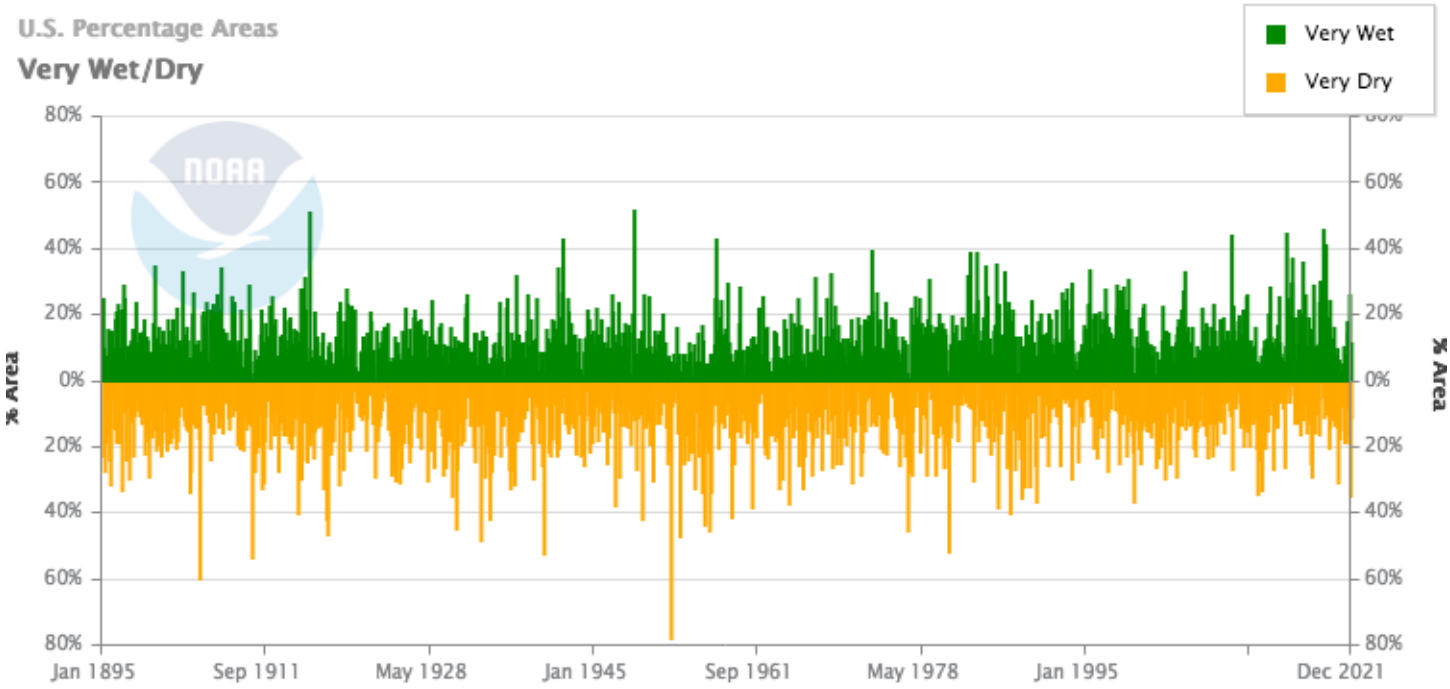
Monsoon Megadroughts

Published in the Quaternary Science Reviews, January, 2011, the paper, A Global Context for Megadroughts in Monsoon Asia During the Past Millennium, looks at droughts globally. They say proxy data shows droughts far more severe than anything in modern times, just a few hundred years ago:

> Proxy reconstructions of precipitation from central India, north-central China, and southern Vietnam reveal a series of monsoon droughts during the mid 14th - 15th centuries that each lasted for several years to decades. These monsoon megadroughts have no analog during the instrumental period. They occurred in the context of widespread thermal and hydrologic climate anomalies marking the onset of the Little Ice Age [1300 - 1850] and appear to have played a major role in shaping significant regional societal changes at that time. New tree ring-width based reconstructions of monsoon variability suggest episodic and widespread reoccurrences of monsoon megadroughts continued throughout the LIA.

Very Wet, Very Dry

To end this section on drought here is a NOAA website page, U.S. Percentage Areas (Very Warm/Cold, Very Wet/Dry), January 10, 2022, with a graph juxtaposing very wet and very dry conditions dating back to 1895 for the contiguous United States.



Polar Ice

Antarctic Ice is Growing

The alarmist news would have you believe that the polar ice caps are in a steady decline which will cause the level of the ocean to rise. The reality is not so cut and dried.

In this October 30, 2015 NASA article, NASA Study: Mass Gains of Antarctic Ice Sheet Greater than Losses, they are quite clear that while there is ice loss in some places, the gain in other places is more than enough to offset it. They even challenge the IPCC's appraisal. And they conclude that it shouldn't contribute to global sea level rise. From the article:

> A new NASA study says that an increase in Antarctic snow accumulation that began 10,000 years ago is currently adding enough ice to the continent to outweigh the increased losses from its thinning glaciers.
>
> The research challenges the conclusions of other studies, including the Intergovernmental Panel on Climate Change's (IPCC) 2013 report, which says that Antarctica is overall losing land ice.
>
> According to the new analysis of satellite data, the Antarctic ice sheet showed a net gain of 112 billion tons of ice a year from 1992 to 2001. That net gain slowed to 82 billion tons of ice per year between 2003 and 2008.
>
> The extra snowfall that began 10,000 years ago has been slowly accumulating on the ice sheet and compacting into solid ice over millennia, thickening the ice in East Antarctica and the interior of West Antarctica by an average of 0.7 inches (1.7 centimeters) per year. This small thickening, sustained over thousands of years and spread over the vast expanse of these sectors of Antarctica, corresponds to a very large gain of ice – enough to outweigh the losses from fast-flowing glaciers in other parts of the continent and reduce global sea level rise.

In the Journal of Glaciology study that the NASA article refers to, Mass gains of the Antarctic ice sheet exceed losses, they give lots of data. Below is the Abstract from the study. For ease of reading the salient points, I have removed all of the source references and sciency data about how much loss or gain. Go to the page to see it unedited. Note that the Holocene epoch, mentioned in the article, is the current epoch, which started about 11,700 years ago. The Abstract:

> Mass changes of the Antarctic ice sheet impact sea-level rise as climate changes, but recent rates have been uncertain. Ice, Cloud and land Elevation Satellite data (2003–08) show mass gains from snow accumulation exceeded discharge losses, reducing global sea-level rise.

> European Remote-sensing Satellite (ERS) data (1992–2001) give a similar gain. Gains in East Antarctica (EA) and in four drainage systems (WA2) in West Antarctic (WA) exceed losses from three coastal drainage systems (WA1) and from the Antarctic Peninsula (AP). EA dynamic thickening is a continuing response to increased accumulation (>50%) since the early Holocene. Recent accumulation loss in EA indicates thickening is not from contemporaneous snowfall increases. Similarly, the WA2 gain is mainly dynamic thickening. In WA1 and the AP, increased losses from increased dynamic thinning from accelerating glaciers are 50% offset by greater WA snowfall. The decadal increase in dynamic thinning in WA1 and the AP is approximately one-third of the long-term dynamic thickening in EA and WA2, which should buffer additional dynamic thinning for decades.

You can read more about the science community's response to the NASA study in this Landscapes and Cycles website article, Is Antarctica's Climate Change Natural or CO2 Driven? There Is Absolutely No Consensus.

Arctic Sea Ice

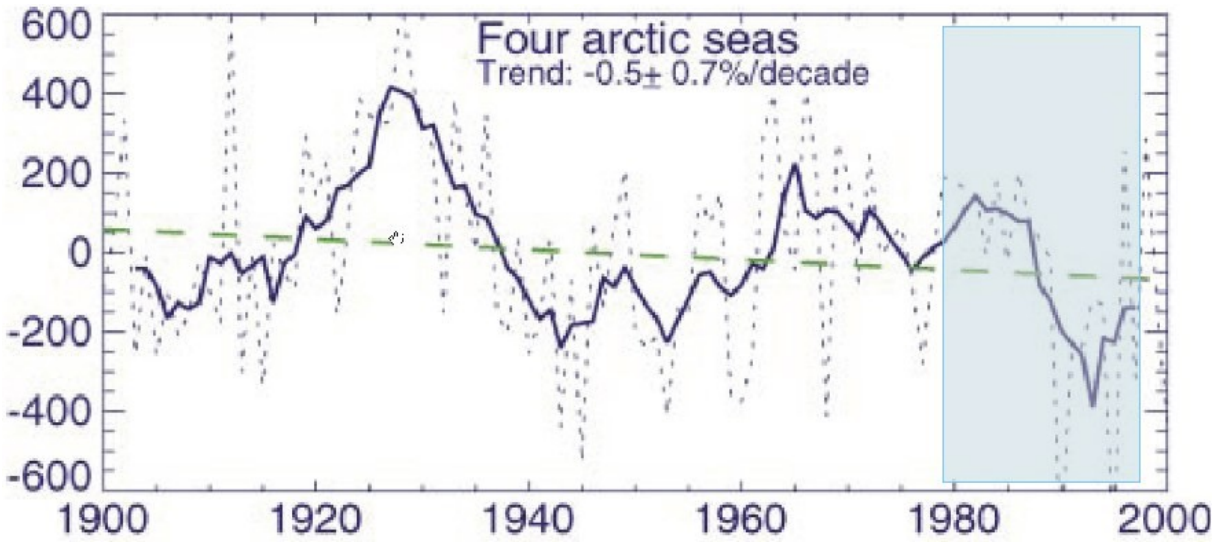
In a Climate4You website section, Sea ice extension in a longer time perspective, they cite, among others, the following two studies on northern sea ice. Both seem to indicate that in the bigger picture sea ice reduction has occurred without human's forcing it.

Long-Term Ice Variability in Arctic Marginal Seas

The first is a Russian study of sea ice going back to 1900 (see graph below). He posits that "long-term trends are small and generally statistically insignificant" and that wind or surface currents play as much of a role as does temperature. From Climate4You:

> To obtain knowledge on Arctic sea ice extent in a longer time perspective, Polyakov et al. (2003) (Long-Term Ice Variability in Arctic Marginal Seas) analysed the Russian historical records of Arctic sea ice extent and thickness extend back to the beginning of the twentieth century. Occasional ship observations of summer ice edge started in the first decade of the 1900s. Starting in 1929, when the Soviet Polar Aircraft Fleet was created, aircraft-based observations began, which improved the quality of the data substantially. Aircraft ice-edge observations continued until 1979, when the satellite era began, but until recently a combination of satellite and aircraft summer ice-edge observations was used. Since 1990 all ice-extent observations have been satellite based.
>
> Based on these observational data, Polyakov et al. (2003) concluded that the "examination of records of fast ice thickness and ice extent from

four Arctic marginal seas (Kara, Laptev, East Siberian, and Chukchi) indicates that long-term trends are small and generally statistically insignificant, while trends for shorter records are not indicative of the long-term tendencies due to strong low-frequency variability in these time series, which places a strong limitation on our ability to resolve long-term trends". "Correlation analysis shows that dynamical forcing (wind or surface currents) is at least of the same order of importance as thermodynamical forcing for the ice extent variability in the Laptev, East Siberian, and Chukchi Seas"



Anomalies and Trends of Sea-Ice Extent and Atmospheric Circulation in the Nordic Seas during the period 1864-1998

The second study is a Norwegian collecting observations going back to 1864. This second study showed that sea ice has been steadily decreasing and the rate of decrease has significantly dropped. From Climate4You:

For sea ice in the Nordic Seas the Norwegian scientist Torgny Vinje (Vinje 2001) (Anomalies and Trends of Sea-Ice Extent and Atmospheric Circulation in the Nordic Seas during the period 1864-1998) has done the painstaking work of collecting observations made by ships since 1864. In the Nordic Seas the maximum extent of ice (April, see diagram below) has decreased around 33% since 1864, demonstrating that the reduction is not a new phenomena, but began long ago. Nearly half the observed reduction actually took place between 1860 and 1900. While the mean annual reduction of the April ice extent has been decelerating by a factor of 3 between 1880 and 1980, the mean annual reduction of the minimum (August) ice extent is proceeding linearly.

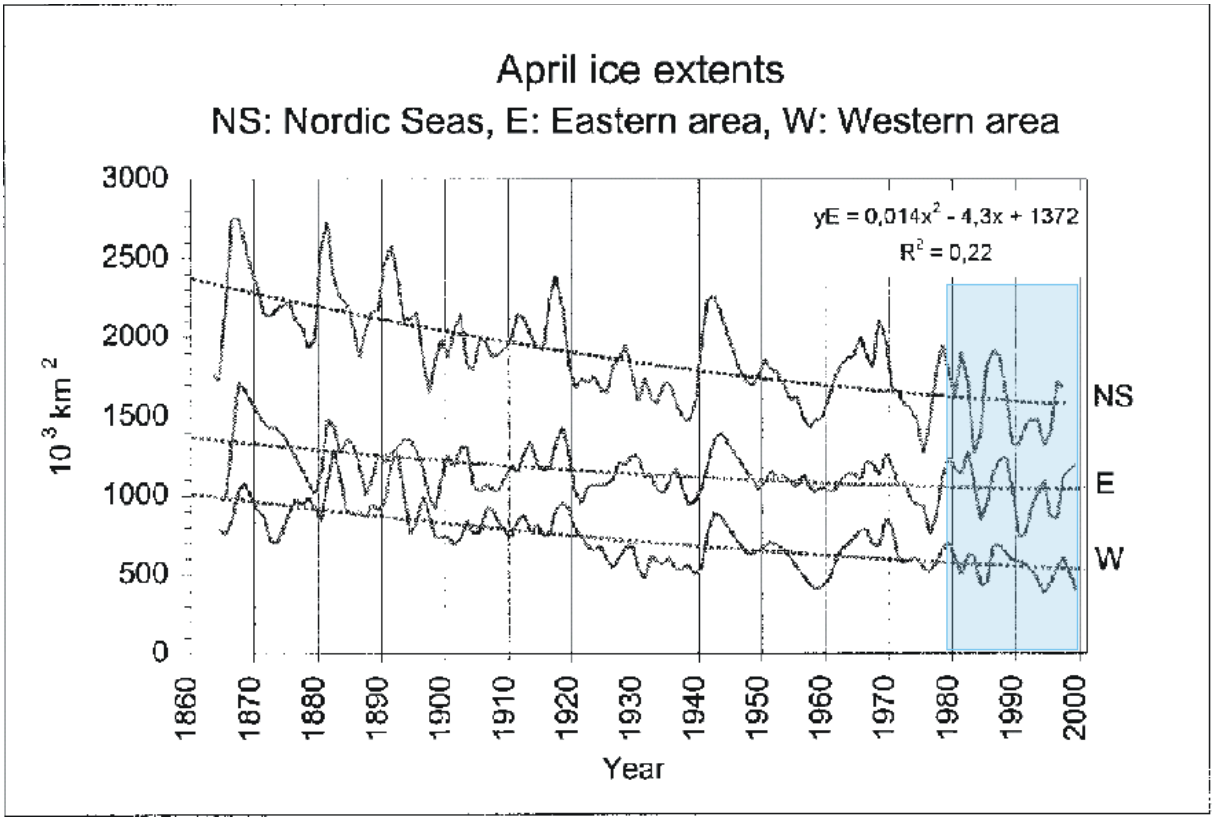


Figure 2 in Vinje (2001), showing the reduction in April sea ice extent in the Nordic Seas since 1864. Nordic Seas (NS), eastern area (E), and western area (W).

Polar Bears

We've all seen the picture of the polar bear in peril on a small chunk of ice, pulling at our heartstrings - the ice is melting and the polar bears' lives are fatally disrupted.

Fortunately for the polar bears, that's not true. Polar bear populations are at their largest in ages. And there is evidence that less summer ice benefits the entire food chain including the polar bear's prey.

From the International Business Times website article, August 2, 2011, Polar Bear Population Higher than in 20th Century: Is Something Fishy about Extinction Fears?:

> If polar bears had any clue of the scale of speculation about the extinction threat they are facing due to climate change, they would have probably said, "you're kidding, right?"
>
> If you think statistics are a pointer towards the growth or decline of a species, it will be interesting to have a look at the estimates published in a 2008 report by U.S. Senate Environment and Public Works Committee.

> "The U.S. Fish and Wildlife Service estimates that the polar bear population is currently at 20,000 to 25,000 bears, up from as low as 5,000-10,000 bears in the 1950s and 1960s. A 2002 U.S. Geological Survey of wildlife in the Arctic Refuge Coastal Plain noted that the polar bear populations 'may now be near historic highs,'" it read.

From the Landscape and Cycles website article, Reasons to Petition Congress to Investigate USGS' Dubious Polar Bear Claims:

> Although the Inuit steadfastly claim it is "*the time of the most polar bears*", the most recent IUCN polar bear assessment predicts a 30% drop in the global polar bear population by mid-century by assuming a linear correlation between summer sea ice melt and polar bear survival. They suggest bears "require sea ice to hunt" and thus predict less sea ice will prevent access to their preferred prey. However polar bear ecology and observations contradict that simplistic assertion. As listed below the current alarming predictions are due to extremely biased models and critical sins of omission presented in USGS publications, which ultimately misguide conservation efforts and the public's understanding of the effects of climate change. Please petition congress to promote more reliable polar bear population studies and sign the petition here.

Later in the article the author suggests that rather than dooming the arctic ecosystem, less sea ice may be beneficial:

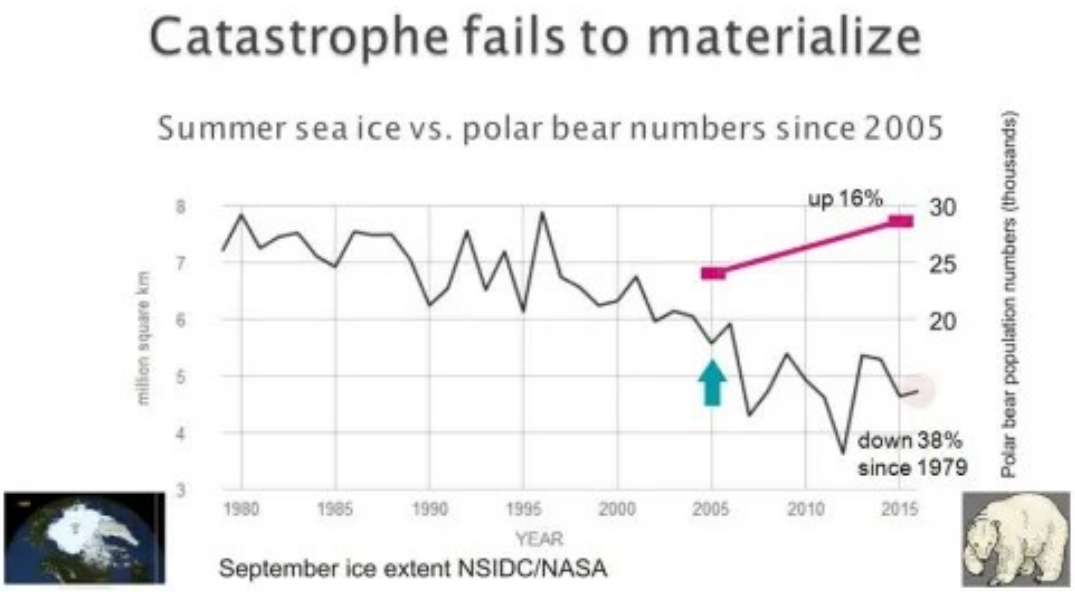
> Whether or not reduced Arctic sea ice is the result of natural variability or rising CO2, reduced sea ice benefits the Arctic ecosystem. As discussed in *Why Less Summer Ice Increases Polar Bear Populations*, evidence and theory unequivocally demonstrates that less ice allows more sunshine for plankton to photosynthesize, causing marine productivity to increase 30% this decade (i.e. Arrigo 2015). Increased marine productivity then reverberates throughout the entire Arctic food chain benefitting cod that are fed on by seals that are fed on by bears. Furthermore all observations have determined that thinner sea ice benefits ringed seals, the polar bears main prey item. Contrary to alarming assertions, less sea ice has generated a more robust food chain!

From the Polar Bear Science website, January 21, 2018, Polar bear numbers not declining despite media headlines suggesting otherwise:

> In some cases, the media have made a *possible* future problem sound like a current problem. In others, people are remembering data from 2010 or so, not realizing that the picture has changed — or they assume that a

conservation status of ‘threatened’ or ‘vulnerable’ (e.g. Amstrup et al. 2007) must mean numbers are declining (because that’s true for virtually all species classified that way, *except* polar bears).

The sea ice situation hasn’t really improved or deteriorated since 2007 but the polar bear picture is much better: there is information on more subpopulations and studies show most are holding stable or increasing.



Rising Sea Level

An Insult to Geology and Sea Level Research

An article on the Jo Nova website by by Nils-Axel Mörner, [“Modern seas unprecedented”: An insult to geology and sea level research](), comments on studies by himself and others regarding sea level changes during the Holocene, the current interglacial period following the last ice age. Referring to the mainstream narrative that the sea level rise is unprecedented:

> This is a grave insult to painstaking sea level research and observational facts presented by numerous sea level specialists from sites all over the world. Let me just refer to a few records (which I know well):
>
> - in the Maldives, there were 7 sea level oscillations in the last 5000 years, as illustrated in Fig. 2 (Mörner, 2007).
> - in Connecticut, there were 3 sea level oscillations in the last 1500 years (van de Plassche, 2000) as illustrated in Fig. 3a.

- in the SW Sweden – Kattegatt Sea region there were 16 oscillations in the last 10,000 years (Mörner, 1971, 1980) with 4 oscillations in the last 3000 year (Fig. 3b).
- in the Kattegatt and the Baltic, sea level oscillations are recorded in response to the Medieval Warm Optimum and the subsequent Little Ice Ages (Åse, 1970; Mörner, 1980, 1999; Ambrosiani, 1984; Hansen et al., 2012).
- the world is full of other records indicating the presence of Late Holocene sea level oscillations (e.g. Pirazzoli, 1991).

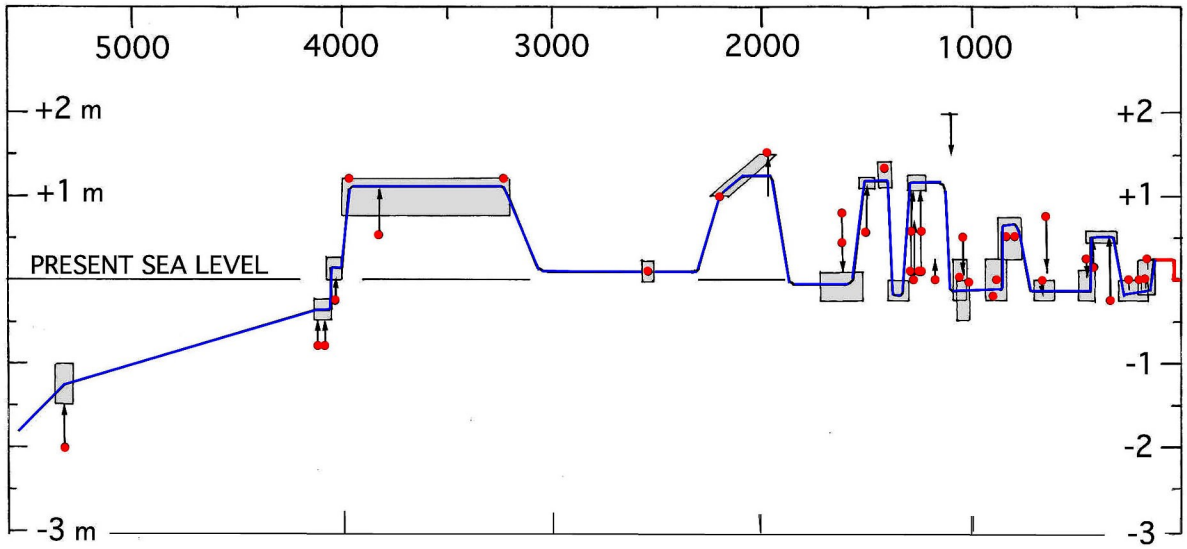


Fig. 2. The Late Holocene sea level changes in the Maldives (Mörner, 2007) including 7 transgression peaks in the last 4000 years with 3 peaks in the last millennium.

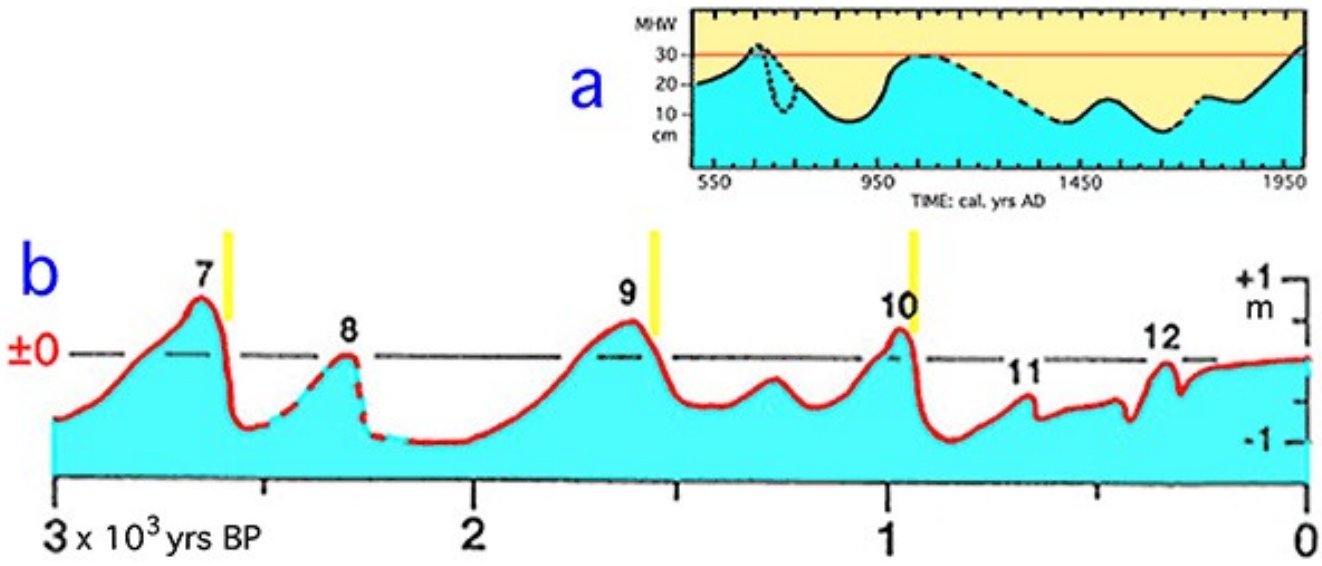


Fig. 3. Late Holocene sea level fluctuation: {BP = before present}

- (a) from Connecticut by van de Plassche (2000) with removal of 1.0 mm/yr subsidence. Note that the AD 1000 peak was larger and faster than today's rise.
- (b) from Stockholm, Sweden, by Mörner (1980, 1999) with removal of 4.9 mm/yr uplift.

Rising Sea Level vs. Subsidence

When you hear in the news about sea level rising, it seems to be always linked to melting ice and the oceans warming, and of course because of human caused climate change. But there is another aspect to be recognize to understand the full story. Some of the reason places might experience **apparently** higher sea level might be not because the ocean is higher but because the land is lower. This is quite variable but needs to be part of the dialogue.

From the NASA website, Sea Level Change - Observations from Space, they acknowledge that land subsidence is significant. Unfortunately while they introduce the concept of "relative" sea level, they fail to use that term when they mistakenly conflate subsidence with "higher sea level":

> Sea level measured relative to land is called "relative" sea level. In coastal areas, sinking land, known as subsidence, leads to higher sea-level and increased flood risk. In contrast, uplifting land reduces sea level and promotes the seaward migration of coastlines. Together, subsidence and uplift are referred to as vertical land motion, or VLM, and usually occur at rates of a few millimeters per year. While this may seem small, it can be a substantial portion of sea-level change and cause incalculable damage, as seen strikingly in Venice, Italy.

Jim Steele's Research on Subsidence

On Jim Steele's A Walk on the Natural Side website, in a November 16, 2021 article, which is the transcript of a linked video of his, after giving examples of media and government climate doom hysteria claims, he digs into the information, the science, about land subsidence.

He looks at information from the PSMSL, the Permanent Service for Mean Sea Level, La Jolla tide gauge, just north of San Diego along the Amtrak route:

> NOAA's website, using data from PSMSL shows relative sea level at La Jolla has risen just 2.14 millimeters per year, but by eye-balling the graph, the rate of rise appears to have slowed down in the last 40 years.

> I then graphed the same data, but with a starting date of 1980. And indeed in contrast to climate change predictions of an accelerated sea level rise, **the rate had slowed to 1.85 millimeters per year**.

He suggests:

> And furthermore, all the fearful narratives have ignored subsidence effects. And due to either ignorance or dishonesty, they all have failed to present the public with the rate of ABSOLUTE sea level rise.
>
> Now to determine climate effects, only the Absolute rate of rise, not the Relative tide gauge rate, is relevant.
>
> Thus to find the Absolute rate of rise, any vertical land motion around a tide gauge must be accounted for, Otherwise, wherever the land is sinking or subsiding, relative sea level rise will be exaggerated and then falsely attributed to greenhouse warming by the media.
>
> The advent of the satellite era and global positioning systems has been a game changer for sea level science. GPS systems will allow the absolute sea level to be robustly determined.
>
> A GPS site near the La Jolla tide gauge has been active since 2007, and has detected a rate of **sinking land of 1.7 millimeters per year**. To calculate absolute rate of sea level rise. We subtract that rate of subsidence from the tide gauge rate. The absolute rate of rise computes to just **0.15 millimeters per year**. That's the rise due to climate change; or .....one inch in 169 years.

Please read the article for more maps, graphs and references than have been presented here in the few excerpts. It's fascinating. And see his video of the above.

Subsidence in Coastal Cities Throughout the World Observed by InSAR

Another study regarding subsidence, March 24, 2022, on the Advancing Earth and Space Science website, Subsidence in Coastal Cities Throughout the World Observed by InSAR, replete with lots of graphs and images, believes groundwater extraction is the most likely cause:

> We measured subsidence rates in 99 coastal cities around the world between 2015 and 2020 using the PS Interferometric Synthetic Aperture Radar method and Sentinel-1 data. In most cities, part of the land is subsiding faster than sea level is rising. If subsidence continues at present rates, these cities will be challenged by flooding much sooner than projected by sea level rise models. The most rapid subsidence is occurring in South, Southeast, and East Asia. However, rapid subsidence is also happening in North America, Europe, Africa, and Australia. Human activity—

primarily groundwater extraction—is likely the main cause of this subsidence. Expanded monitoring and policy interventions are required to reduce subsidence rates and minimize their consequences.

A Global Assessment of Atoll Island Planform Changes

A February 23, 2018 study by Virginie K. E. Duvat, A Global Assessment of Atoll Island Planform Changes Over the Past Decades, looks at 30 Pacific and Indian Ocean atolls including 709 islands. In a section of the study about anthropogenic contribution to changes she indicates that there are plenty of ways humans can negatively mess with the environment without burning hydrocarbons:

> Additionally, most studies highlighted the destabilizing effects of shoreline armoring, transversal structures construction and coastal developments on the shorelines of populated and of unsettled military atolls. Such human interventions were found to disturb sediment transport and deposition, by obstructing sediment transport pathways and by causing the contraction of the accommodation space required for sediment deposition at the coast. In some cases, these human disturbances caused the complete destabilization of lagoon shorelines.

The study's conclusion addresses concerns about sea level rise from climate change:

> This review first confirms that over the past decades to century, atoll islands exhibited no widespread sign of physical destabilization by sea-level rise. The global sample considered in this paper, which includes 30 atolls and 709 islands, reveals that atolls did not lose land area, and that 73.1% of islands were stable in land area, including most settled islands, while 15.5% of islands increased and 11.4% decreased in size. Atoll and island areal stability can therefore be considered as a global trend. Importantly, islands located in ocean regions affected by rapid sea-level rise showed neither contraction nor marked shoreline retreat, which indicates that they may not be affected yet by the presumably negative, that is, erosive, impact of sea-level rise.
>
> Second, this review reaffirms that atoll island areal change was mainly influenced by island size. While the smallest islands (<5 ha, 52.90% of islands) exhibited contrasting areal changes (i.e., stability, increase, or decrease in size) and highly variable values of areal change (from – 22.7 to +125.5%), the islands larger than 5 ha (47.10% of islands) generally experienced areal and positional stability. It is noteworthy that no island larger than 10 ha decreased in size, making this value a relevant threshold to define atoll island areal stability.

Ocean Acidification, Coral Reefs

Ocean Acidification

According to NOAA, the ocean absorbs about 30 percent of the CO2 that is released in the atmosphere, and as levels of atmospheric CO2 increase, so do the levels in the ocean, and because of the rise in CO2 in the atmosphere, ocean acidification is a problem.

In a June 2020 White Paper from the CO2 Coalition, Ocean Health – Is there an "Acidification" problem?, they discuss in depth the cycles of CO2 in the ocean and note that "acidification" is poorly named because the oceans are alkaline and are nowhere near becoming acidic. They also note that measuring global trends of ocean pH only began in the 1990s and this field is still in its infancy:

> Ocean "acidification" from carbon dioxide emissions would require a virtually impossible ten-fold decrease in the alkalinity of surface waters, so using that term is misleading. Even if atmospheric CO2 concentrations triple from today's four percent of one percent, which would take about 600 years, today's surface pH of 8.2 would plateau at 7.8, still well above neutral 7.
>
> In fact, ocean health is improved rather than damaged by additional CO2 , because it is a phytoplankton food that simulates food webs. Converted CO2 allows phytoplankton such as algae, bacteria, and seaweed to feed the rest of the open ocean food web. As carbon moves through this food web, much of it sinks or is transported away from the surface. This "biological pump" maintains a high surface pH and allows the ocean to store 50 times more CO2 than the atmosphere. Digestion of carbon at lower depths maintains the lower pH in the deeper ocean. Carbon is then stored for up to millennia.
>
> Upwelling recycles carbon and nutrients from deep ocean waters to sunlit surface waters. Upwelling injects far more ancient CO2 into the surface than diffuses there from atmospheric CO2. Upwelling at first lowers surface pH, but then simulates photosynthesis, which raises surface pH. It is a necessary process to generate bursts of life that sustain ocean food webs.
>
> When CO2 enters ocean water, it creates a bicarbonate ion plus a hydrogen ion, resulting in a slight decrease in pH. But photosynthesis requires CO2. So marine organisms convert bicarbonate and hydrogen ions into usable CO2 , and pH rises again. Contrary to popular claims that rising CO2 leads to shell disintegration, slightly lower pH does not stop marine organisms from using carbonate ions in building their shells.

Coral Reefs

The August 4, 2022 article on the Daily Skeptic website, Massive Coral Growth at the Great Barrier Reef Continues to Defy all the Fashionable Doomsday Climate Predictions, gives information that flies in the face of the news that the coral reefs are doomed:

> The near vertiginous rise in the annual growth of coral at the Great Barrier Reef (GBR) is continuing, with further major increases recorded across large areas. According to the 2021-22 annual summary from the Australian Institute of Marine Science (AIMS), levels of coral cover in the northern and central areas of the reef were at their highest levels over the past 36 years of monitoring.
>
> This notion that global warming will cause corals to die is frankly a big whopping fib. Tropical coral, which is closely related to its cnidarian cousin the jellyfish, thrives in waters between 24°C and 32°C. It is highly adaptable but seems to dislike sudden changes in temperature, often caused by natural weather oscillations such as *El Niño* events. As the latest results from the AIMS show, coral quickly recovers when normal localised conditions return. In fact, coral often grows faster in warmer waters nearer the equator than the GBR. The big agitprop lie suggests minor long-term sea temperatures changes will wipe out the coral, but the scientific evidence suggests otherwise.

Also check out the October 6, 2016 article, How Gaia and Coral Reefs Regulate Ocean pH, on the *A Walk On The Natural Side* website for an extensive look at the many factors in the ocean environment at play.

Hurricanes

The webpage, Global Tropical Cyclone Activity, by Dr. Ryan N. Maue gives an overview of hurricanes in the previous 40 years (written in 2011) and includes some graphs (updated in 2022) that show various things about global hurricane activity.

The page seems to be where he updates information based on several papers, including two of his own in PDF format:

- Northern Hemisphere tropical cyclone activity (2009)
- Recent historically low global tropical cyclone activity (2011)

From a section of the page called Peer-Reviewed Literature & Graphics:

> Tropical cyclone accumulated cyclone energy (ACE) has exhibited strikingly large global interannual variability during the past 40-years. In the

pentad since 2006, Northern Hemisphere and global tropical cyclone ACE has decreased dramatically to the lowest levels since the late 1970s. Additionally, the frequency of tropical cyclones has reached a historical low. Here evidence is presented demonstrating that considerable variability in tropical cyclone ACE is associated with the evolution of the character of observed large-scale climate mechanisms including the El Nino Southern Oscillation and Pacific Decadal Oscillation. In contrast to record quiet North Pacific tropical cyclone activity in 2010, the North Atlantic basin remained very active by contributing almost one-third of the overall calendar year global ACE.

Following are three graphs from the article, showing: *Global Major Hurricane Frequency*, *Global and Northern Hemisphere Accumulated Cyclone Energy,* and *Global Tropical Cyclone Frequency*. Decide for yourself if it is clear that hurricanes are increasing in strength, or in frequency, or not.

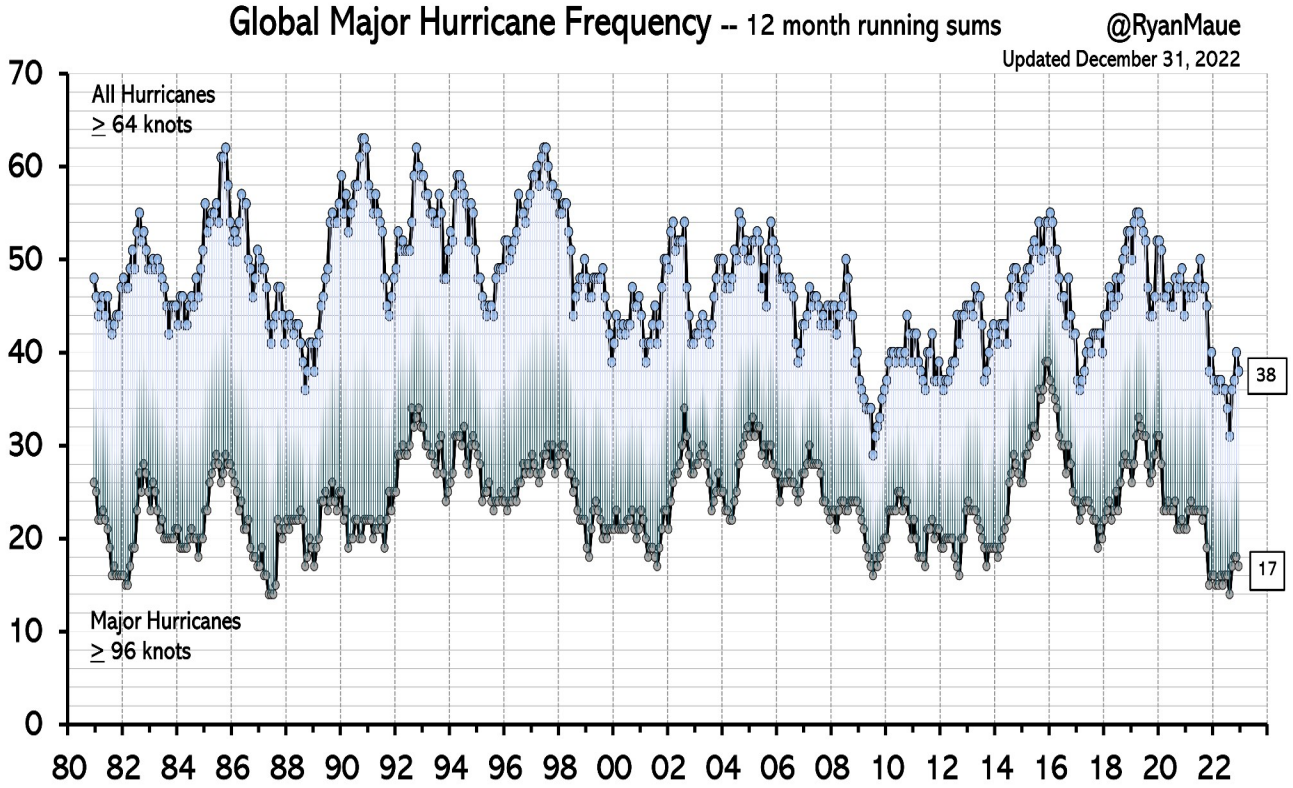


Figure (above): Global Hurricane Frequency (all & major) -- 12-month running sums. The top time series is the number of global tropical cyclones that reached at least hurricane-force (maximum lifetime wind speed exceeds 64-knots). The bottom time series is the number of global tropical cyclones that reached major hurricane strength (96-knots+). Adapted from Maue (2011) GRL.

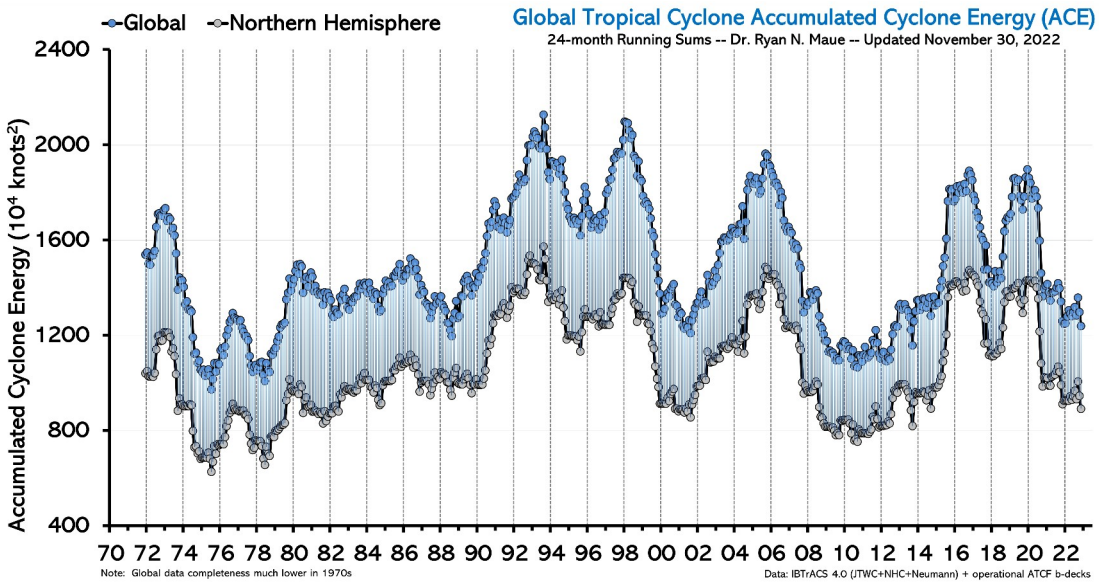


Figure (above): Last 50-years+ of Global and Northern Hemisphere Accumulated Cyclone Energy: 24 month running sums. Note that the year indicated represents the value of ACE through the previous 24-months for the Northern Hemisphere (bottom line/gray boxes) and the entire global (top line/blue boxes). The area in between represents the Southern Hemisphere total ACE.

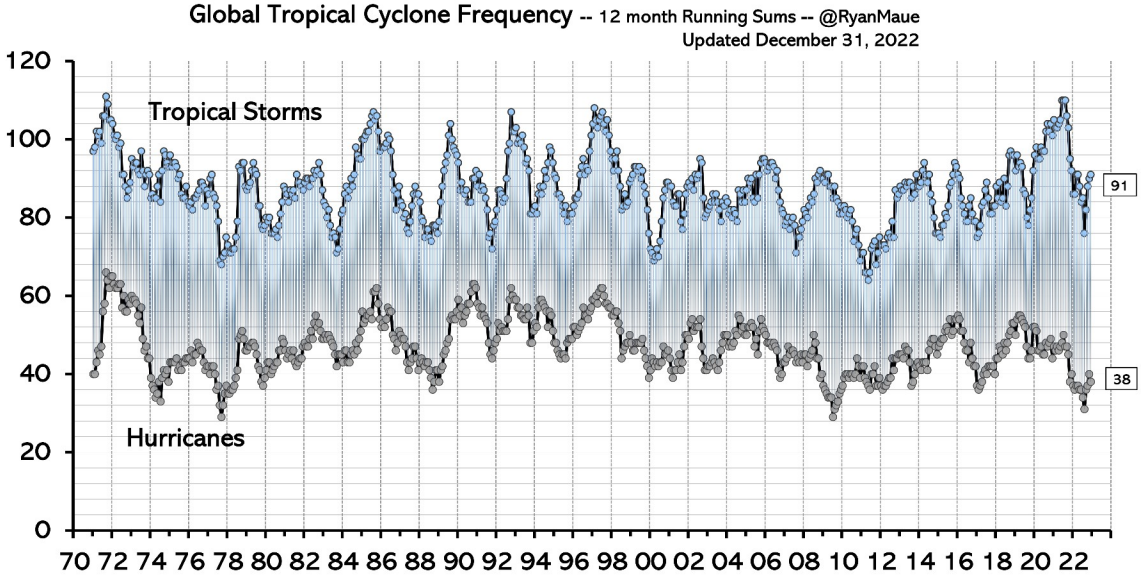


Figure (above): Last 50-years+ of Global Tropical Storm and Hurricane Frequency -- 12-month running sums. The top time series is the number of TCs that reach at least tropical storm strength (maximum lifetime wind speed exceeds 34-knots). The bottom time series is the number of hurricane strength (64-knots+) TCs.

Consensus

The idea that there is a consensus among scientists is a powerful tool in the narrative that sells the climate doom alarmism. Unlike true science where skepticism is supposed to be honored and valued, we are told to believe that there is an indisputable consensus among all serious scientists. Boom! Game, Set, Match!

The censorship, the lack of open debate, and the villainization of anyone who doesn't toe the line should be a wake up call for anyone seeking the truth.

> "We do not believe any group of men adequate enough or wise enough to operate without scrutiny or without criticism. We know that the only way to avoid error is to detect it, that the only way to detect it is to be free to inquire. We know that in secrecy error undetected will flourish and subvert".
> – J Robert Oppenheimer.

The Global Warming Petition Project

The website of The Global Warming Petition Project lists all the signatories of their petition; by name and by state. According to the website, currently "31,487 American scientists have signed this petition, including 9,029 with PhDs". [Note that this seems to have originated as the Oregon Institute of Science and Medicine petition and that they are actually one and the same.]

The website details the necessary qualifications and relevant information about how the survey is done in a section called Instructions for Signing Petition:

> Signatories to the petition are required to have formal training in the analysis of information in physical science. This includes primarily those with BS, MS, or PhD degrees in science, engineering, or related disciplines.

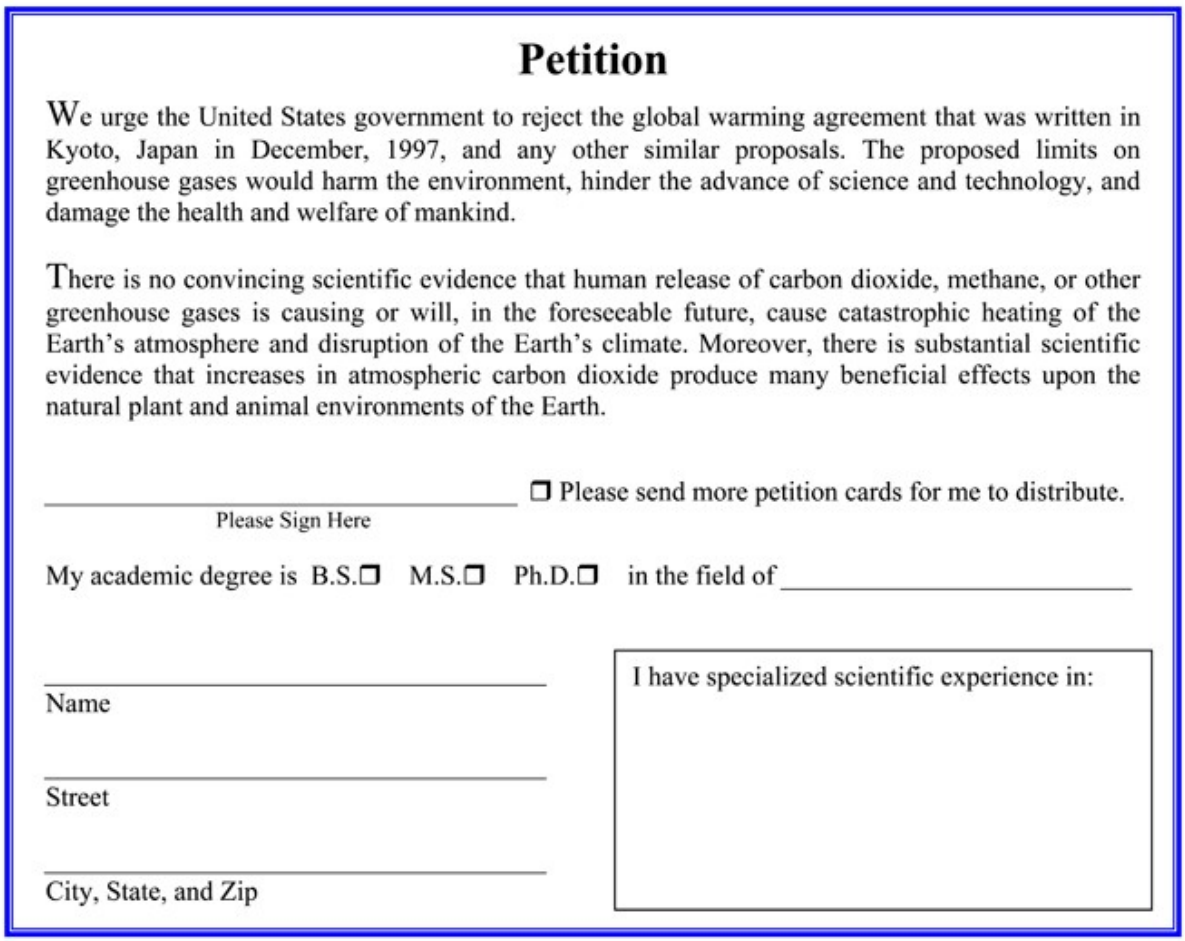
They state their purpose:

> The purpose of the Petition Project is to demonstrate that the claim of "settled science" and an overwhelming "consensus" in favor of the hypothesis of human-caused global warming and consequent climatological damage is wrong. No such consensus or settled science exists. As indicated by the petition text and signatory list, a very large number of American scientists reject this hypothesis.
>
> Publicists at the United Nations, Mr. Al Gore, and their supporters frequently claim that only a few "skeptics" remain – skeptics who are still unconvinced about the existence of a catastrophic human-caused global warming emergency.

It is evident that 31,487 Americans with university degrees in science – including 9,029 PhDs, are not "a few." Moreover, from the clear and strong petition statement that they have signed, it is evident that these 31,487 American scientists are not “skeptics.”

These scientists are instead convinced that the human-caused global warming hypothesis is without scientific validity and that government action on the basis of this hypothesis would unnecessarily and counterproductively damage both human prosperity and the natural environment of the Earth.

See the language of the petition so there is no doubt what these scientists are on board with:



Petition

We urge the United States government to reject the global warming agreement that was written in Kyoto, Japan in December, 1997, and any other similar proposals. The proposed limits on greenhouse gases would harm the environment, hinder the advance of science and technology, and damage the health and welfare of mankind.

There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth’s atmosphere and disruption of the Earth’s climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.

_____ ❒ Please send more petition cards for me to distribute.
Please Sign Here

My academic degree is B.S.❒ M.S.❒ Ph.D.❒ in the field of _____

_____
Name

_____
Street

_____
City, State, and Zip

I have specialized scientific experience in:

Indoctrination of the Consensus Myth

A March 29, 2023 article on the Cowboy State Daily website, [National Teachers Group Censors Climate Science That Doesn’t Conform To Disaster Agenda], gives some insight into how the myth of consensus is maintained. And in the case cited in this article how indoctrination of children is done by censoring alternative voices:

A growing debate on how climate science is taught in classrooms was highlighted last week at the National Science Teaching Association's annual convention in Atlanta, Georgia.

The CO2 Coalition paid for a booth at the event. Despite approving the booth, the NSTA told the group it would have to remove its literature from display at the convention or it would be kicked out.

The material was critical of the association's position that climate science should be taught as an absolute consensus and never presented as having any uncertainty.

Greg Wrightstone, president of the CO2 Coalition, refused to remove the offending material and was escorted out of the building.

"We accused them of censoring science, and then they confirmed that," Wrightstone told Cowboy State Daily.

What is Global Temperature, How Determined, Based on What?

We hear endlessly that the planet is warming and we are bombarded with news of record temperatures. But who is measuring the temperature and how. This section looks at some of the basics that bring into question whether even what the temperature is, is settled science.

The March 9, 2020 article on Climate Change Dispatch website, More On Earth's Meaningless Global Temperature, Now And Before, considers the many factors that make deciding what one number to attribute to the Earth's temperature is anything by settled.

The Earth is 196.9 million square miles of surface area. It is a sphere 24,901 miles in circumference. The vast majority of the Earth's surface is ocean, and in particular, the vast, mostly untraveled waters like the Pacific and Southern Atlantic and the Arctic Sea.

The Earth is just unimaginably, stupendously big. Most of planet Earth never sees any human presence, much less a weather station.

NASA, they say, divides the world up into boxes of 2 degrees longitude by 2 degrees latitude. That is a gigantic area — over 19,000 square miles — with enormous temperature variations within that box.

The other measurement schemes are 5 degrees by 5 degrees or over 119,000 square miles each. There is vastly different weather occurring within each 119,000-square-mile box.

How Accurate are Surface Temperature Stations

In a July, 2022 article on the *Watts Up With That* website, New Surface Stations Report Released – It's 'worse than we thought', Anthony Watts looks at the deplorable situation of corrupted official weather stations:

> A new study, *Corrupted Climate Stations: The Official U.S. Surface Temperature Record Remains Fatally Flawed*, finds approximately 96 percent of U.S. temperature stations used to measure climate change fail to meet what the National Oceanic and Atmospheric Administration (NOAA) considers to be "acceptable" and uncorrupted placement by its own published standards.
>
> "With a 96 percent warm-bias in U.S. temperature measurements, it is impossible to use any statistical methods to derive an accurate climate trend for the U.S." said Heartland Institute Senior Fellow Anthony Watts, the director of the study. "Data from the stations that have not been corrupted by faulty placement show a rate of warming in the United States reduced by almost half compared to all stations."
>
> NOAA's "Requirements and Standards for [National Weather Service] Climate Observations" instructs that temperature data instruments must be "over level terrain (earth or sod) typical of the area around the station and at least 100 feet from any extensive concrete or paved surface." And that "all attempts will be made to avoid areas where rough terrain or air drainage are proven to result in non-representative temperature data." This new report shows that instruction is regularly violated.

See also a 15 minute Anthony Watts video, Exposed: Corrupted Climate Stations and Solutions You Need to Know, that exposes the sloppiness regarding weather stations, highlighting some of the obviously stupid places to measure temperature. For more articles on his website about the subject, worldwide, see Search Results for: weather station.

And for a longer more in depth panel discussion also see another video by Anthony Watts on the same subject, Bombshell Report 96% of U.S. Climate Data Is Corrupted.

New Satellite Temperature Data

In an article by JoNova on her website, April 20, 2023, 40 years of expert failure: New NOAA STAR satellite temperatures only show half the warming that climate models do, she looks at the various methods by which temperatures are recorded, concluding that most recent new satellite reading show less warming:

> An all new reanalysis of the STAR satellite data finds markedly lower temperature trends for the last 40 years. The big deal about this is that this third dataset suddenly supports the original UAH satellite data, not the other RSS system, and not the "surface thermometers" sitting near hot tarmacs and absolutely not the climate models.

NASA: The Elusive Absolute Surface Air Temperature

And right from the horse's mouth here is NASA's explanation of what goes into determining global temperature, in a Q & A format, The Elusive Absolute Surface Air Temperature (SAT):

> Q. *If SATs cannot be measured, how are SAT maps created?*
>
> A. SAT maps can only be created using a model of some sort. This could be a statistical approach using input from ground cover maps, terrain, and altitude or, more usually, a computer model, such as those used to make weather forecasts. Due to the differences in how different weather models are developed and what data they ingest, different models will produce slightly different estimates of the SAT. In the global average, this variation is around 0.5°C, and can be significantly larger at a regional scale. Statistical approaches (such as used by Jones et al. (1999)) have a similar uncertainty.

James Corbett has made a good video that looks at the question of how the global temperature is reckoned: What is the Average Global Temperature? As always, his video show notes have links to referred-to information.

Lots of Temperature Graphs From All Over the World

In an August 31, 2017 article on the NoTricksZone website, Why 'Hide The Decline'? There Has Been No Net NH Warming Since The 1940s, Kenneth Richard shows over 40 graphs, mostly 20th century but some go further back, of temperature from all over the world. He gives links to references for each of them. (NH means Northern Hemisphere)

Whether they support his claim in the article's title or not, I don't know, but it's interesting to check out, if for no other reason than to see the variability and complexity of the systems - both nature's system and the scientific systems, such as the graphing and the proxies used.