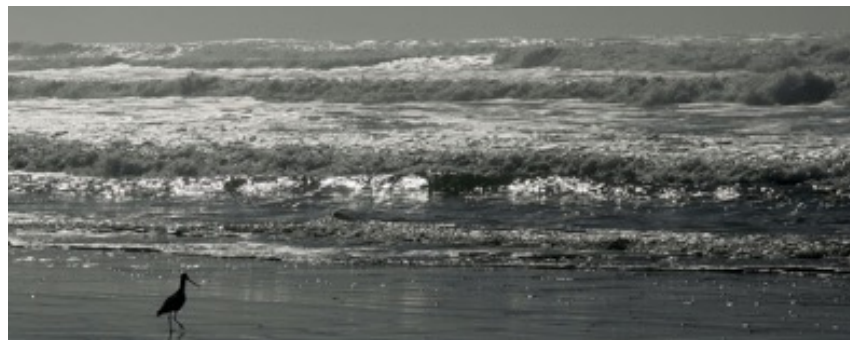


Causes of climate:

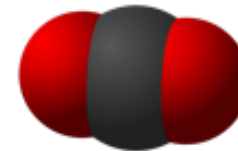


Greenhouse gases:

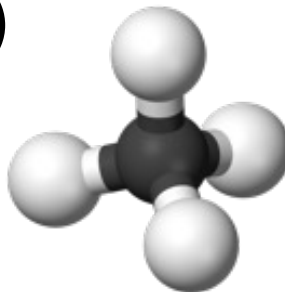
water vapor (H_2O)



carbon dioxide (CO_2)



methane (CH_4)



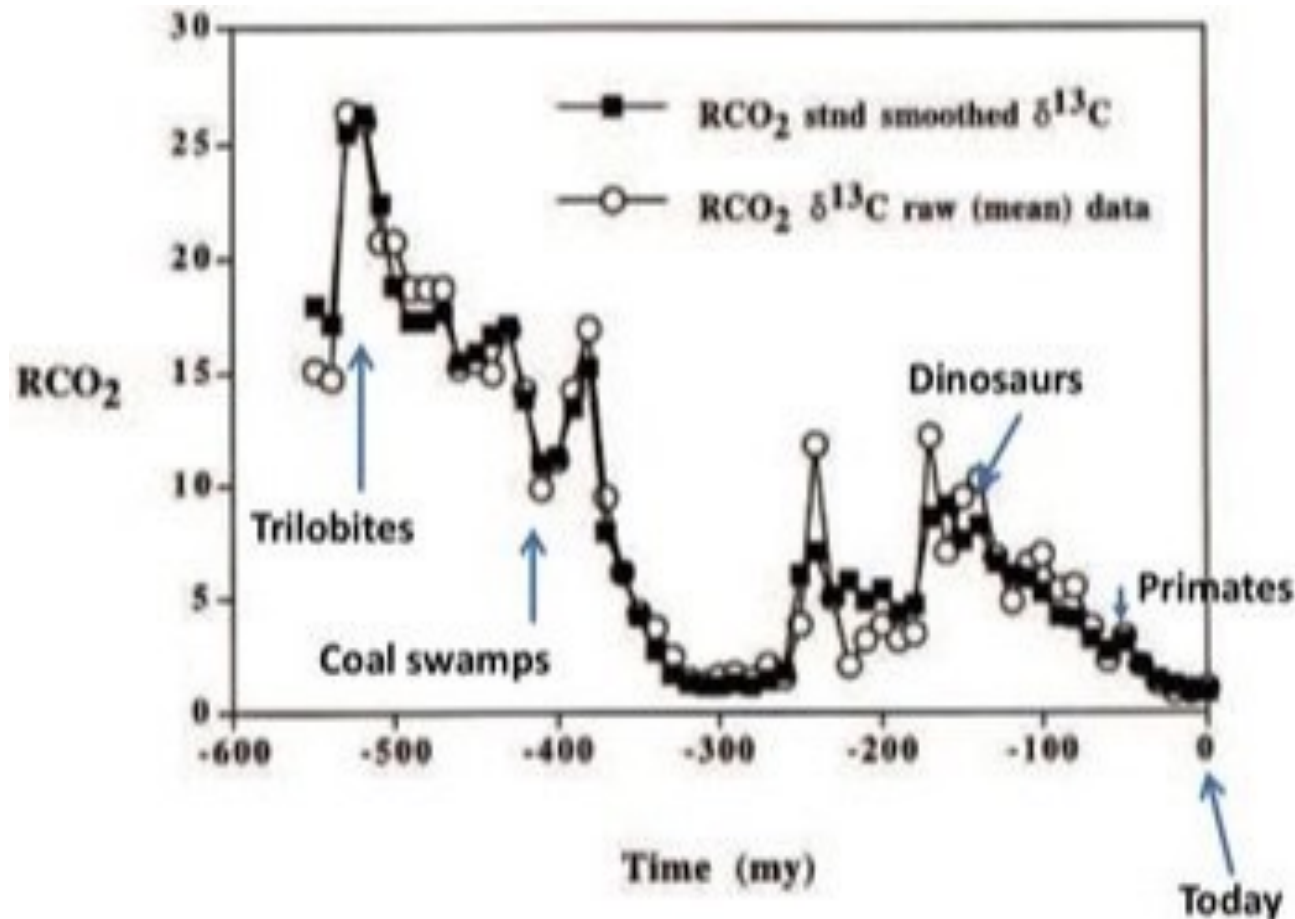
Sources of anthropogenic carbon dioxide:



Sediment core, tree ring, packrat middens, and coral reef proxy measurements:



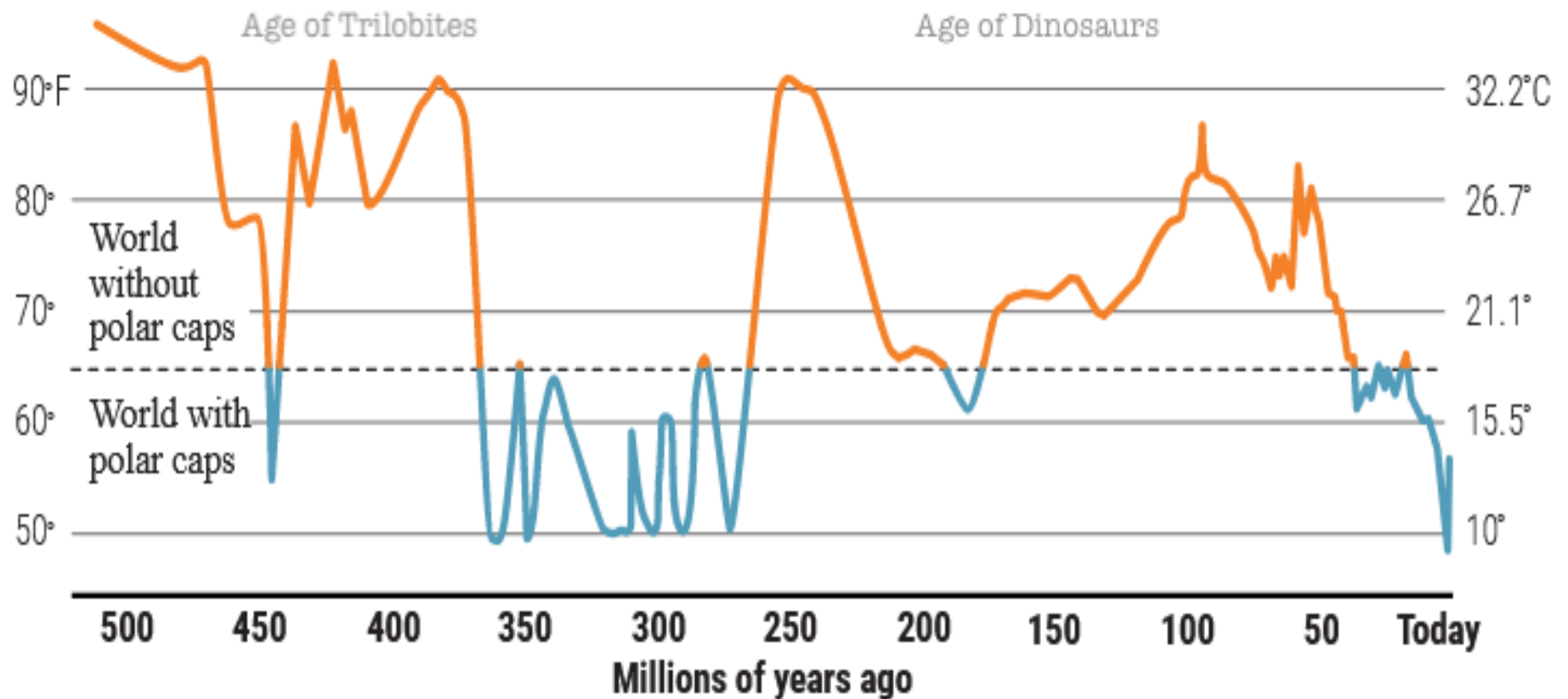
Nevertheless, some proxy measurements also indicate that CO₂ levels may have far exceeded those of today during the time of the dinosaurs.



R. A. Berner and Z. Kothavala, Geocarb III: A Revised Model of Atmospheric CO₂ over Phanerozoic Time, American Journal of Science, V. 301, pp. 182-204 (2001)



...and for most of geological history, the Earth was ice-free...

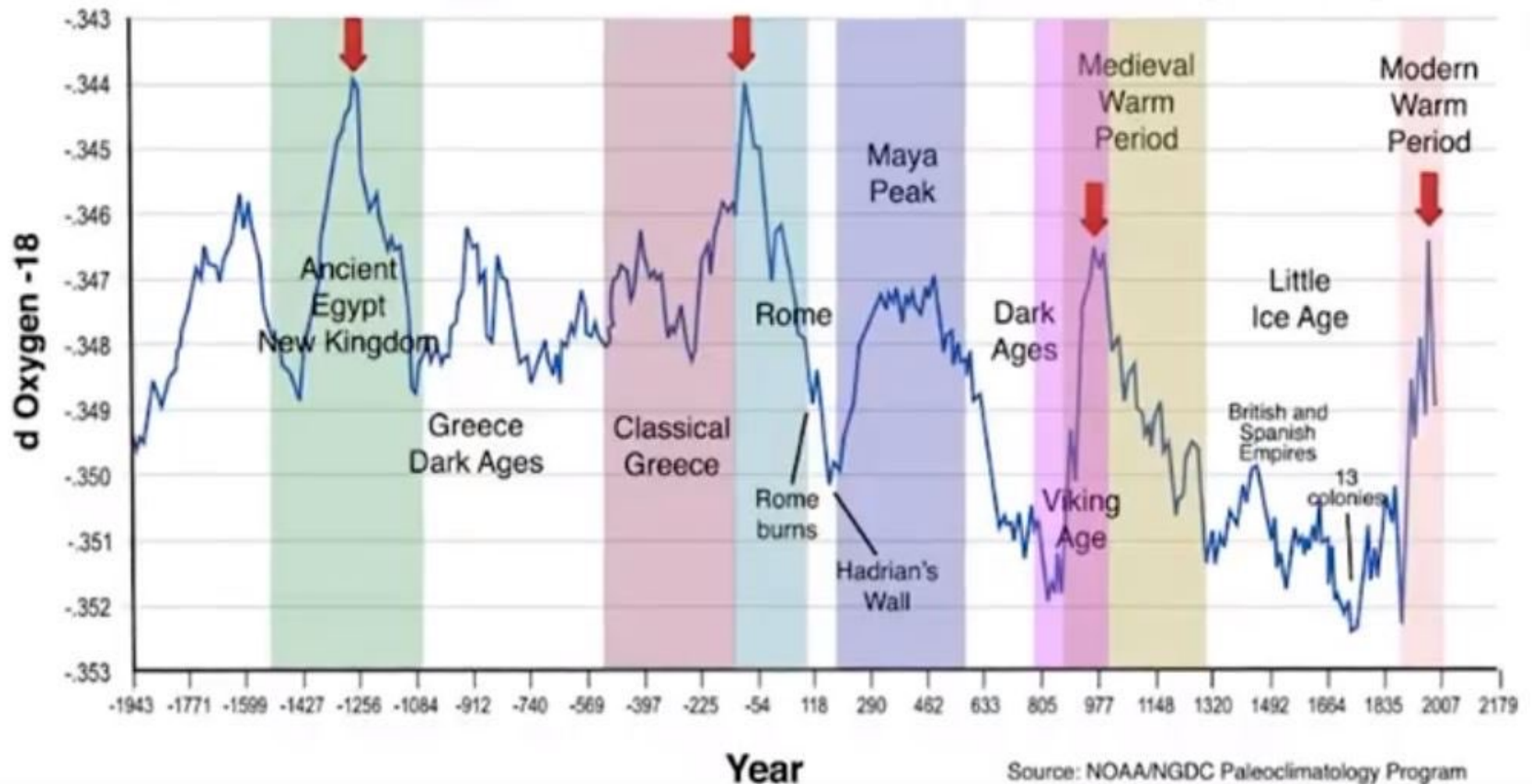


SMITHSONIAN INSTITUTION NATIONAL MUSEUM OF NATURAL HISTORY, ADAPTED BY N. DESAI/SCIENCE

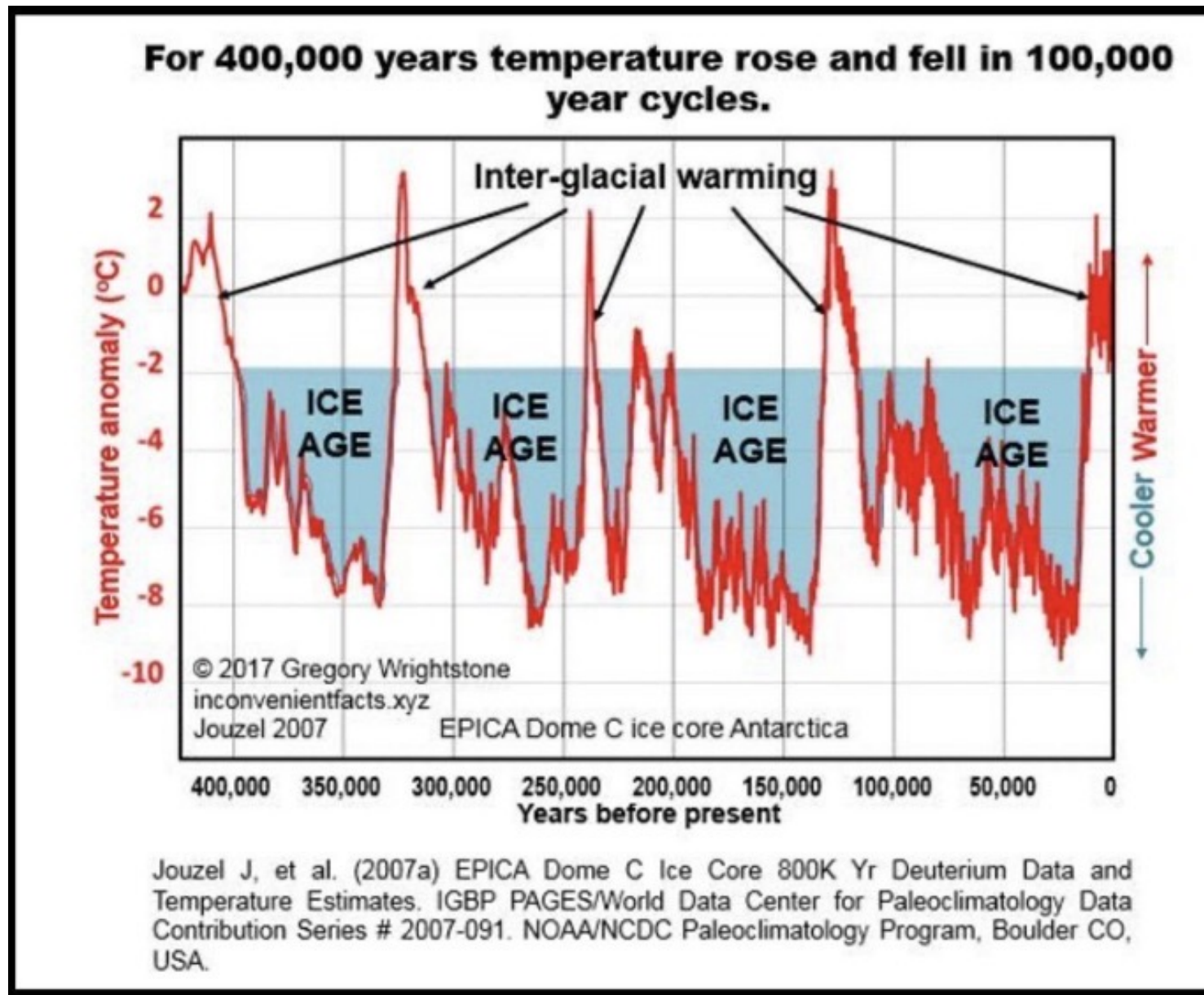
<https://www.science.org/content/article/500-million-year-survey-earths-climate-reveals-dire-warning-humanity>

...and some proxy measurements indicate the Earth was warmer during these pre-industrial portions of human history.

Climate: Data from Greenland Ice Cores (GISP2)



This might be attributed to cycling that is totally unrelated to human activity.



Climate predictions are further confounded by the dual role of water vapor.



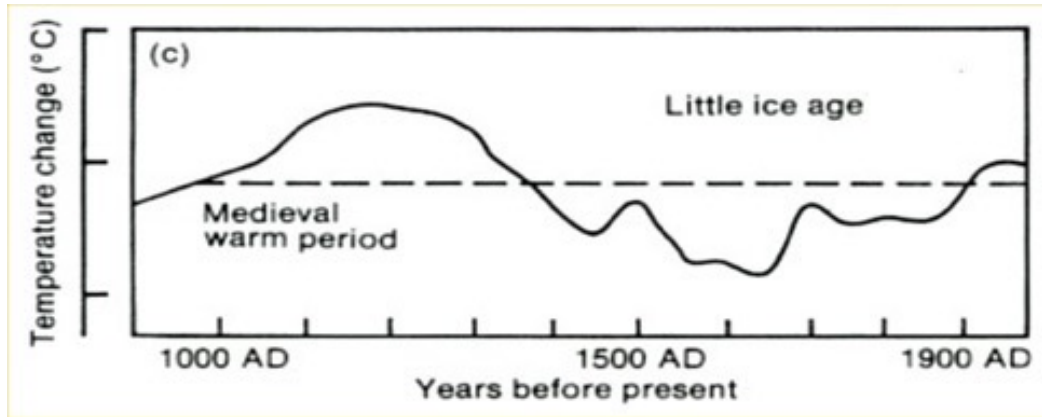
...and the overall percent of water vapor in the atmosphere far exceeds that of carbon dioxide:

Chemical makeup of the atmosphere EXCLUDING water vapor		
GAS	SYMBOL	CONTENT
Nitrogen	N ₂	78.084%
Oxygen	O ₂	20.947%
Argon	Ar	0.934%
Carbon dioxide	CO ₂	0.035%

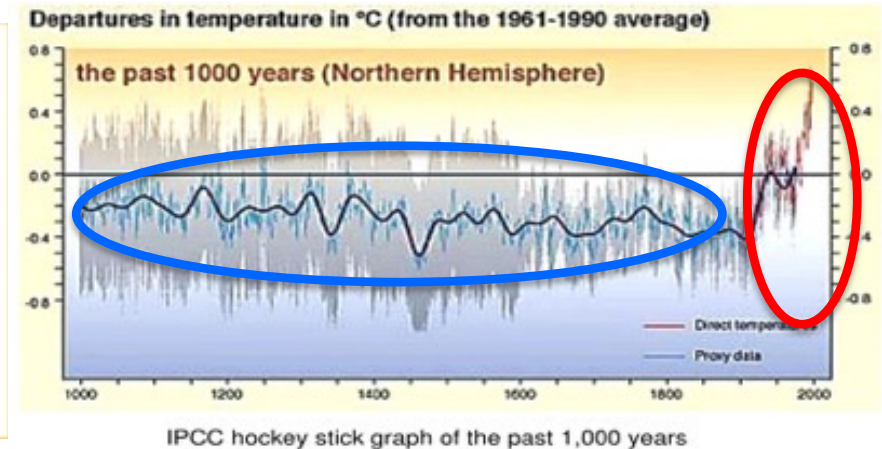
Chemical makeup of the atmosphere INCLUDING water vapor			
WATER VAPOR	NITROGEN	OXYGEN	ARGON
0% (desert climates)	78.084%	20.947%	0.934%
1%	77.30%	20.70%	0.92%
2%	76.52%	20.53%	0.91%
3% (hot/humid days)	75.74%	20.32%	0.90%
4% (tropical climates)	74.96%	20.11%	0.89%

<https://www.noaa.gov/jetstream/atmosphere>

The graph in your book is from the 2001 IPCC Report.
It is *very different* from the report published in 1990.



1990 IPCC Report



2001 IPCC Report

The 1990 graph is reportedly based on a wide range of proxy data.
The 2001 graph reportedly grafted a narrower range of proxy data
...to selected temperature records from the 20th century.
This combination of sources differing in methodology forms the
basis of the “hockey stick graph” controversy.

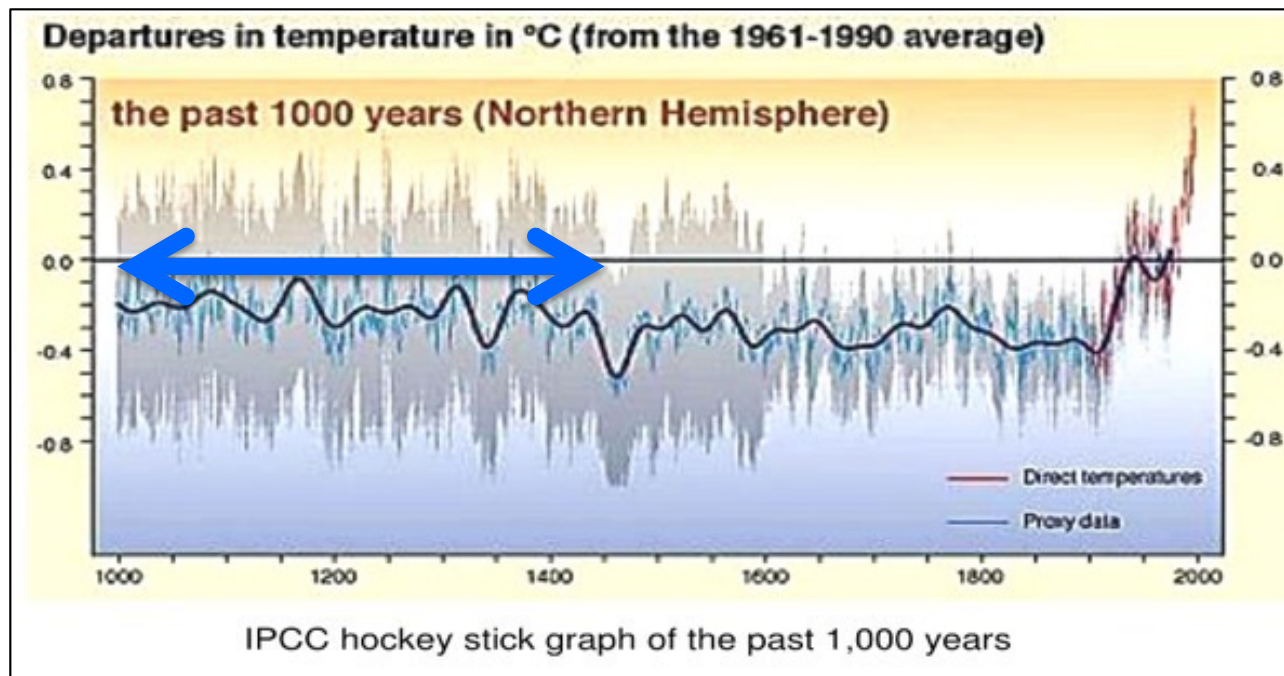
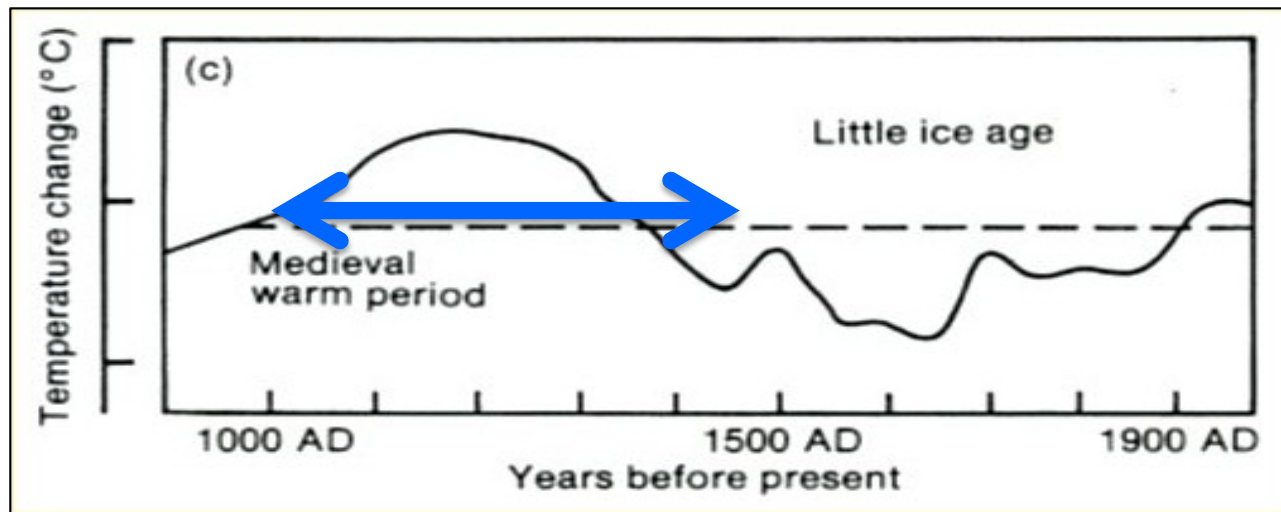
https://www.theunion.com/opinion/norm-sauer-mann-s-hockey-stick-a-documented-hoax/article_5e9bee14-1468-59aa-90d9-6d1e82f584cf.html

During the Middle Ages, Vikings cultivated these crops ...in Greenland.



- Barley
- Rye
- Oats
- Cabbages
- Onions
- Garlic
- Leeks
- Turnips
- Beans
- Peas

The settlement in Greenland lasted from 985-1450 AD.





GLOBAL CLIMATE CHANGE
Vital Signs of the Planet



FACTS

NEWS

Do scientists agree on climate change?

Yes, the vast majority of actively publishing climate scientists – [97 percent](#) – agree that [humans are causing global warming and climate change](#). Most of the leading science organizations around the world have issued public statements expressing this, including international and U.S. science academies, the United Nations Intergovernmental Panel on Climate Change, and a whole host of reputable scientific bodies around the world. A list of these organizations is provided [here](#).

✉ [Subscribe to newsletters](#)

Forbes

'97% Of Climate Scientists Agree' Is 100% Wrong

Alex Epstein Contributor @

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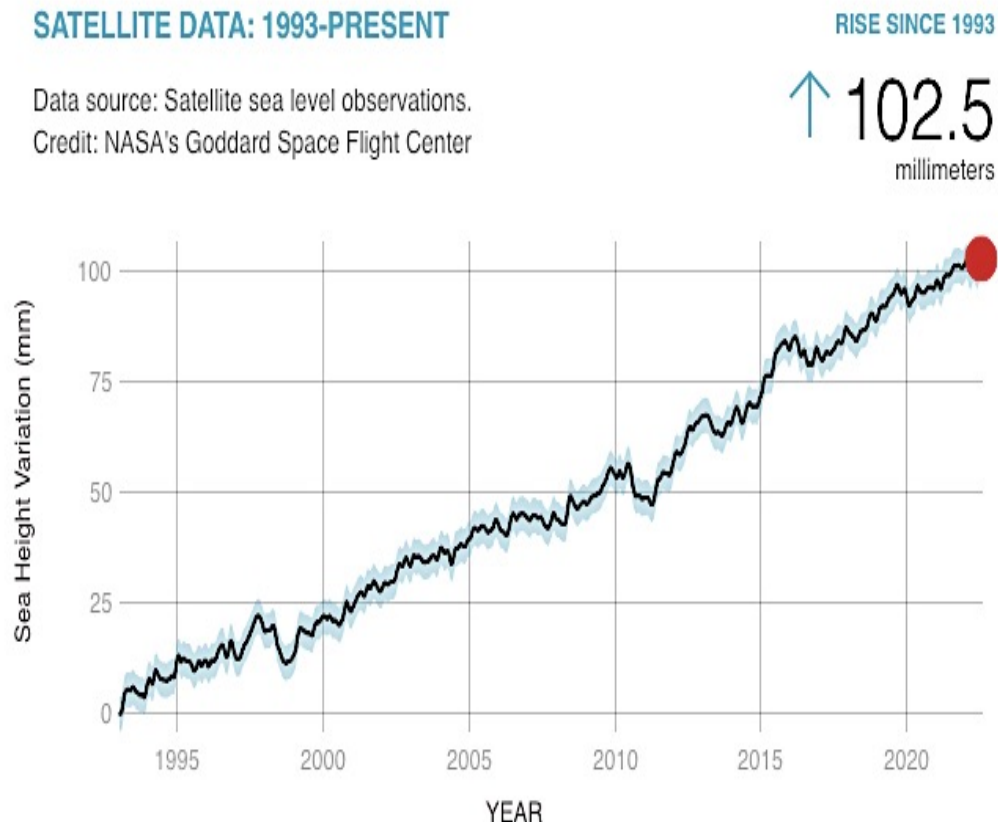
Jan 6, 2015, 02:12pm EST

“Historically, the claim of consensus has been the first refuge of scoundrels; it is a way to avoid debate by claiming that the matter is already settled.” — **Michael Crichton**



Scene from the 1957 movie “12 Angry Men”

Can we estimate how fast sea levels are rising?



- This graph covers 30 years. How many mm per year?
- How many total mm by 2100? (77 years)
- If 1 inch = 25.4 mm, how many total inches by 2100?
- Is this estimate reliable? What did you need to assume?

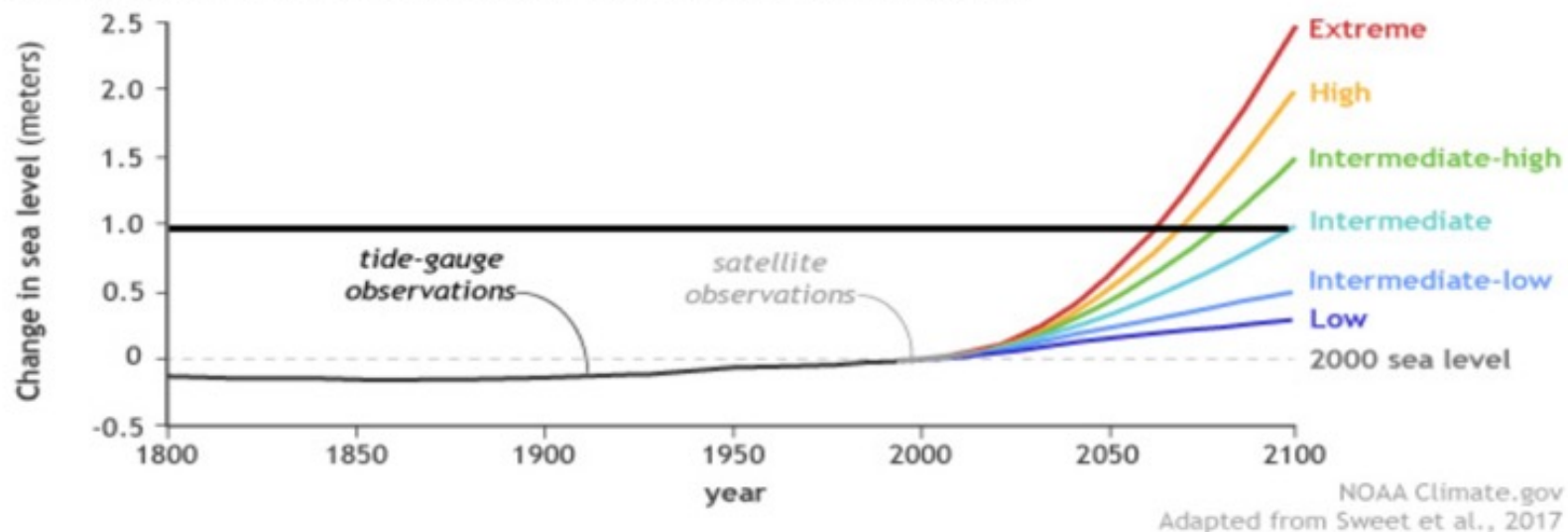
<https://climate.nasa.gov/vital-signs/sea-level/>

NOAA projects sea level increases that vary from a few inches to about 7 feet by 2100.

How does this square with your calculation?

Both the low-end and “worst-case” possibilities were revised upward in 2017 following a review by the U.S. Interagency Sea Level Rise Taskforce. Based on their new scenarios, global sea level is very likely to rise at least 12 inches (0.3 meters) above 2000 levels by 2100 even on a low-emissions pathway. On future pathways with the highest greenhouse gas emissions, sea level rise could be as high as 8.2 feet (2.5 meters) above 2000 levels by 2100.

Possible future sea levels for different greenhouse gas pathways



Observed sea level from tide gauges (dark gray) and satellites (light gray) from 1800-2015, with future sea level through 2100 under six possible future scenarios (colored lines). The scenarios differ based on potential future rates of greenhouse gas emissions and differences in the plausible rates of glacier and ice sheet loss. NOAA Climate.gov graph, adapted from Figure 8 in Sweet et al., 2017.

Unfortunately, carbon trading is riddled with fraud!



Greenwashing is when a company uses deception to appear “green” while engaging in business as usual.

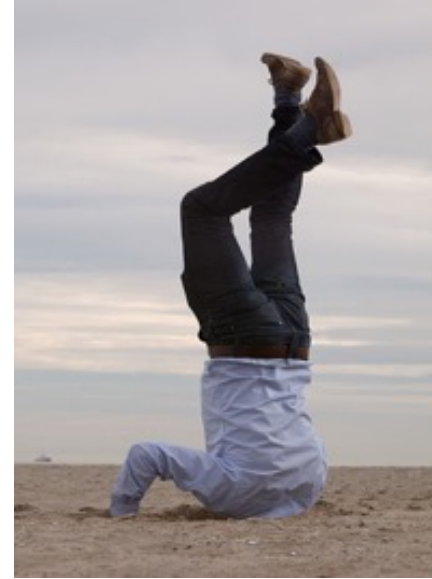


Images downloaded from: <https://best-programs-providers8billiontrees.com/carbon-offsets-credits-companies-2021/neutral-certification-companies/>



Cui bono?

Who benefits from climate change denial?



Who benefits from climate change alarmism?





Cui bono?

Who benefits from climate change denial?

The fossil fuel industry and car manufacturers.

Who benefits from climate change alarmism?

International organizations, unelected bureaucrats and “green” corporations.



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