

A Geological view of Thermageddon

- Geologists are environmentally friendly; climate myths are not.
- Aim is to just present data and ask questions; no wish to convert, 97% consensus is not science.
- Global Temperatures have gone up, **and down** since Industrial Revolution - **and before**; and the concept of an 'average' world temperature is meaningless – impossible to measure accurately.
- Climate change is always with us, and 99% of everything that ever swam, crawled, climbed, walked or flew, is now extinct.
- There never was a Garden of Eden/pristine wilderness, where life on earth was perfect.
- No technical publication, peer reviewed or otherwise, denies climate change, and none show that CO₂ alone, causes climate change.
- We can and have changed the world, as it has changed us.
- Real pollution (plastics/industrial waste) is the true 'clear and present danger' obscured by the false focus on CO₂ & Carbon Pollution.
- IPCC accurately describes the world's climate system as a *"coupled non-linear chaotic system"*, for which *"the long-term prediction of future climate states is not possible."* Yet they claim they can predict.

Synopsis

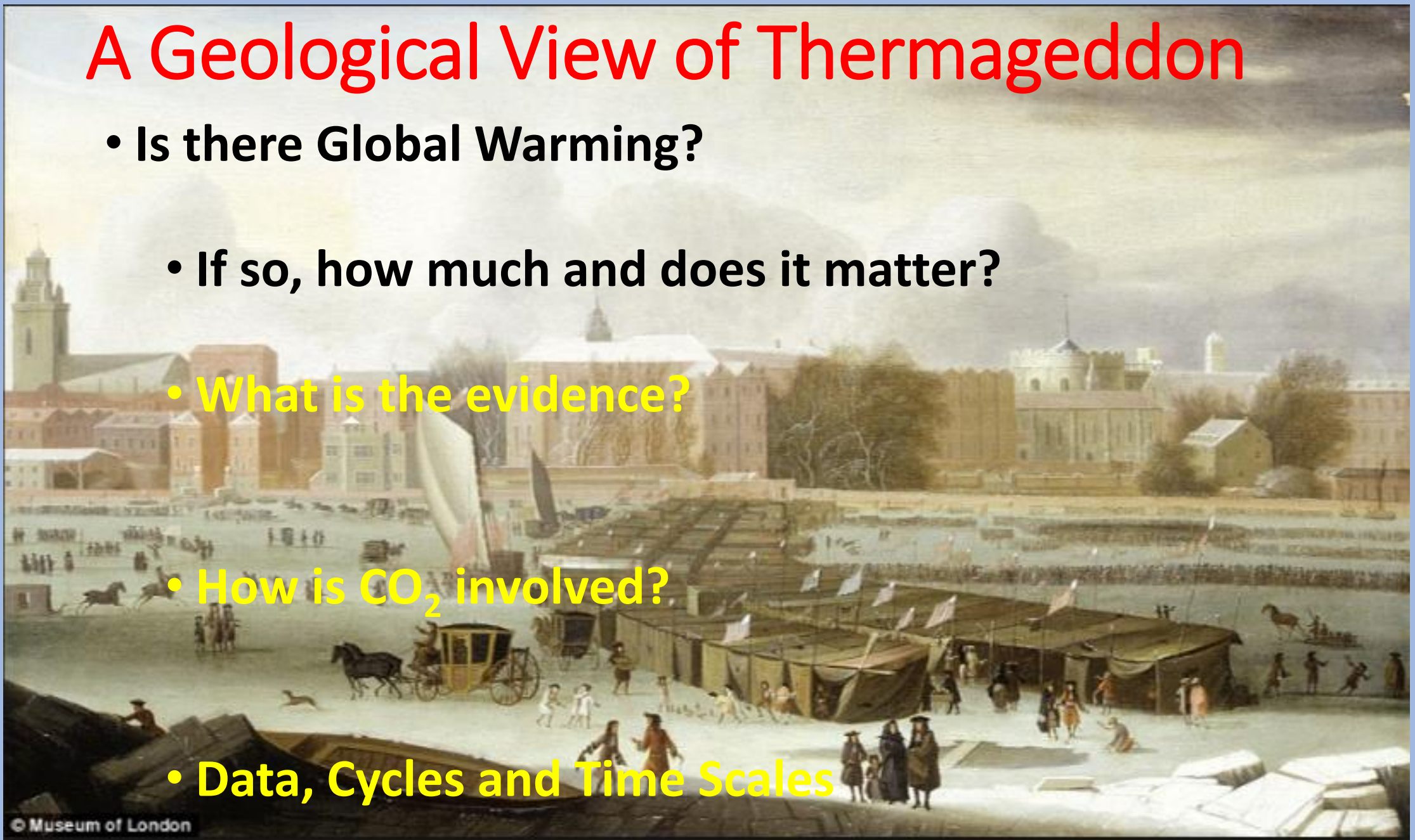
- Victorian/Dickensian Little Ice Age succeeded by global warming until 1943, then by 30-year cooling – so called Nuclear Winter, when "97% of scientists" called for **ice-breaking tankers** to bring oil to Rotterdam, London and New York.
- From end of last ice age to 1880, CO₂ increased by 100ppm, with 8°C rise, then by a further 125 ppm, but with only 0.7°C increase; **all previous warm periods warmer than today.**
- Half of this 0.7°C increase happened before 'human'- CO₂ emissions accelerate; **how?**
- Why and how 30-year cooling periods were removed by NASA/NOAA/IPCC 'adjustments' - as called for in the **Climate-gate emails.**
- Climate models do not predict warming pause since 1998: they do predict upper troposphere warming, which does not exist; theory fails, yet **still used to drive climate policy.**
- AGW (Anthropogenic Global Warming) theory does not explain El Nino, or other multi decadal temperature records (AMO/PDO/ENSO).
- Geological record shows Climate Change is real, but CO₂ driven **Global Warming is a myth.**
 - Atmospheric CO₂ has been declining for 150 million years.
 - All six great Ice Ages occurred when CO₂ was much higher than today.
 - CO₂ fell to 180ppm during the last ice age; photosynthesis stops below 150
 - CO₂ of 285ppm is not a climate benchmark, doubling is not dangerous.
 - Sun and solar system (Milankovitch cycles) drive the earth's climate.
 - CO₂ drives plant life, not temperature and not climate.
- If CO₂ does not drive 'global warming', how does it cause Climate Change? **It does not.**
- IPCC claims of worsening droughts, floods, hurricanes, ocean warming & acidification, coral bleaching, sea level rise, and melting glaciers and permafrost, are **unsupported, while all positive effects ignored.**
- There has never been an 'average' or 'perfect' world climate; Climate Change is natural & unpredictable; it is NOT caused by AGW; & **it is NOT our Fault.** Solving real pollution problems is hindered by false focus on AGW; **which is our fault.**

A geological View of Thermageddon

1. Victorian/Dickensian Little Ice Age (1860-1906) succeeded by global warming until 1943, then by 30-year cooling the 'Nuclear Winter' when "97% of scientists" called for ice-breaking tankers to bring oil to Rotterdam, London and New York.
2. From end of the last ice age, 20,000 years ago to 1880, CO₂ increased by 100ppm, with 8°C rise, then by a further 125 ppm but with only 0.7° increase; all previous warm periods warmer than today
3. Half of this 0.7°C increase happened before 'human'- CO₂ emissions accelerate; how?
4. Why and how early 20th century 30-year warming ignored and subsequent 30-year cooling removed by NASA/NOAA/IPCC 'adjustments' - as called for in the Climate-gate emails.
5. CO₂ climate models do not predict warming pause since 1998, but do predict upper troposphere warming, which does not exist; theory fails, yet still used to drive climate policy.
6. The geological record shows Climate Change is real, but CO₂ driven global warming is a myth
 - a. Atmospheric CO₂ has been declining for 150 million years
 - b. All previous great Ice Ages occurred when CO₂ was much higher than today
 - c. CO₂ fell to 180ppm in last ice age; photosynthesis stops below 150; C4 grasses develop 32mya: Oligocene
 - d. CO₂ of 285ppm is not a climate benchmark, doubling is not dangerous.
 - e. Global Warming theory, that CO₂ drives climate change, does not explain El Nino, or other multi decadal temperature records (AMO/PDO/ENSO), nor does it account for effects of water vapour
 - f. The two main drivers of climate change, which dominate all others, are the sun (fluctuating magnetic field) and the solar system (Milankovitch cycles).
 - g. CO₂ drives plant life, not temperature and not climate
7. If CO₂ does not drive global warming, how does it cause Climate Change? It does not.
8. IPCC claims of worsening of droughts, floods, hurricanes, ocean warming & acidification, coral bleaching, sea level rise, and melting glaciers and permafrost, are unsupported, while positive effects ignored.
9. There has never been an 'average' or 'perfect' world climate; Climate Change is natural & unpredictable; it is NOT caused by AGW; is NOT our Fault. Solving real pollution problems is hindered by false focus on AGW; which is our fault.

A Geological View of Thermageddon

- Is there Global Warming?
- If so, how much and does it matter?
- What is the evidence?
- How is CO₂ involved?
- Data, Cycles and Time Scales



Geologists are environmentally friendly; climate myths are not.

- Aim to present data, and ask questions, not convert, 97% consensus is not science.
- Temperature has always gone up and down, world average impossible to measure and is meaningless, T does not = climate.
- Garden of Eden – perfect pristine wilderness NEVER existed.
- 99% of past life is extinct. Change is normal.
- No technical publication denies climate change.
- None show CO₂ alone causes climate change.
- CO₂ is NOT dangerous; real pollution (plastics/industrial waste) is, obscured by false focus on CO₂ & Carbon Pollution.

An abundance of geological data shows

1. CO₂ does NOT drive temperature, **or climate.**
2. Climate Change is natural, and - **beyond our control.**
3. Climate data is being **manipulated.**
4. Climate alarms are **false and harmful**
 1. Carbon and CO₂ are pollutants – **False**
 2. Extreme weather is worsening – **False**
 3. Drought and/or flooding here to stay - **False**
 4. Great Barrier Reef is dying – **False**
 5. Oceans are acidifying dangerously – **False**
 6. Sea level rising faster - **False**
 7. Ice melting, everywhere - **False**
5. CO₂ NOT dangerous; real pollution (plastics/industrial waste) is - obscured by false focus on CO₂ & Carbon Pollution.

^{WAGNOT}
QUOTE OF THE MILLENNIUM
"IF WE CUT EMISSIONS TODAY, GLOBAL
TEMPERATURES ARE NOT LIKELY TO
DROP FOR ABOUT A THOUSAND YEARS" *



Jan 2018:
Sydney 47°C; Mt Isa 12°C; Longreach 15°C

Australia's warming guru Tim Flannery: 2006

Warned that by 2016:

Peak oil; fuel cutback: Wrong

Oil price up 2 - 3 times: Wrong

Sea levels rise faster: Not yet

Increased Cyclones: Wrong

**Drought - Warragamba Dam
would never again be full; it is**

Australian Global Warming inspired Desalination Fiasco

State	Cost	Built	GL/yr	Capacity %	Actual
QLD	\$1.2b	2009	45	25% SEQ	Min
NSW	\$2.0b	2010	90	15% Syd	Min
VIC	\$3.5b	2012	150	33% Mbn	Min
SA	\$2.2b	2012	100	50% Adl	20pa
WA	?	2006	48	17% P	45pa
WA	\$1.4b	2012	100	20% P	-

All plants (except Perth) mothballed.

More Flannery

In 2013 NSW
Uni Prof frozen
into pack ice



Expedition
members
rescued by
Chinese
helicopter

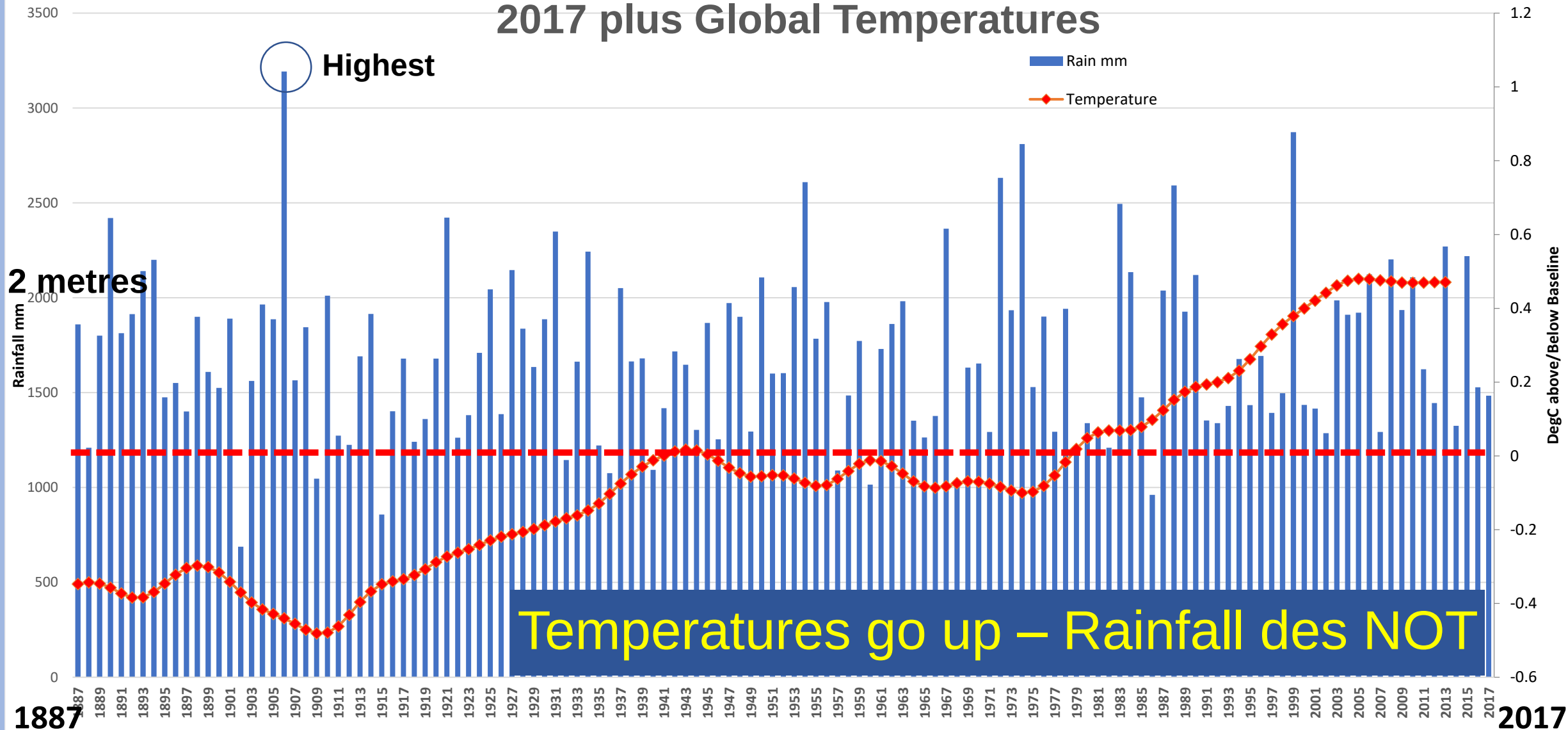
Chinese ice-breaker also
stuck, freed by US ice breaker

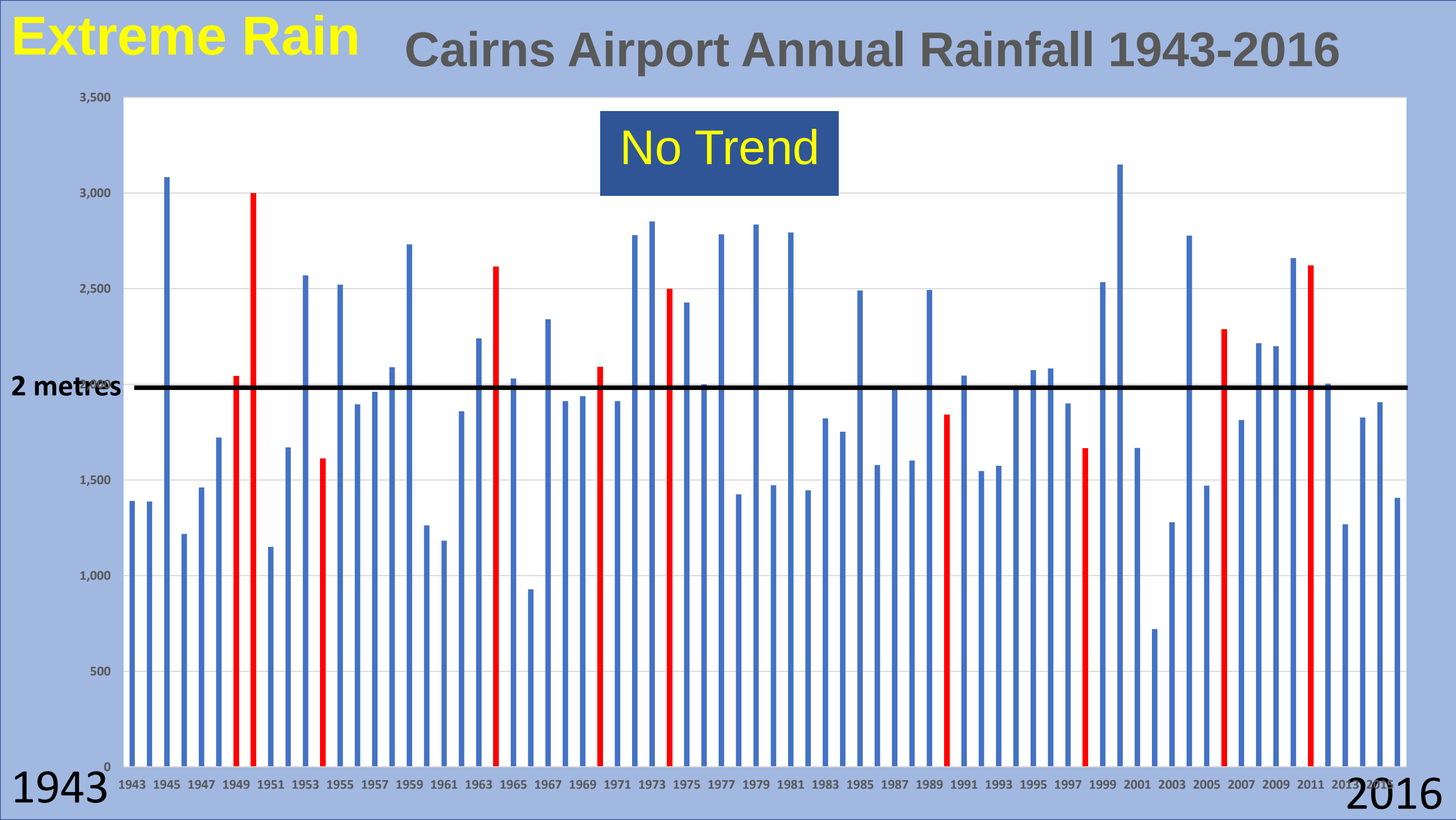
Independent long range
weather forecasters got
it right

ABM predicted
calm, open seas

Extreme rain?

Annual Rainfall (mm) Tweed Heads Golf Course NSW 1887 - 2017 plus Global Temperatures





But it is not just Flannery Flannel:

When you fly to USA, you do not question the pilot's skills
But if you land in Argentina – **you do.**

1999 Mass Bleaching predicted for 'every second year; **NOT true**

2000 Snow in UK vanishing: **Snowing heavily in December 2017**

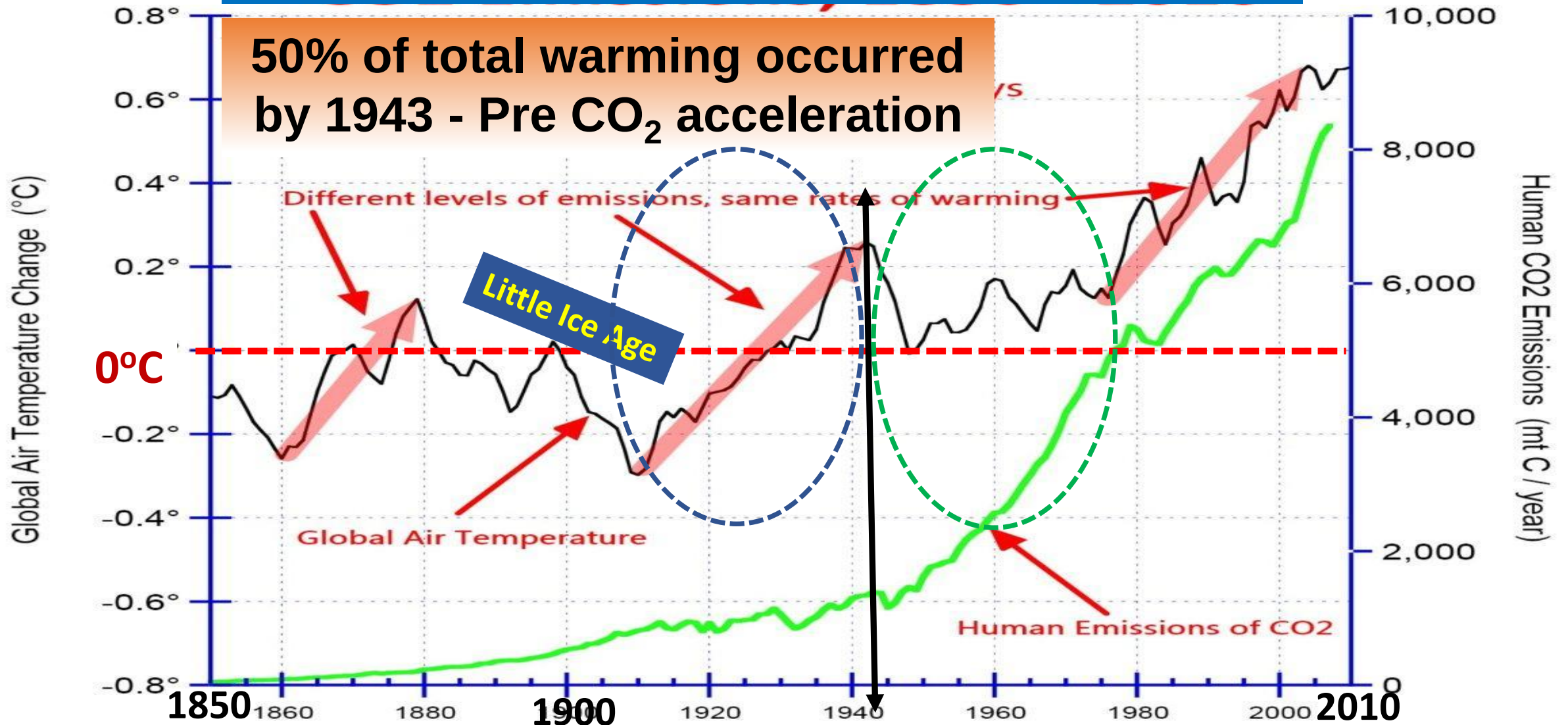
2003 Murray Darling Drought will be permanent; **it is not**

2007 60% of polar bears will be gone; **population is growing**

2012 Every year is hottest **EVAH**; **warming pause in its 19th year**

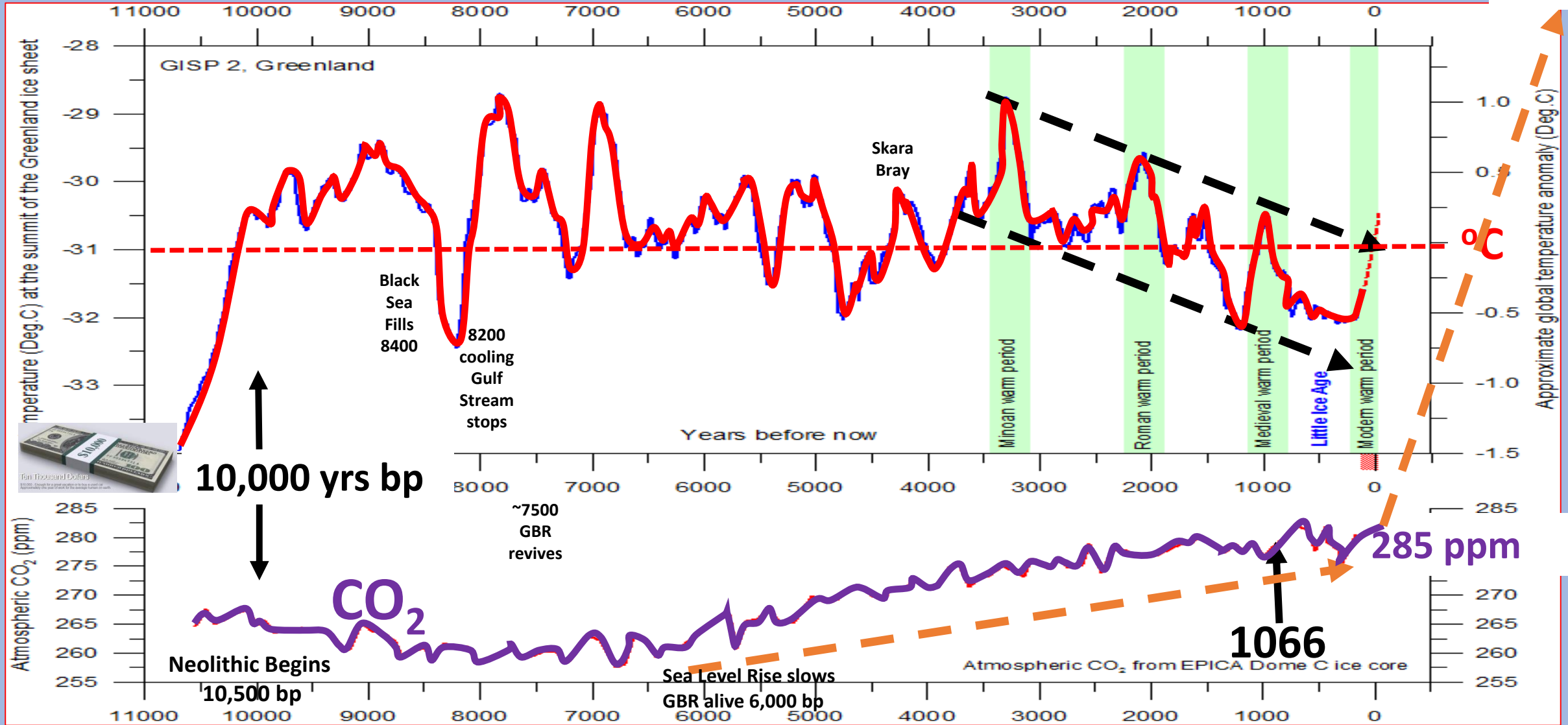
CO₂ does NOT drive temperature

50% of total warming occurred by 1943 - Pre CO₂ acceleration



2 CO₂ rises against background cooling

407
ppm

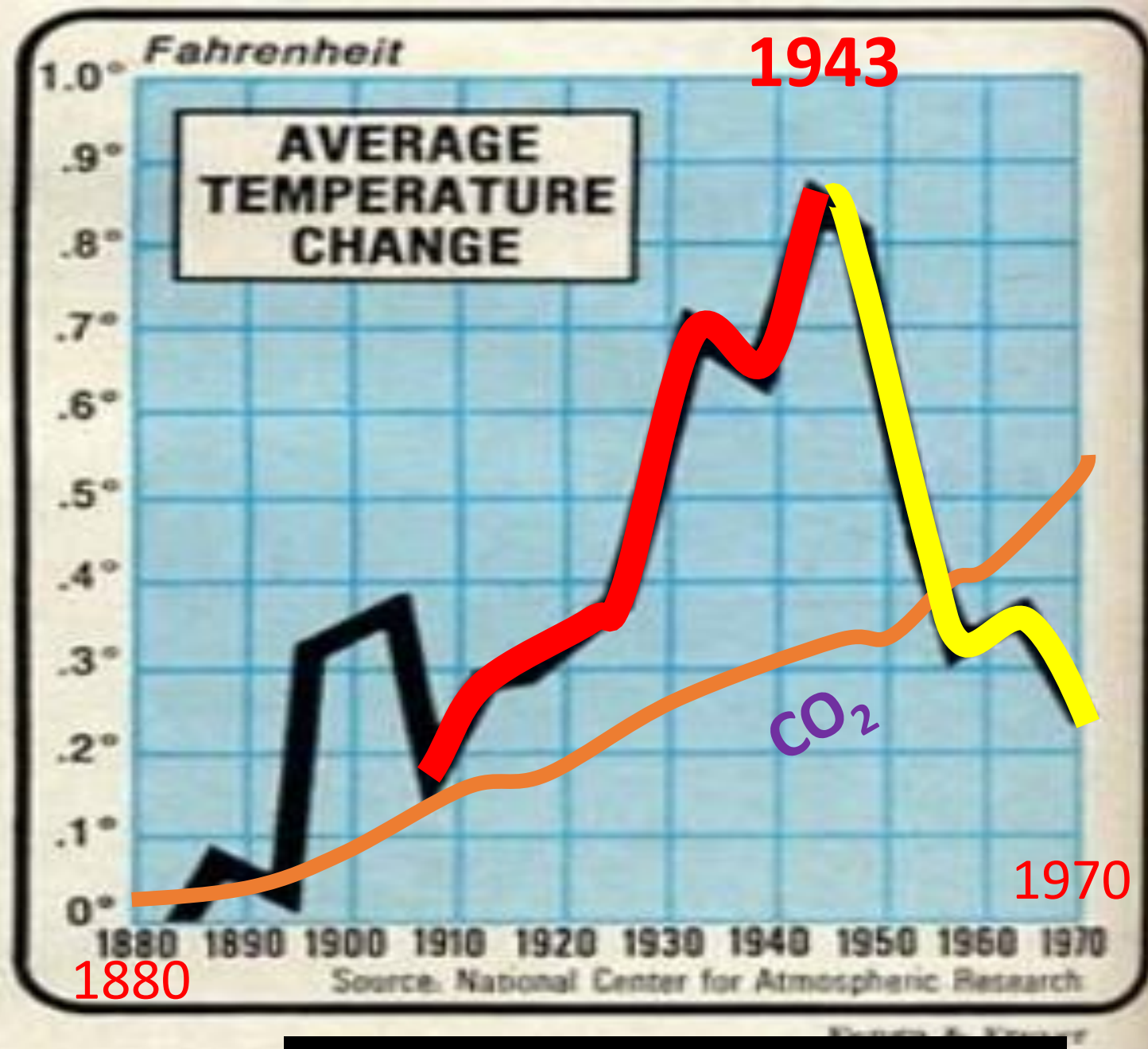


Much warmer periods with much lower CO₂ **Holocene Temperature conundrum**

3 Warming peaked 1943, followed by a 30-year cooling 'Nuclear Winter' while CO₂ increased

'97%' of climate scientists
wanted ice-breaking
tankers

Now 97% believe in
global warming!



Facts do not fit data

**3B: Before
1973**

**97% predict
cooling**

*“If present trends
continue, the world will
... 11°C colder by 2000.
which will “put us into an
ice age.”*

**NCAR:
Nuclear Winter**

<https://wattsupwiththat.com/2011/04/22/failed-mirth-earth-day-predictions/>

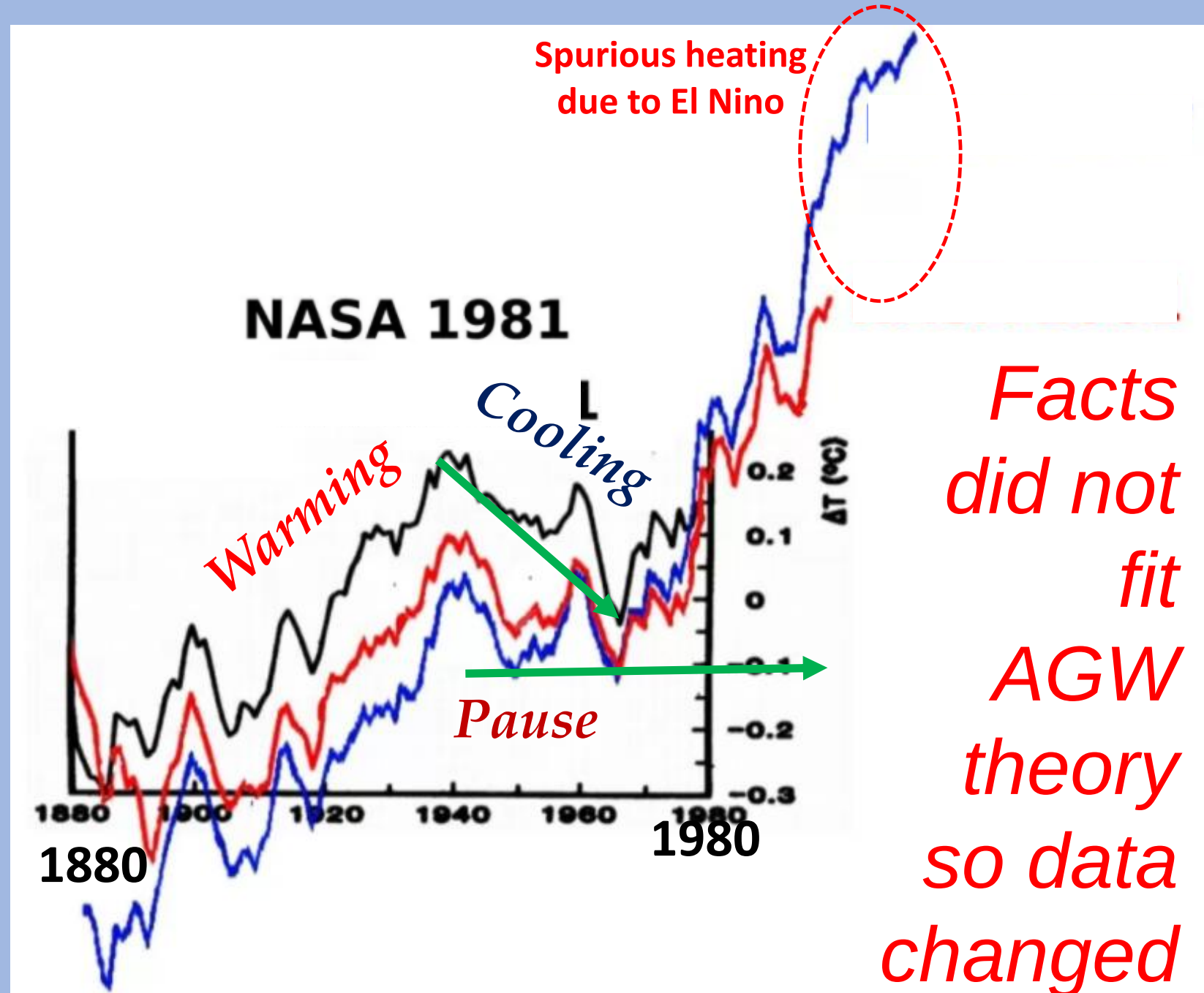
**Since ~1980
97% predict
warming**

*‘Entire nations could be
wiped off the face of the
earth by rising sea levels
if global warming is not
reversed by 2000.*

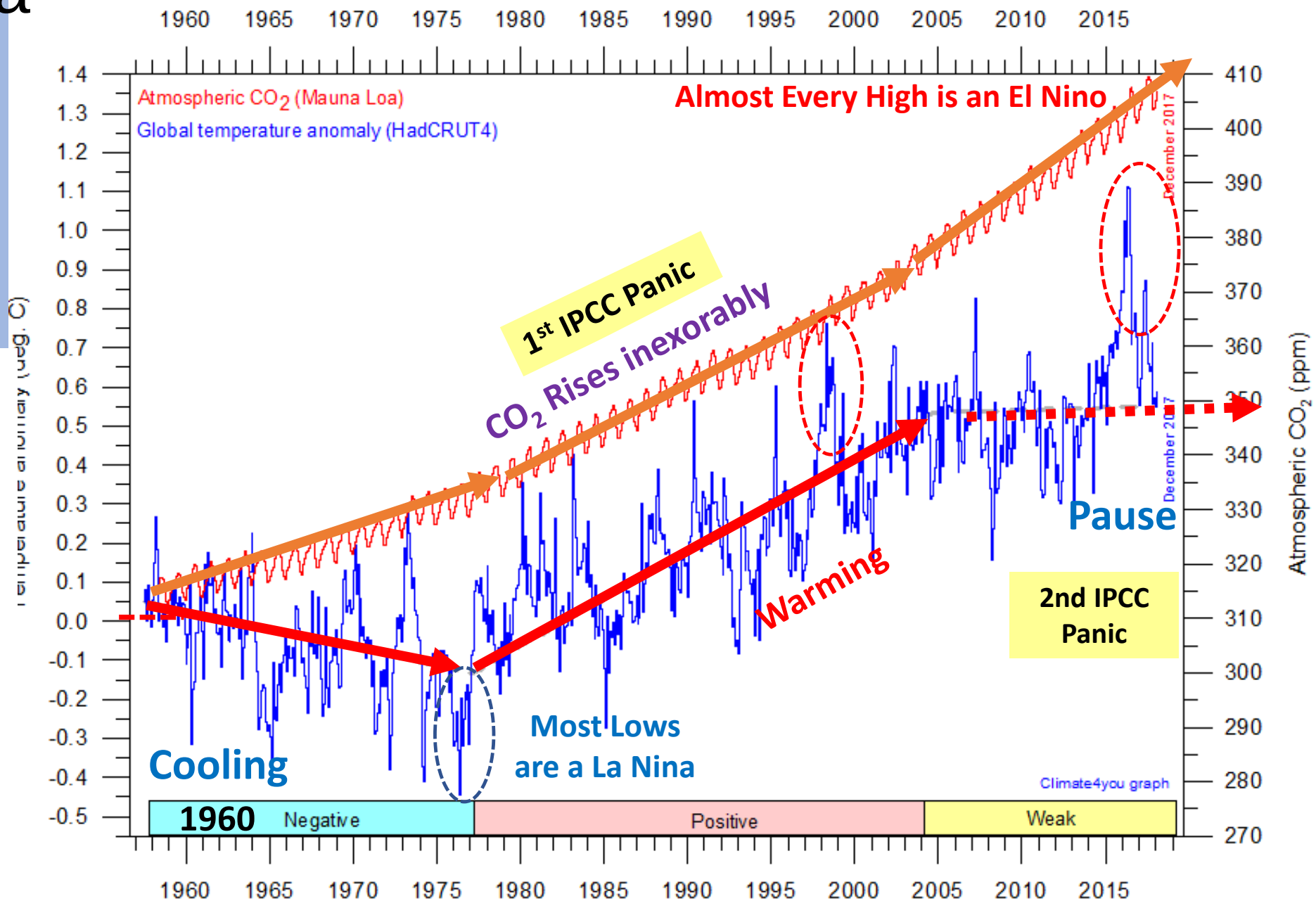
**IPCC:
AGW Global Warming**

<http://www.thegwpf.com/1989-un-predicts-global-disaster-the-utter-failure-of-climate-alarmism/>

4: Post 1943
Nuclear Winter
vanishes with
Climate Gate
'adjustments'
and El Nino



Unadjusted data
no warming
since ~1998.
CO₂
accelerating
CO₂ does not
cause
warming,
how does it
cause
Climate
Change?

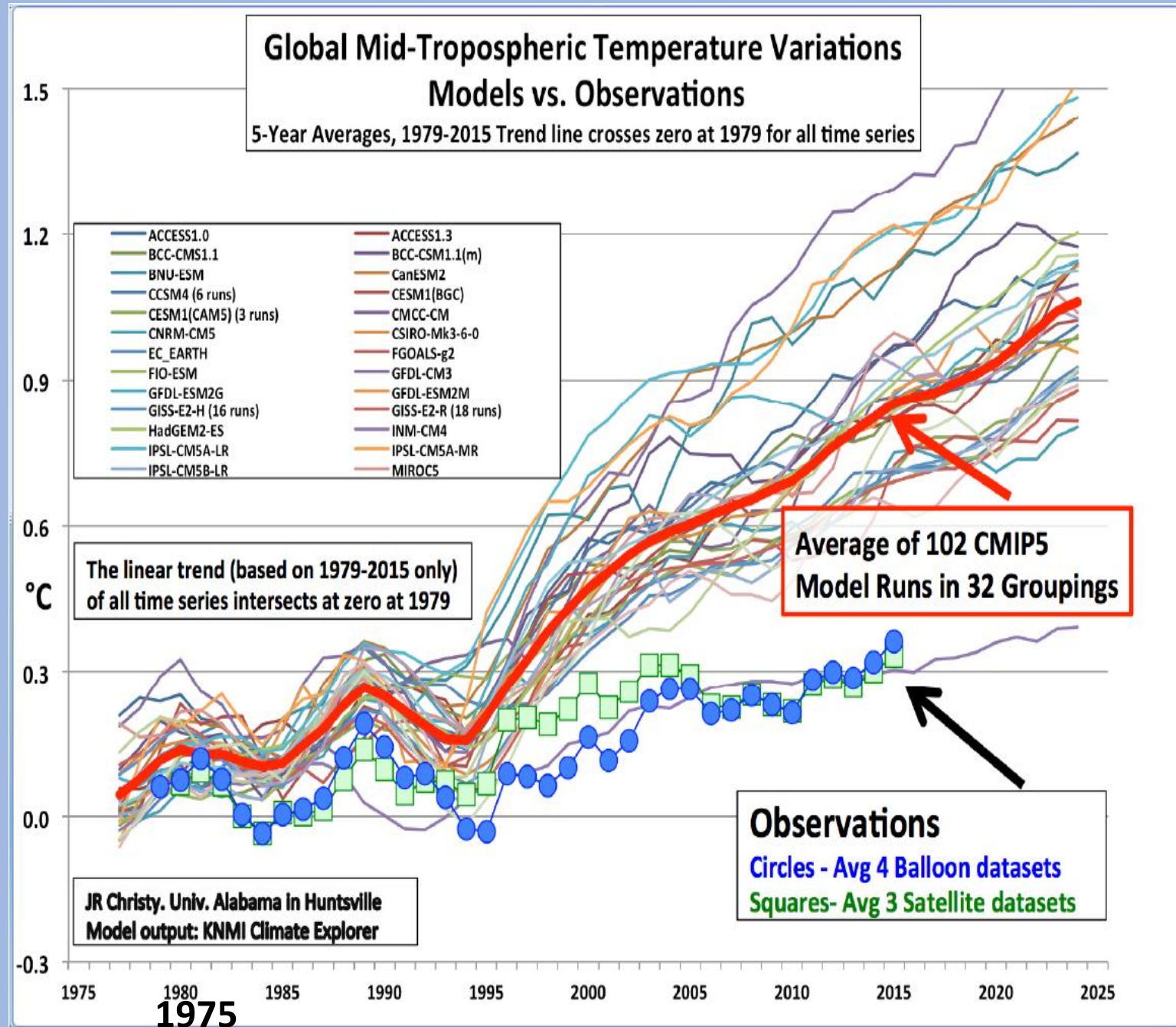


5

IPCC models always predict more warming than we get.

Global warming and climate change are NOT caused by human CO₂

97% Scientists ignore this flaw in AGW theory Yet they drive climate policy.



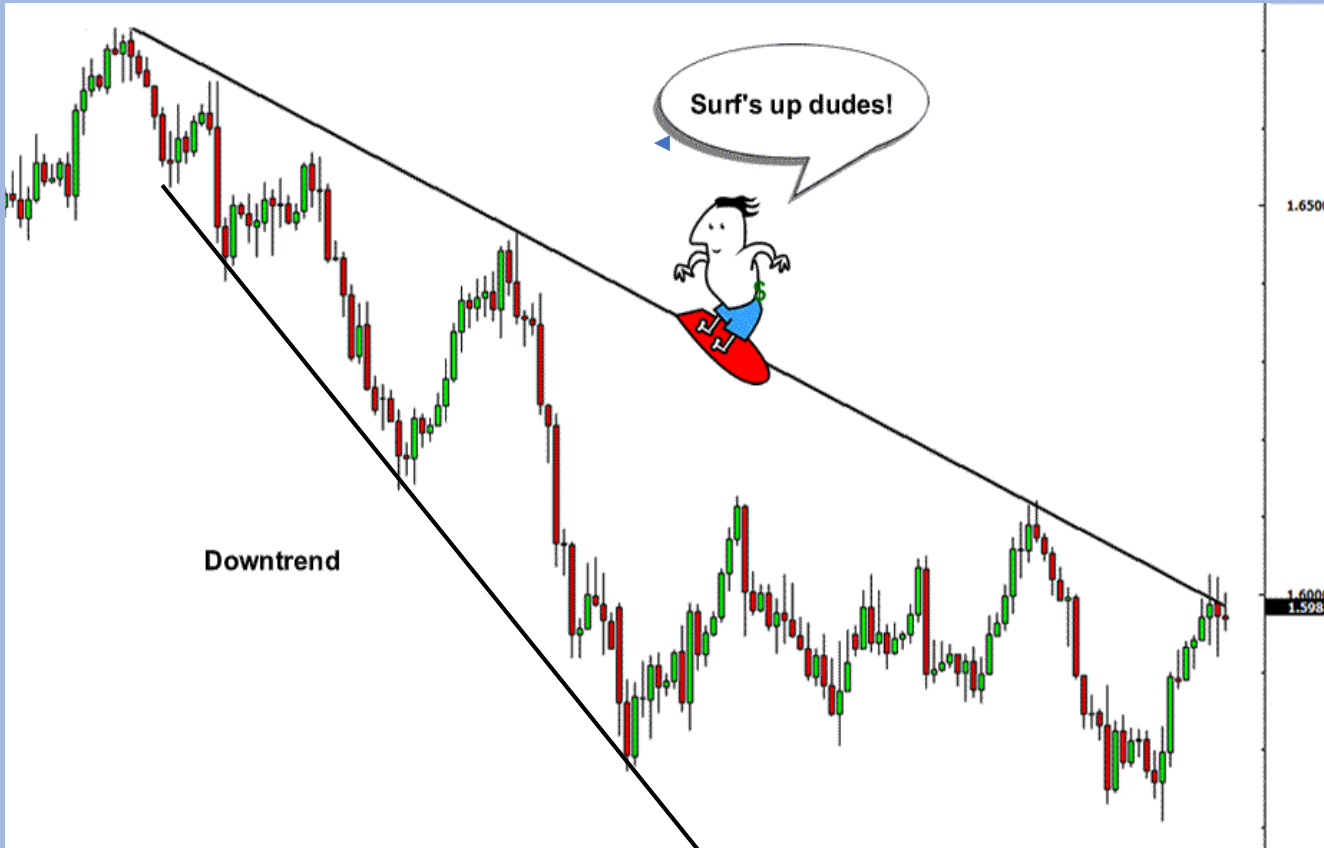
Climate Change Trends

What is a Trend?

A trend is a trend is a trend
But the question is,
will it bend?

Or alter its course
Through some unforeseen
force

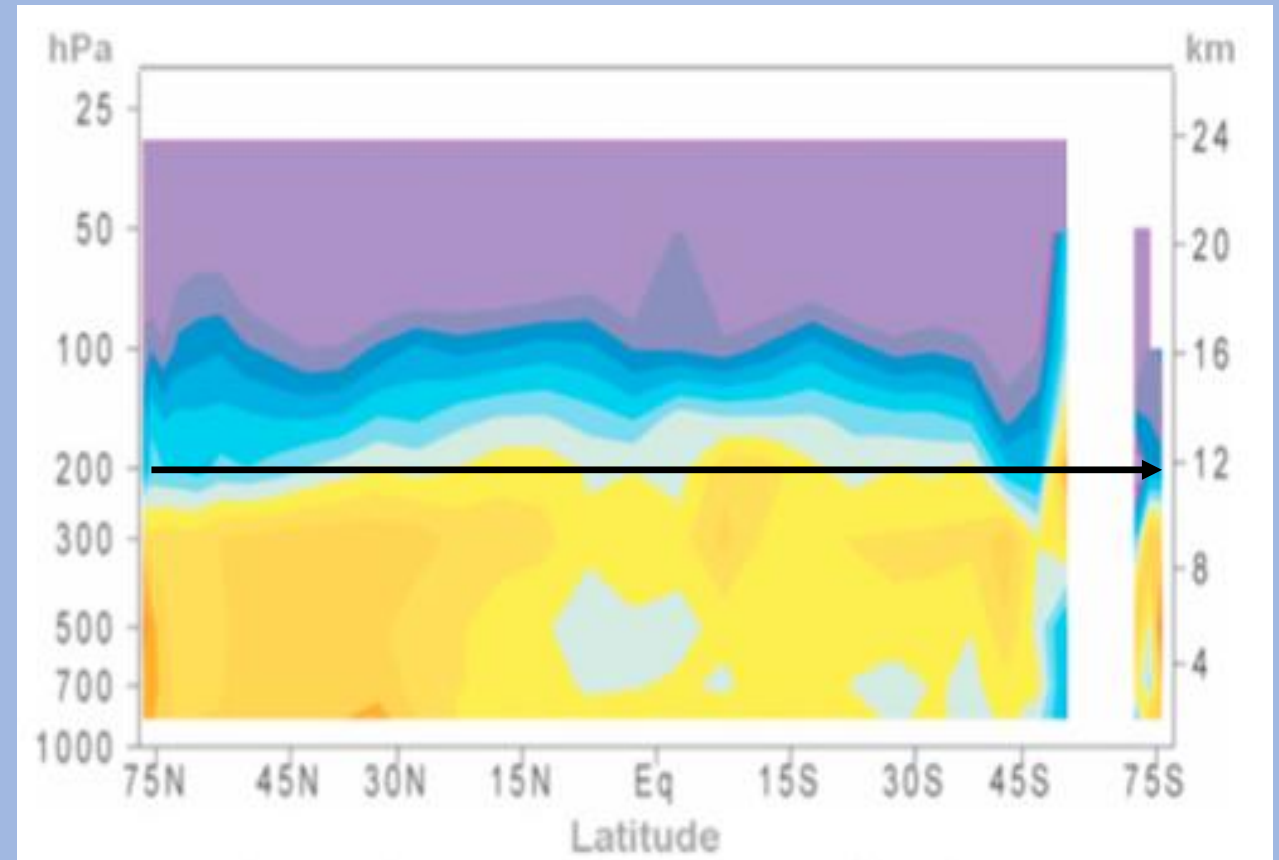
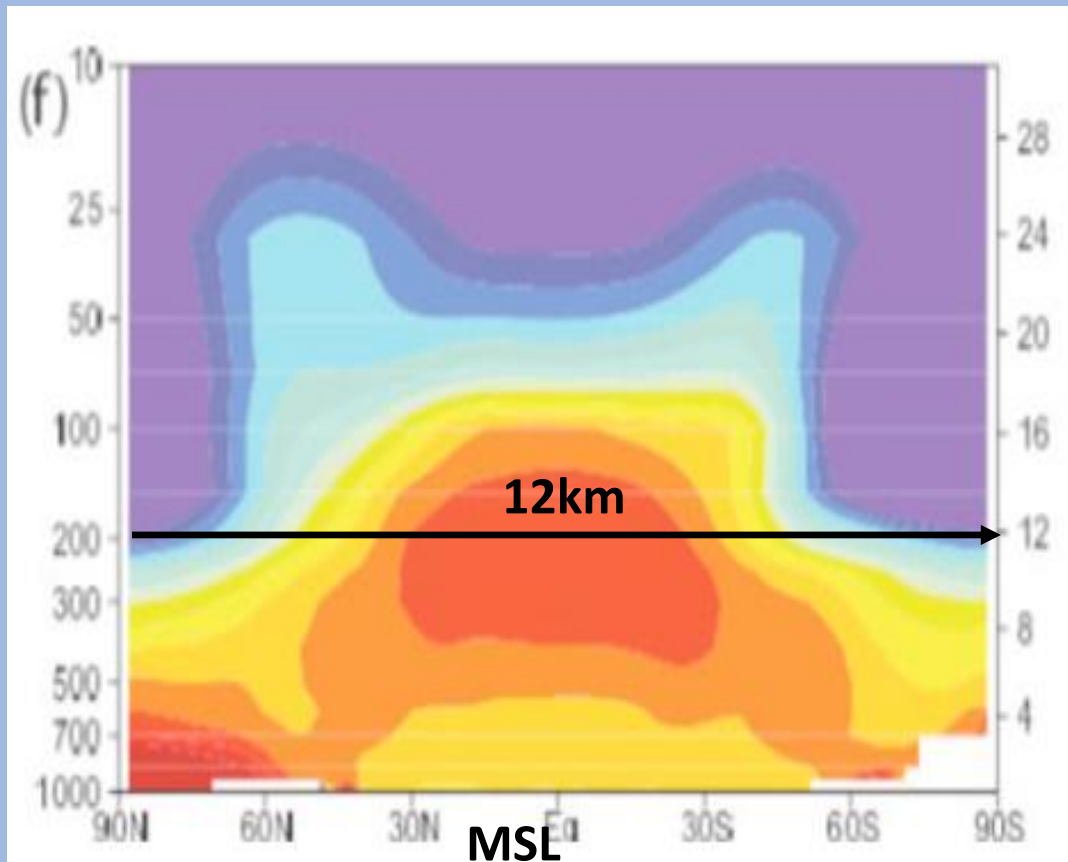
Or come to
a premature end?



5: AGW theory predicts
strong human-CO₂ driven
warming near the top of
Troposphere

Warming **not seen** by balloon data,
which shows declining temperature
with elevation

AGW theory needs to be revised?

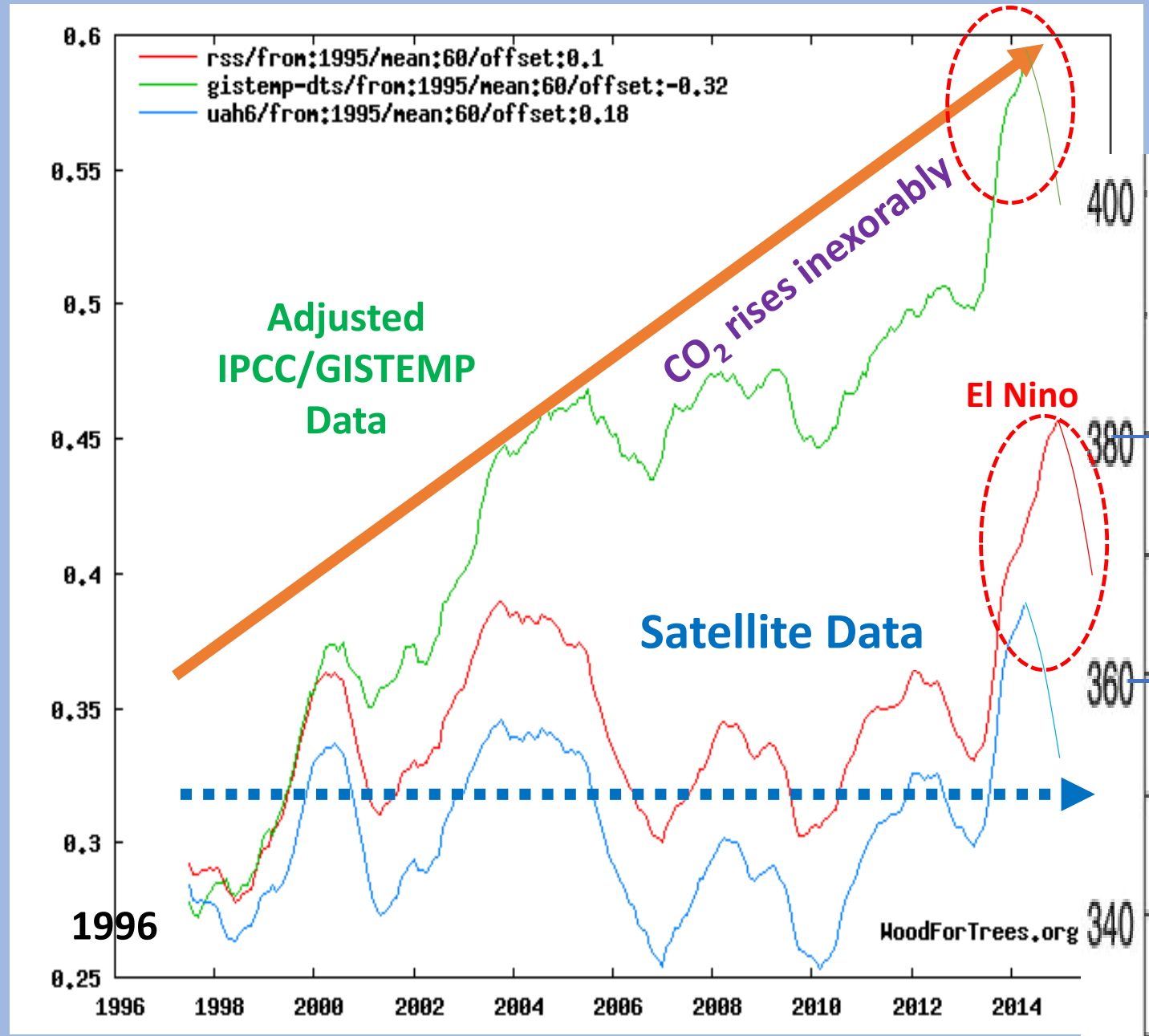


5: 'Adjusted' IPCC data
claims 'hottest month ever'

Satellite and balloon data,
say NO

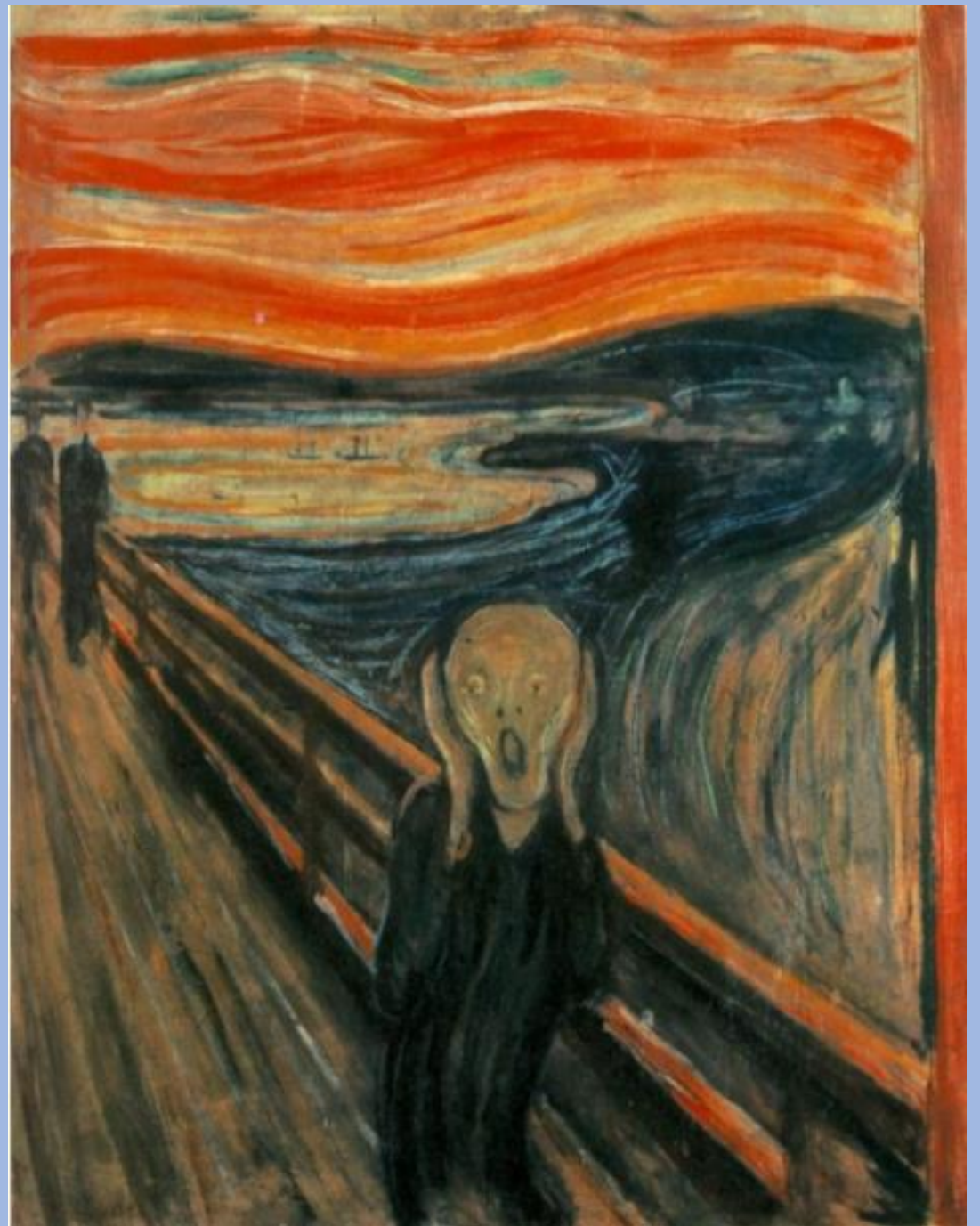
*Only one data
set can be
correct*

Dire Straits



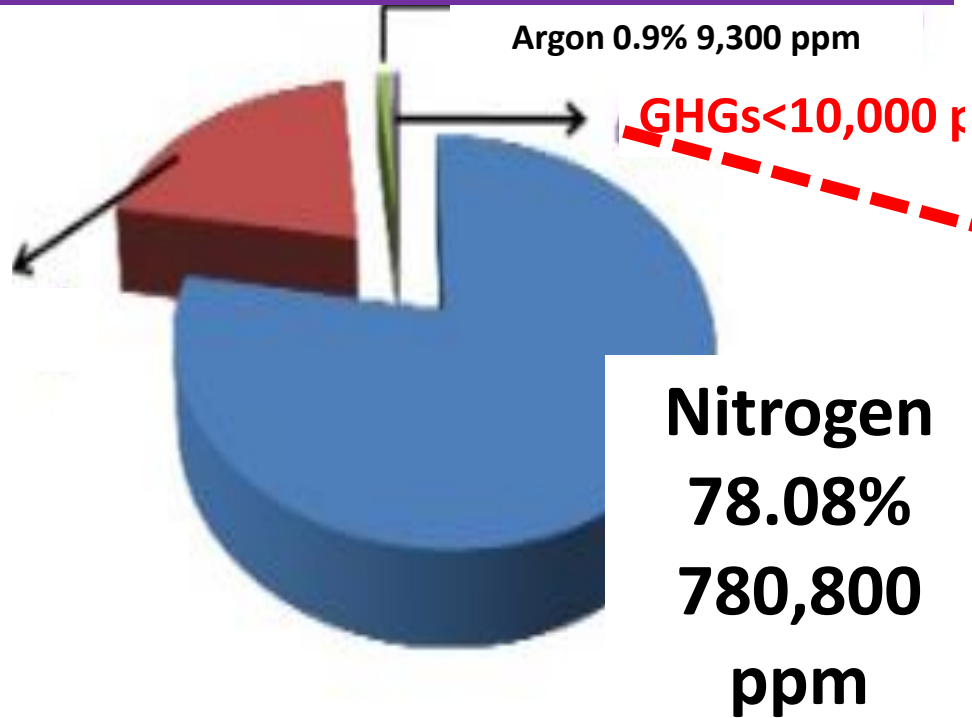
NASA & NOAA
keep launching
satellites &
balloons, then
ignore the data

Why?

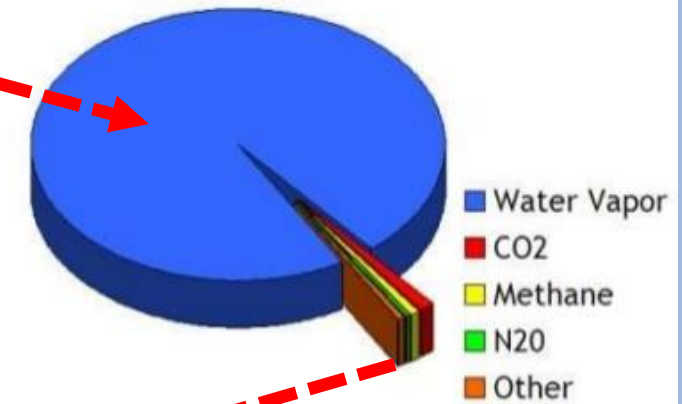


6: Composition of atmosphere

Oxygen
20.03%
200,300
ppm
Below 16%
No fires
Above 25%
Wet leaves
burn



95% of GHGs are
water vapour



Man-made CO₂
< 125ppm =
0.012%

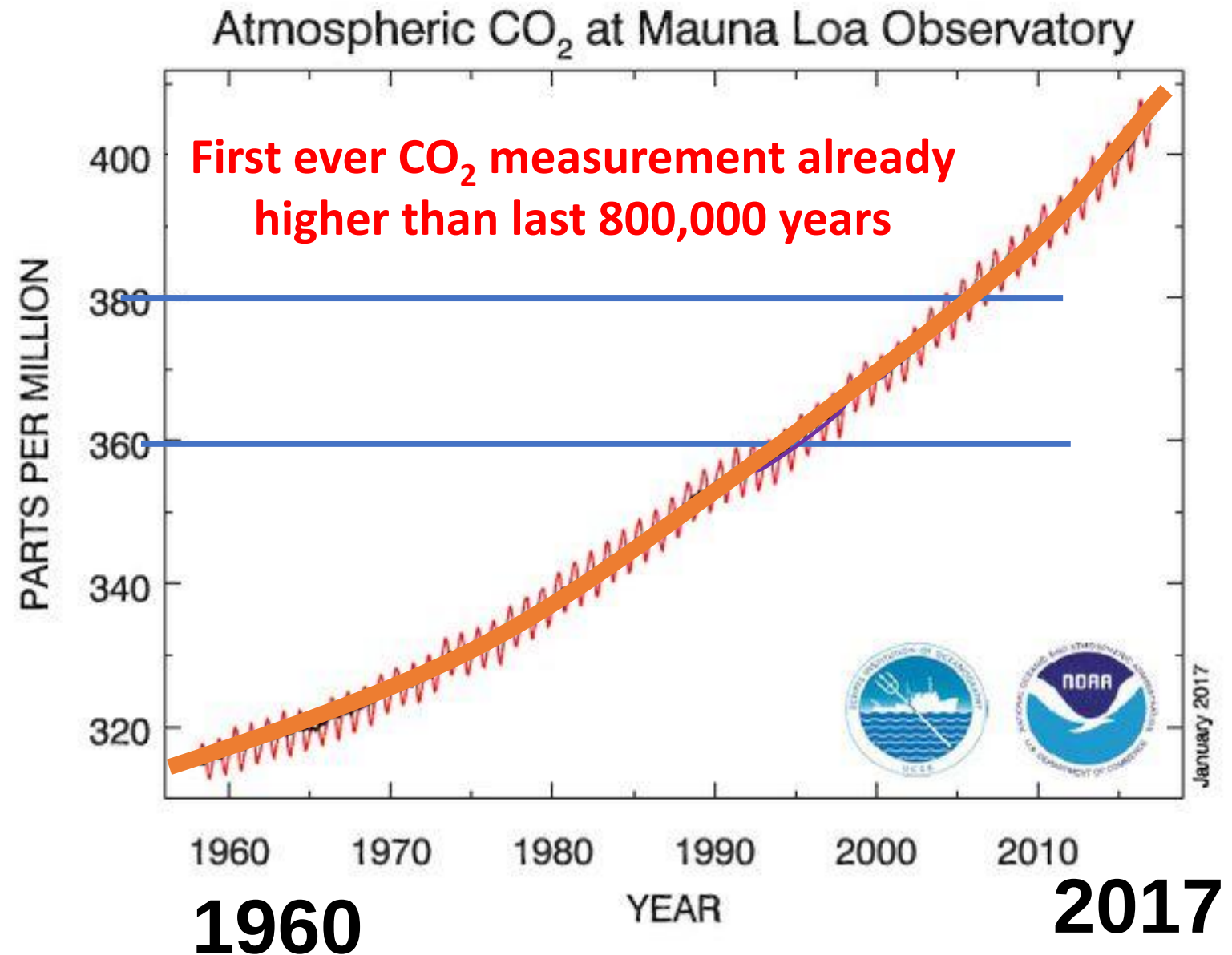
Total CO₂
= 407ppm
0.0407%

Only 1 molecule in 85,000 is from
humans, and 32 from natural emissions

IPCC has said
doubling CO₂
could result in
up to 6°C rise

To Date T is
<1°C with CO₂
rising from
280 – 407ppm

Increase ~20ppm per decade



CO₂ increases in NH winter and falls during summer growing period

= 2 new
spectators
every 10
years

*Natural CO₂
emissions
swamp
human
emissions
32:1*

CO₂ increases by ~20 ppm per decade



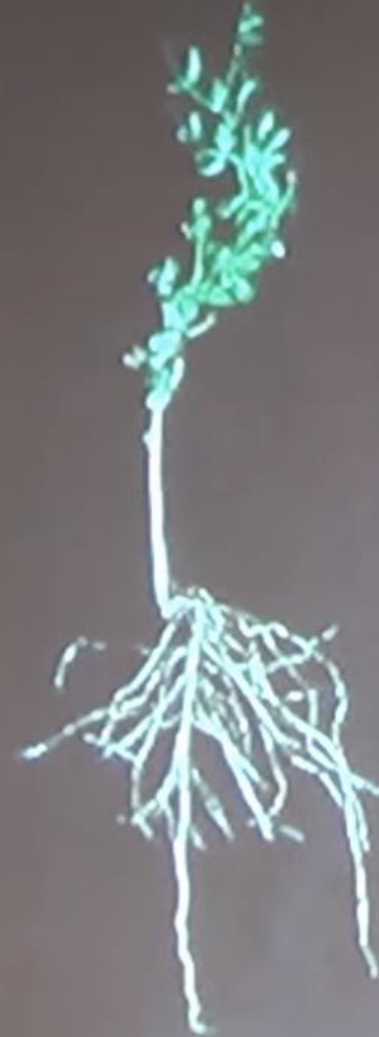
Tony Heller (October 13, 2016)

6g: Without CO₂
sunshine and water,
life would end,

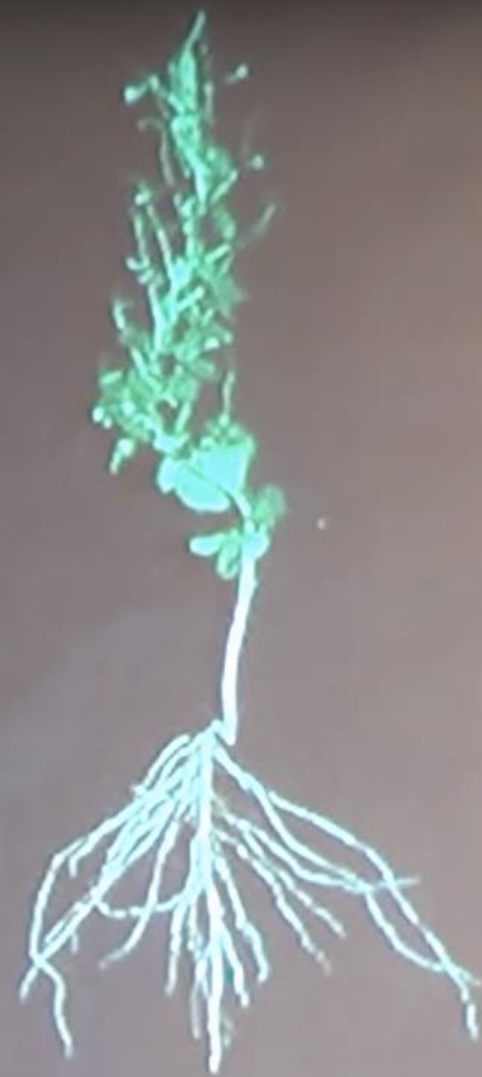
Is it right to call CO₂ a
pollutant, and carbon
the enemy,
or the staff of life?



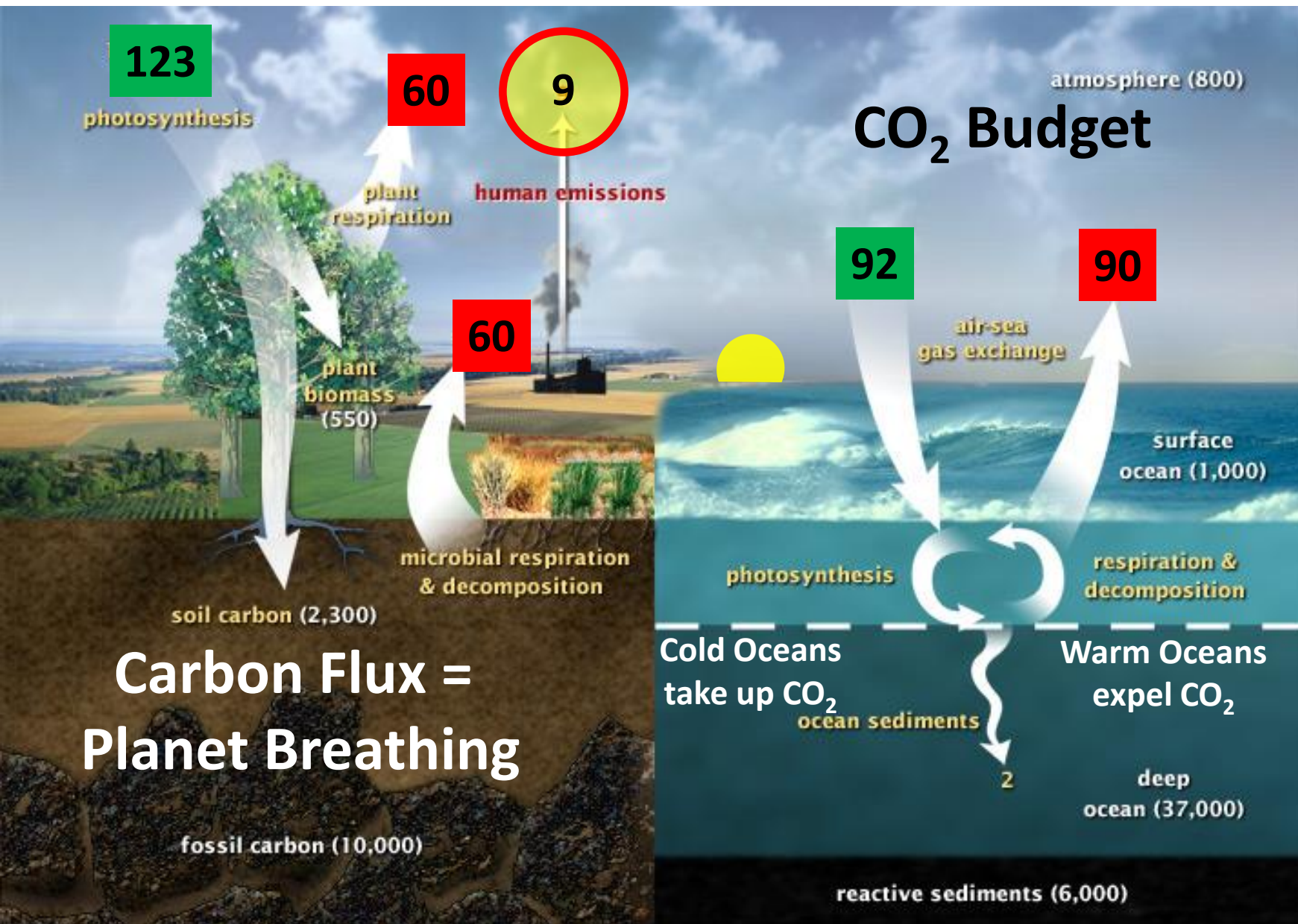
461
ppm



782
ppm



1218
ppm



**Carbon Flux =
Planet Breathing**

$$60 + 60 + 90 = 210$$

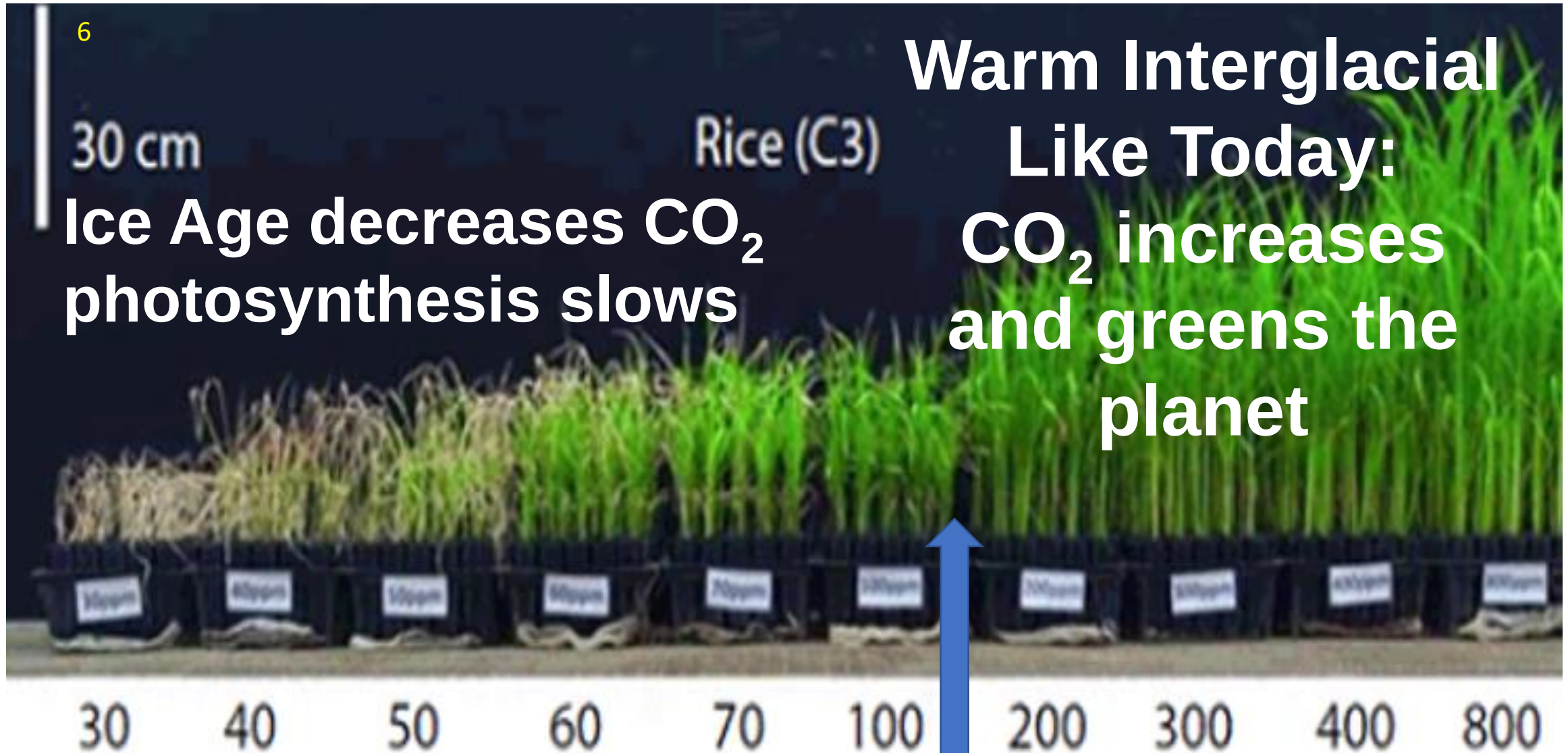
**Man-made
CO₂ = 9 'units'
or 4% of total
emissions**

**Atmospheric
CO₂ 407ppm**

**Human CO₂
~125 ppm**

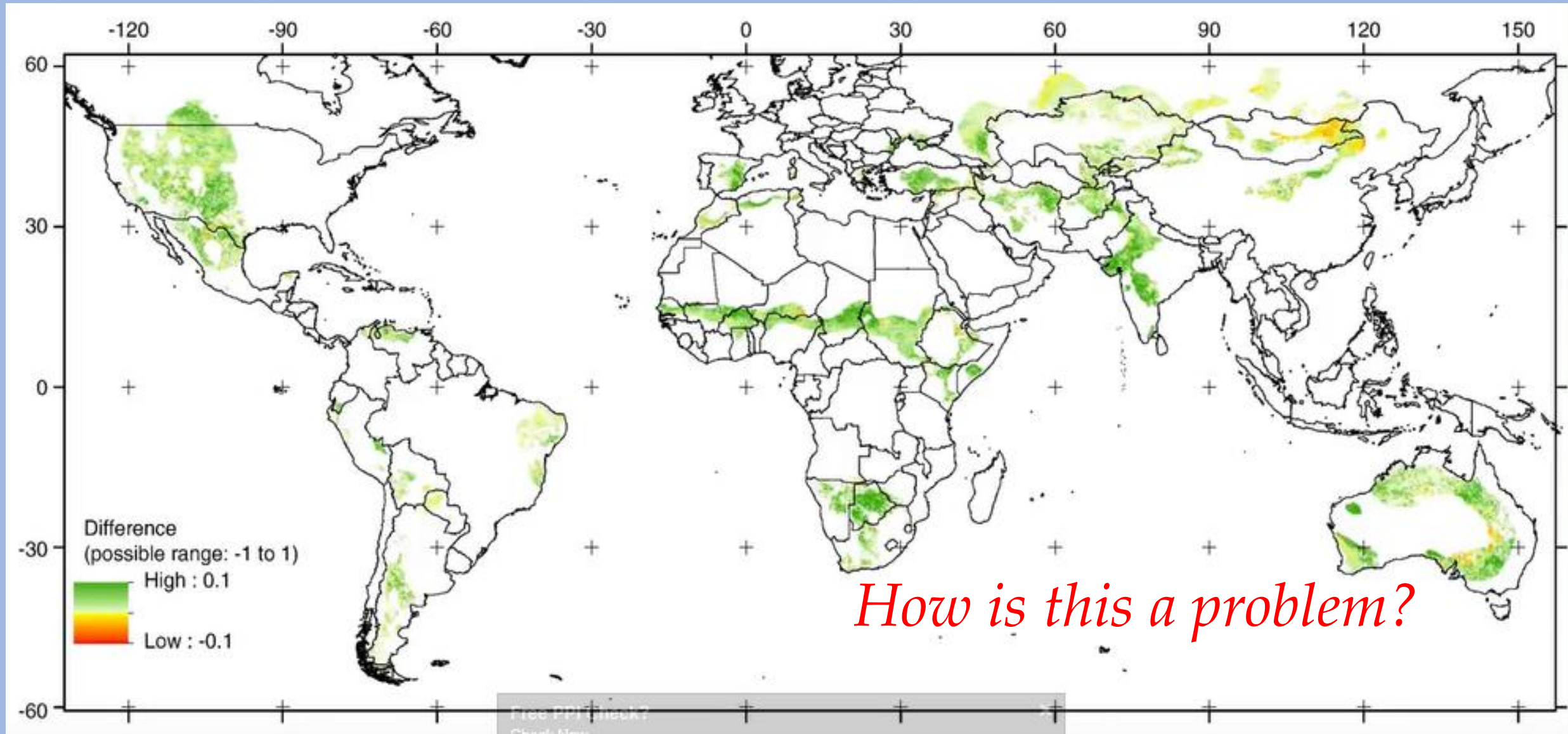
Without CO₂ nothing grows, why is it called carbon pollution?

What happens when CO₂/Temperatures Change?



Below ~150 ppm most seed and fruit production stops

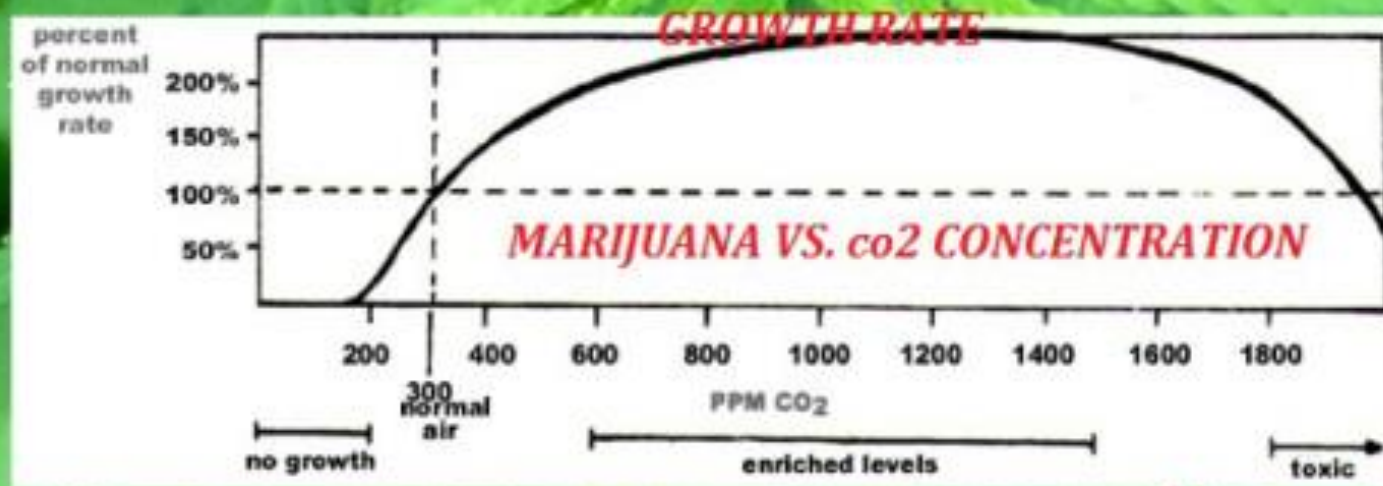
⁶ CO₂ increases biomass and cools the planet, which in 1880 in the Little Ice Age, was at a critically low level and temperature.



How is this a problem?

MARIJUANA WON'T GROW BELOW 200 ppm CO2

CARBON DIOXIDE IS A GOOD GAS

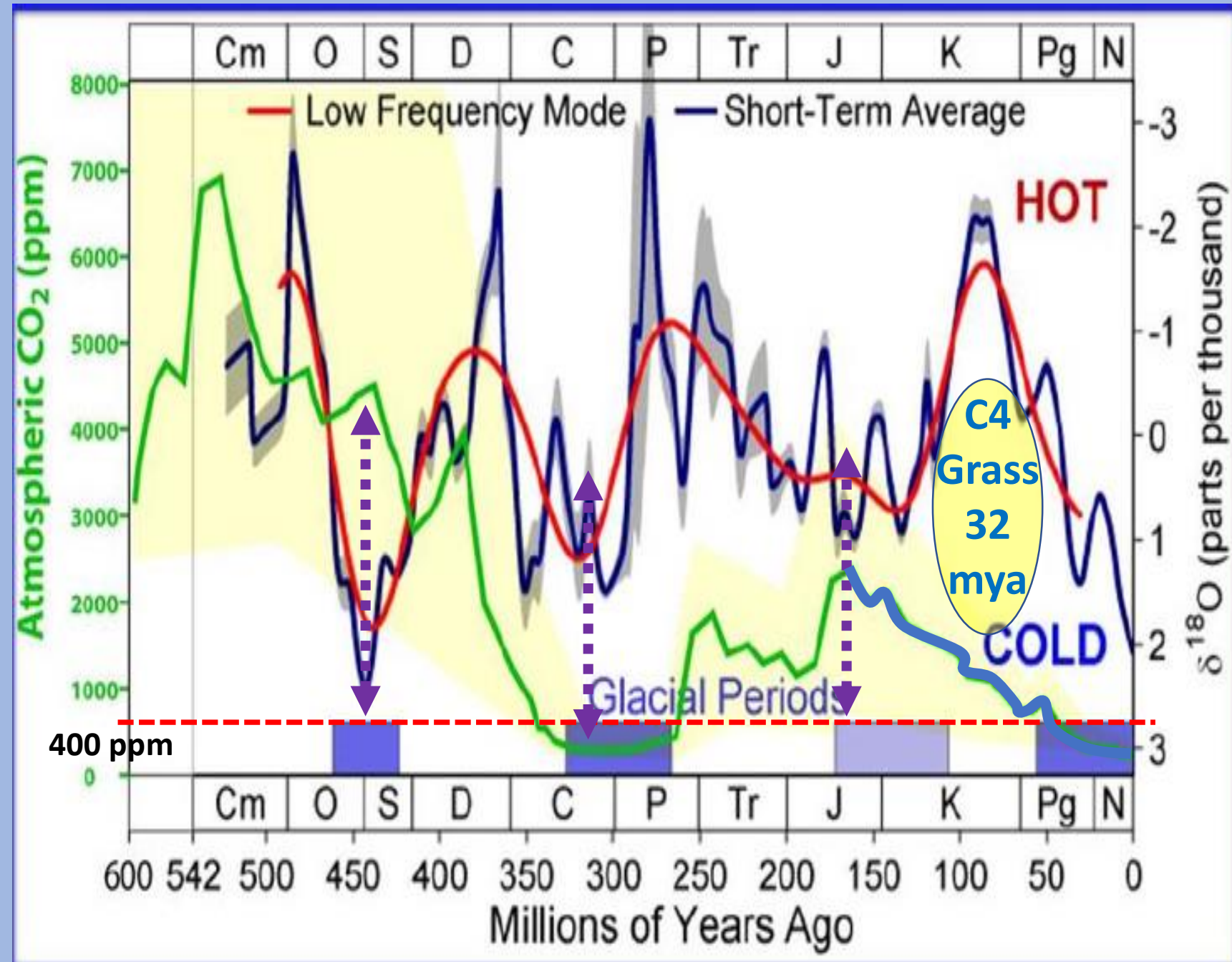


6

CO₂ declines for
150my (mid-
Jurassic)

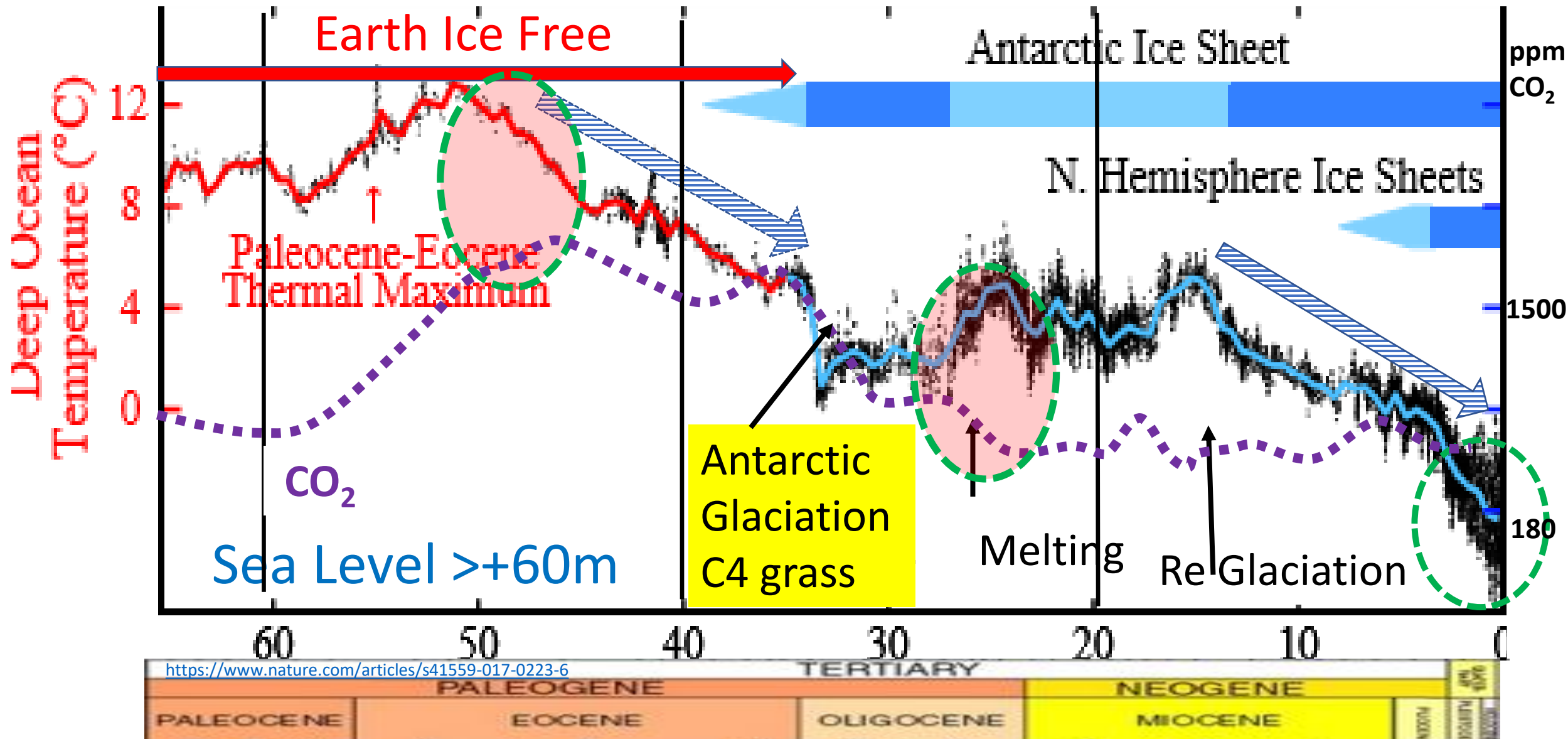
Below
~700ppm
CO₂ C4
Grass
evolve

Previous Ice
Ages with
higher & lower
CO₂



65 Million Years CO₂ falls from 1,500 ppm to 180 ppm

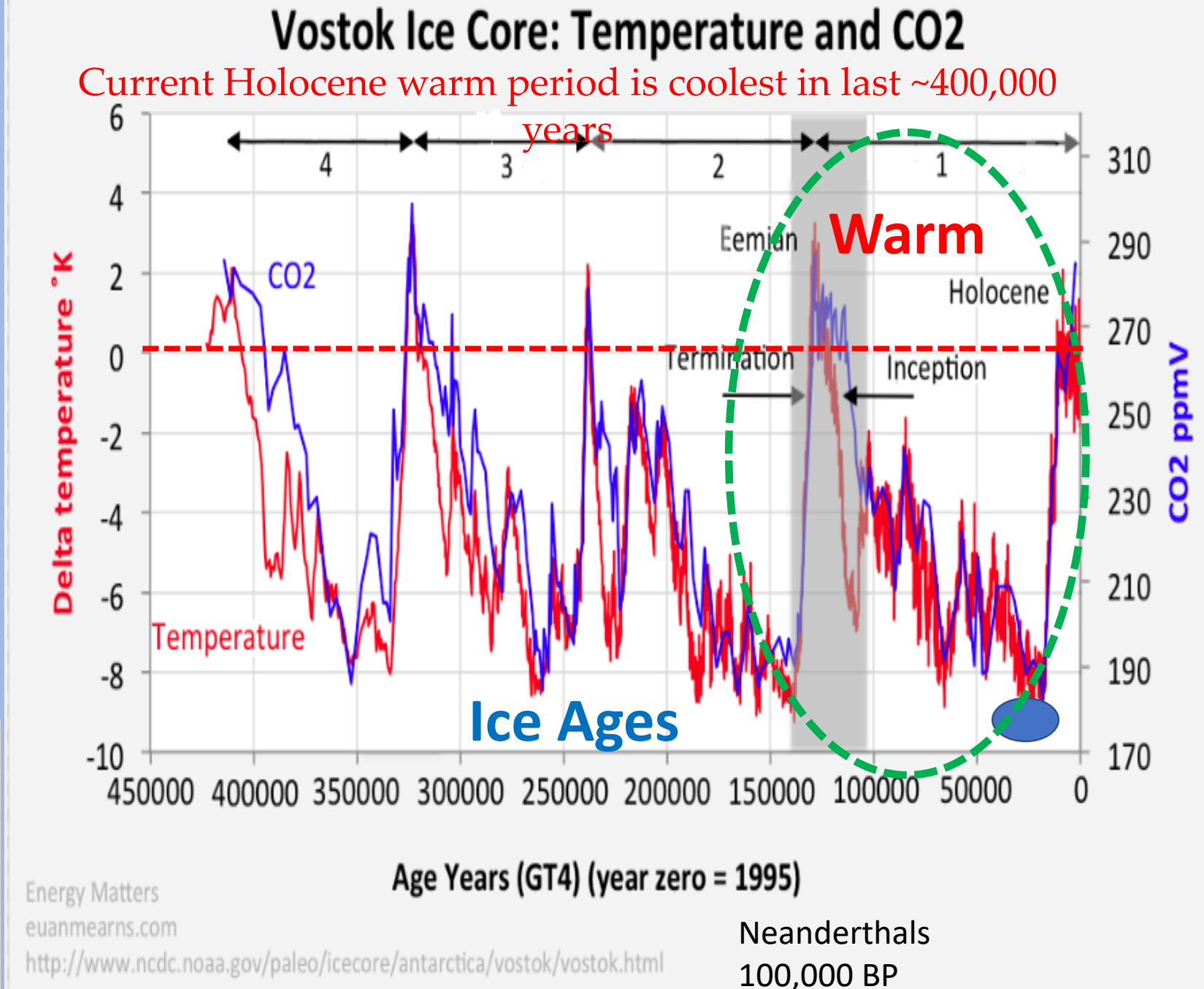
Hothouse Earth ----- cooled to Ice House



6 NH ice core data shows temperature drives CO_2 down to 180ppm and CO_2 lags temperature

AGW theory says 'human' CO_2 drives global warming

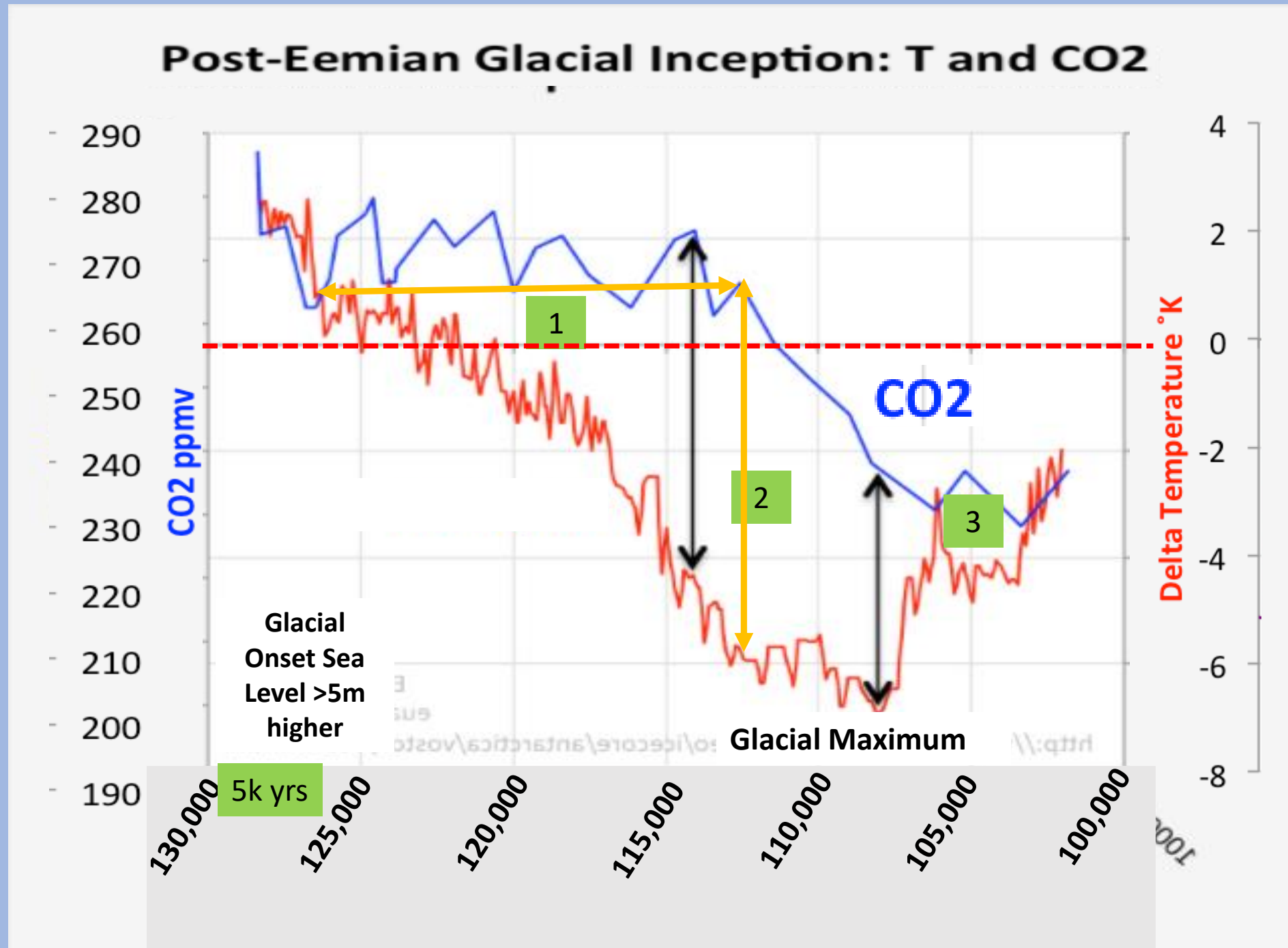
Great Barrier Reef & rainforests die with each ice age



6

Ice Age ends:
earth warms:
New Ice age
begins
slowly: earth
cools.

CO_2 lags
T by
<14,000
yrs



If CO₂ does not drive
temperature/global warming

How does it cause
Catastrophic Climate Change?

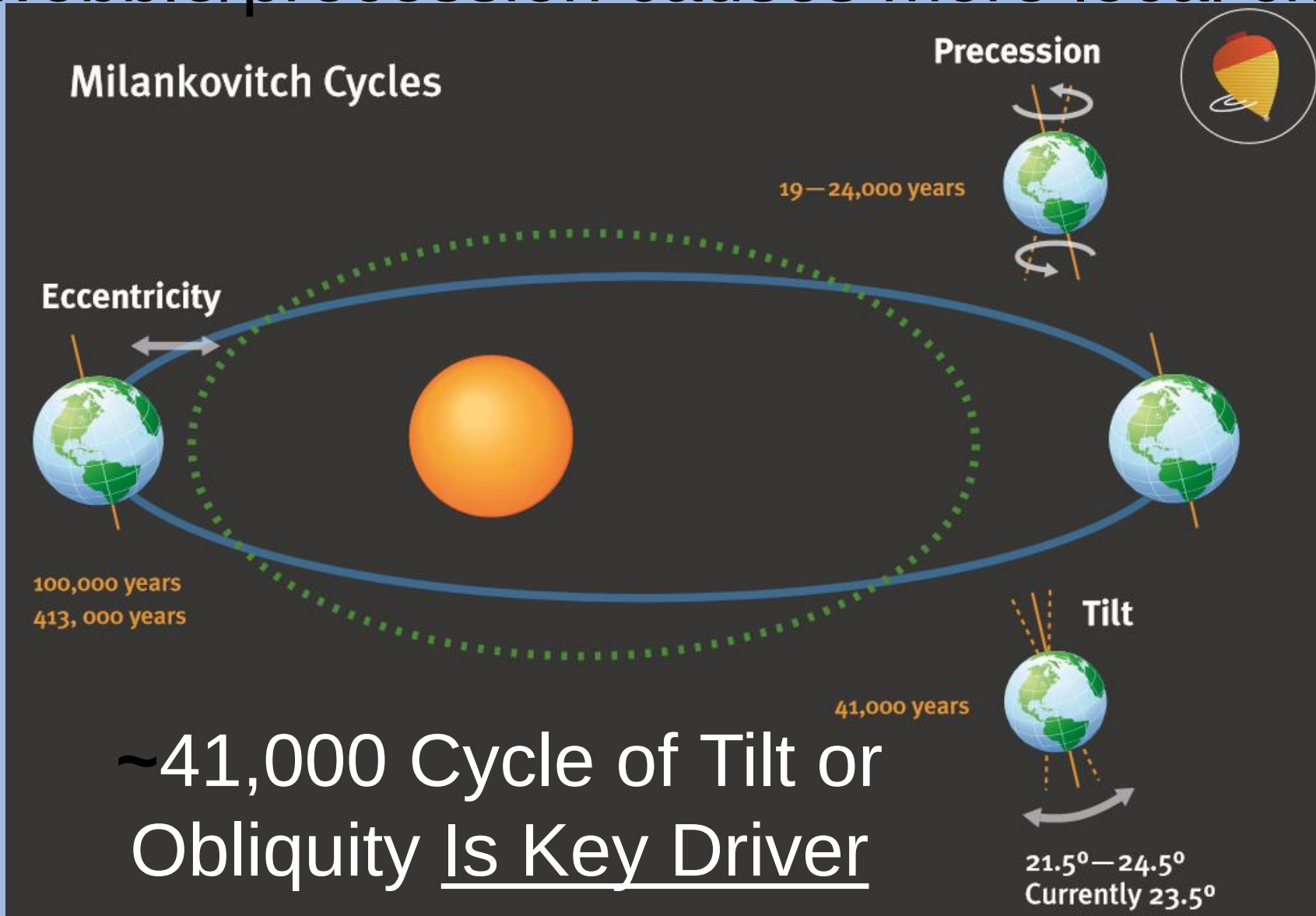
**6 Hillside in Sicily records ~1 million years
of climate change in repeated cycles,**

**Beds of black (high rainfall & vegetation)
Alternate with white (drought)**



**Milankovitch cycle
lasts ~21,000 years**

6 ~21,000 Cycle due to Earth's wobble/precession causes more local change

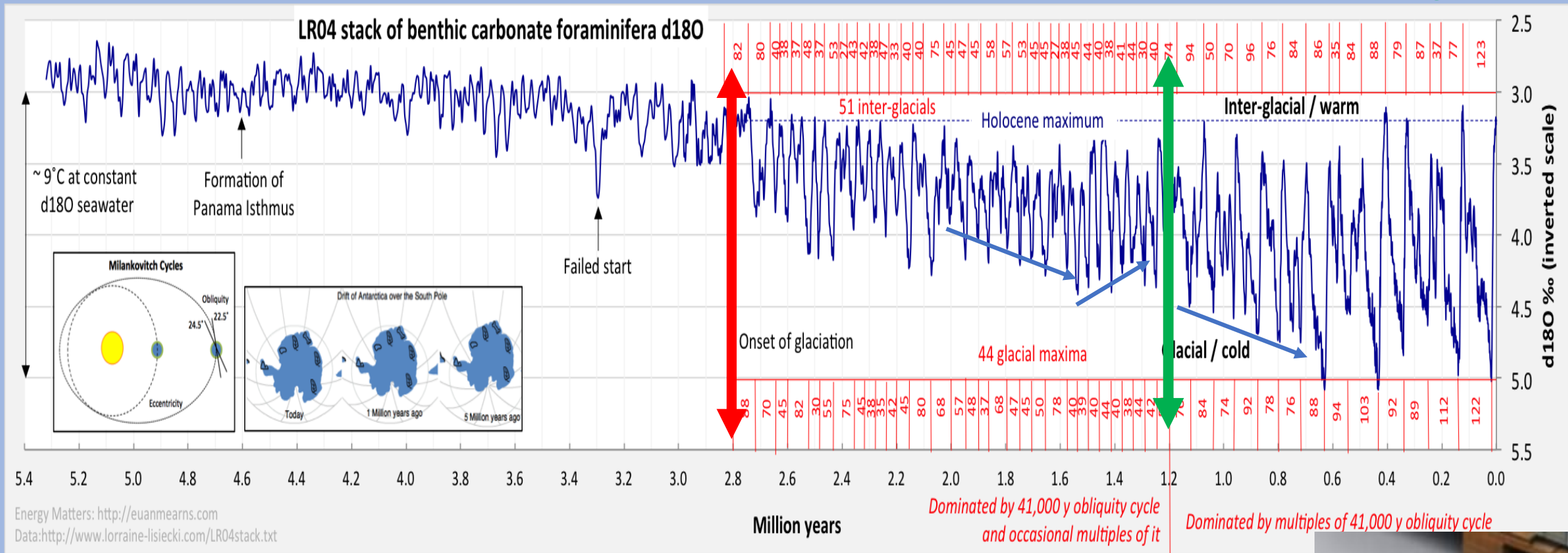


**~100,000
Cycle earth
and moon
coincide
with maximum
eccentricity
Has little effect**

5.5 my of Temperature & Milankovitch Cycles/Trends

Mostly
41,000 Year Cycles

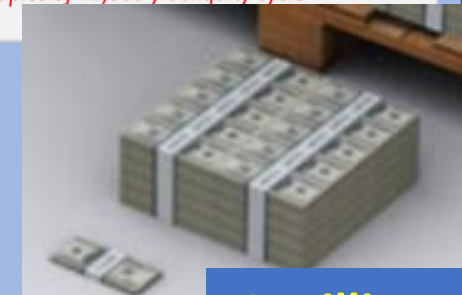
Multiples of
41,000 Year Cycles



Change at 2.8mya to 41,000 year cycles

Change at 1.2mya to multiples of 41,000 year cycles

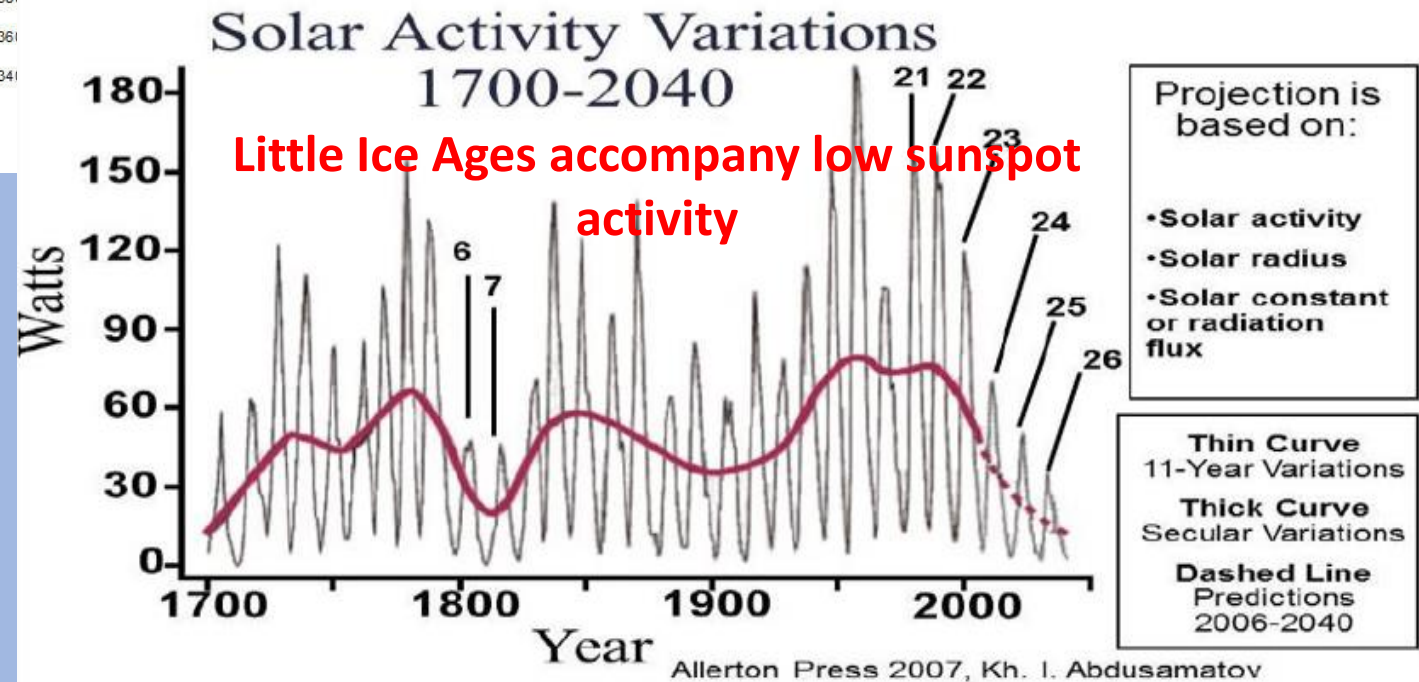
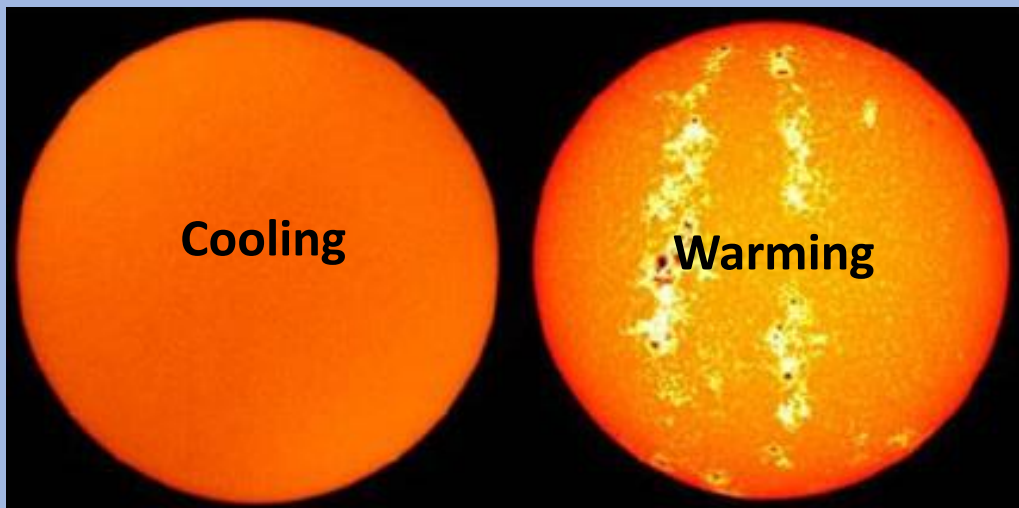
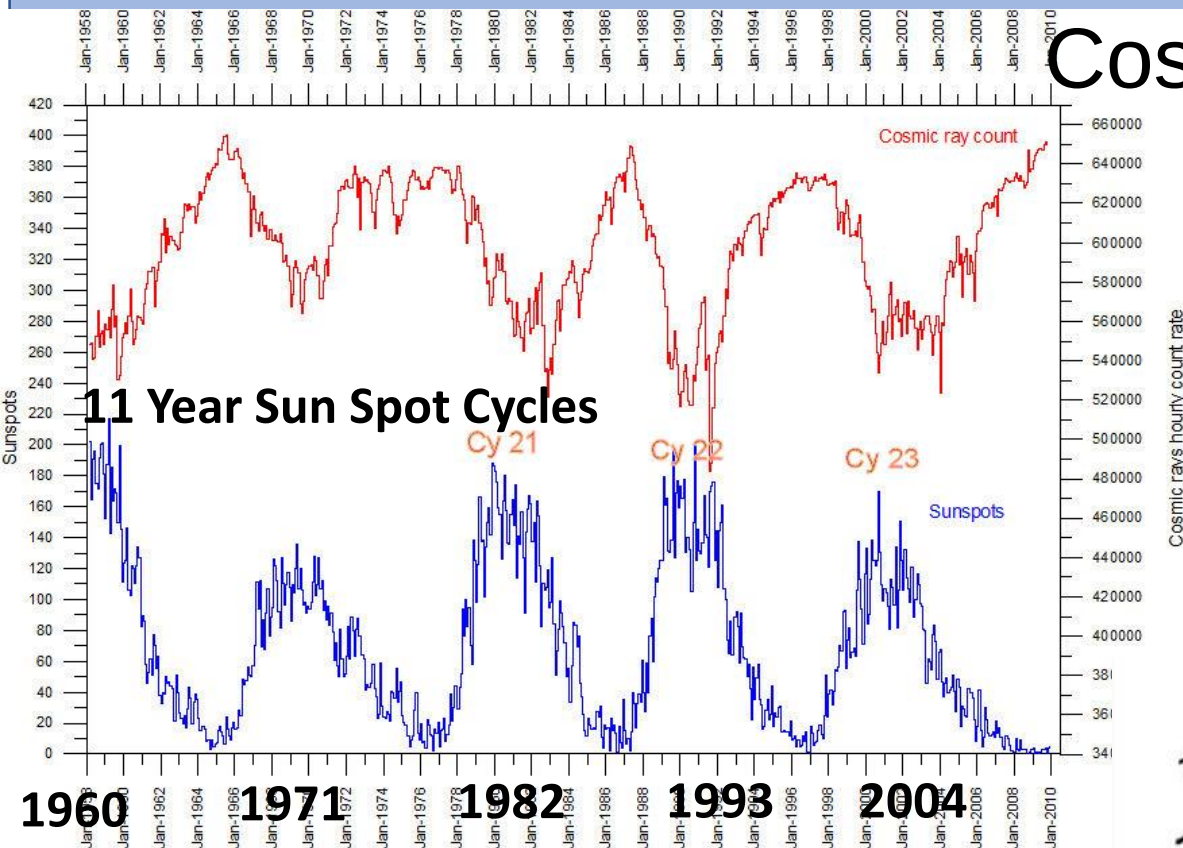
Last Magnetic Reversal 780k ya



1 million

Cosmic Rays increase clouds = cooling
 Sun Spots stop this = warming
 Low Sunspot activity = cold winters in N
 Europe and U.S. BUT mild winters in S
 Europe and Canada,
No change to average temperature.

[https://spiral.imperial.ac.uk/bitstream/10044/1/18859/2/Nature%20Geoscience 4 11 2011.pdf](https://spiral.imperial.ac.uk/bitstream/10044/1/18859/2/Nature%20Geoscience%204%2011%202011.pdf)



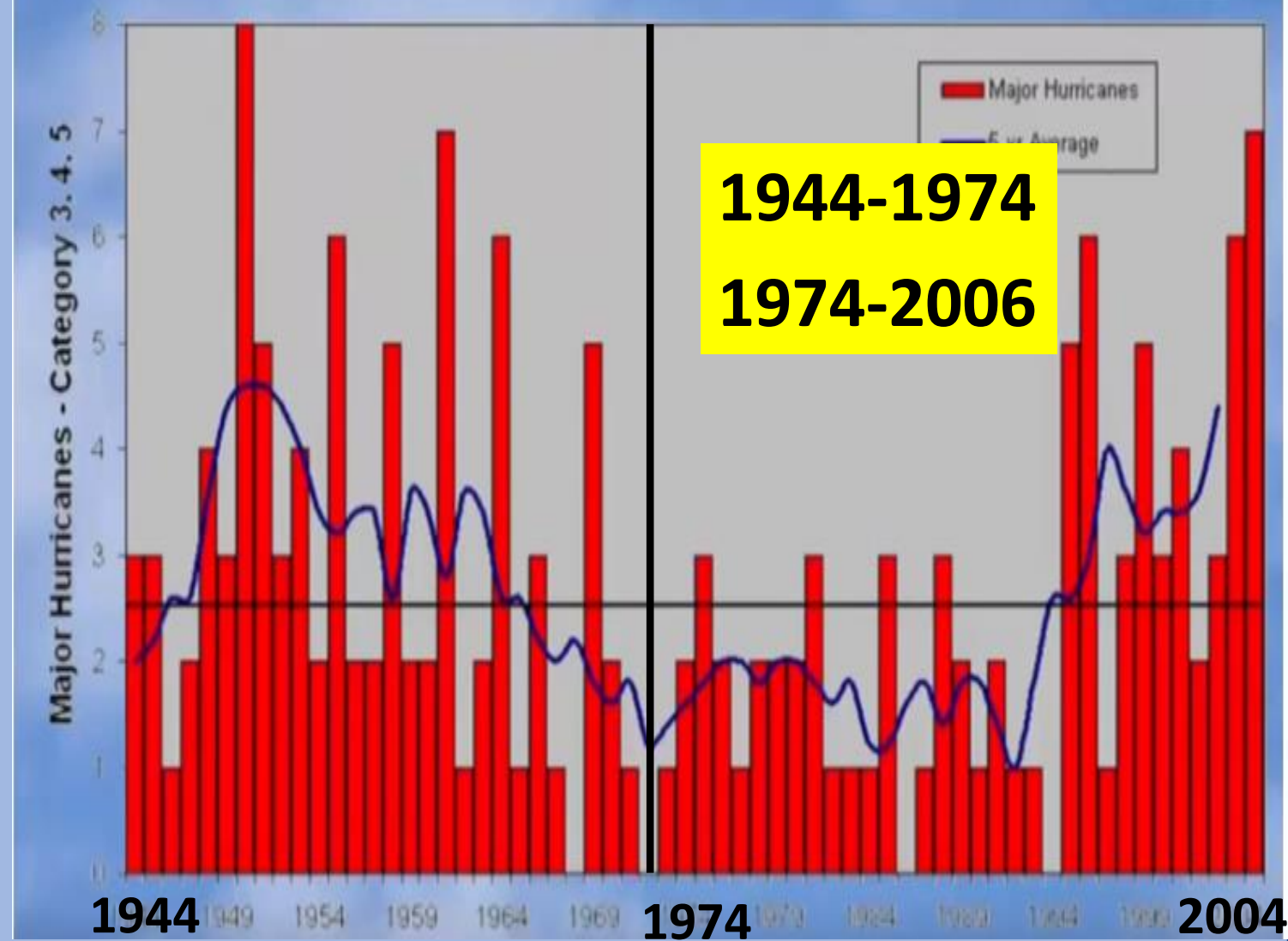
IPCC say Climate extremes getting worse

Hurricanes, sea level rise, 'acidification', coral bleaching, melting ice and permafrost, on and on

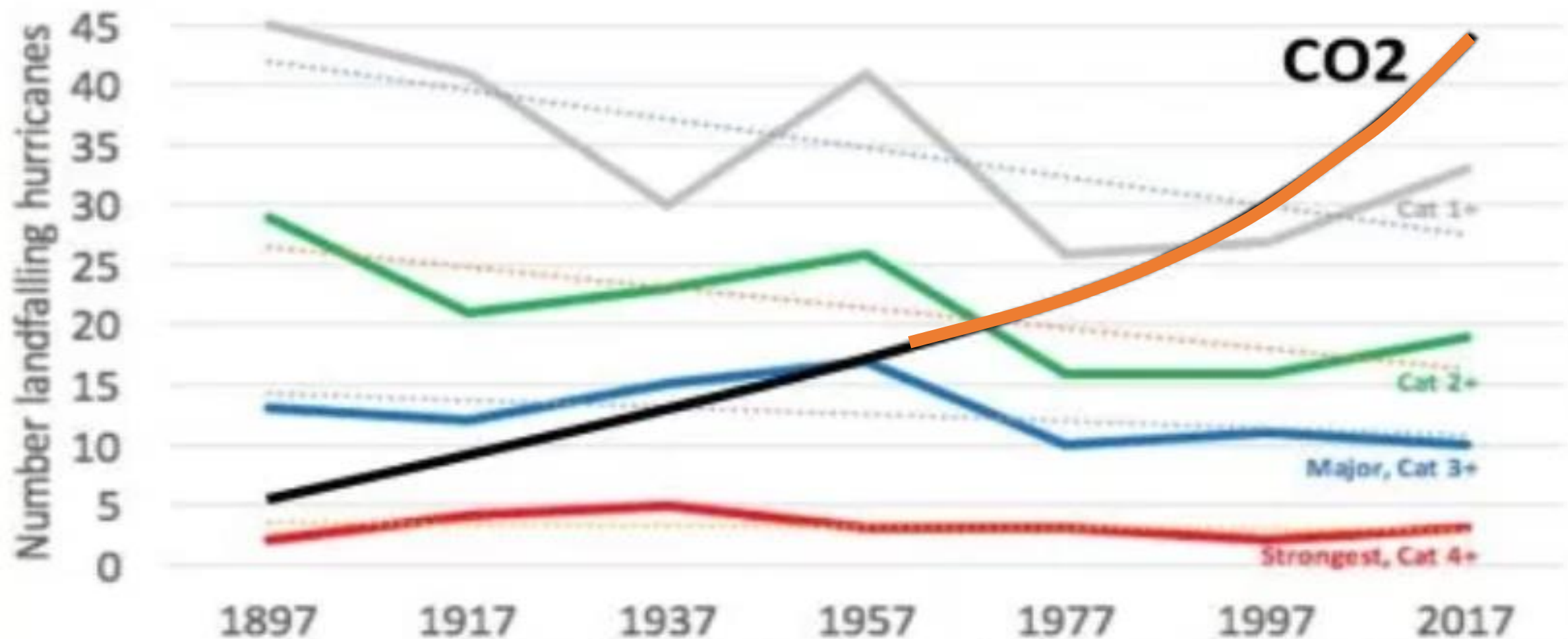
They are not.

Also, AGW theory cannot explain why hurricanes declined between 1970 – 84

Extreme Hurricanes



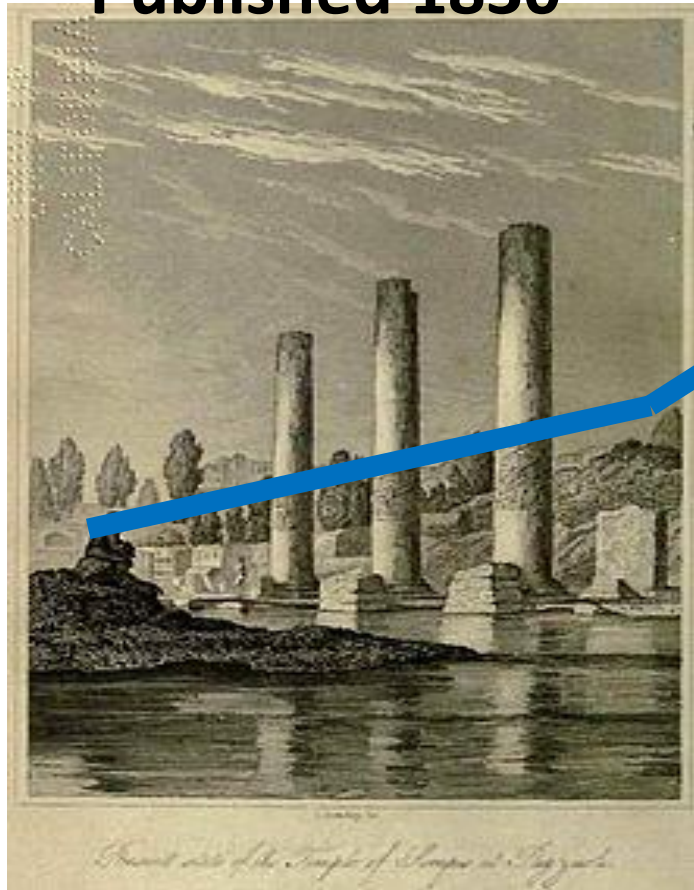
Landfalling US hurricanes over 140 years (incl Irma) vs atmospheric CO2 concentration



2017 is total hurricanes in the two decades 1998-2017 etc., including Harvey [cat 4] and Irma [cat 5]
 least-square trendline added, facebook.com/bjornriomborg, data: <http://www.aoml.noaa.gov/hrd/tcfaq/E23.html>

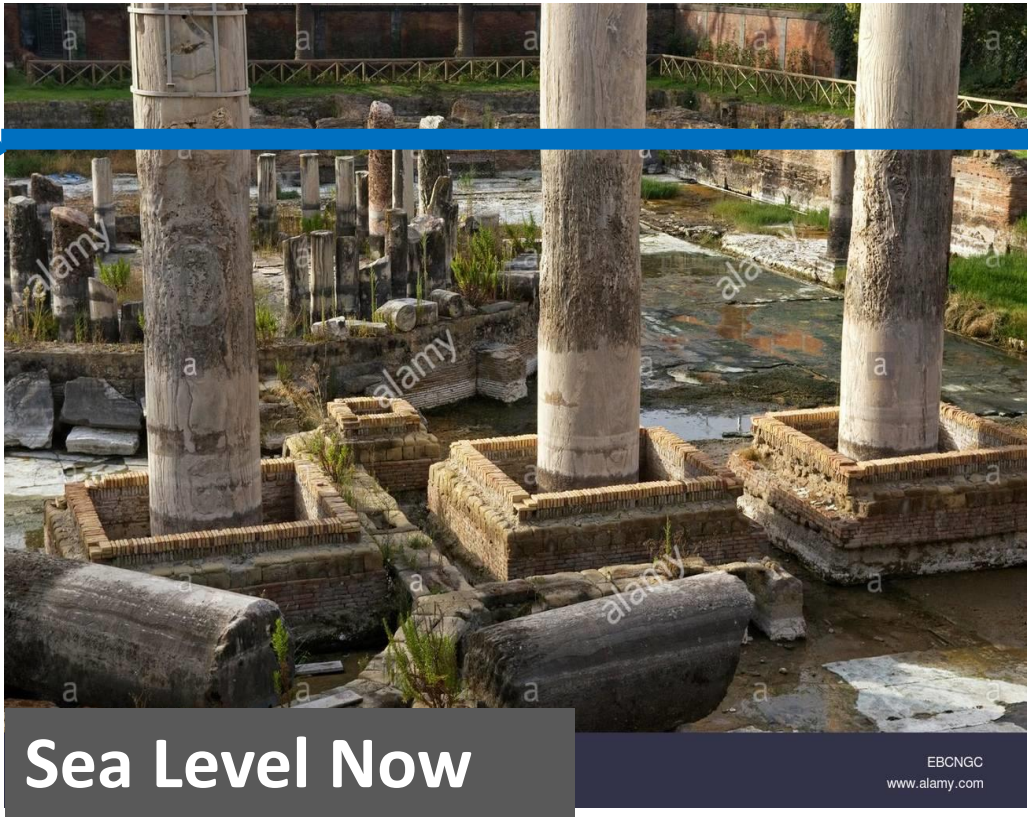
Sea Level

Charles Lyell's
Principles of Geology
Published 1830



Sea Level Change is always 'Relative'
Sometimes the earth moves

Roman market place Pozzuoli, Bay of Naples at High Tide



High Tide!

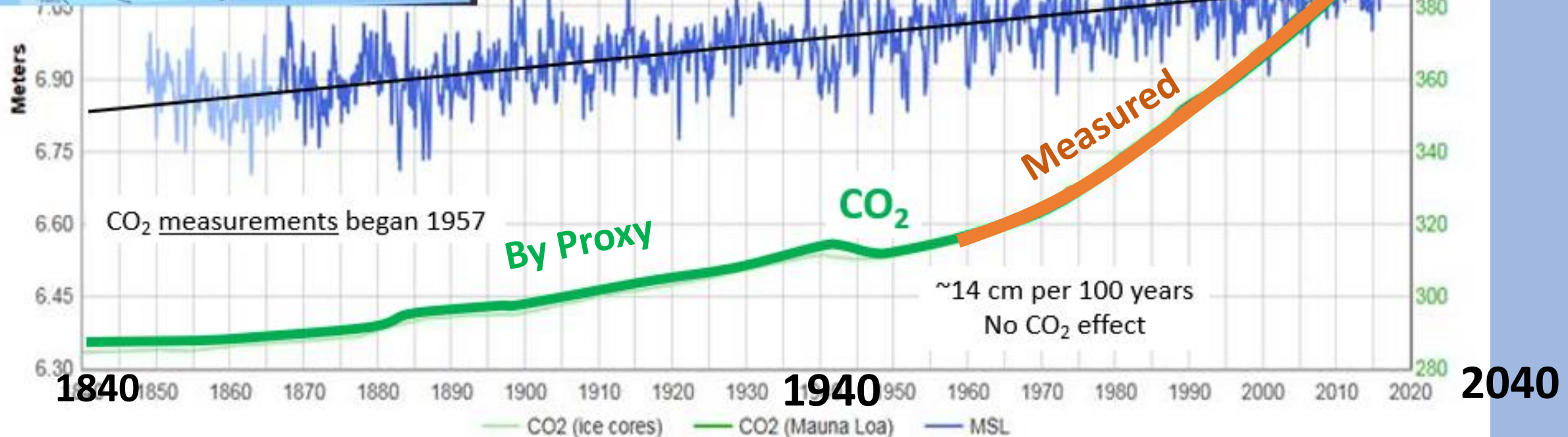
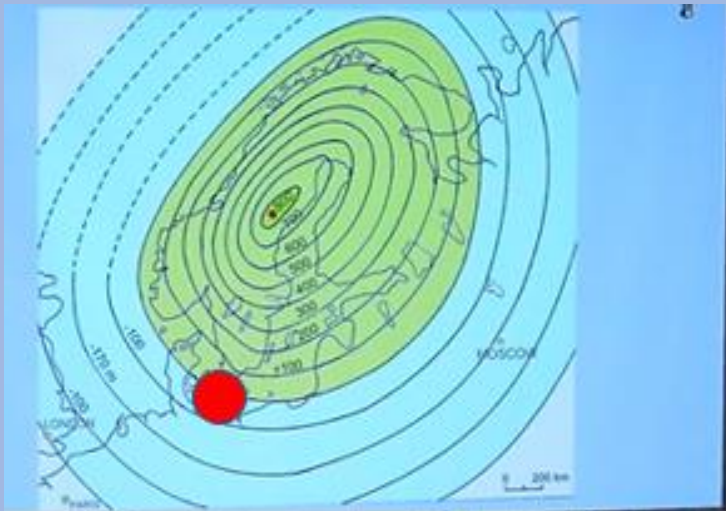
Sea Level Now

Higher Sea Level indicated by marine borer damage

8

Sea Level Rise: 1.43cm per ten years

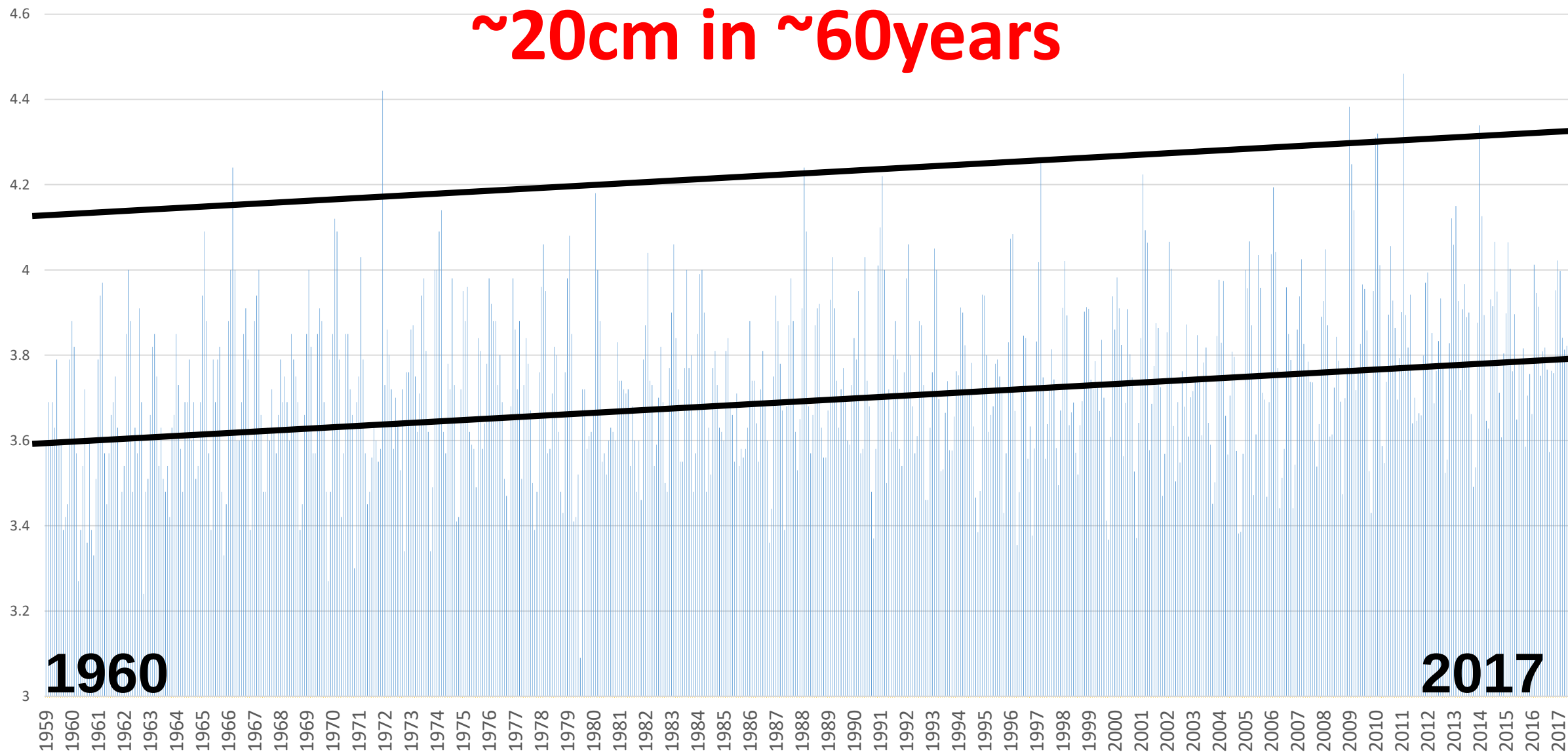
Wismar relatively unaffected by isostatic effects from last ice age



8

Townsville High Tides 1959-2016

~20cm in ~60years



Maldives:

Evidence in this photo of two sea-level falls !

The “Maldivian Tree”: destroyed by Environmentalists,
because it proves that sea-level is not rising

8

FOSSIL BEACH



Bleaching a recurrent El Nino phenomenon, warming (or cooling) coral polyps expel algae, but do not die.

And is a coral survival mechanism developed by several million years of temperature changes.

Polyyps maintain constant pH at calcification site



8: pH: Acidification Scare

Great Barrier Reef

Daily pH Range: from 7.5 at night to 9.4 late afternoon

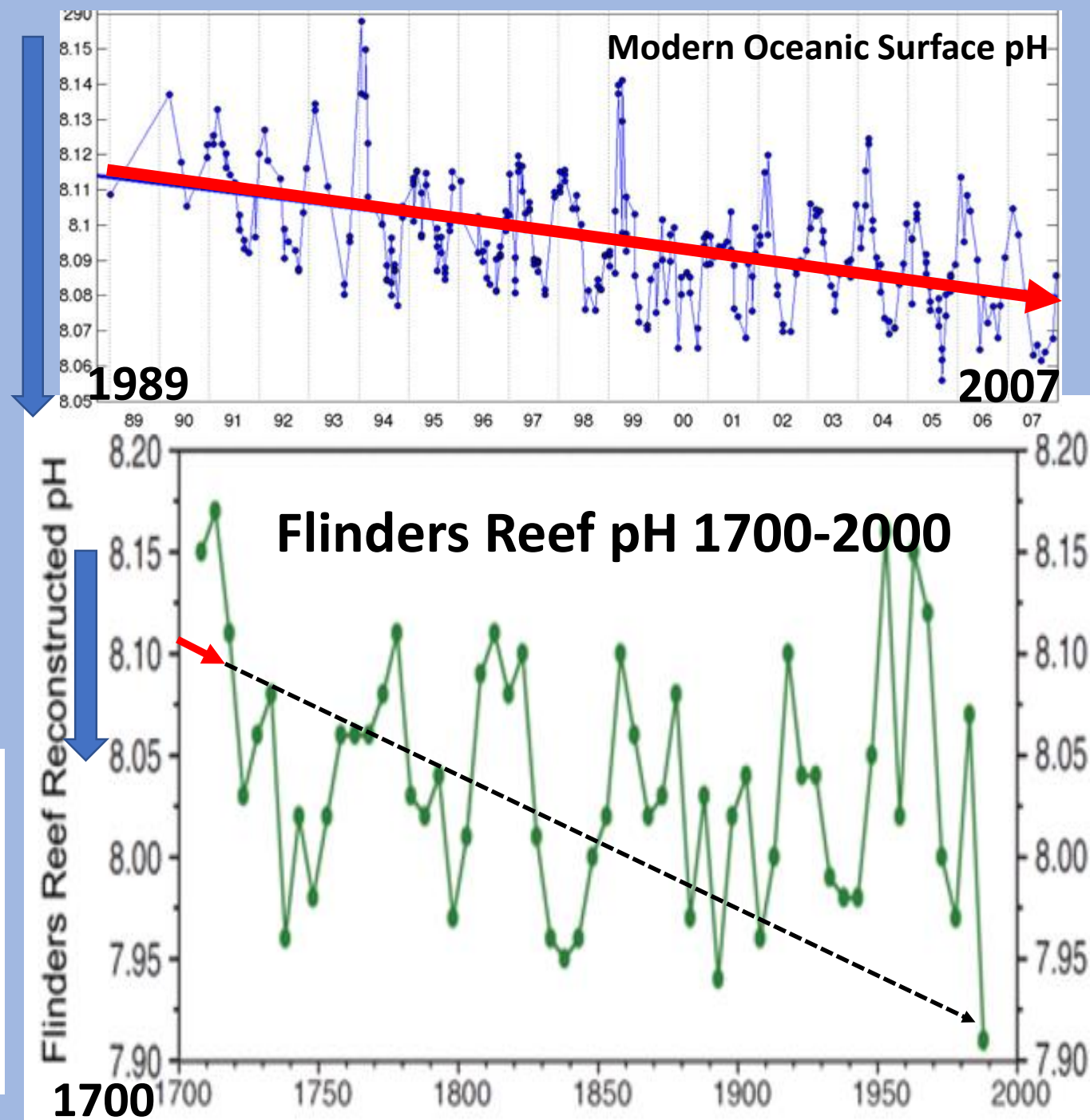
Long Term Range: 7.9 - 8.2 for 300 years

Similar record in China from over 7,000 years

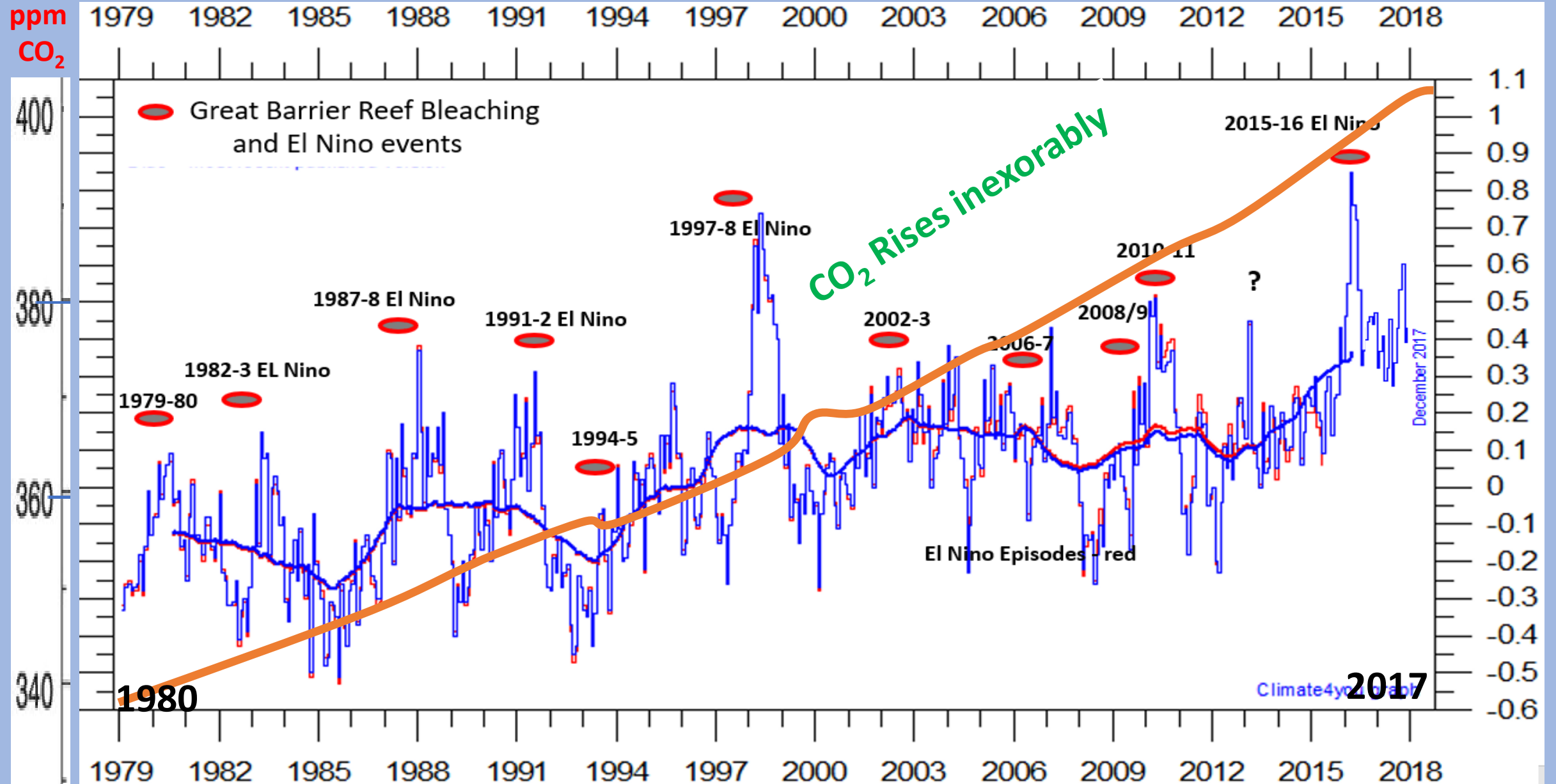
Warm oceans give off CO_2 & cold oceans take it up; so warming reduces acidification.

<http://www.co2science.org/articles/V12/N22/EDIT.php>

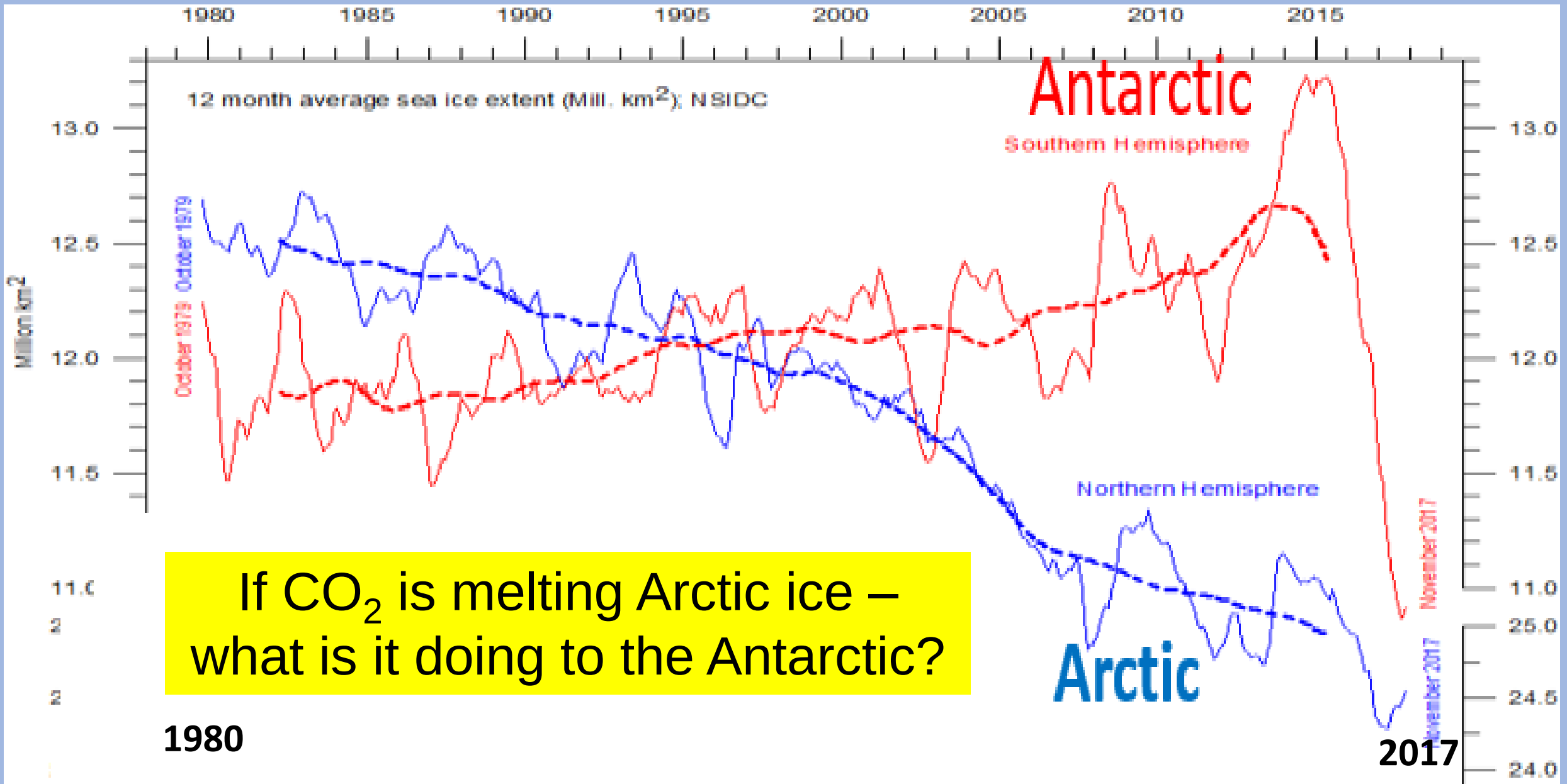
<http://joannenova.com.au/2011/11/the-chemistry-of-ocean-ph-and-acidification/>



9B: El Nino – GBR Bleaching & CO₂



8: Sea Ice Extent 1980-2017



8: Permafrost Melting

<http://www.climate4you.com/>

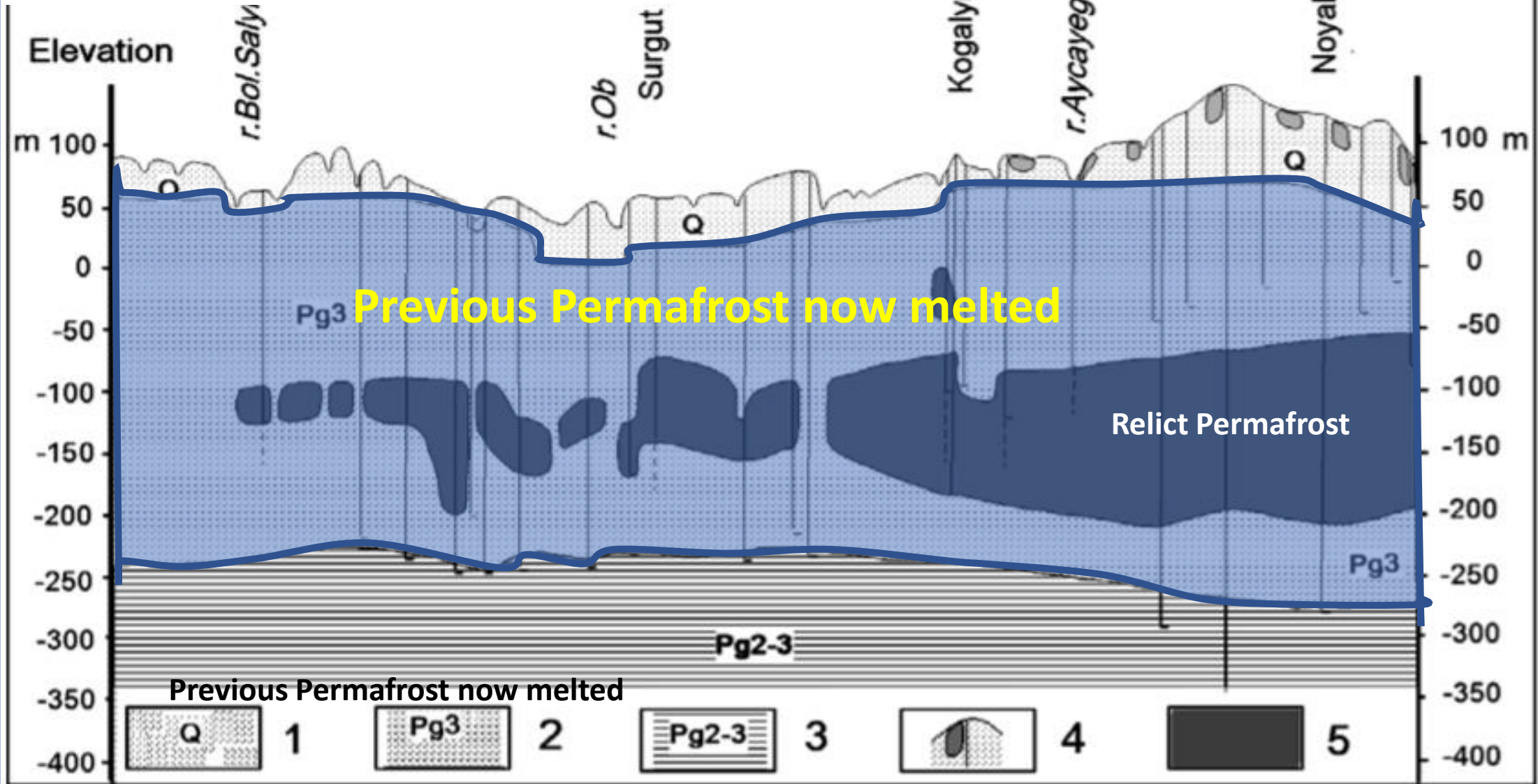


Figure 2. Permafrost relic along the section Noyabrsk-Surgut. 1 – overburden: sands, sandy loam and loam; 2 – Oligocene interleaving sands, clay and argillites; 3 – Eocene: clay; 4 – contemporary permafrost; 5 – relict permafrost.

Sometimes people use data
as a drunk uses a lamp post

*More for support
than illumination*

*Perhaps we need more
power and less tunnel –
ie: costly unreliable renewables?*



World Wide
Electricity
costs
\$/MWhr

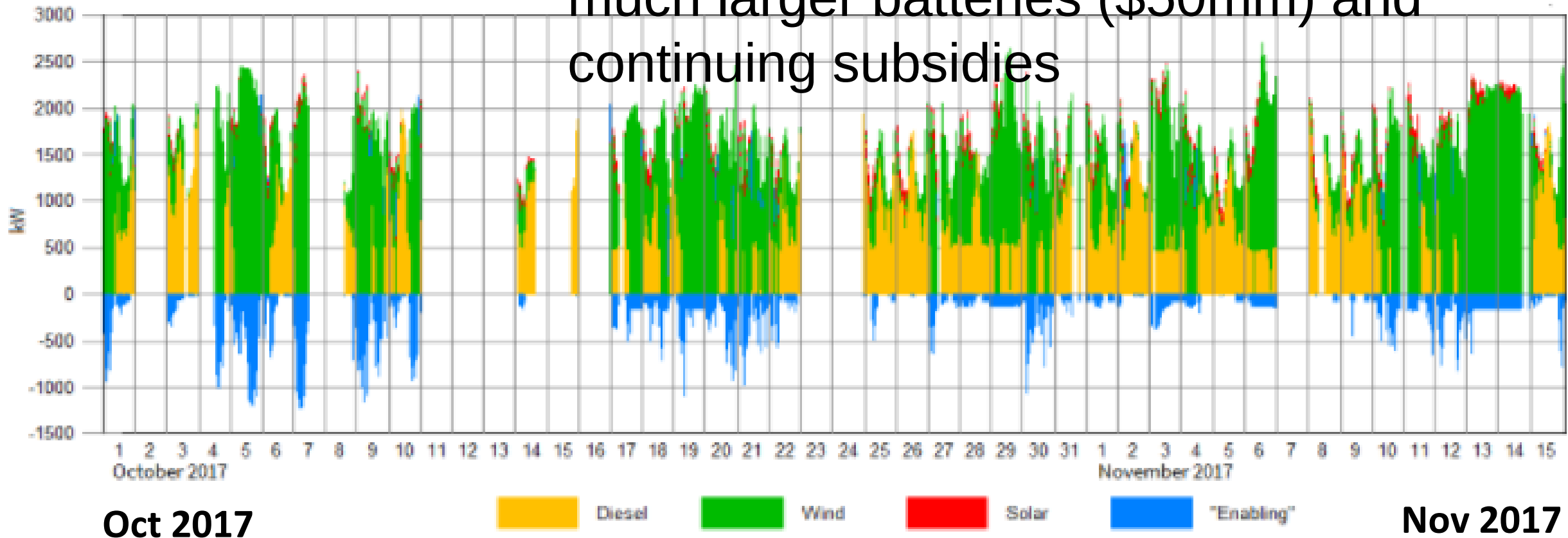
Rising cost
of the
Renewables



King Island Renewables (wind & solar) v Diesel.

Begun 1989 for \$18.25mm,
now has 8.48 MW capacity
6 diesel; 2.45 wind; 0.39 solar

Wind 39% productivity = 64% Demand
Could reach 100% with more turbines and
much larger batteries (\$50mm) and
continuing subsidies



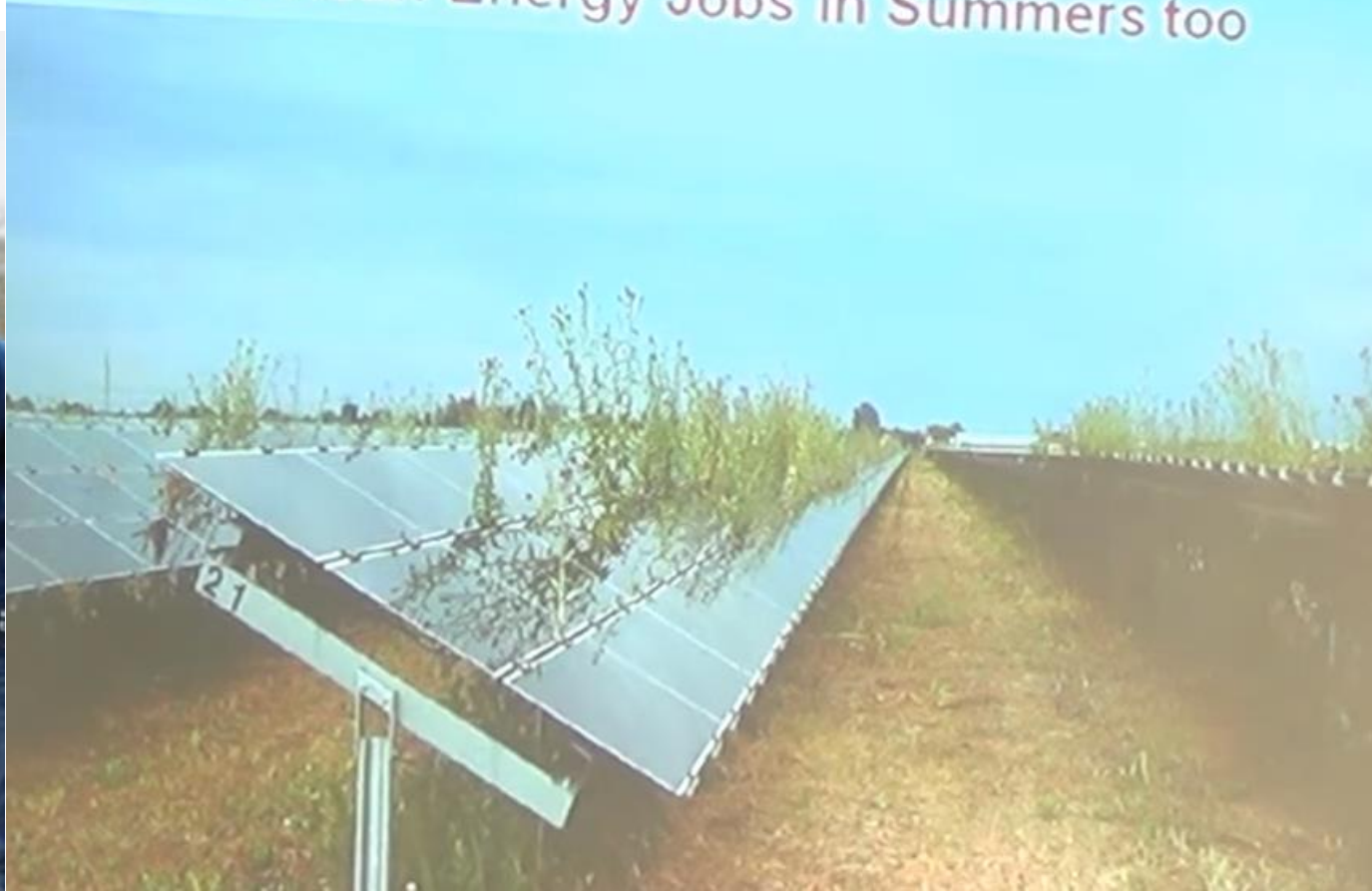
Aus: coal 73 – gas 14 – wind 3 – other 10

<http://euanmearns.com/el-hierro-august-2017-performance-update/>

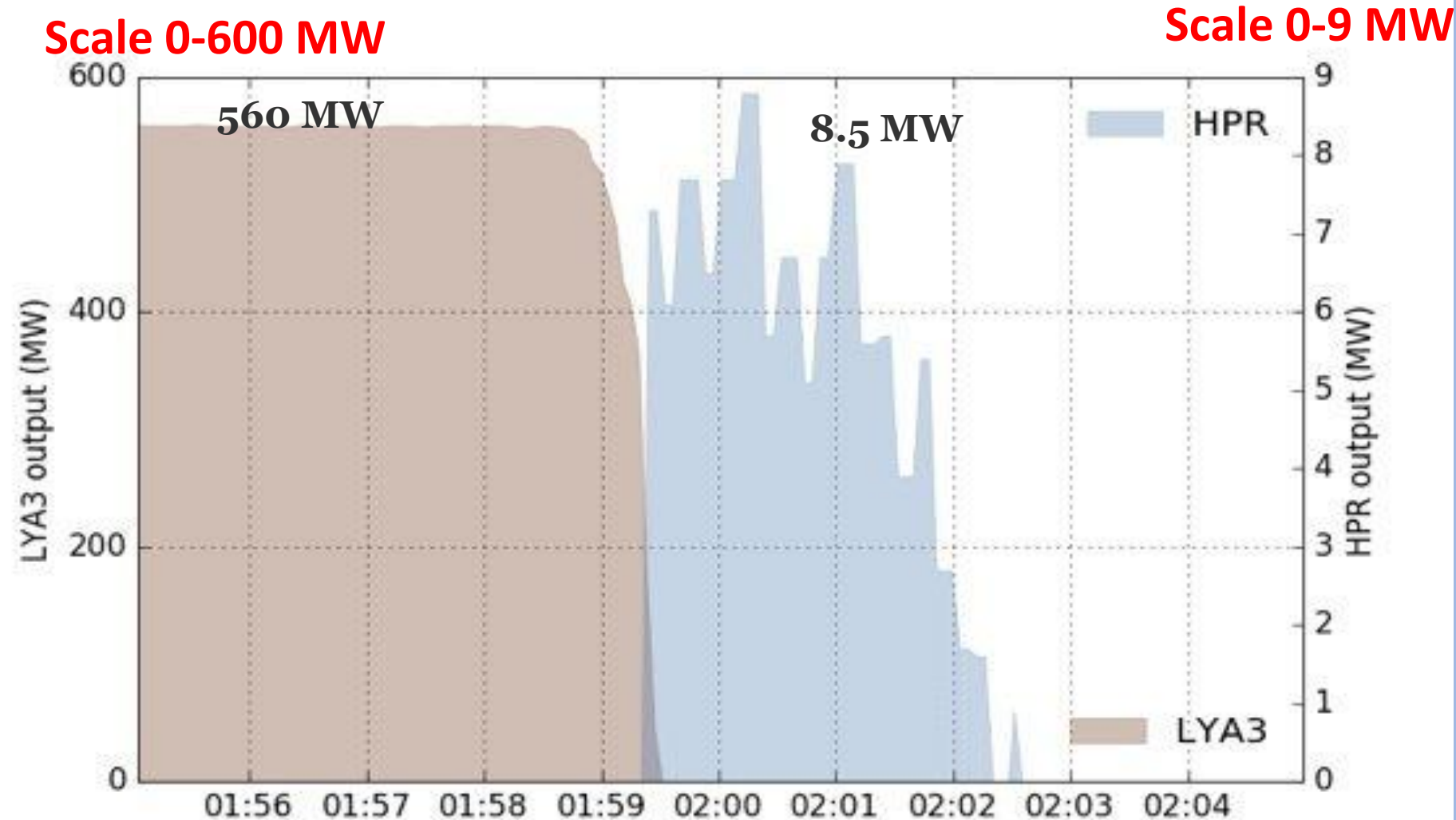
Secure Clean Energy Jobs in Winters



Secure Clean Energy Jobs in Summers too



SA Tesla 129MWh battery 'saves the day' when Loy Yang tripped



**Powered by
Hornsedale Wind
Farm**

**129MWh storage
and 100MW
capacity 30MW
longer term
storage and
70MW short term**

**Battery can
power 30,000
homes for ~2
hours**

The >\$50mm battery lasted ~4min

You can have your solar panels and your turbines on the hills;
You can use the warmth of sunshine to reduce your heating bills.
You can dream you're self-sufficient as you weed your vegie bed;
As long as you make sure to keep -

A diesel in the shed.

Thank You



Climate always changes
 CO_2 does too,
but it does not drive climate