



HUMAN-INDUCED CLIMATE CHANGE: FACT OR FICTION ?

A Geoscientist's View

Dr Geoff Derrick

Section 1

A dramatic night scene of a lightning storm. Multiple bright, jagged lightning bolts illuminate a dark, cloudy sky. The bolts strike down towards a dark silhouette of mountains on the horizon. In the foreground, a calm body of water reflects the light from the lightning. The overall atmosphere is intense and powerful.

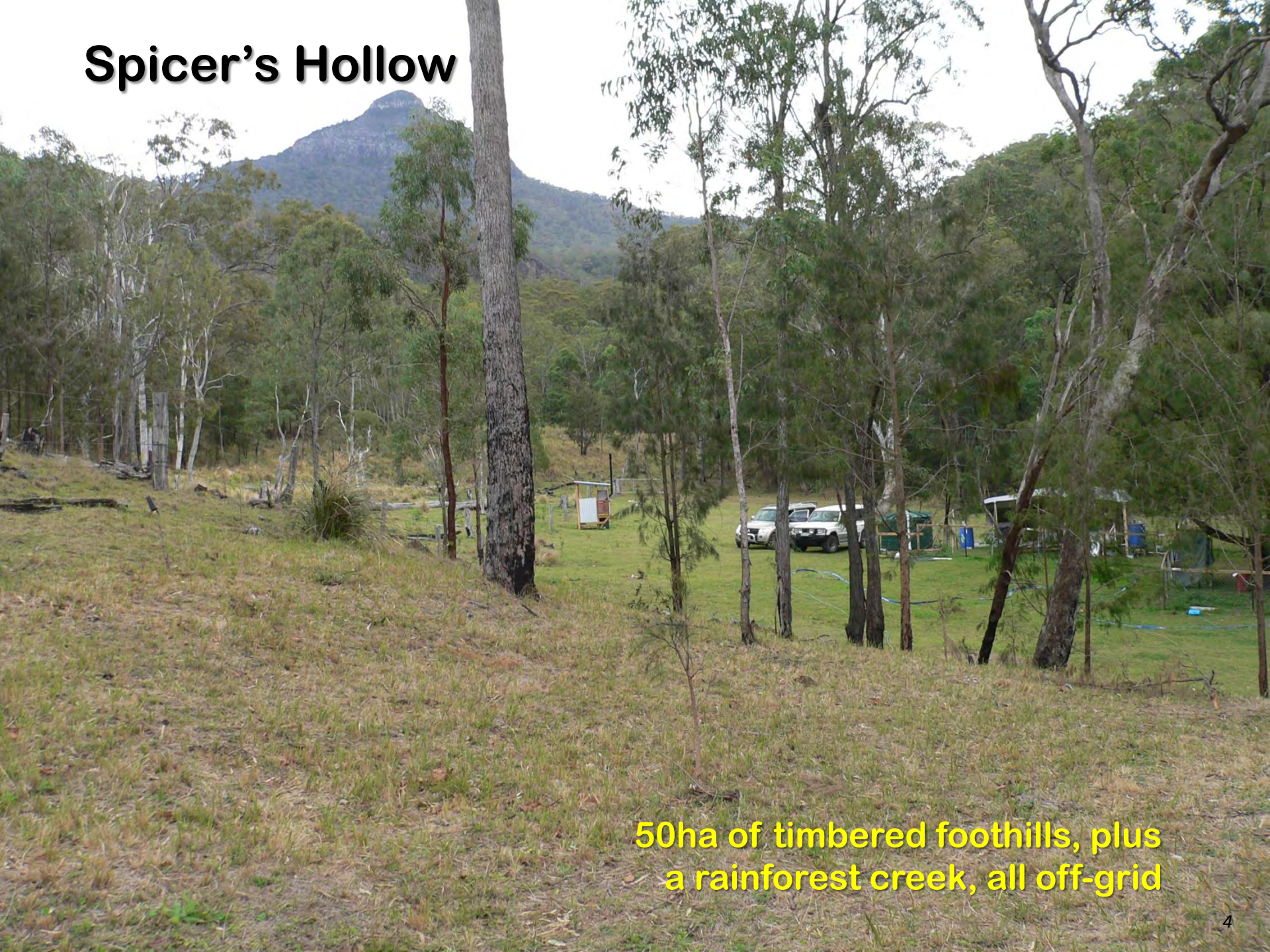
It starts with the trees. . . .

Spicer's Hollow and the Scenic Rim

Alex Derrick hobby farm – native bees, timber and coffee beans



Spicer's Hollow



50ha of timbered foothills, plus
a rainforest creek, all off-grid

Spicer's Hollow power - one solar panel



Linked to a heavy duty Pb-Acid battery



**A source of used iron bark residues
to create things of style and beauty. . .**



Bar stools, planter boxes, bowls, cutting boards





and a coffee table for the olds. . .



and tree rings for climate scientists

Section 2

You're a bad mann . . .



A problem with tree rings

PINOLCKEY STICK

First year growth

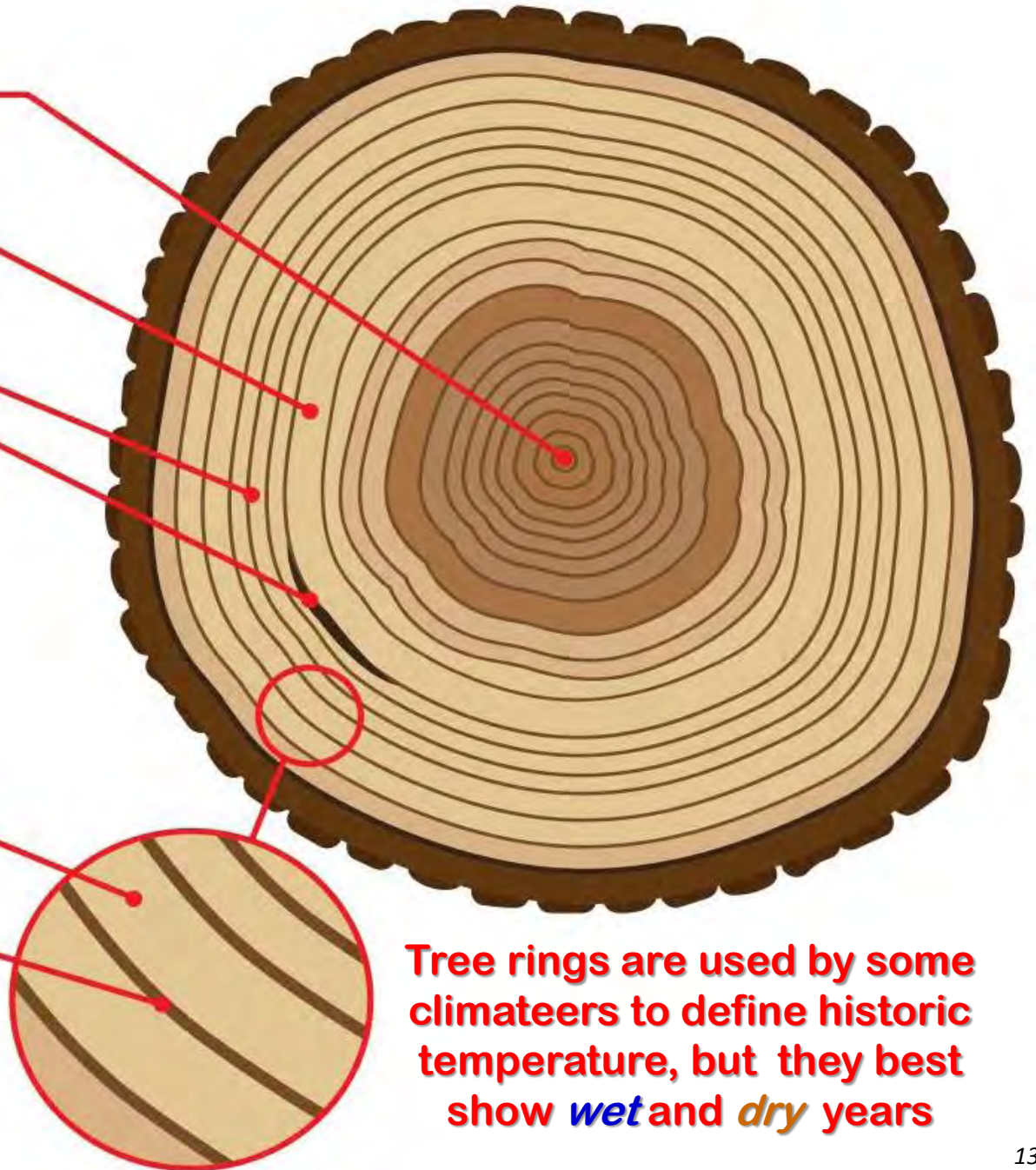
Rainy season

Dry season

Scar from forest
fire

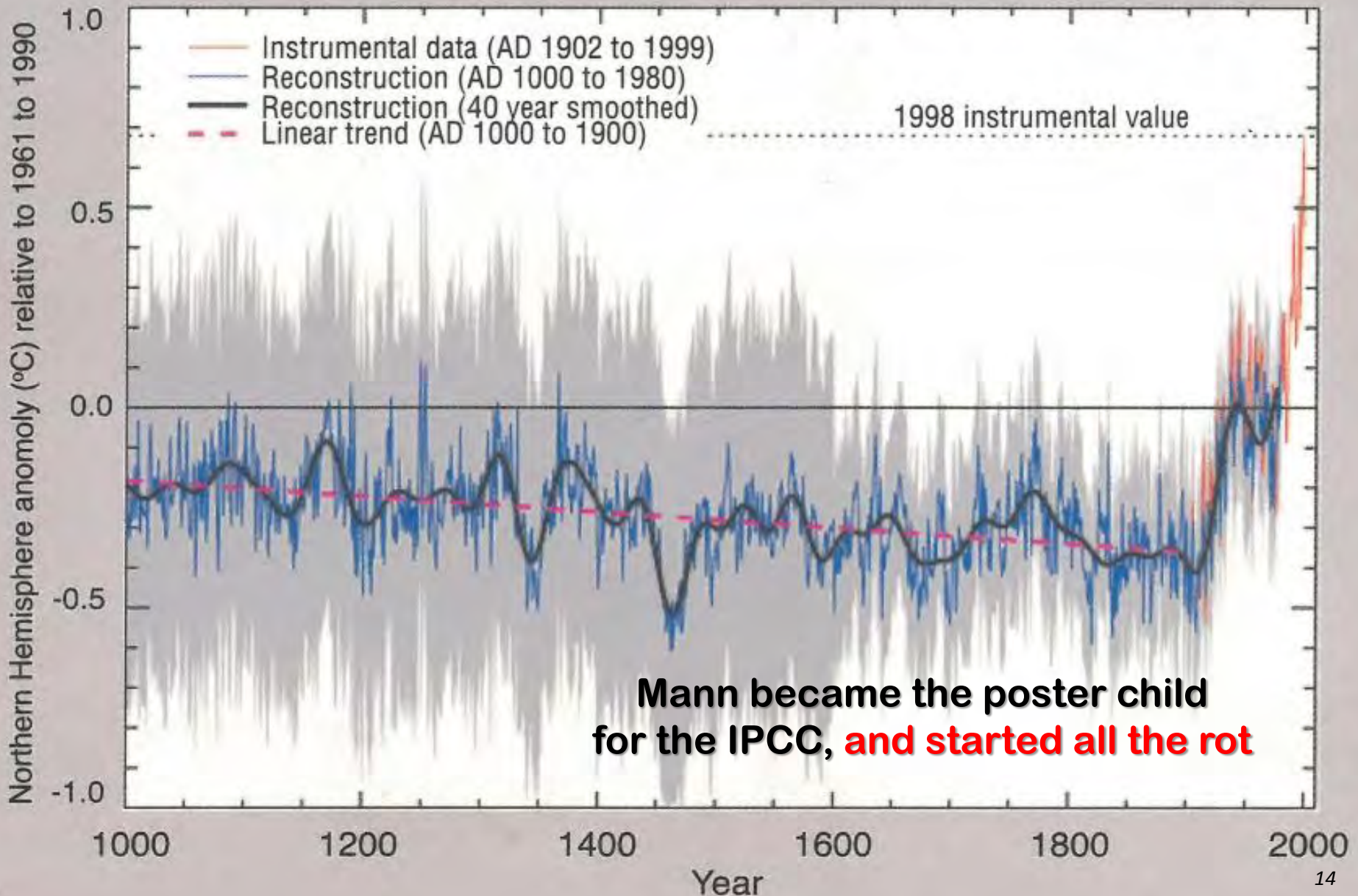
Spring/early
summer growth

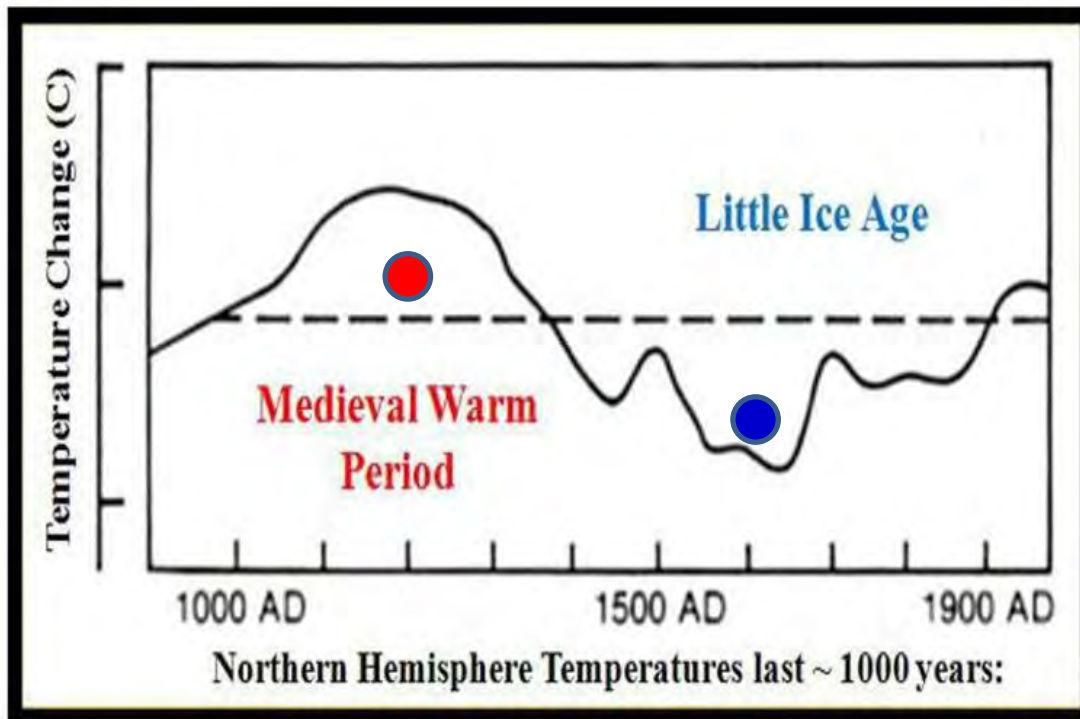
Late summer/fall
growth



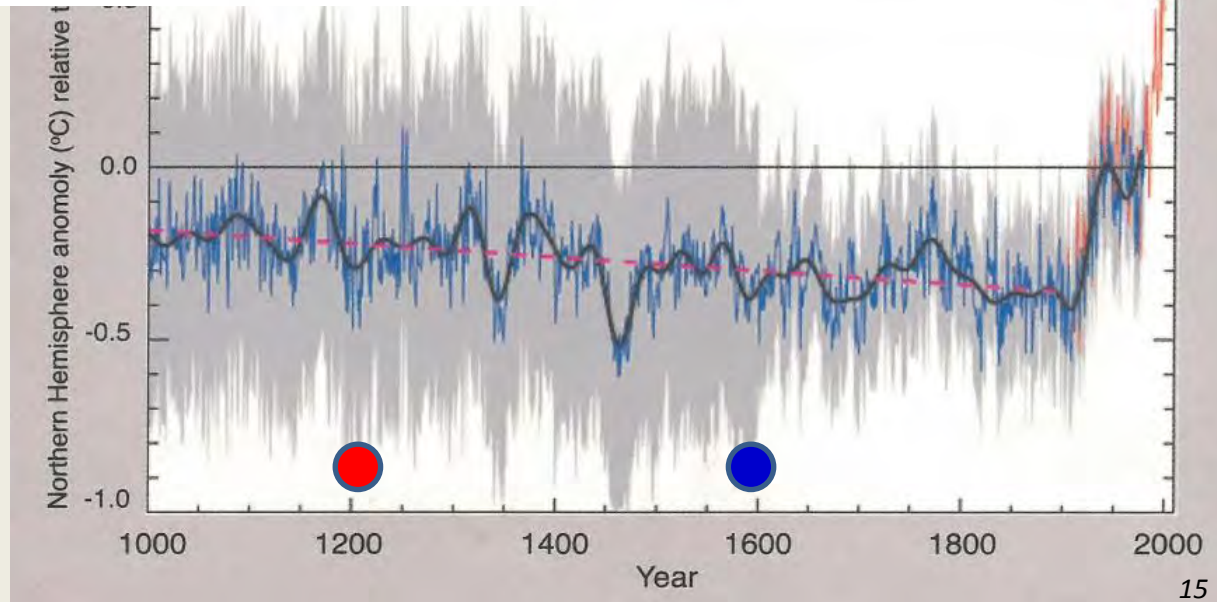
Tree rings are used by some
climateers to define historic
temperature, but they best
show *wet* and *dry* years

*Used especially by **Michael Mann**, who produced the 'HOCKEY STICK' curve from tree ring and other data in 1998*





Mann's Hockey Stick
got rid of
conventional
wisdom –
NO MWP, no **LIA**

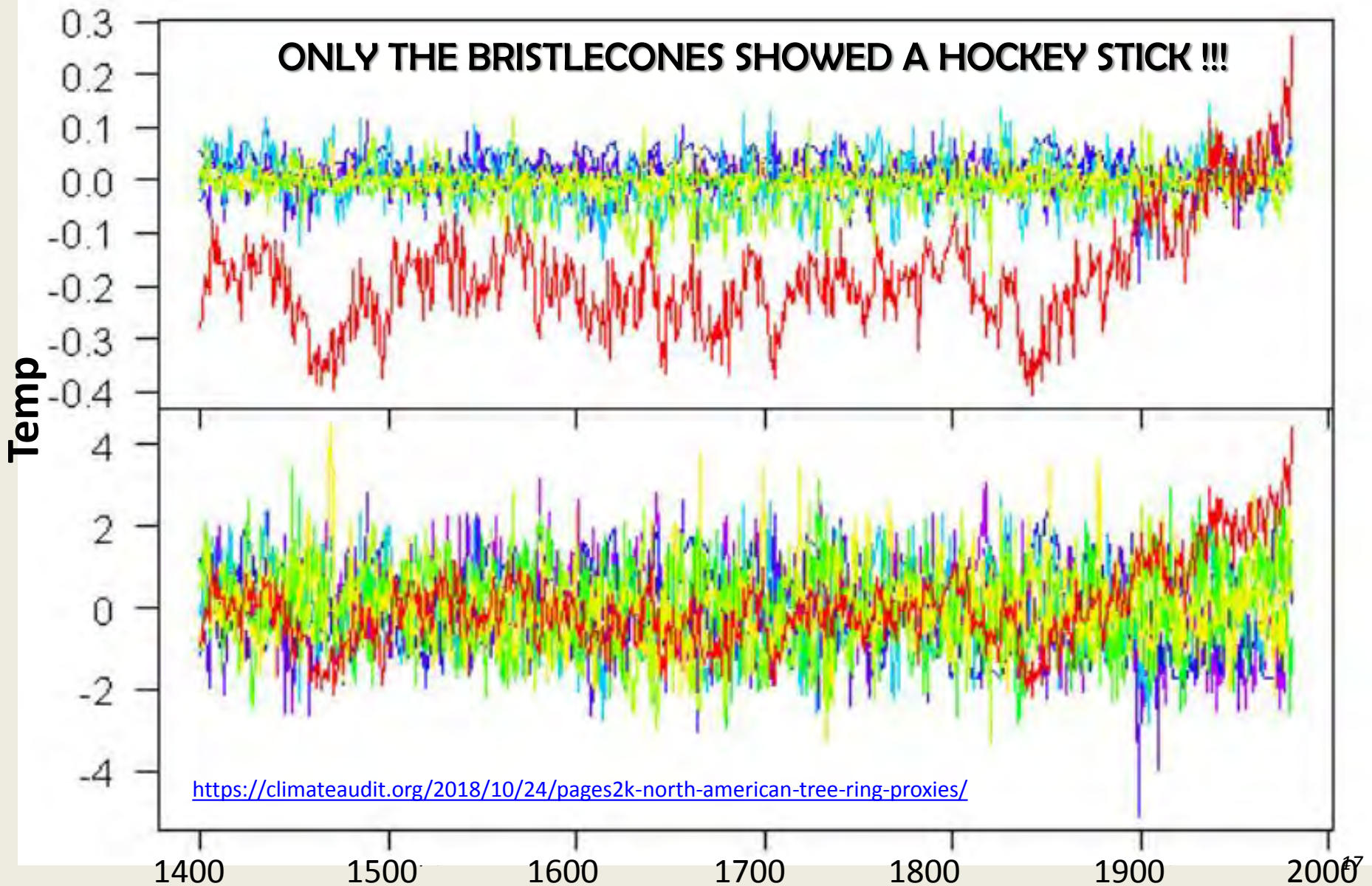


Dr Donald Graybill collected tree cores
from these gnarly bristle cone pines in
SW USA (Sheep Mt), in 1985-1993

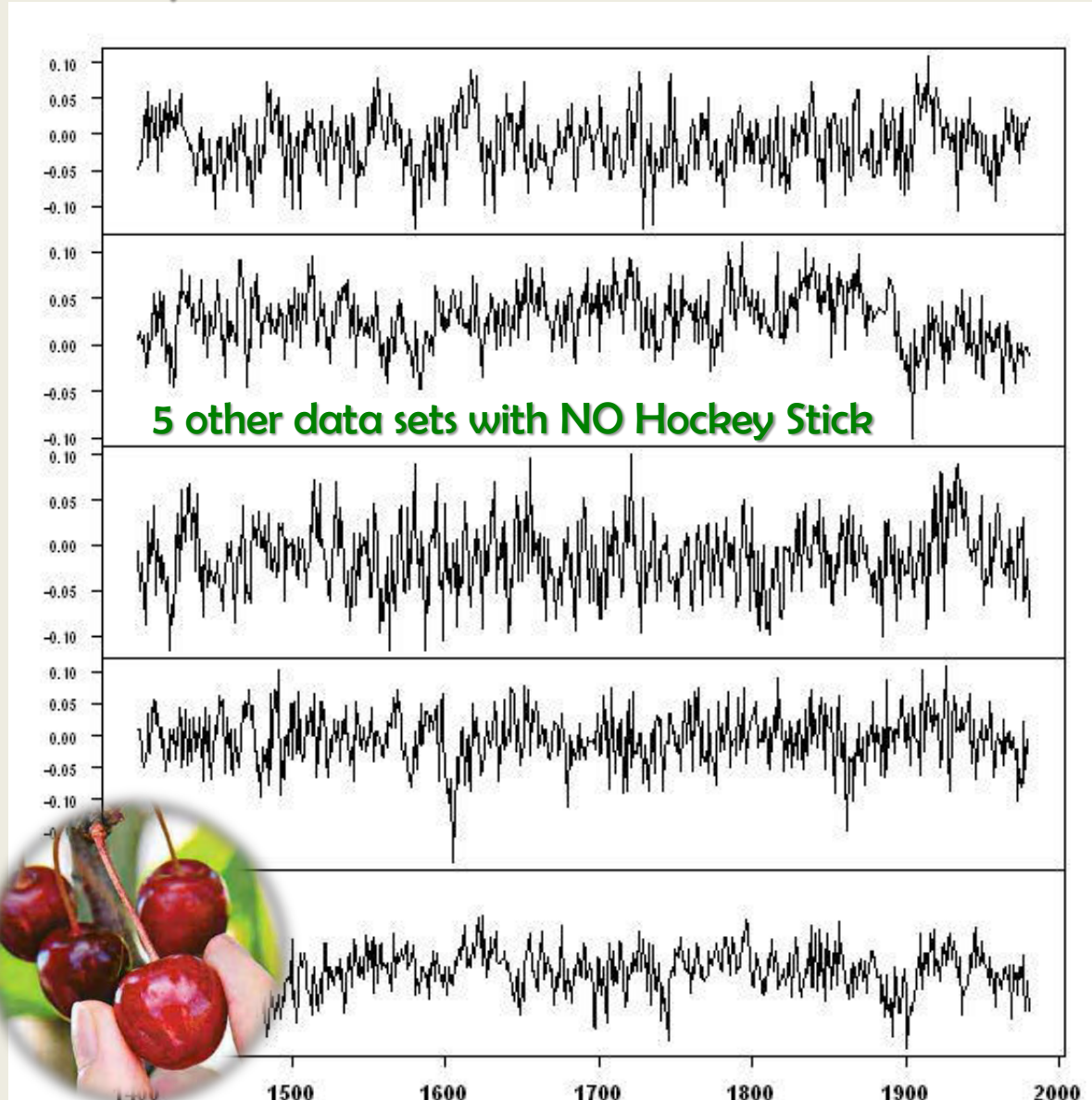


He wrote that they were **'unsuitable'** for temperature
measurement, as they had suffered CO₂ fertilisation.

Ignoring Graybill, Mann used the bristlecone pines (**RED**) and other proxies for temperature – ice cores, other tree types, other countries etc.



BUT – to repeat, Mann’s data WITHOUT the bristlecone pine data show *NO HOCKEY STICK* shapes



Between 2000 and 2009, folk like Steve McIntyre tried to access Mann’s data. Mann refused. Steve Mac persisted and showed that the HS was bad science, **cherry-picked** and hugely misleading.

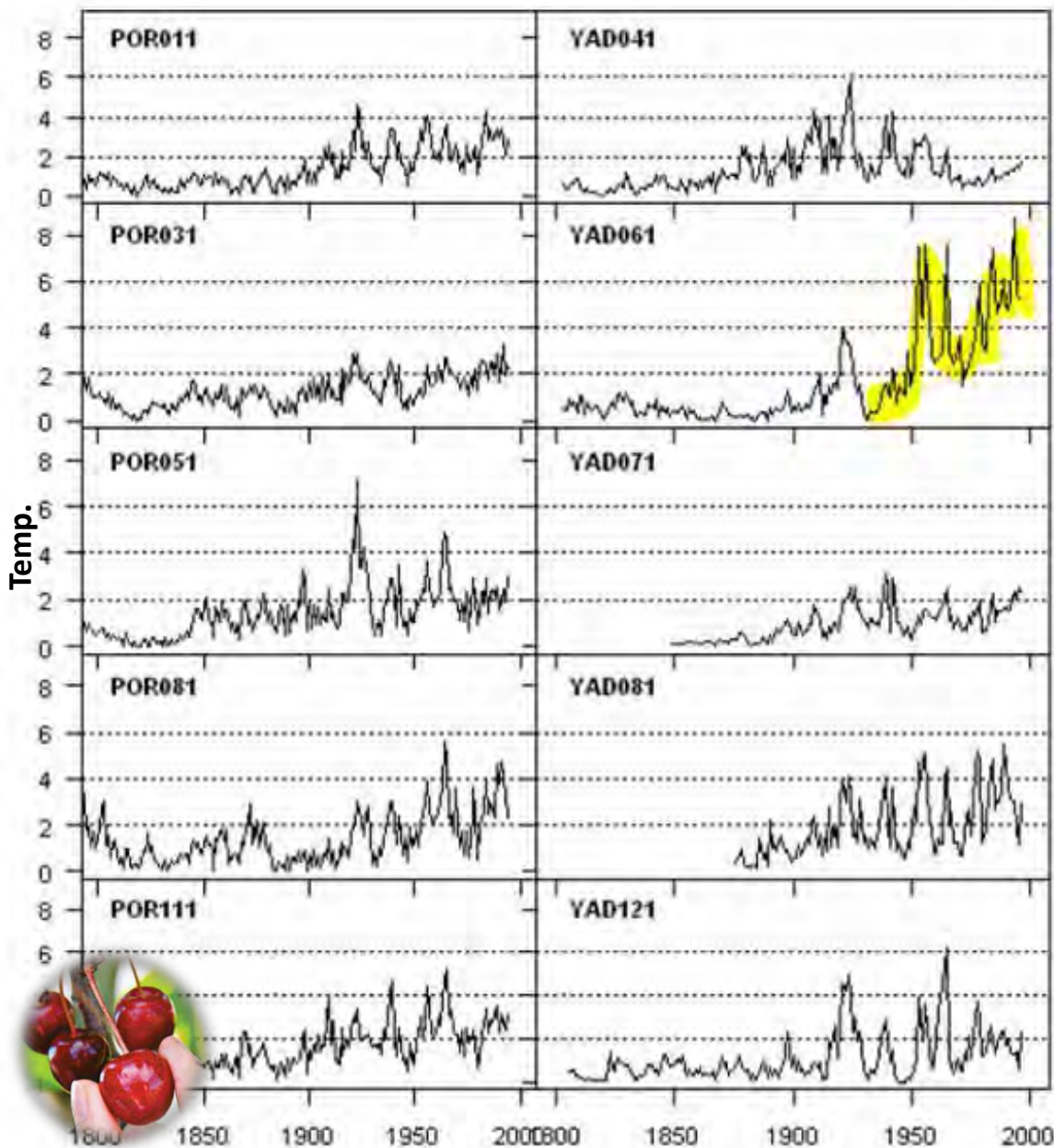
<https://climateaudit.org/2009/09/27/yamal-a-divergence-problem/>

DING DONG THE STICK WAS DEAD

But the same thing was happening with data from the Urals in Russia.

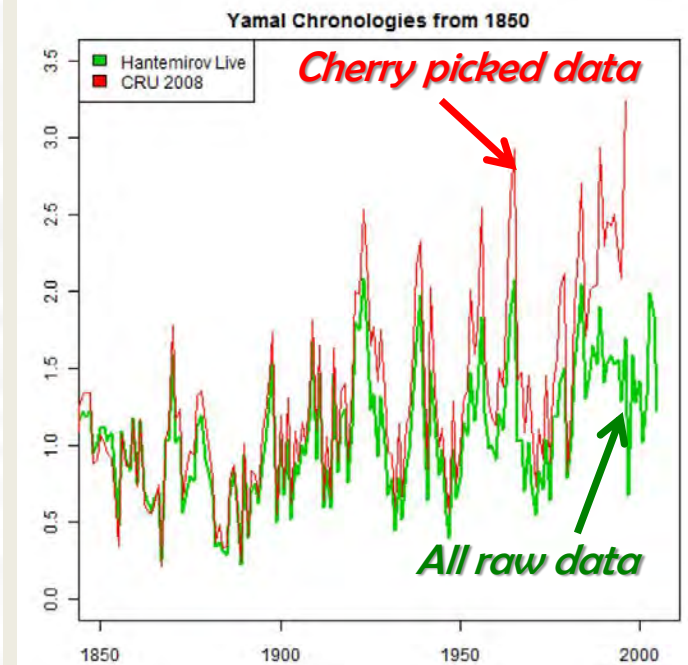


Keith Briffa (see later) studied tree rings from the Yamal peninsula in remote Russian tundra: welcome once more to the alarmist world of cherry picking by CRU . . .



(From Briffa, 2000)

Here are the 1990 set of 10 cores from Yamal and other trees. Only one shows a 'hockey stick', tree YAD 061, which was 'cherry-picked' by CRU (*Climate Research Unit*) at the expense of other data



YAD061 became known as "the most influential tree in the world"



I'M SO EXPERT I CAN TELL
THE TEMPERATURE OF
THE WHOLE GLOBE AT
ANY POINT IN HISTORY
WITH THIS ONE TREE

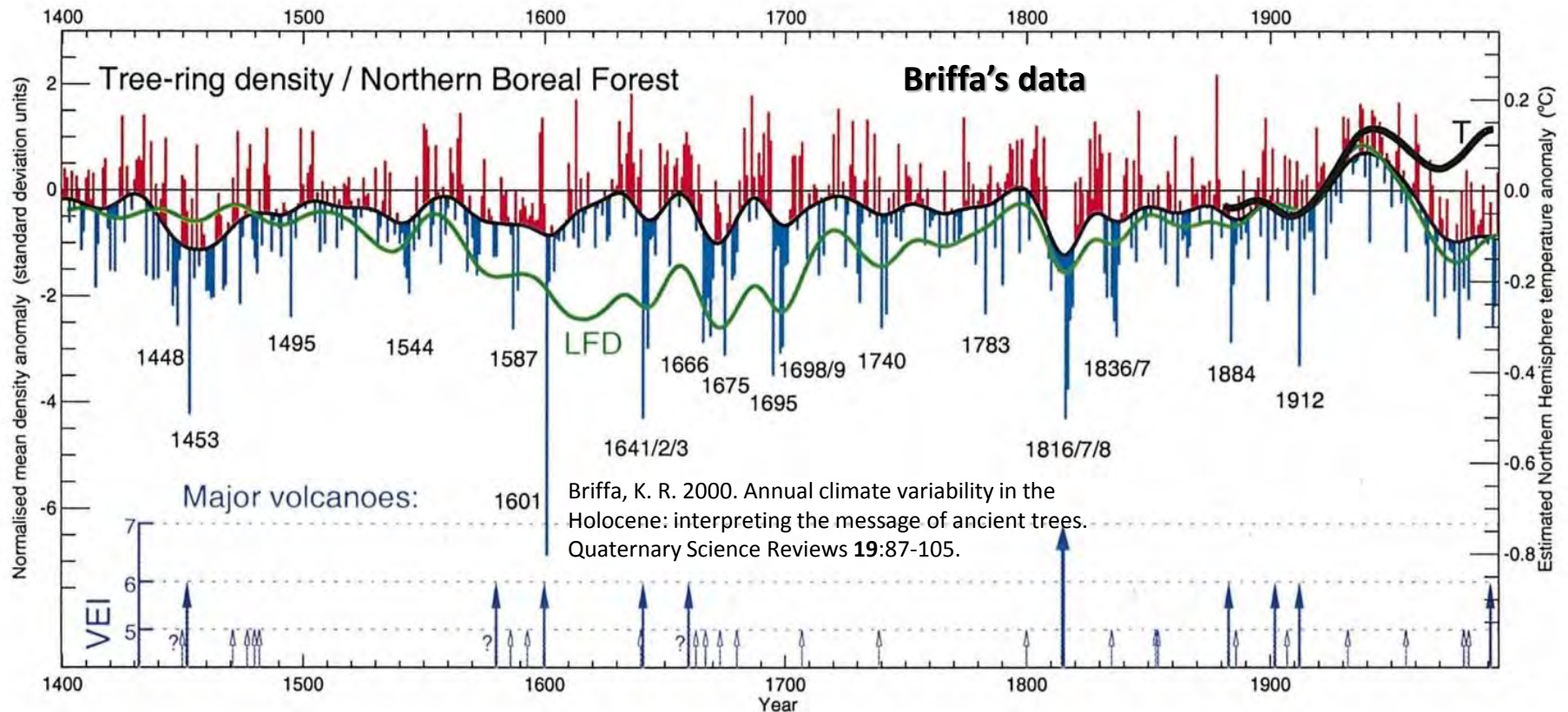
Michael Mann PhD
Penn State

Joshi16

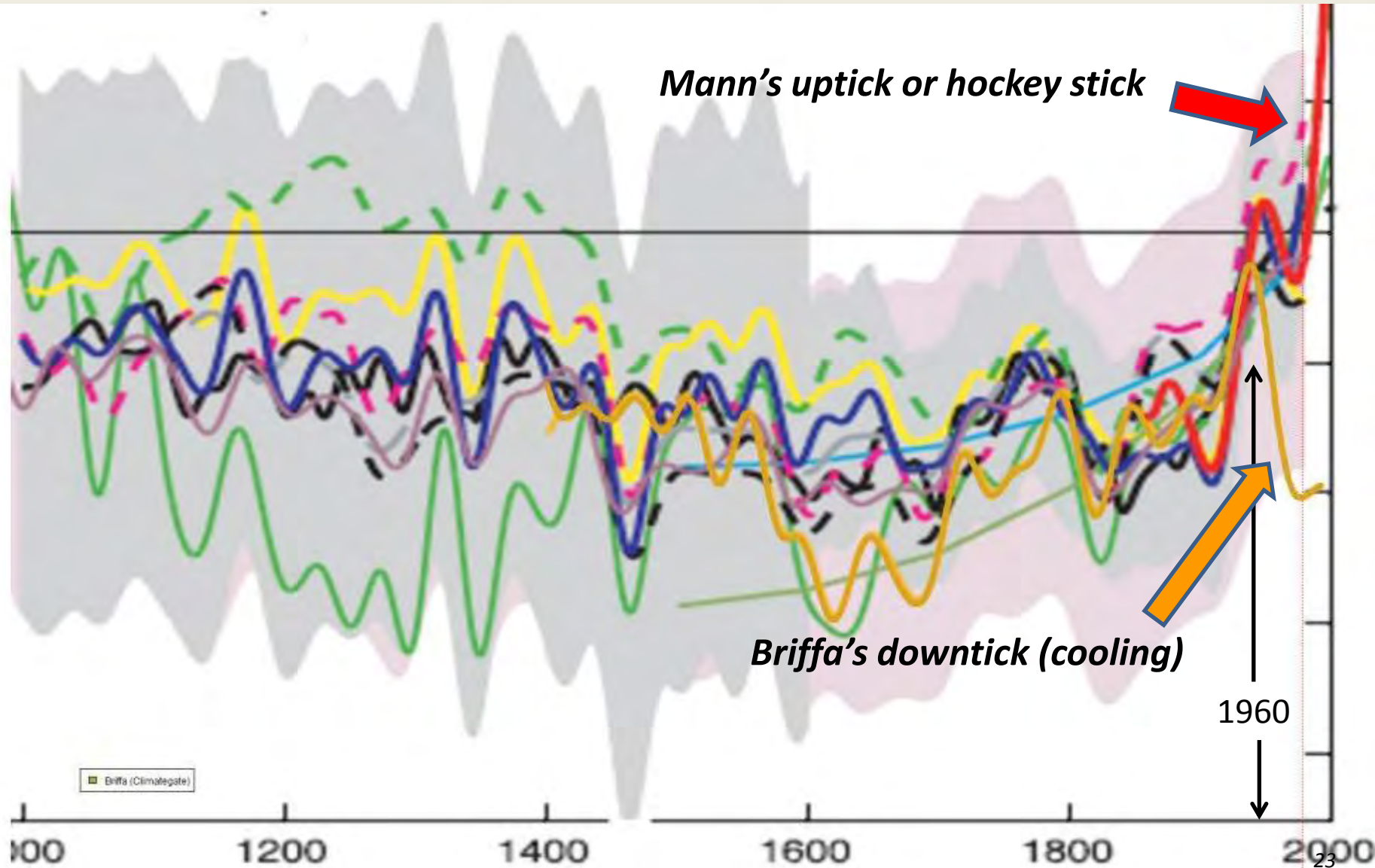
HOW RELIABLE ARE THESE CLIMATE EXPERTS?

BUT WAIT, THERE'S MORE !!

Keith Briffa wanted to publish his tree ring data also in 1998-2000, but, unlike Mann, some of his data showed NO 20th C uptick. Mann was having none of that, pulled academic rank, bullied publishers and changed the data. (Briffa data in **red** and **blue**)



Mann and others had to find a way to 'hide the decline' that came from Briffa's tree-ring work



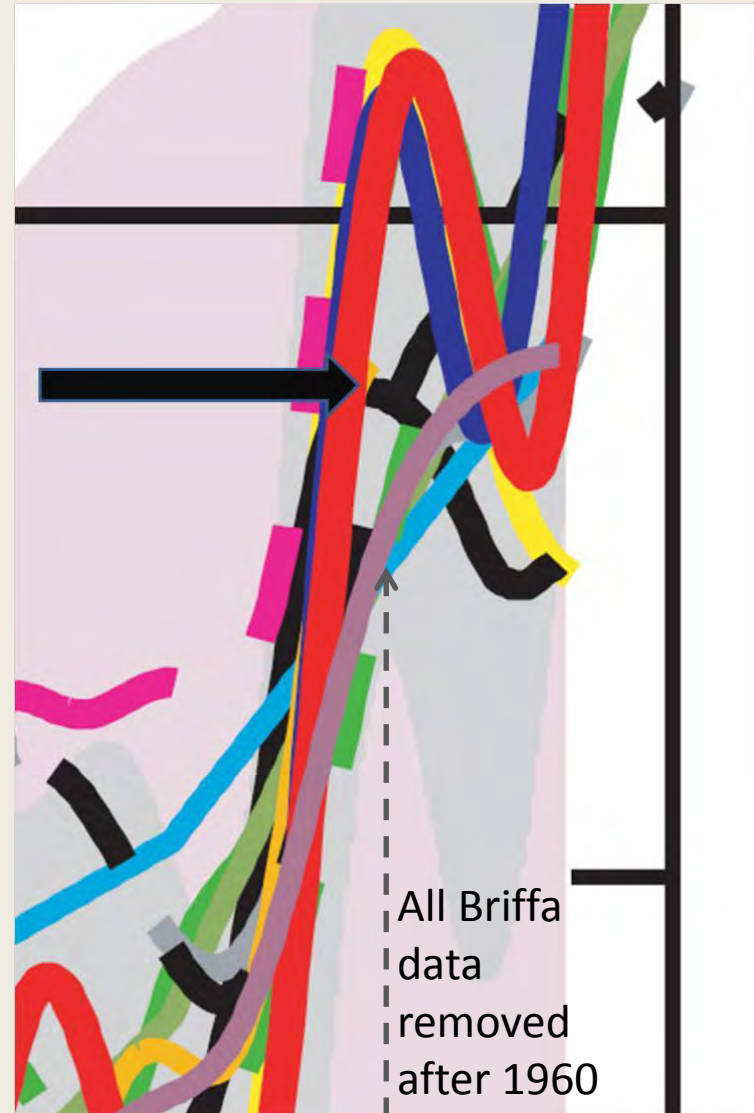
Beware – Mann et al at work hiding the decline !!

Step 1: Cut off all of Briffa's *downtick* data at 1960 – see black arrow to right, with orange line just appearing from behind other lines.

Step 2: Hide what you did behind a spaghetti mix of all the other curves

MISSION ACCOMPLISHED –
THE HOCKEY STICK LIVES !!

But '**CLIMATE SCIENCE**' suddenly became a joke.

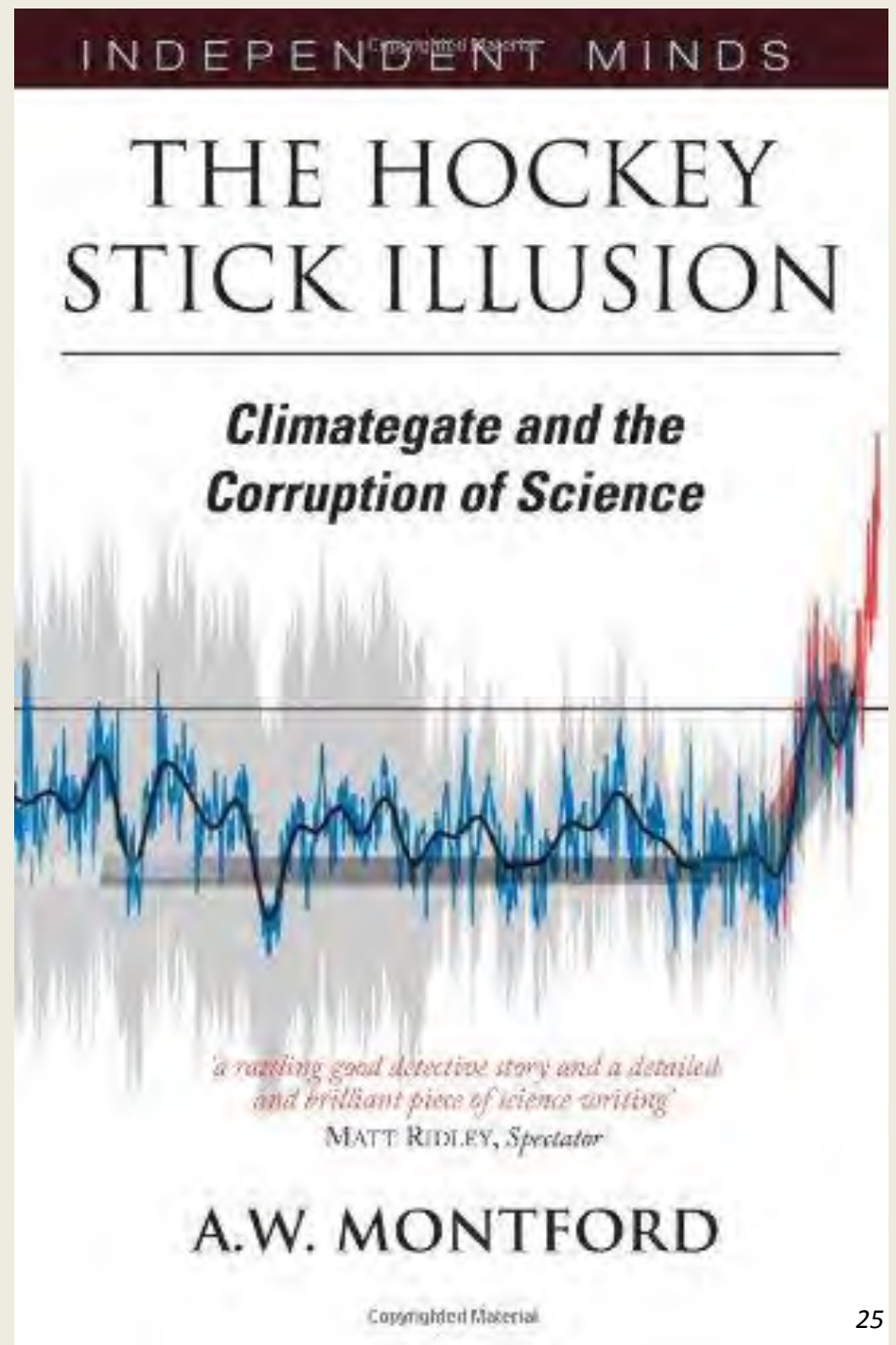


With global condemnation of
the ethics and the 'science'



Published 2010

"Innovations in the Australian Forest Industry", Brisbane 22 July 2019



Mann's role in Climategate :

".. The greatest and most successful pseudoscientific fraud I have seen in my long life as a physicist".

Prof. Harold Lewis

..and his damage to science:

"It's time to let Michael Mann sink or swim on his own."

Dr Judith Curry

.. and his personal style:

"Excuse me while I puke."

Prof. Raymond Bradley (Mann's supervisor at University of Massachusetts) – *when RB found out about Mann pressuring the publisher to cancel the Briffa paper.*

Published 2015

"A DISGRACE TO THE PROFESSION"

"dishonest" "bad science" "brazen fraud" "a crock of obvious drivel"

THE WORLD'S SCIENTISTS

~ in their own words ~

ON MICHAEL E MANN,
HIS HOCKEY STICK,
AND THEIR DAMAGE TO SCIENCE

compiled
and edited

VOLUME
I

by
Mark Steyn

James Delingpole – the last word on Michael Mann

"Apart from being a tetchy, hotheaded, rude, bullying, cackhanded, ignorant, malevolent and embarrassingly useless excuse for a scientist, Professor Michael Mann – the guy behind the serially-discredited Hockey Stick – is also the most outrageous liar."

Breitbart 31.3.2017

But the IPCC, the BBC, the ABC all love him . . .for perpetuating a fraud



Section 3

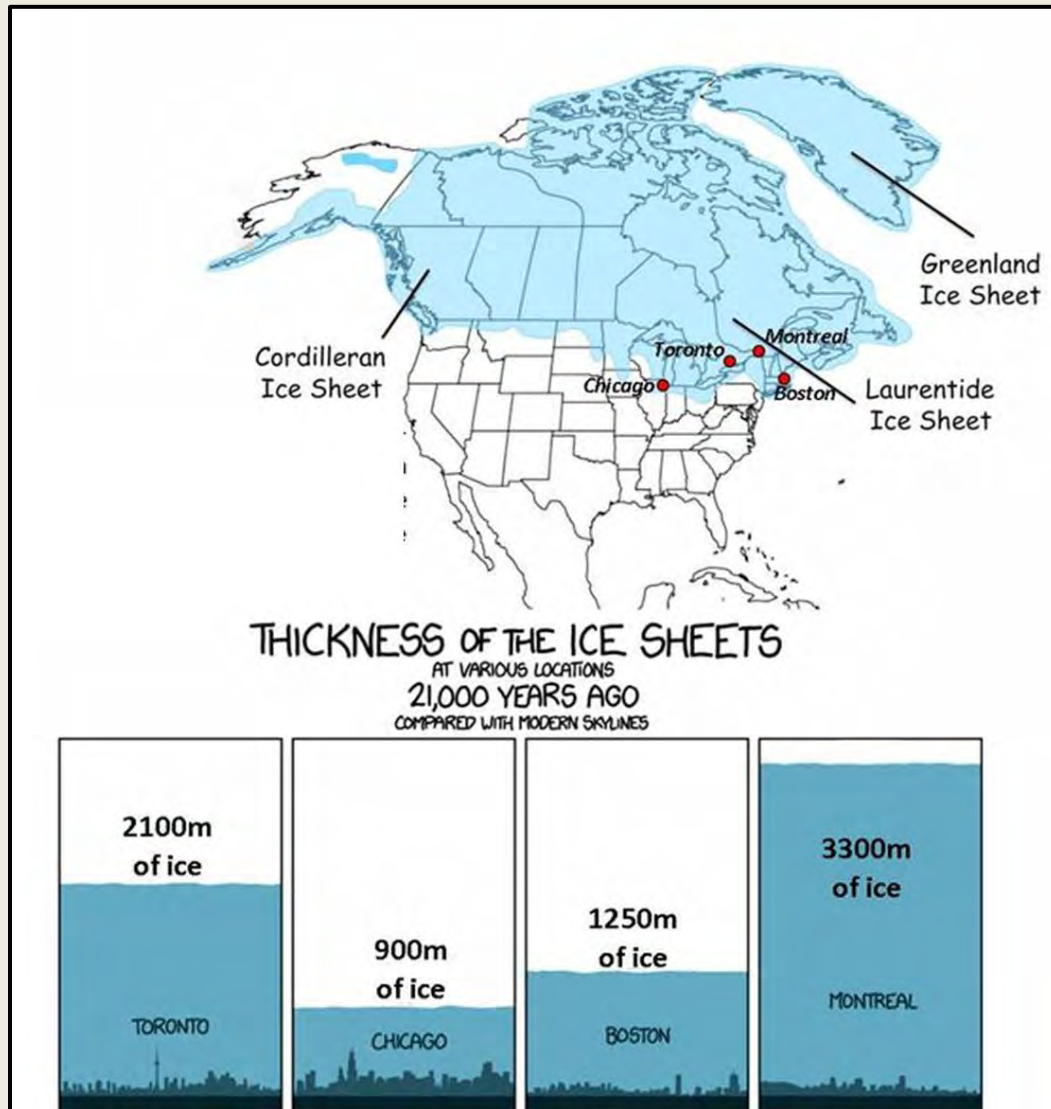
The global perspective . .

Do I believe in Climate Change??

Of course !!

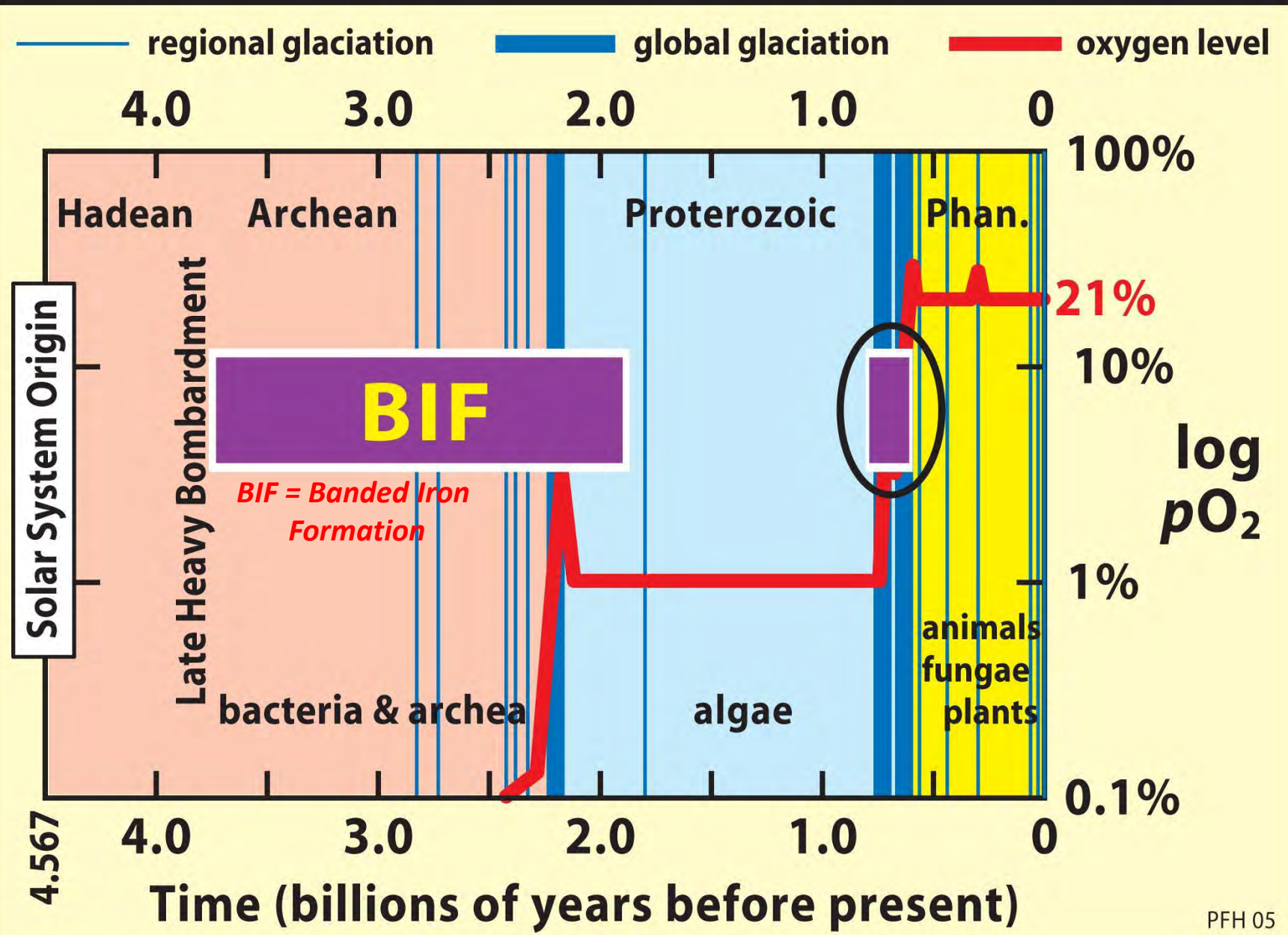
We are currently in an interglacial part of the last ice age which ended about 11,000 years ago.

3 km of ice sat above Montreal



Way back then, at about 4.6 billion years ago, our atmosphere was reducing, with no oxygen.

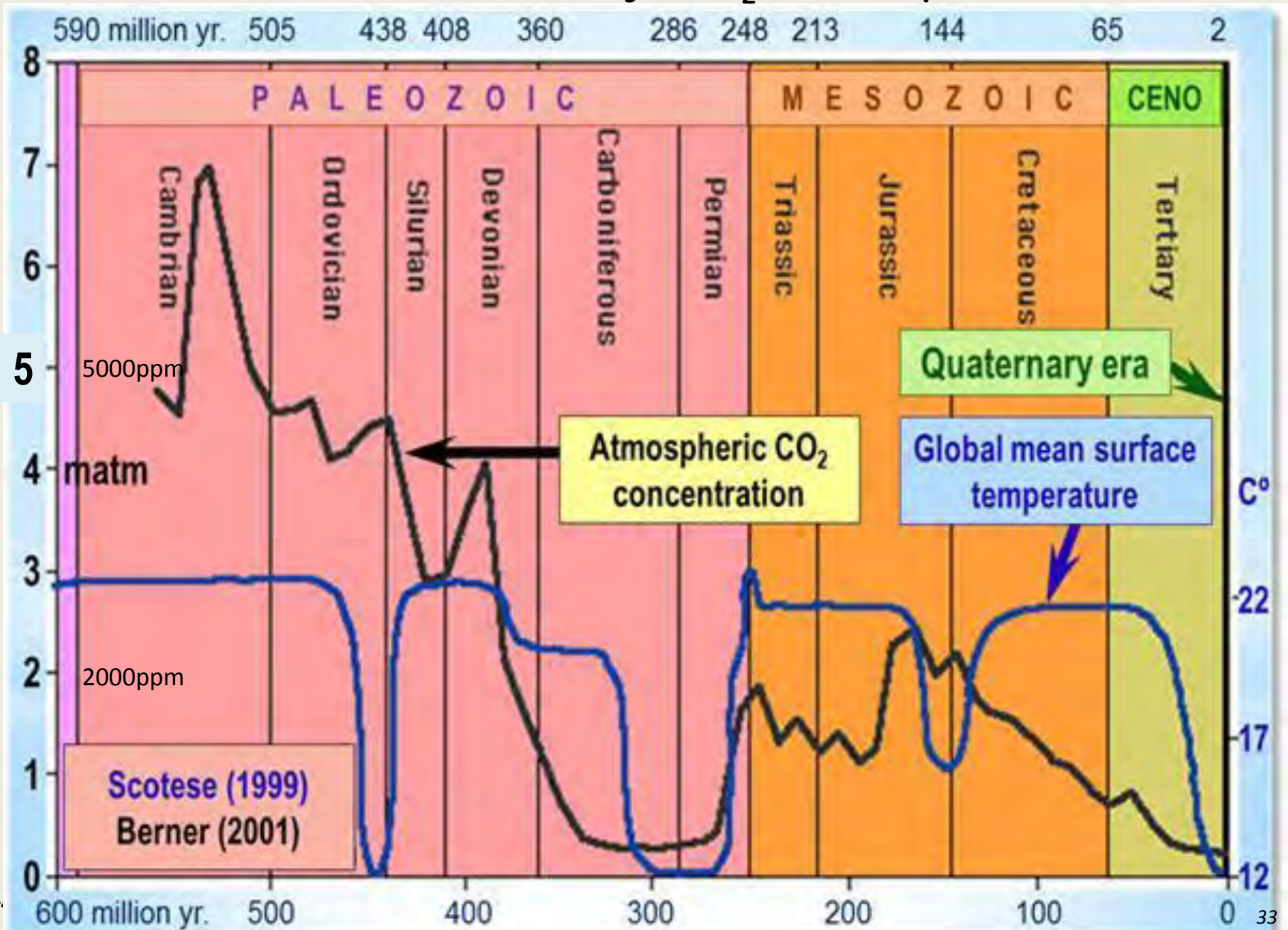
Then came the great oxygenation event at about 2.4 billion years ago, which started the animal and plant evolution and revolution





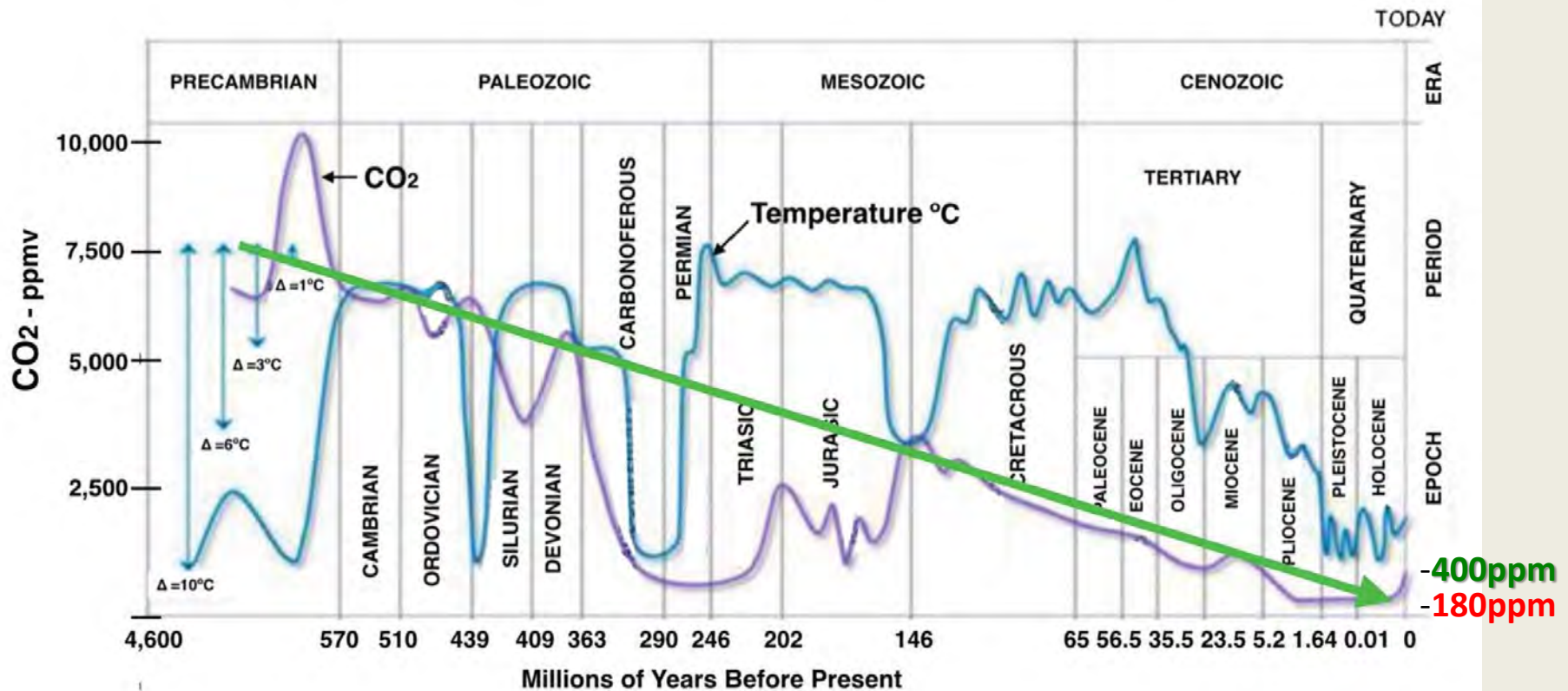
Banded iron Formation, Dales Gorge, WA – 2.4Ma

Post- Precambrian history – CO₂ and Temperature



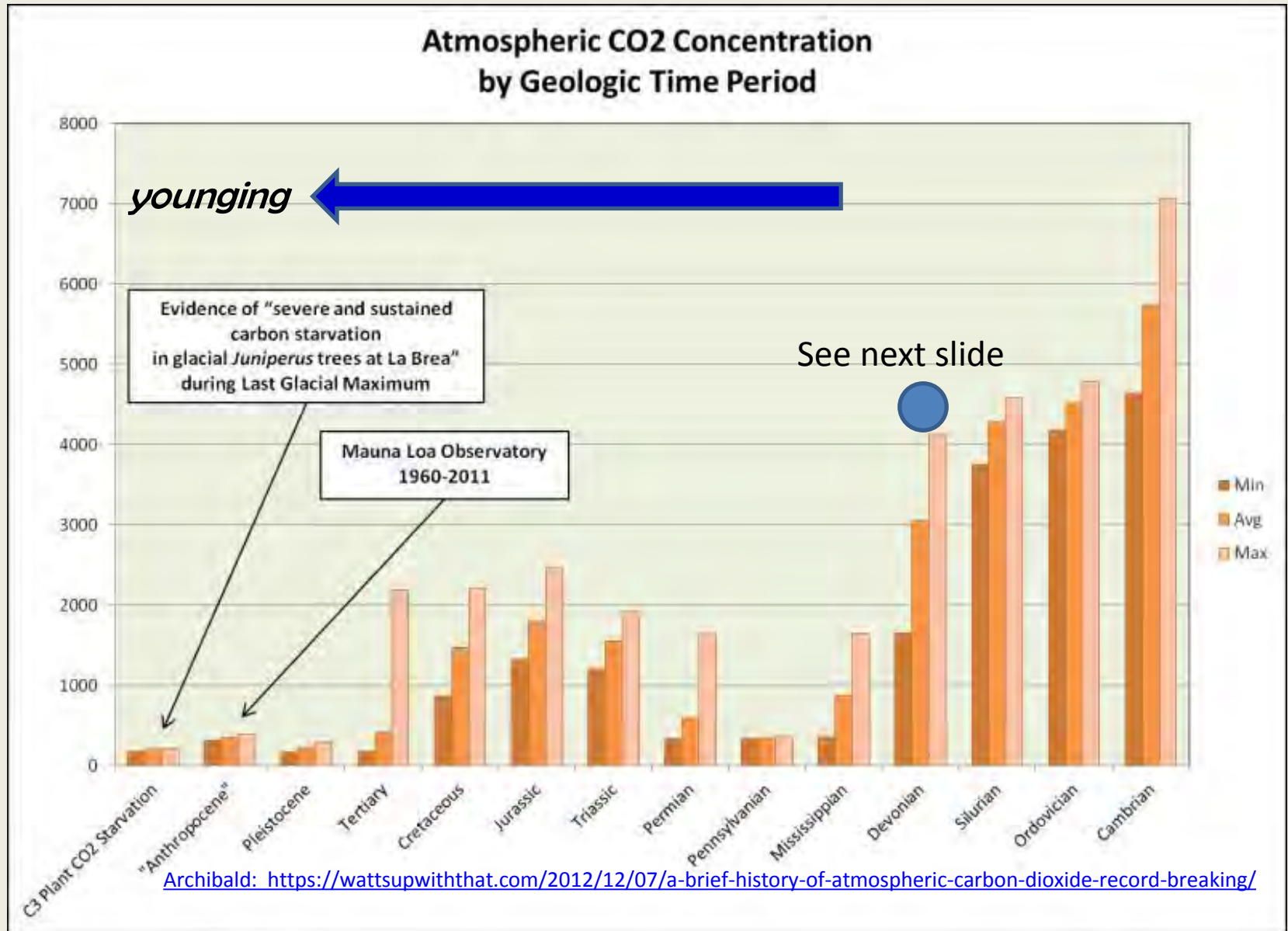
Patrick Moore even suggests that the world owes our current civilisation a HUGE debt – we, the people, have helped reverse this 600 million year downward trend in CO₂.

Geological Timescale: Concentration of CO₂ and Temperature fluctuations



Recall that life on earth almost ceases at CO₂ levels below 180ppm

Atmospheric CO₂ concentration with time



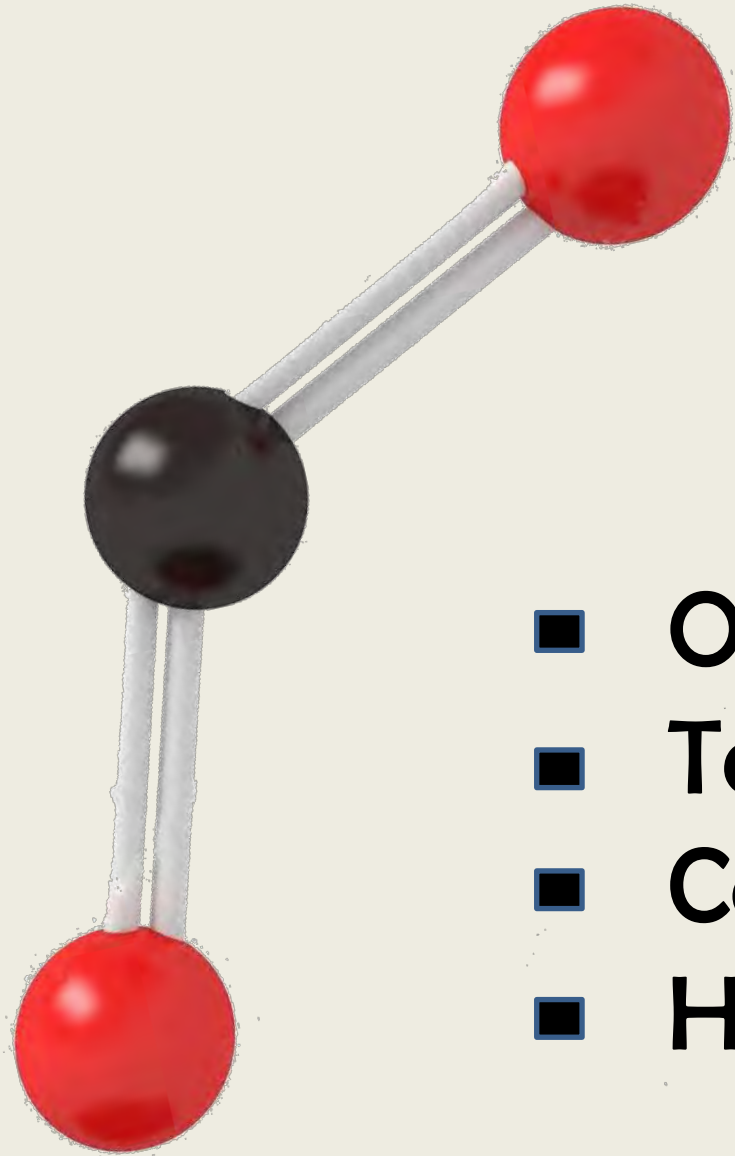
Oceans saturated with CO₂ eventually will deposit masses of limestone (*Winjana Gorge WA*)



Devonian
reefs, 400Ma

Section 4

The nature of CO_2 ...



**This CO₂
molecule is
your friend**

- Odourless
- Tasteless
- Colourless
- Harmless

Carbon is the building block for all life on earth, so it is irrational & ignorant to call it a pollutant !!



**The Octavia diamond
from Argyle, 2019**




CO₂ is sequestered into great forests like the kauri groves of Margaret River, WA

**And the
planet is
greening as
a result. . .**

Trend in Annual Average Leaf Area (% per decade, 2000-2017)



A photograph of Julia Gillard, then Prime Minister of Australia, speaking at a podium. She is wearing a grey pinstriped blazer. A speech bubble originates from her mouth.

Shush now comrades; did you know I have 40,000 ppm of CO₂ in my breath?

The days of the carbon tax, 2011



I didn't hear her say that, but I support everything she said . . .

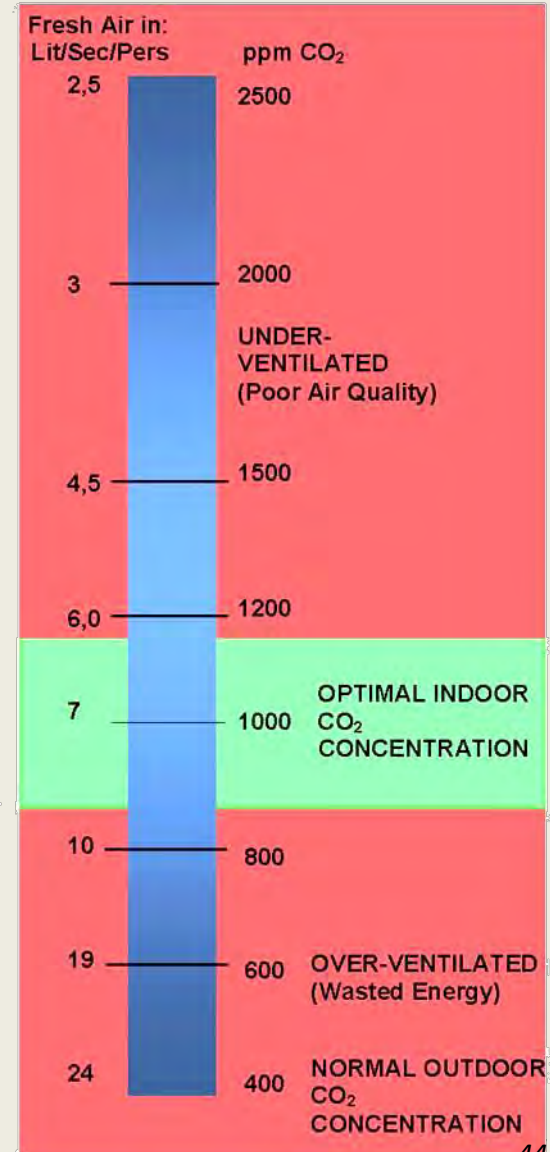
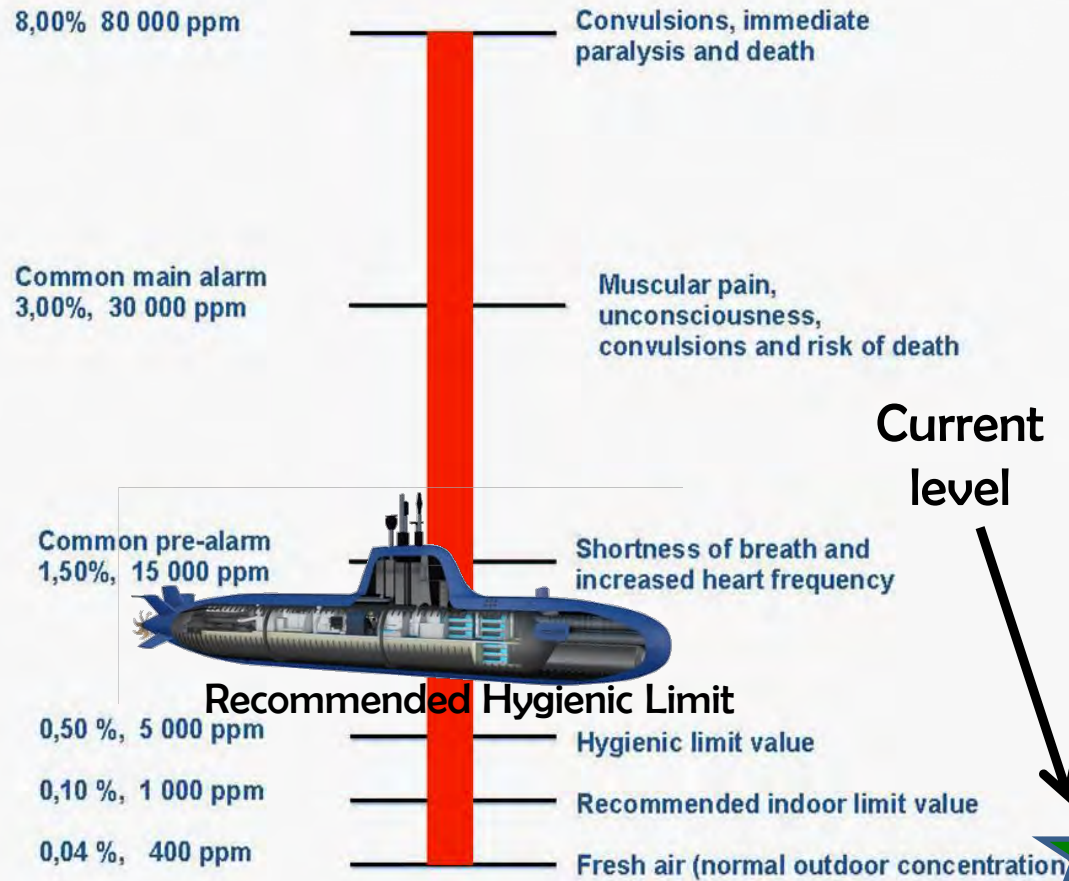
Carbon dioxide 'FOG' is in fact **water vapour**



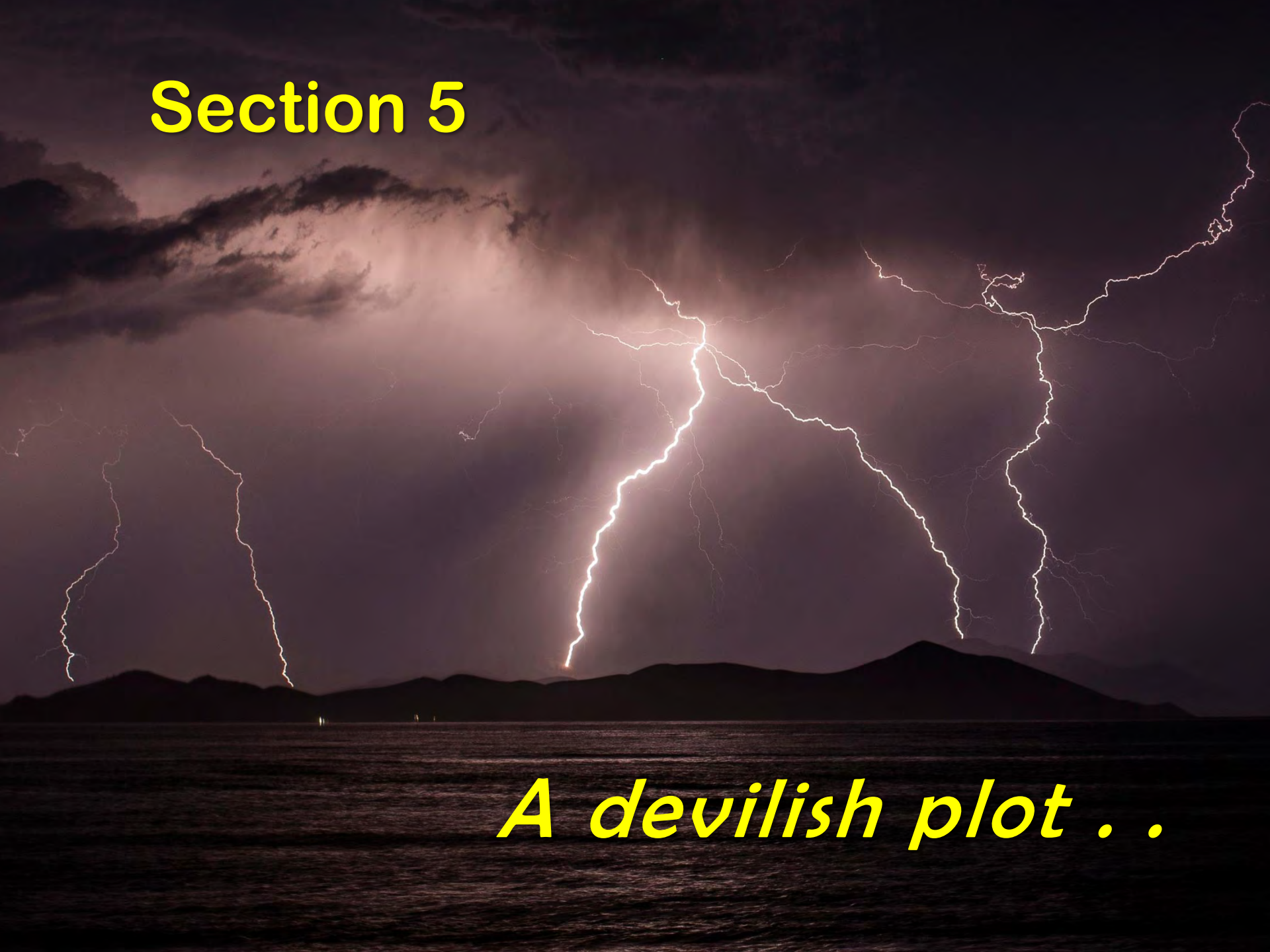
harmless

Submariners work in levels to 5000ppm CO₂

How does CO₂ affect the human body?



Section 5

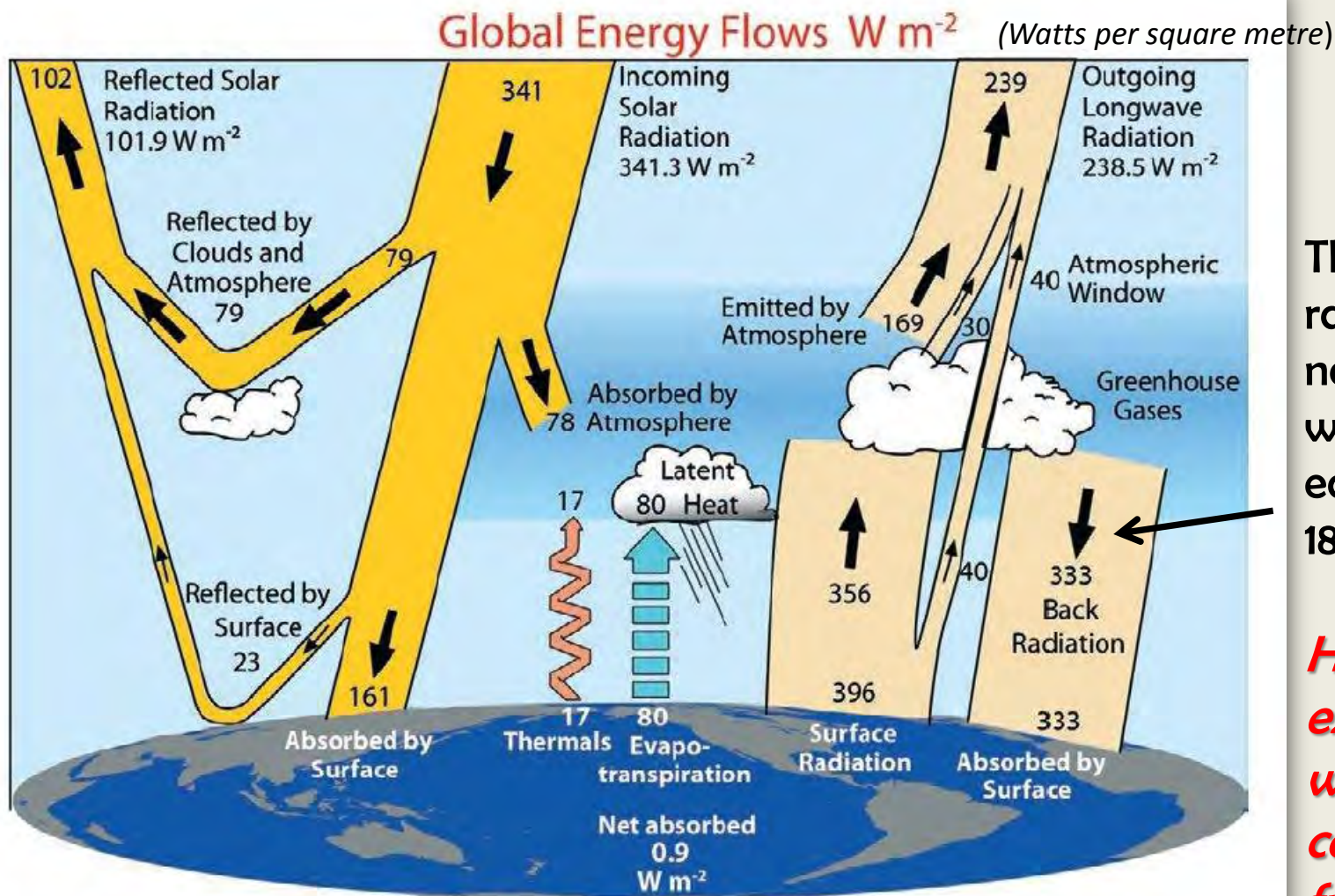


A devilish plot . .

**The IPCC think CO₂ emissions are part of Satan's world,
and which will turn our globe into a fireball.**



A Look at the Greenhouse Effect (1)



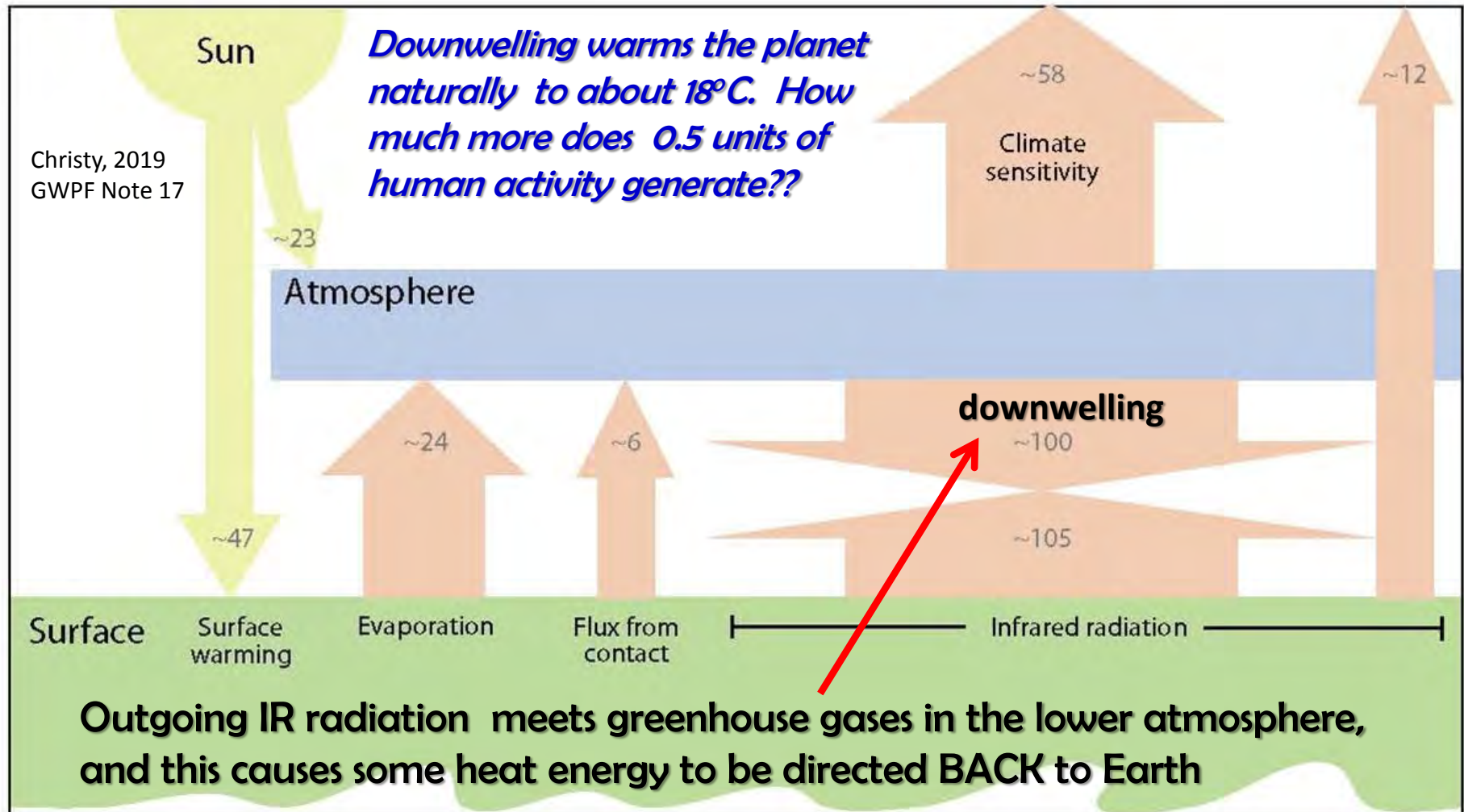
This back-radiation naturally warms the earth to 18°C .

How much extra warming comes from man?

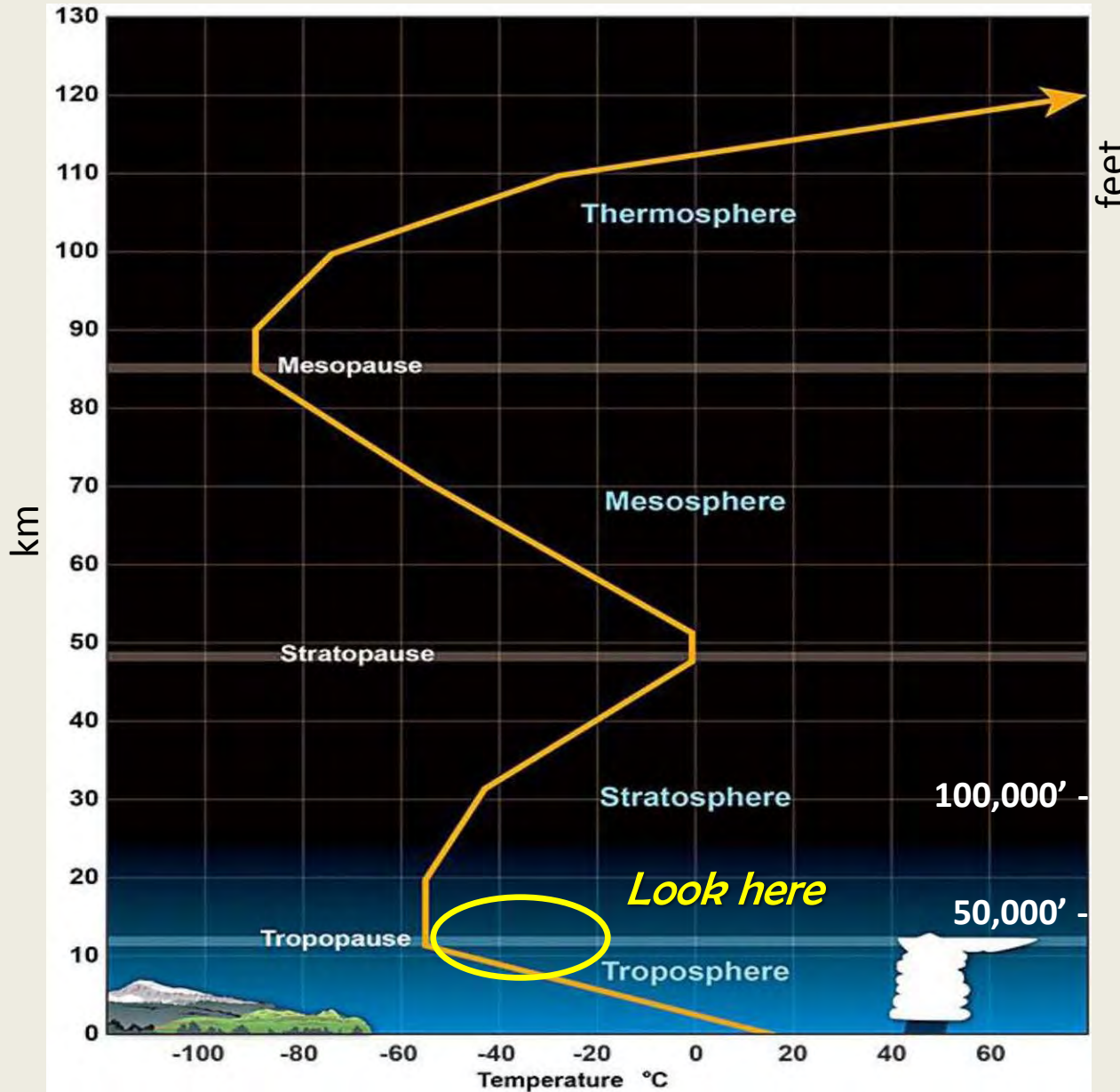
FIG. 1. The global annual mean Earth's energy budget for the Mar 2000 to May 2004 period (W m^{-2}). The broad arrows indicate the schematic flow of energy in proportion to their importance.

A Look at the Greenhouse Effect (2)

Of the units of energy shown here, **man has added an extra 0.5 units**; does it make a difference? Can 0.5 units change energy flow measured in hundreds of units??



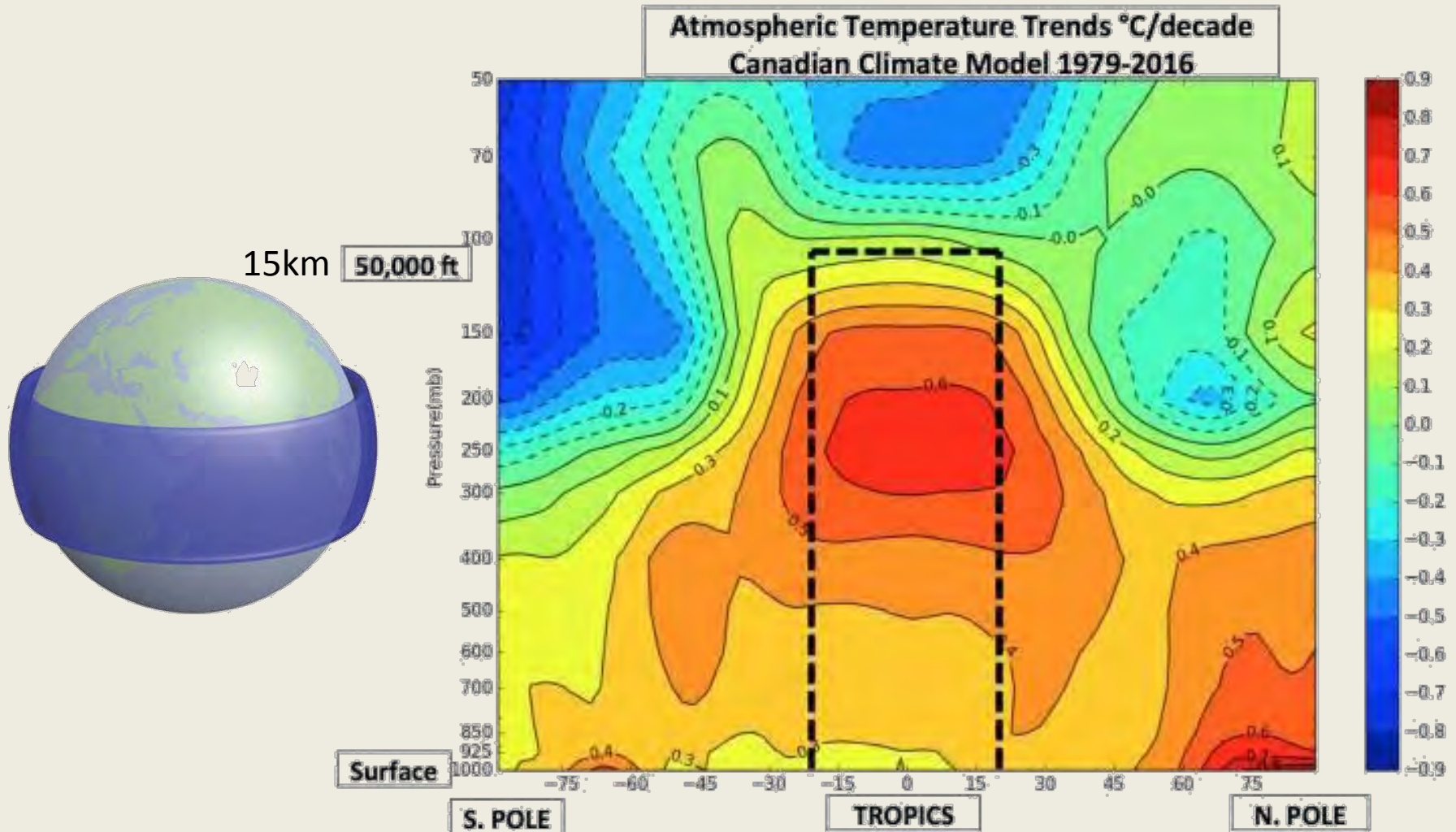
Where can we test for additional warming?



We go looking for a 'hot spot' caused by carbon dioxide towards the top of the Troposphere, where the atmosphere is known to cool naturally with height

<https://slideplayer.com/slide/13036767/>

The IPCC models predict that increasing GHG will produce a Tropospheric HOT SPOT, caused by increased CO₂ content. They ignore water vapour, the most abundant of GHG

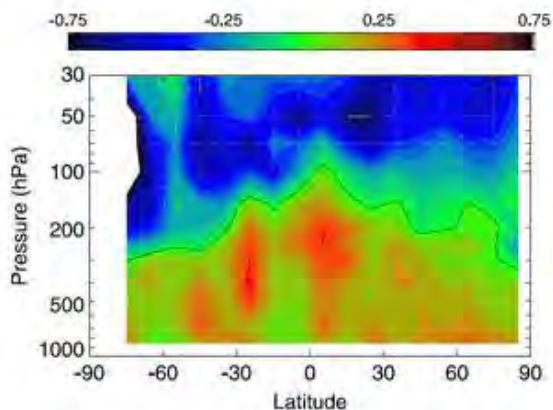


The trouble is the actual data show NO hotspot

MODELS

ACTUAL

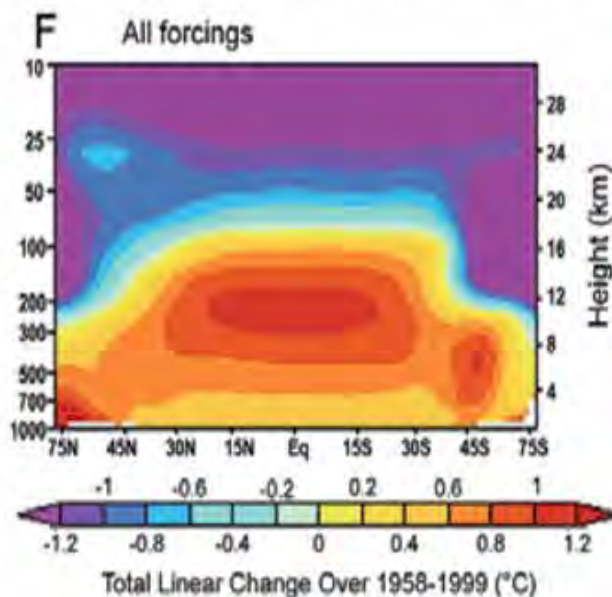
Temperature trends estimated with homogenized wind data (per decade)



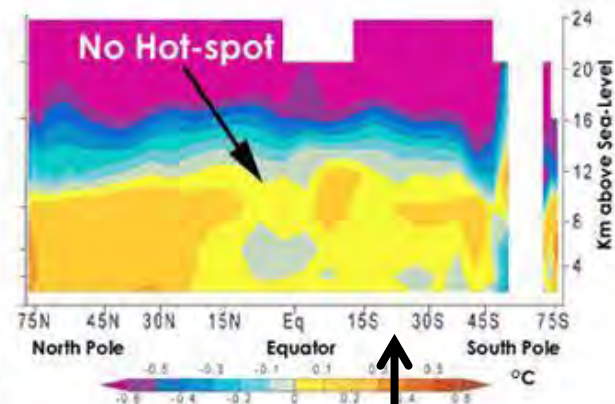
Above: Sherwood et al (2015)
Right: CCSP, Ch 1, 2005 (co-authored by Sherwood).

joannenova.com.au

Model predictions of temperature trends (1958 - 1999)



Temperature trends recorded by weather balloons (per decade)

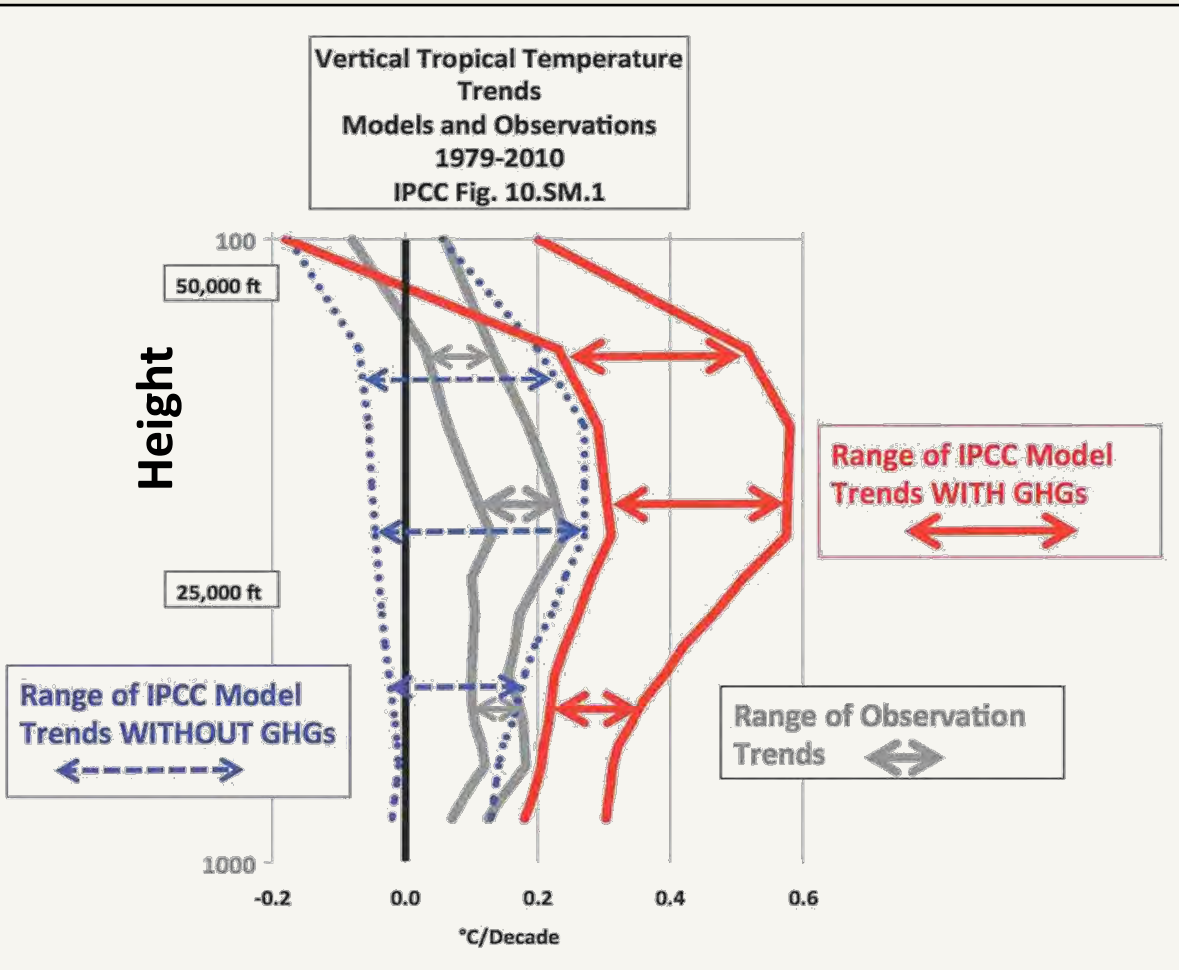


CCSP 2005: Chapter 5, page 116.

How desperate are the alarmists – using WIND data??

Observed data

This suggests the IPCC Climate Models are a JOKE - 1



Warming rate ca. 0.09°C per decade

John Christy 2019 GWPf Note 17

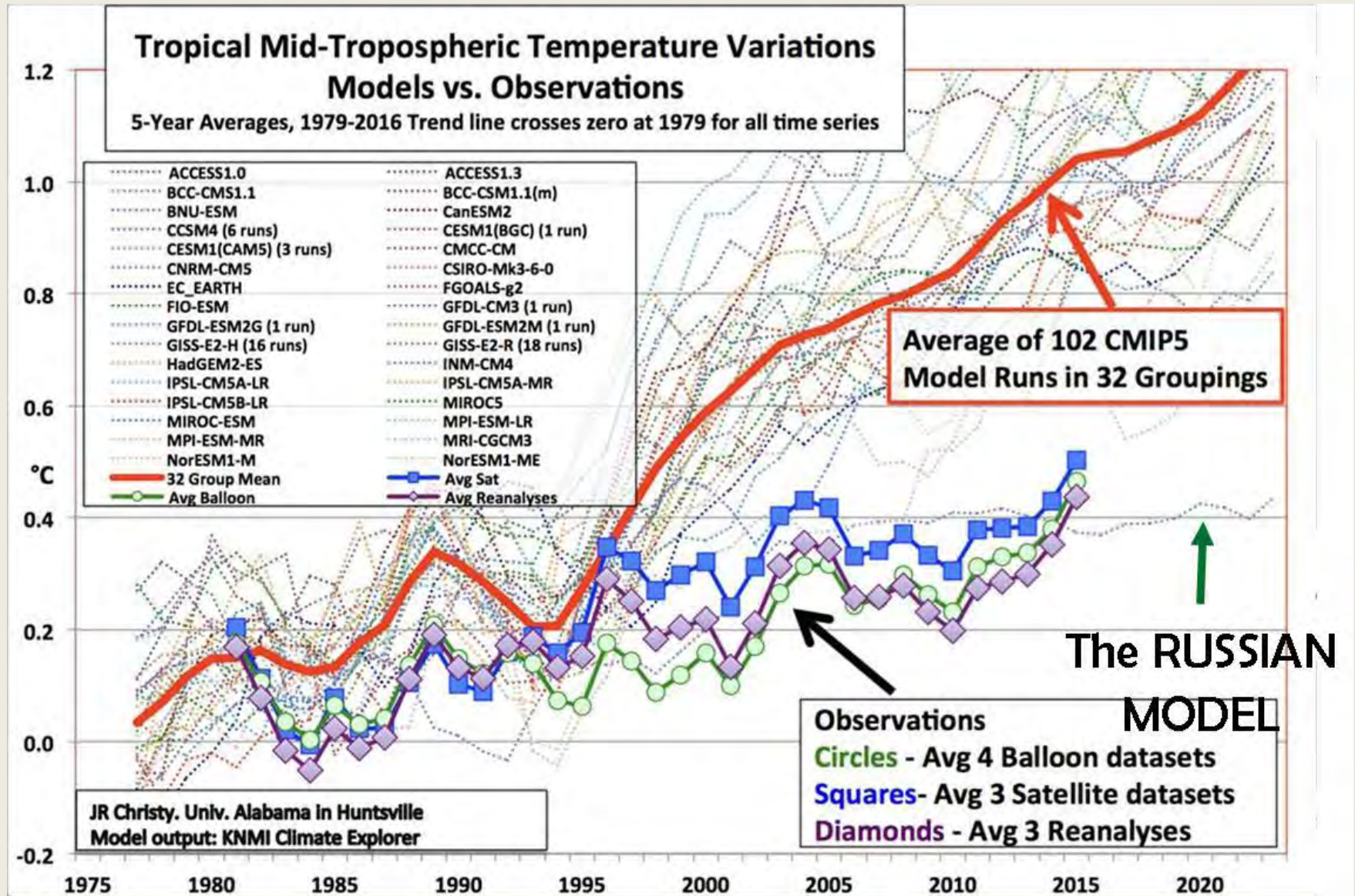
IPCC MODELS RESULTS for Troposphere in **BLUE** (NO greenhouse gases) and **RED** (WITH greenhouse gases added): **GREY** area is for **OBSERVATIONS**, which overlap the **blue areas**.

Observations trump models !!

SCORE

Science 5
IPCC nil

Why the IPCC Climate Models are a JOKE - 2



Why the IPCC Climate Models are a JOKE - 3



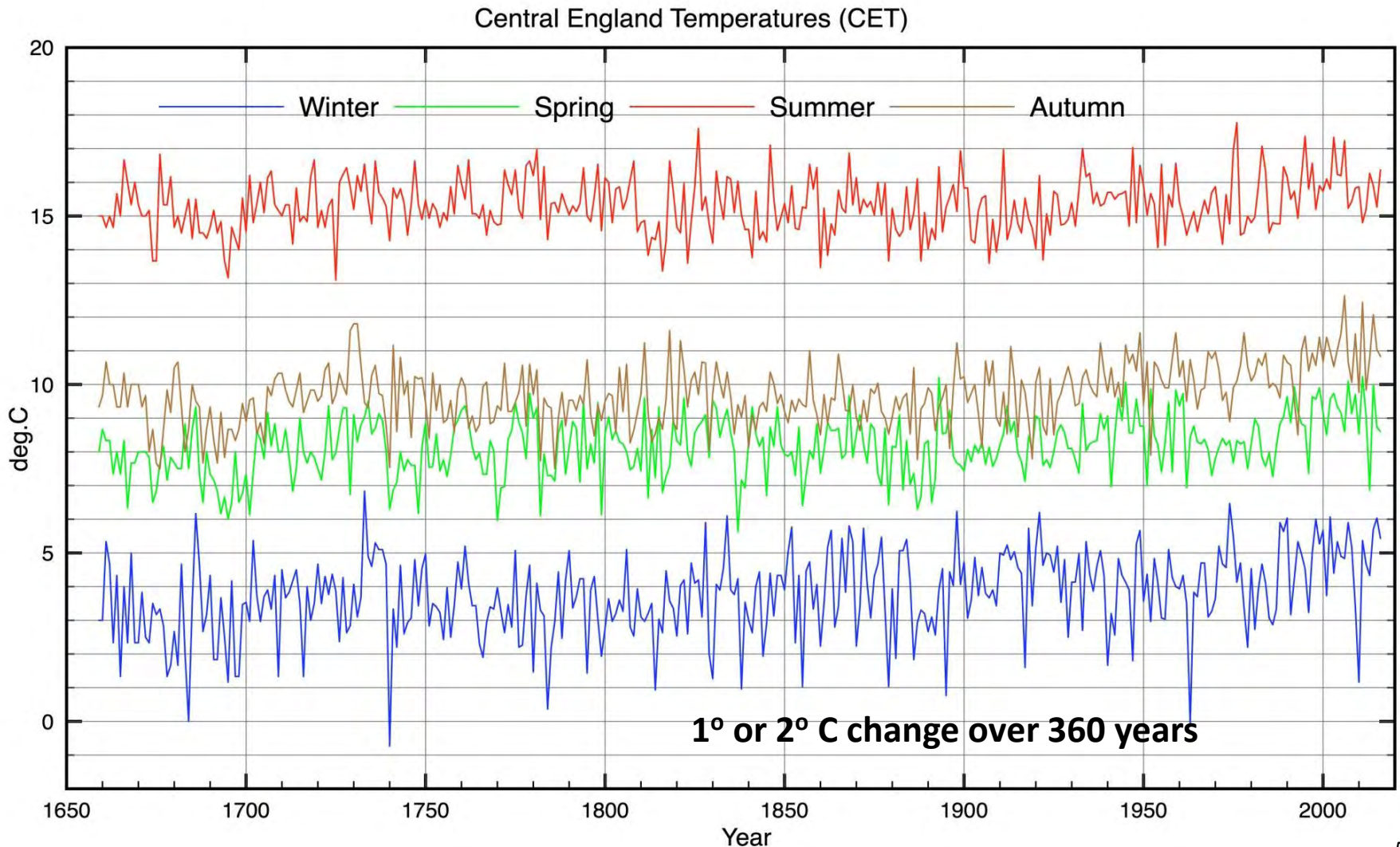
Section 6



The big warmie warmie . . .

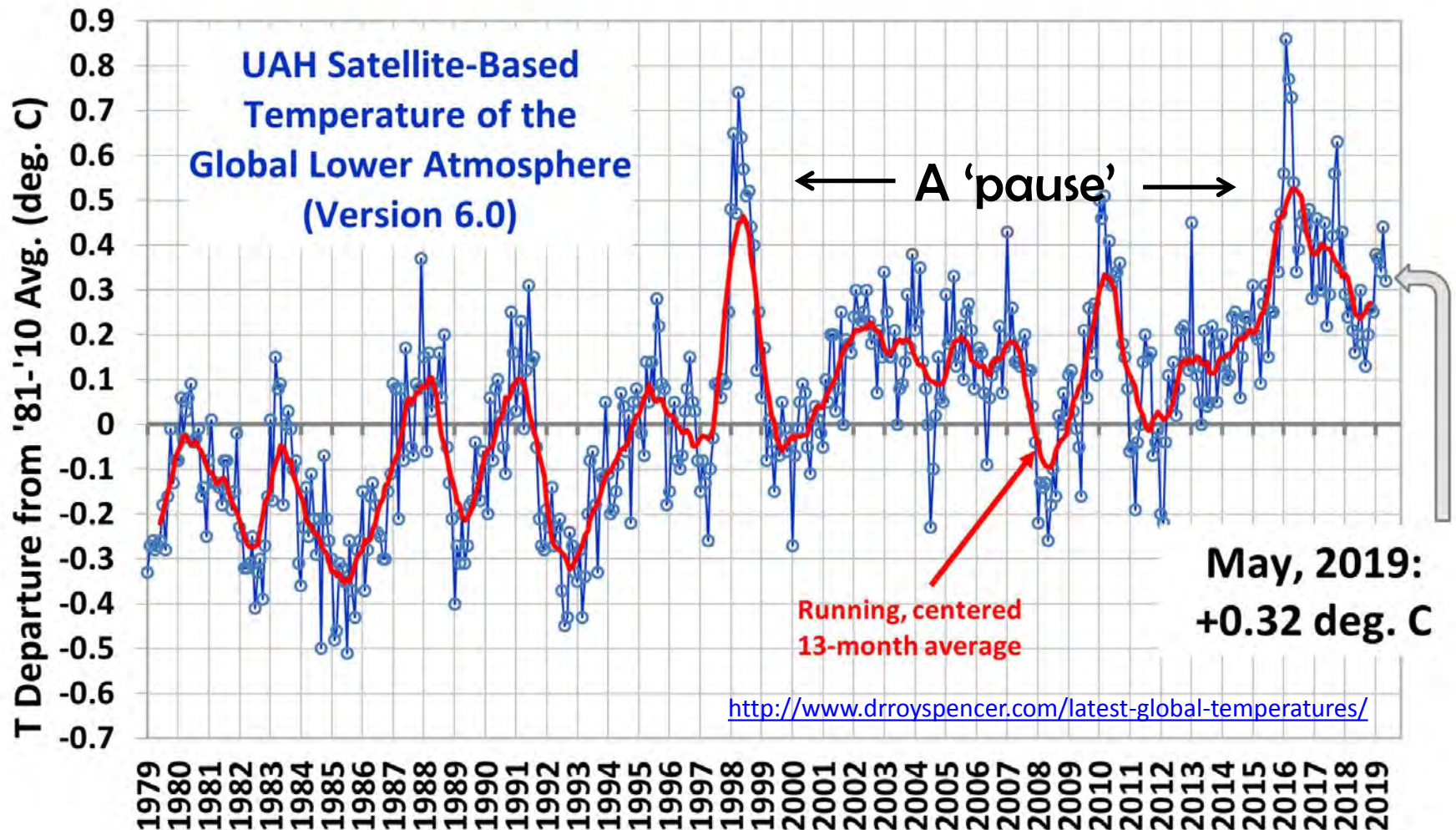
So just where is all this global warming?? We can expect some, but is it catastrophic?

The planet is emerging from the last ice age

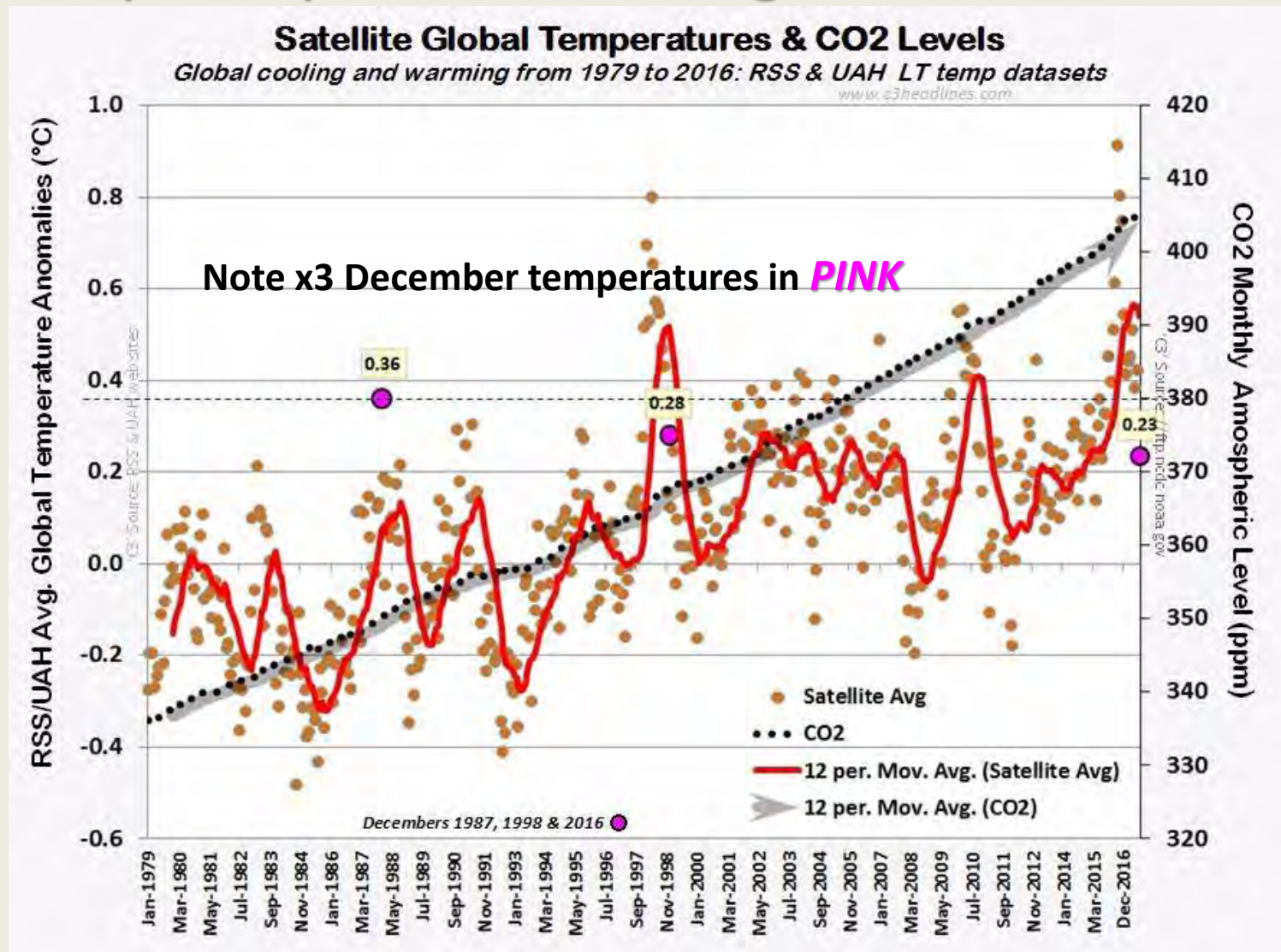


Satellite-based temperature trends 1979-2019

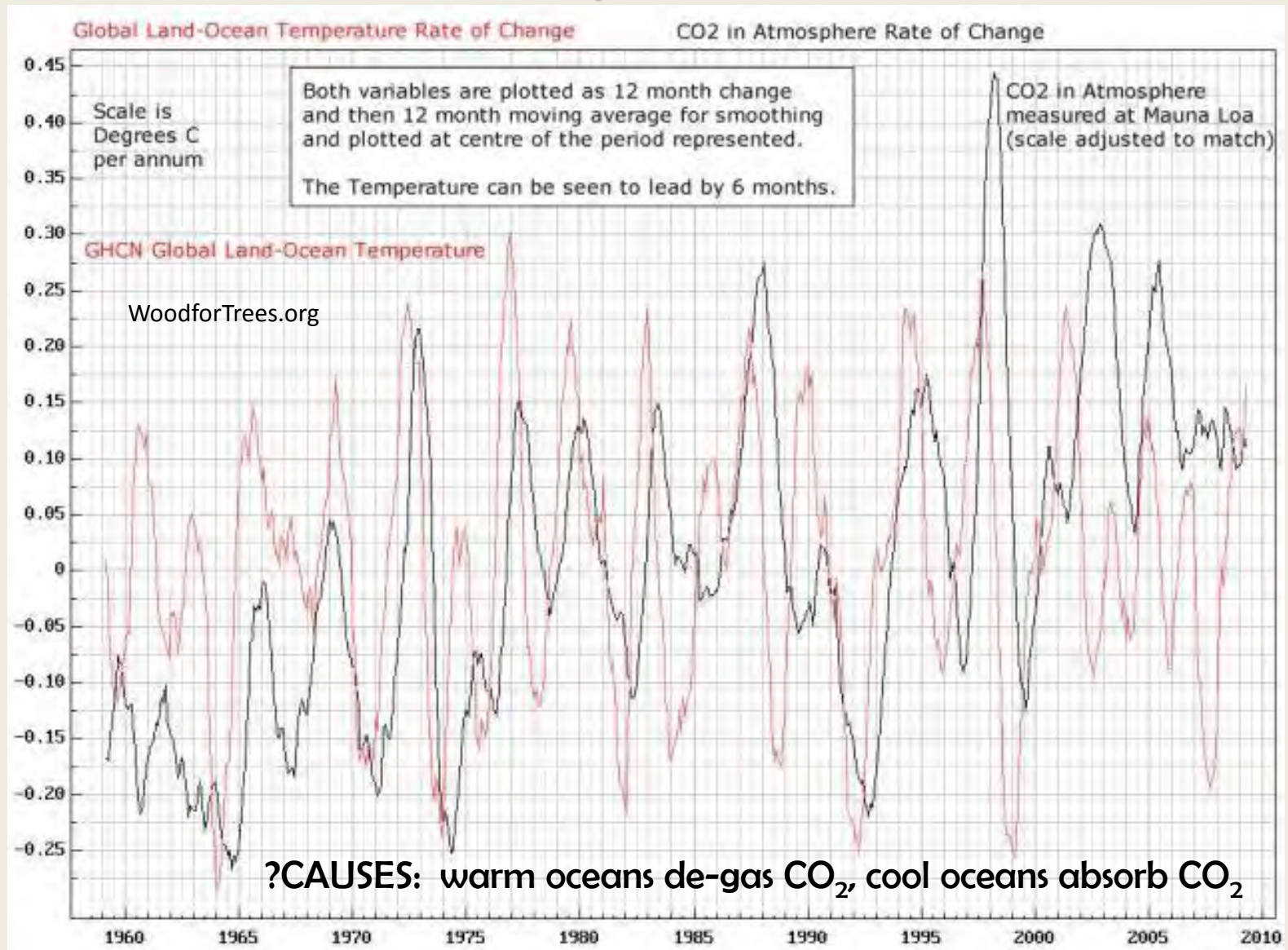
Weak warming trends with El Nino peaks, and even a 'pause' 2000-2014



An older temperature graph with CO₂ levels superimposed, showing no correlation

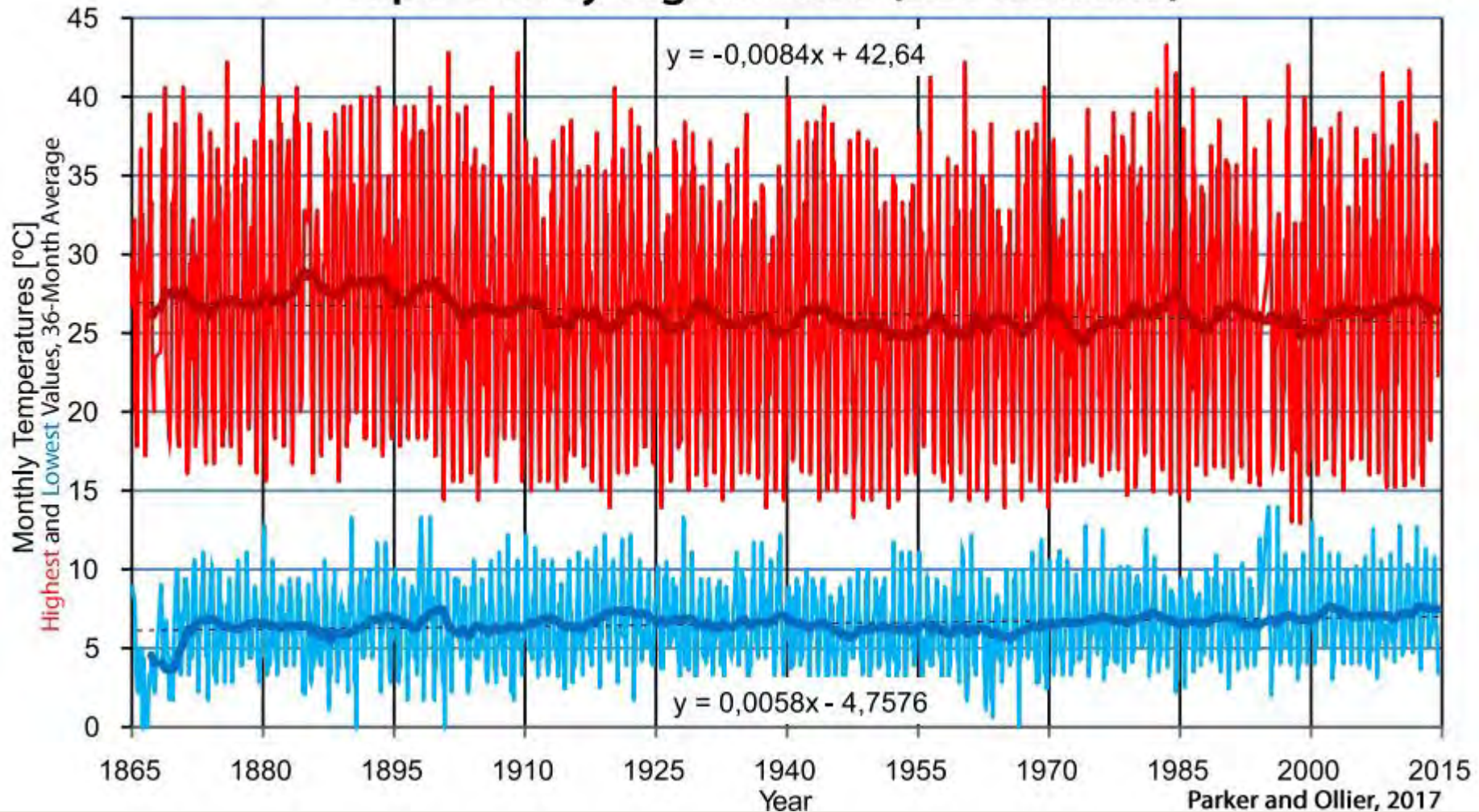


There is also evidence that CO₂ **FOLLOWS** temperature rise or fall



There is no hockey stick here at Cape Otway, near Geelong – T_{\max} and T_{\min} over 150 years

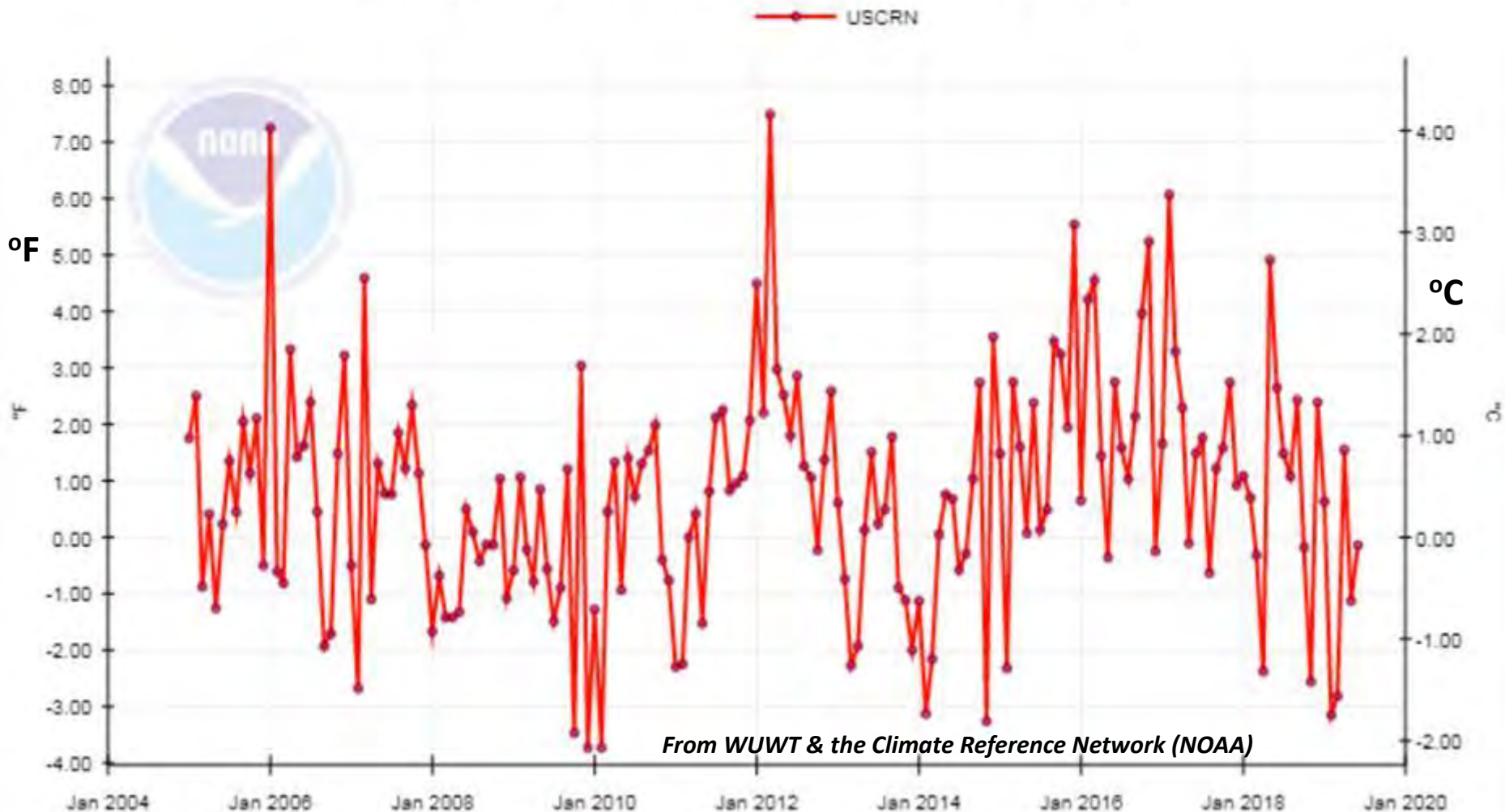
Cape Otway Lighthouse (SE Australia)



What hockey stick was that?

Within NOAA, one can get two readings for the same month e.g. June 2019, a **warming of $+0.2^{\circ}\text{F}$** , or a **cooling -0.14°F** ; which is it ???

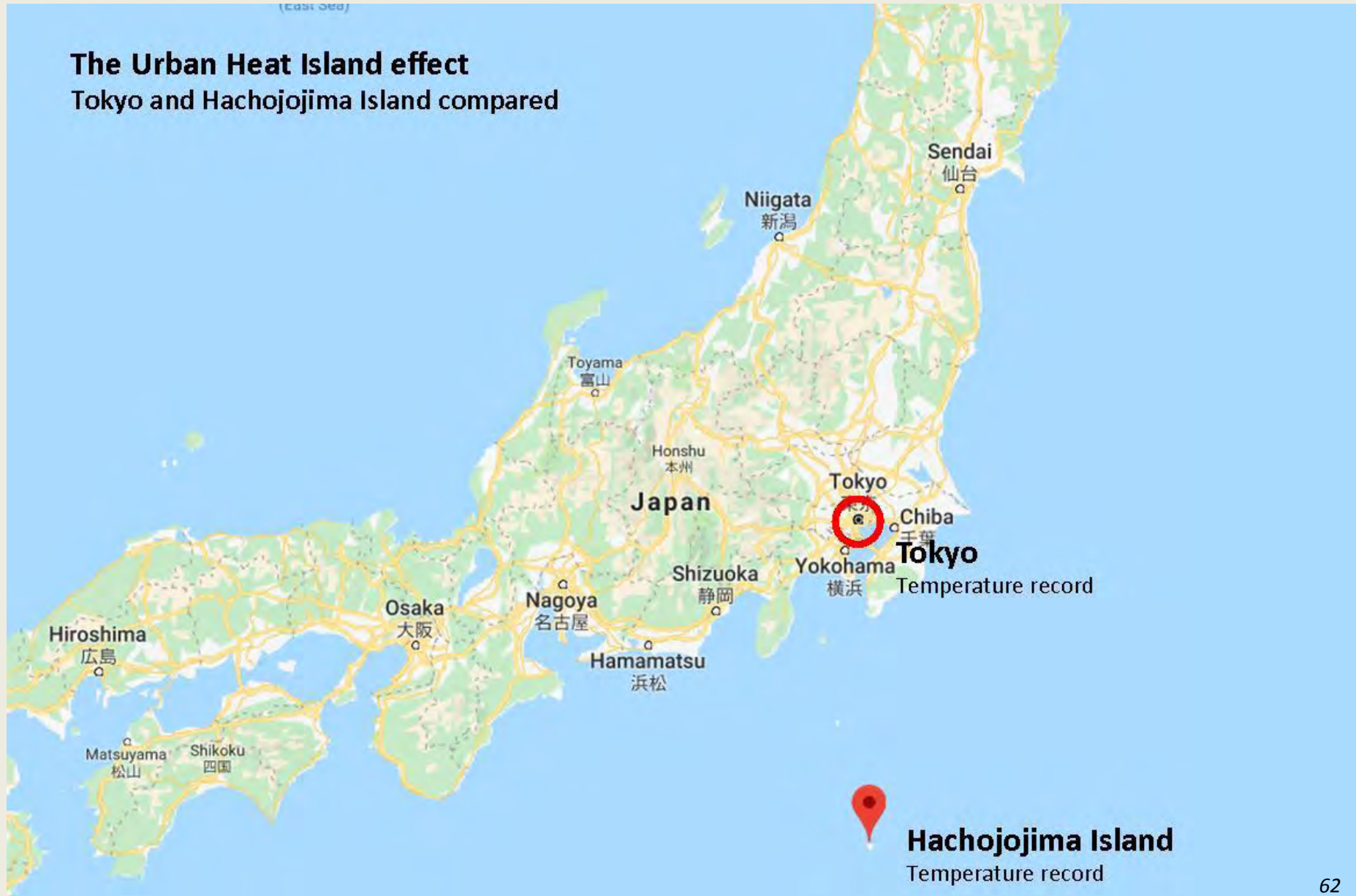
Contiguous U.S. Average Temperature Anomaly 2004 - 2019



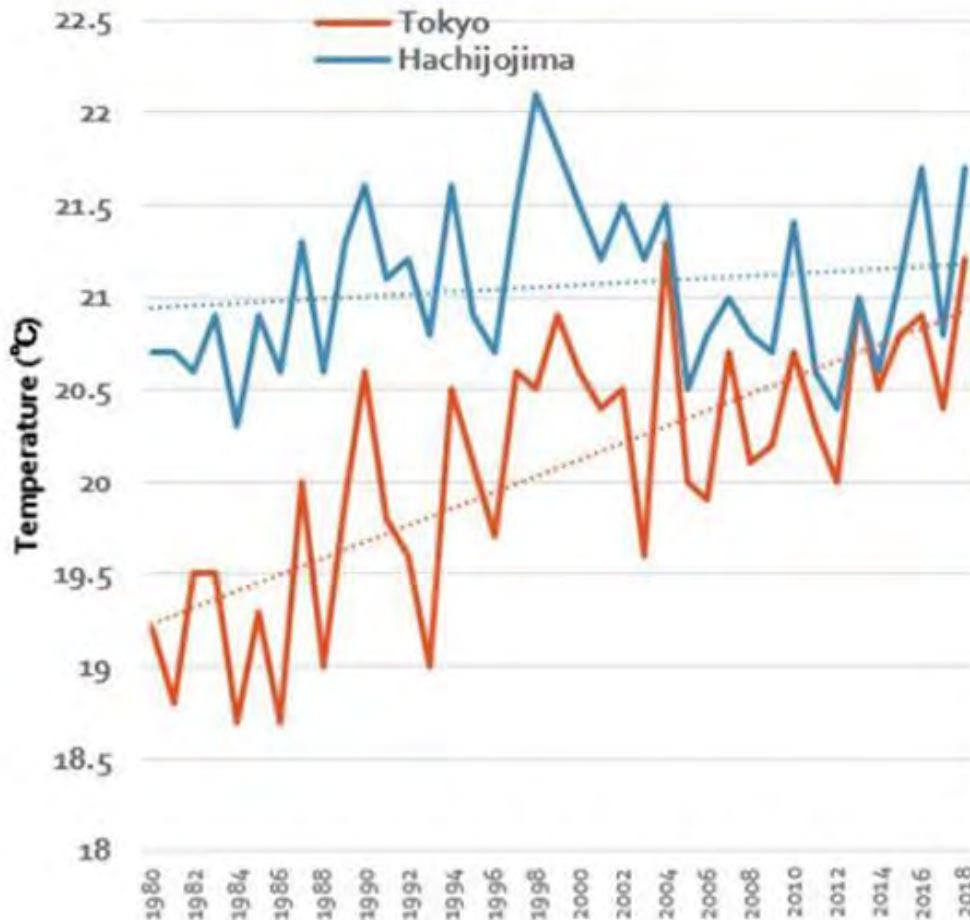
The Urban Heat Island Effect is a reality

The Urban Heat Island effect

Tokyo and Hachojima Island compared

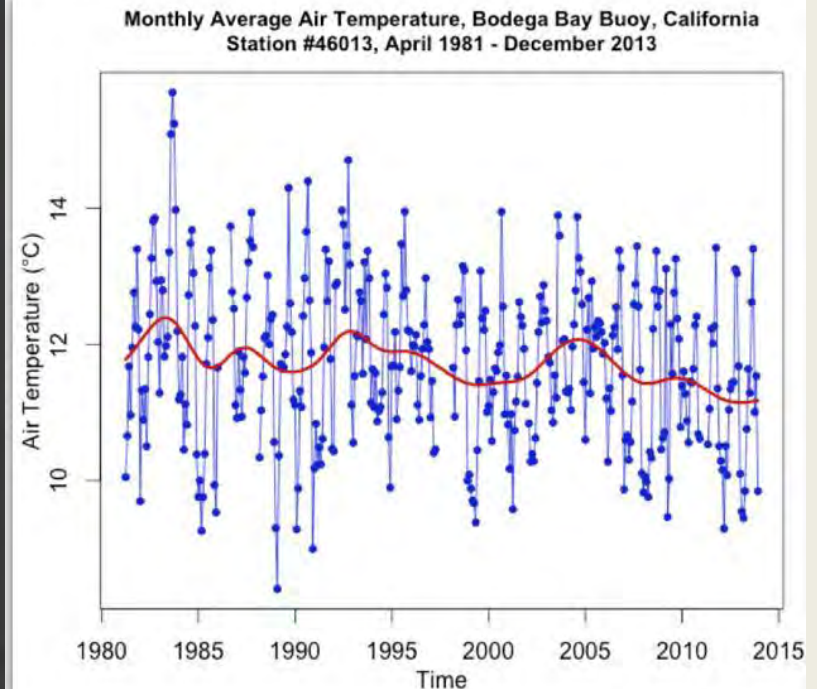


東京と八丈島の平均日最高気温
Mean Daily Maximum Temperatures
Tokyo vs. Hachijojima, Tokyo
1980 - 2018
 Data Source: JMA
 Edited by @KiryeNet



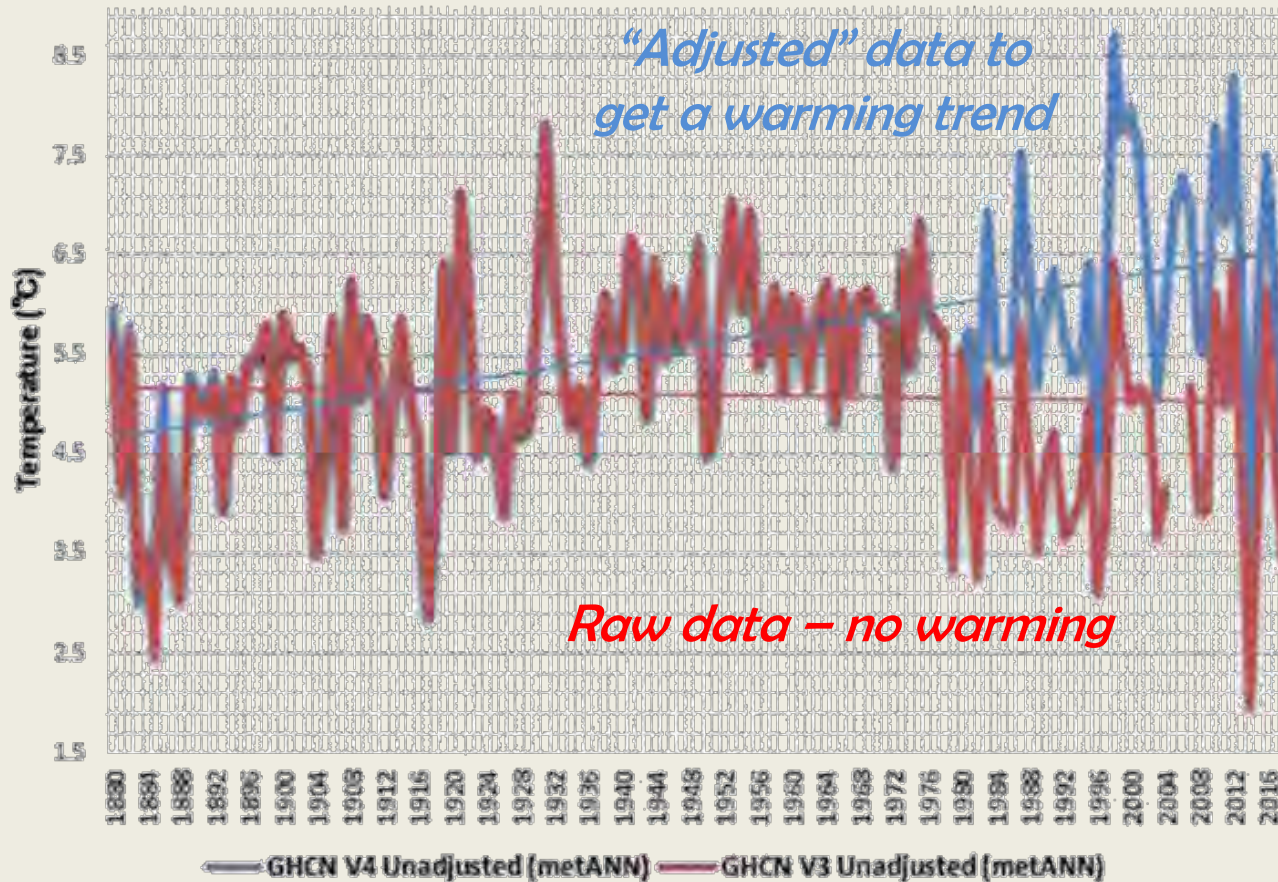
Tokyo city shows a warming trend, but the island shows only a slight warming trend.

Compare also the Bodega Bay record in offshore California – there is NO warming trend here.



And then there is government-sponsored fudging

Marquette, State of Michigan, USA
Mean annual temperatures 1880–2018 (138 yrs)



Data source **NASA**
Chart produced by
@KiryeNet

How the misdirected 'science' of the IPCC disrupts economies around the world

There are many many Temperature-Time graphs from around the world that show NO significant warming trends.

There appears to be NO substantial body of evidence that shows additional CO2 emissions cause any significant global warming above that necessary to make our planet liveable.

The IPCC peddles exaggerations and model-driven policies that are simply not supported by independent science. There are examples of good IPCC science that is discarded or buried in favour of political expediency.

The satanic treatment of CO2 emissions by the IPCC has produced dangerous , undesirable and unjustified intrusions into the economic well-being of many countries e.g. resistance to funding coal-fired power in poor African nations by the World Bank.

This is the blight of decarbonisation and renewable energy

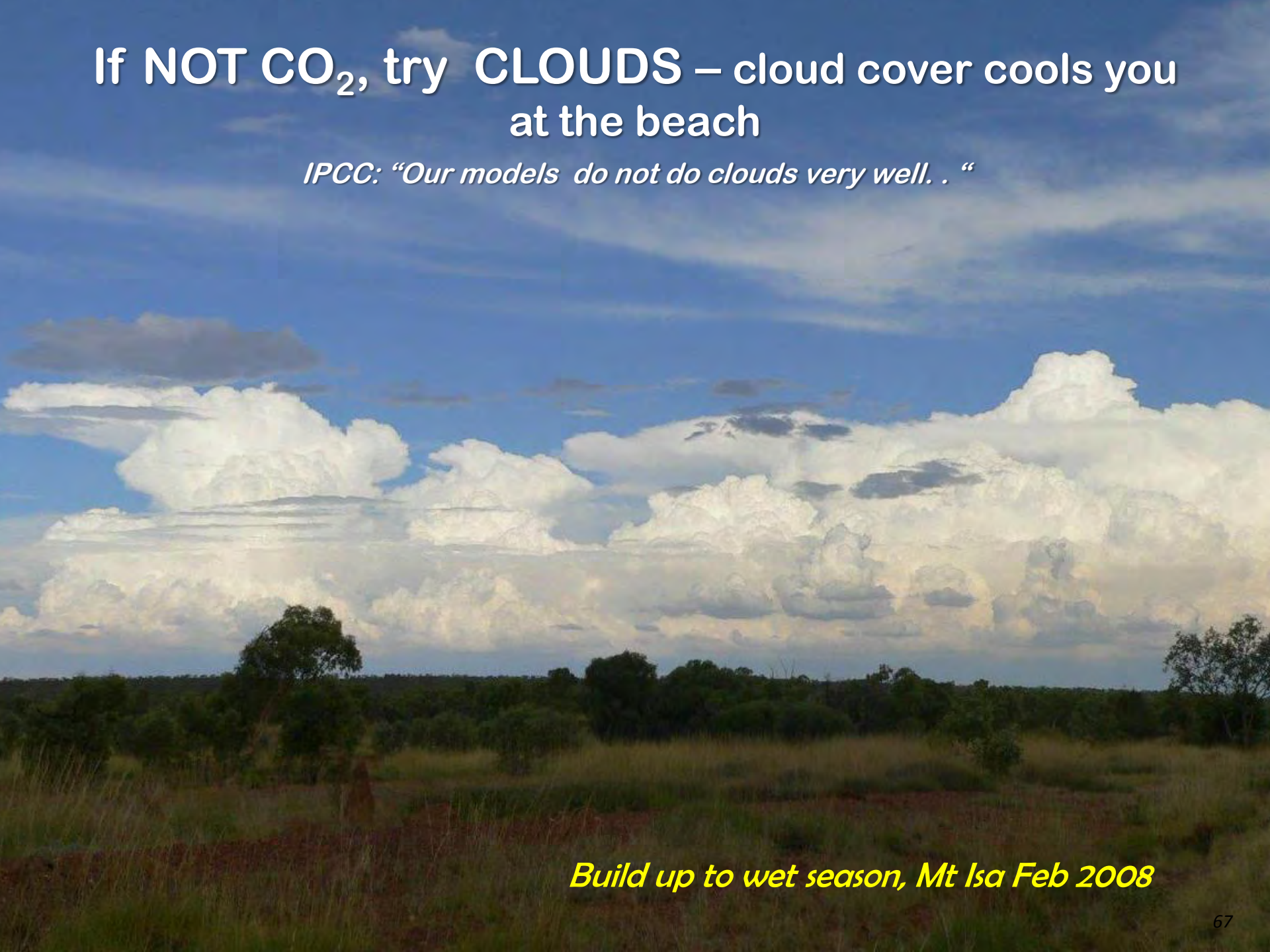
Section 7



CO_2 may be innocent . .

If NOT CO₂, try CLOUDS – cloud cover cools you
at the beach

IPCC: “Our models do not do clouds very well. . “



Build up to wet season, Mt Isa Feb 2008

Global Average Cloud Cover and Temperature

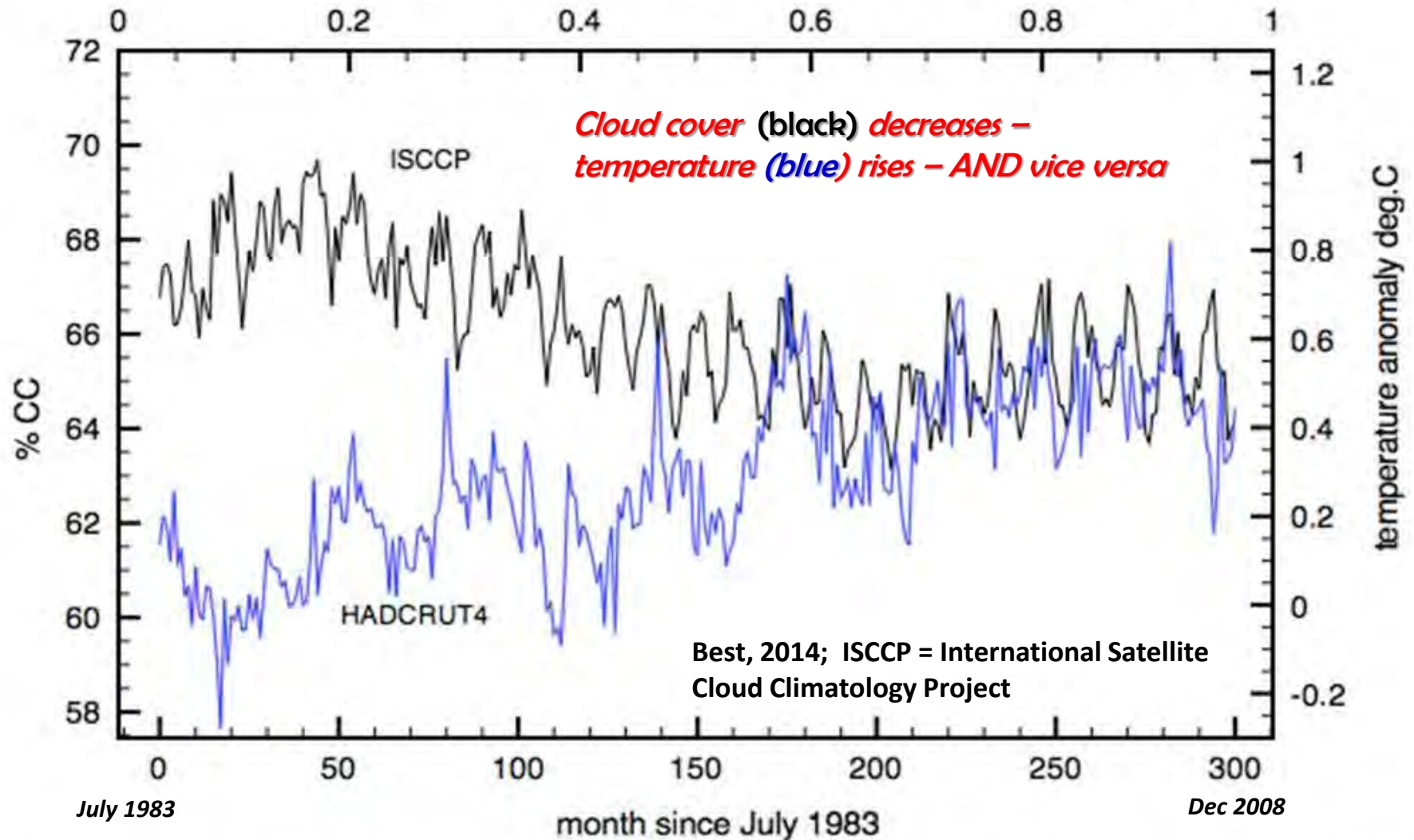
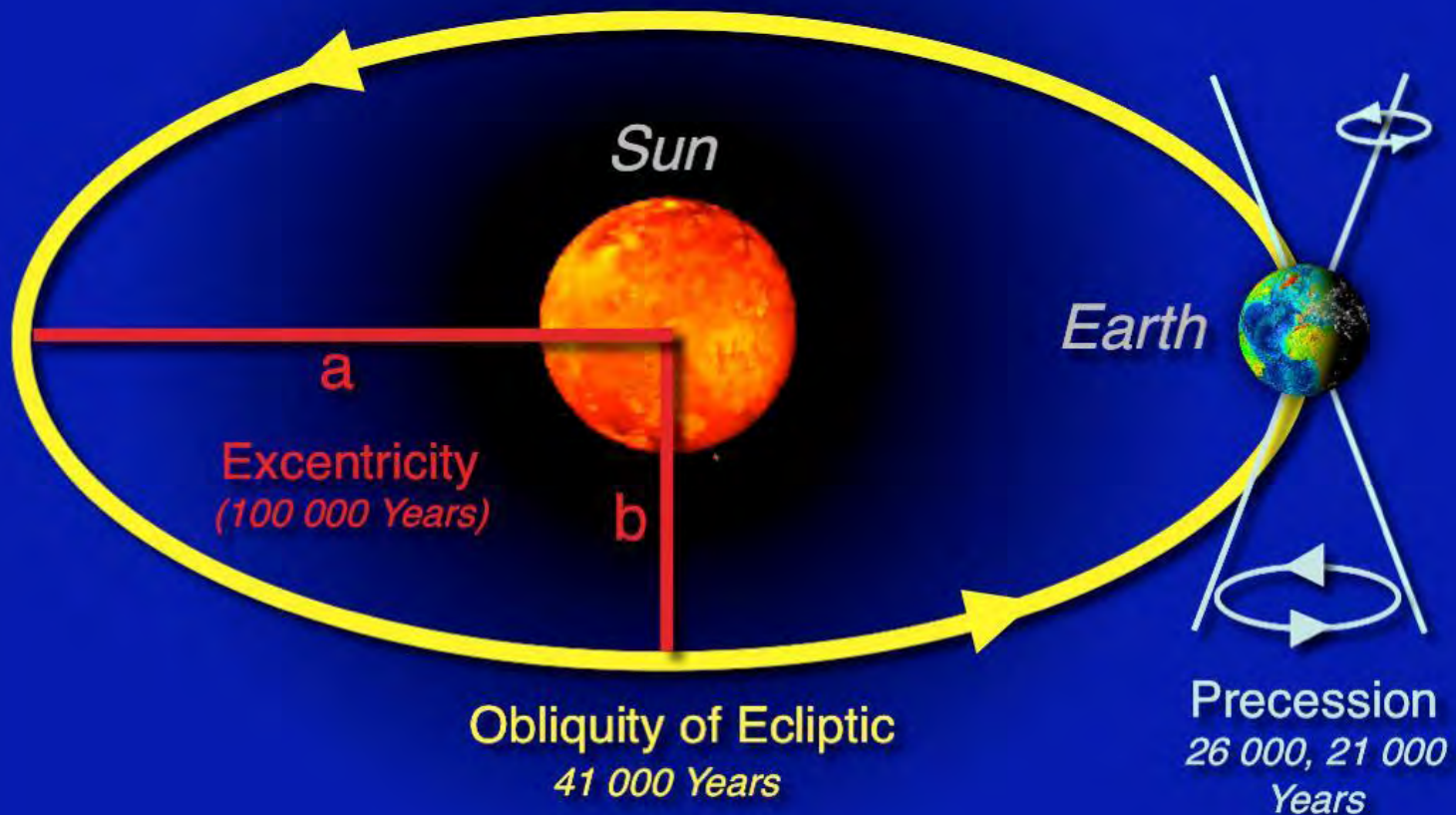


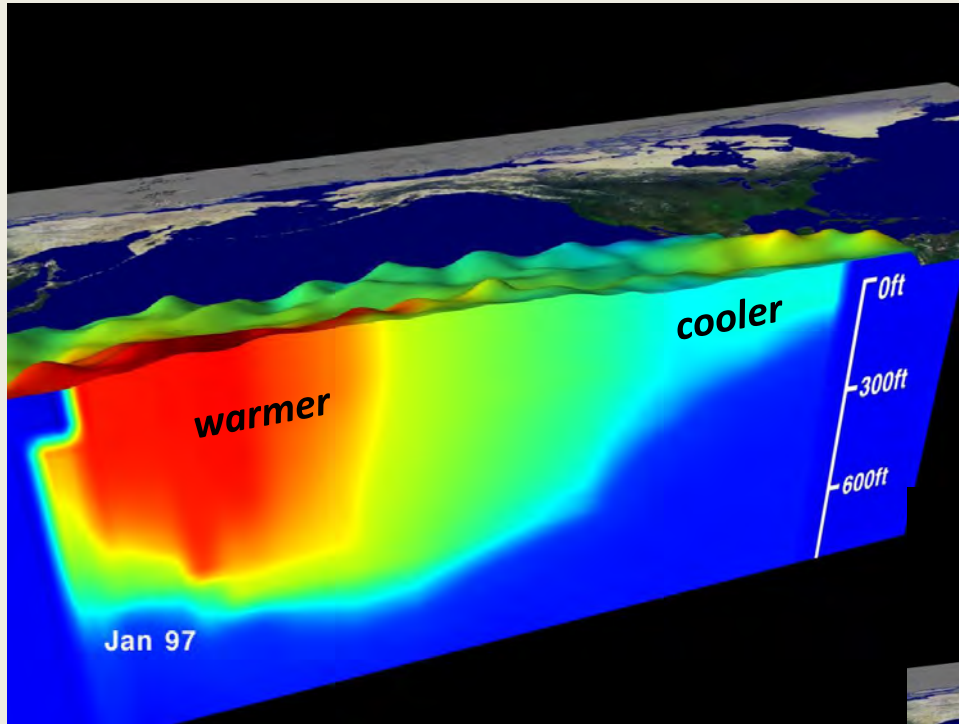
Figure 1a showing the ISCCP global averaged monthly cloud cover from July 1983 to Dec 2008 over-laid in blue with Hadcrut4 monthly anomaly data. The fall in cloud cover coincides with a rapid rise in temperatures from 1983-1999. Thereafter the temperature and cloud trends have both flattened. The CO₂ forcing from 1998 to 2008 increases by a further ~0.3 W/m² which is evidence that changes in clouds are not a direct feedback to CO₂ forcing.

So what else might drive climate change, if not CO₂ emissions? Planetary wobbles?

Milankovitch Cycles

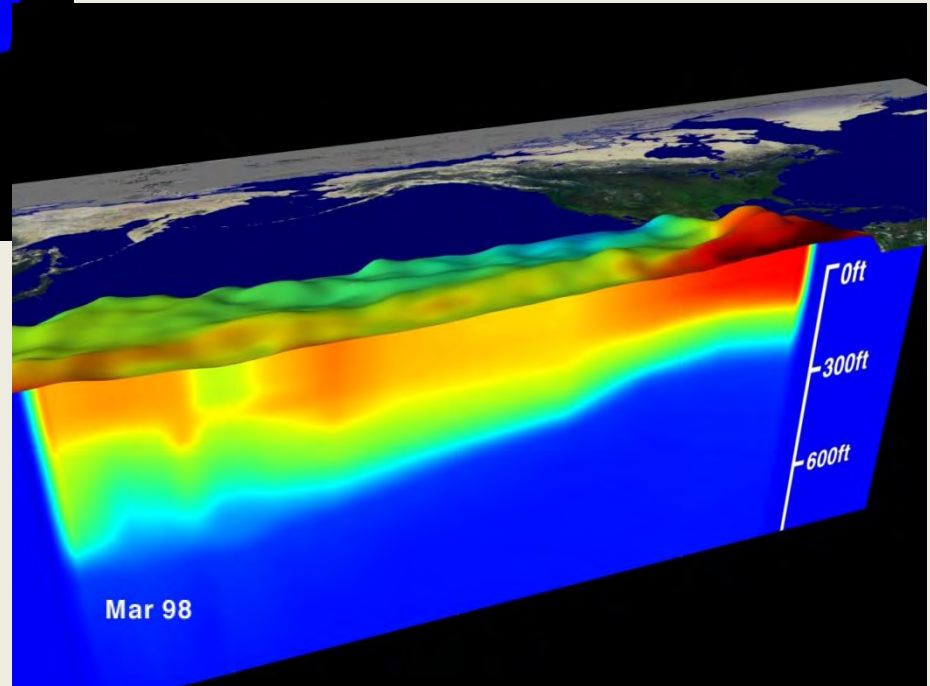


Or major oceanic circulations?



These are temperature profiles as measured by ocean buoys, 14 months apart at about the Equator, showing how massive volumes of water transfer heat across the *Pacific Ocean*

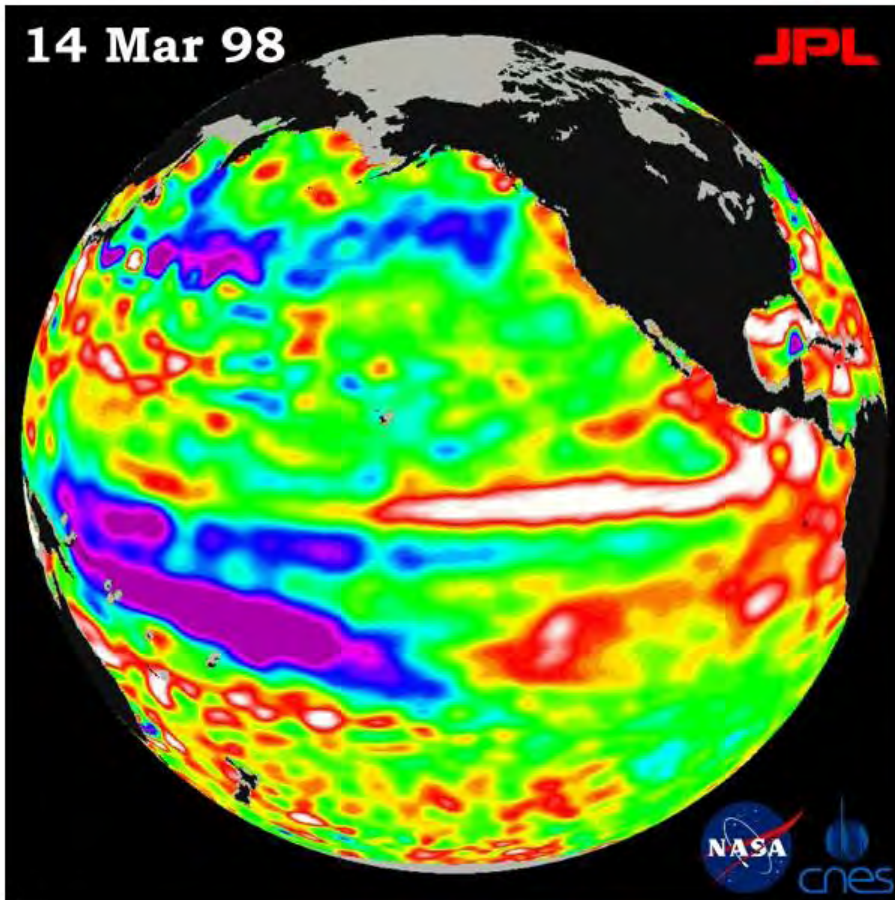
These are all part of the oceanic circulations that can form El Nino and La Nina events. **NONE** of these are related to CO2 emissions



The El Niño and La Niña cycles, 1998 and 2000, and Ocean Temperatures

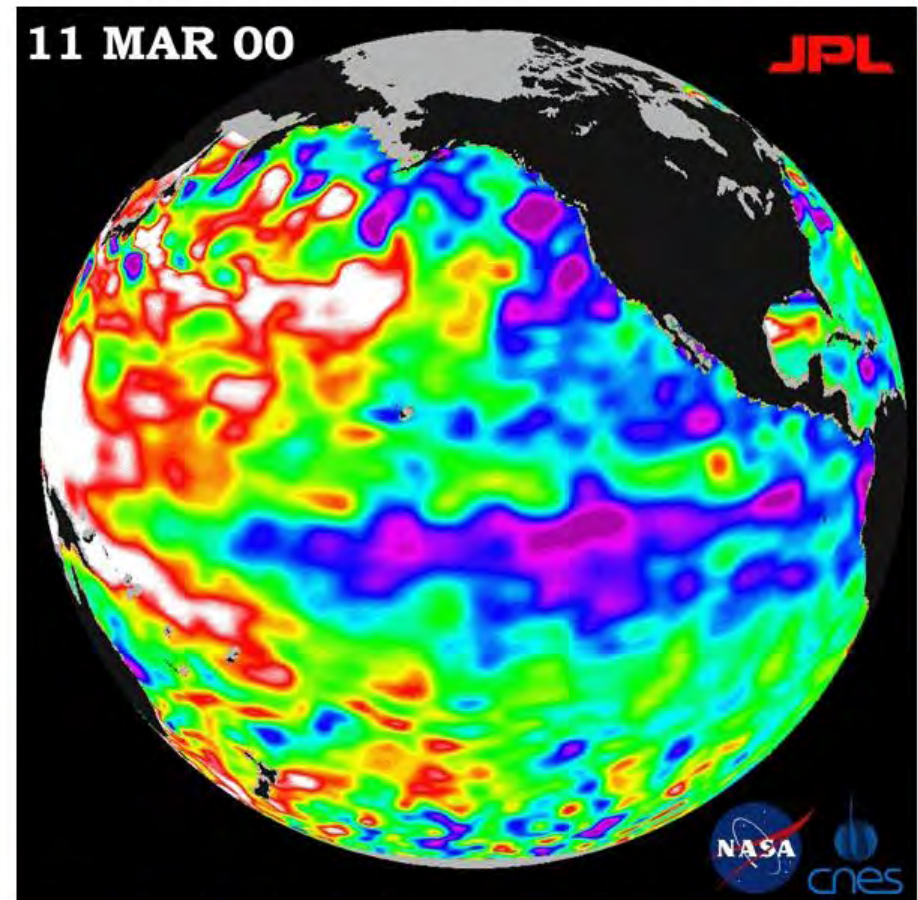
El Niño (White Is Warm)

14 Mar 98



La Niña (Purple Is Cool)

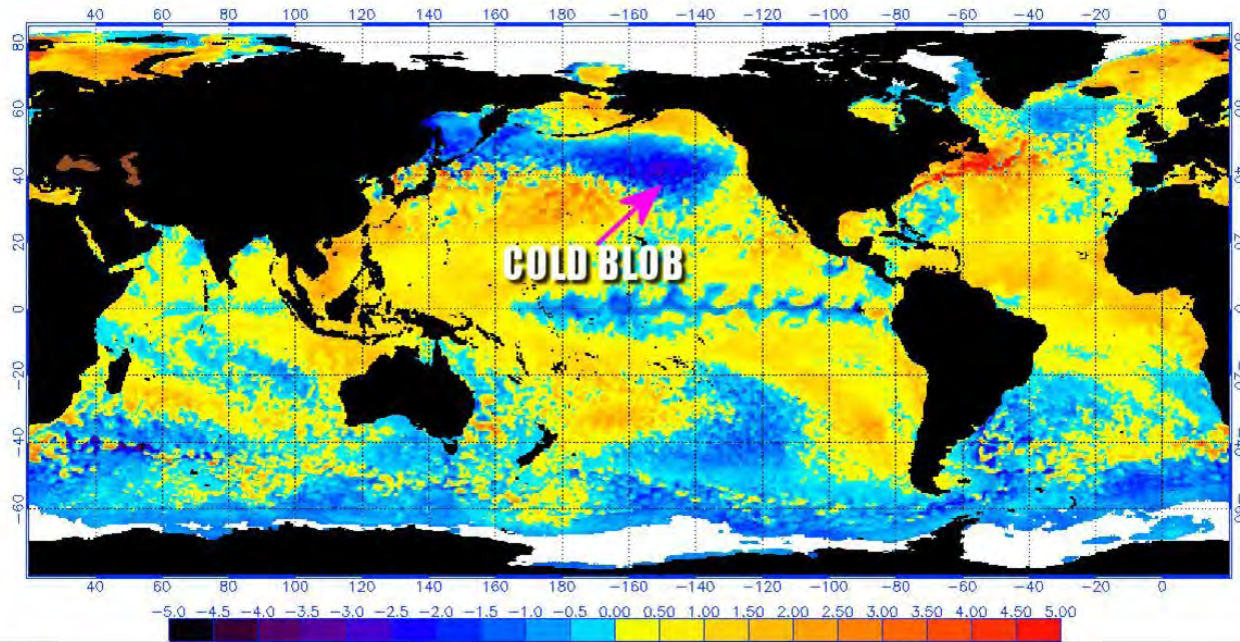
11 MAR 00



<https://sealevel.jpl.nasa.gov/science/elinopdo/elniño/>

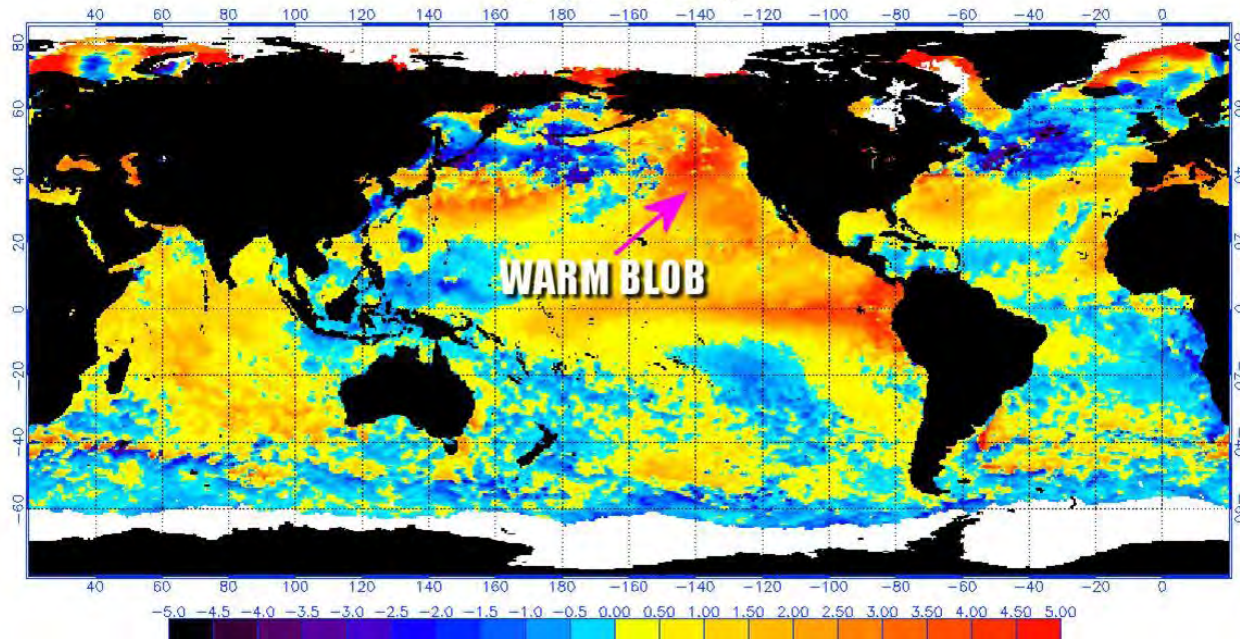
NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 11/28/2016

(white regions indicate sea-ice)



NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 7/13/2015

(white regions indicate sea-ice)

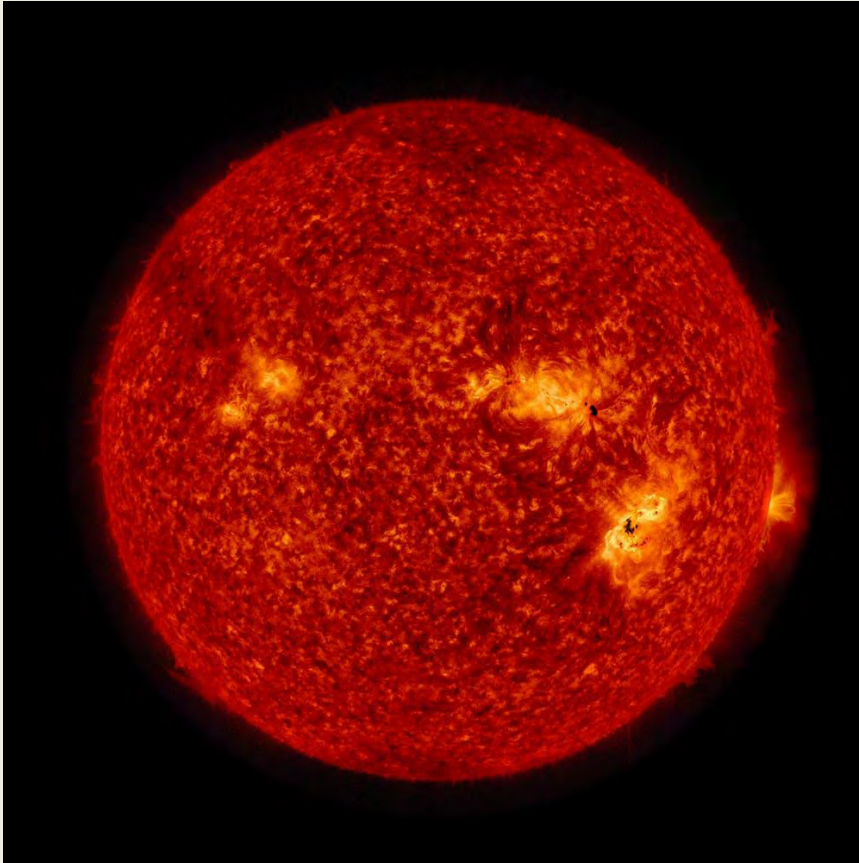


Warm and cold 'blobs' developing in the Pacific Ocean at different times and places are major determinants for weather and climate in areas like the west coast of north America and California.

CO₂ emissions have nothing to do with it.

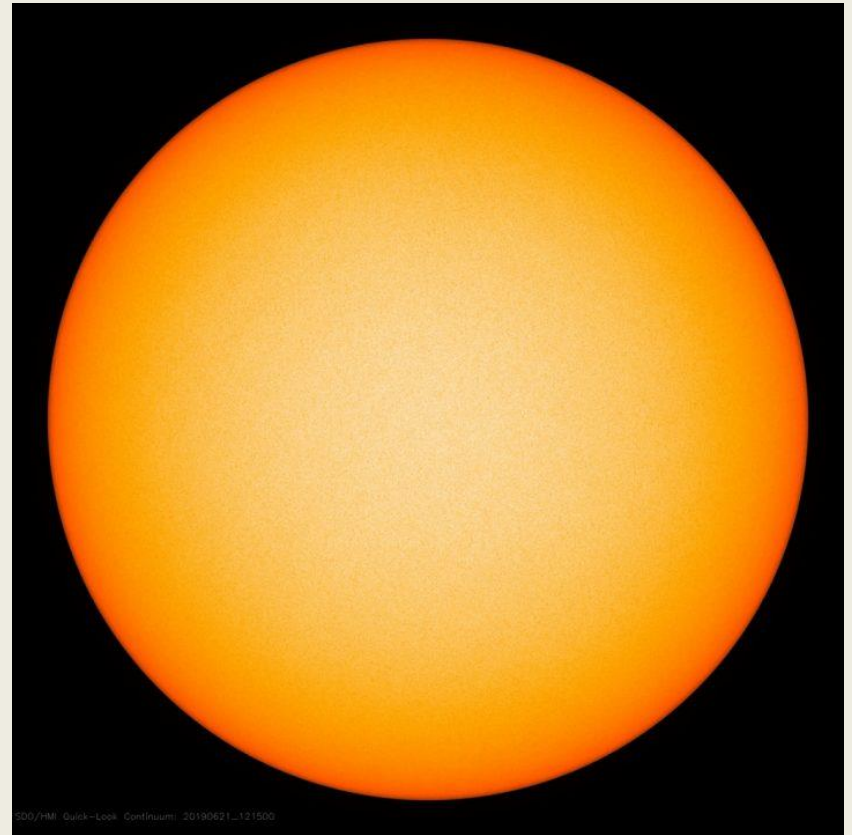
And then there are sunspots

NASA say that a quiet sun dramatically cools the upper atmosphere

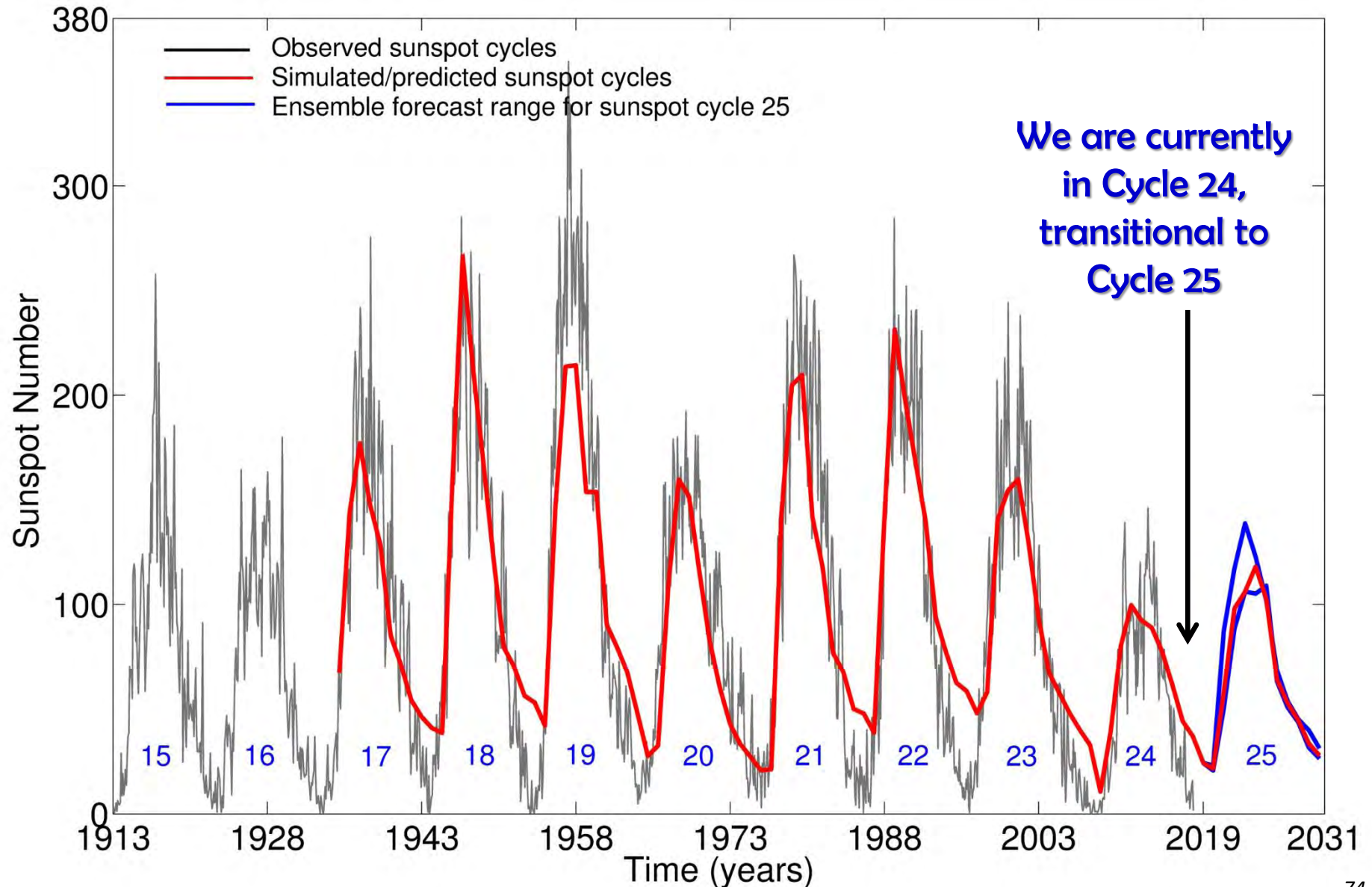


An active sun, with
many sunspots

A quiet sun, with no
sunspots (March 2019)



The counting of sunspots dates from 1600 approx – the invention of the telescope



Low sunspot numbers and a cool sun equate historically to cooler climate e.g the Maunder minimum

THE SUN DEFINES THE CLIMATE

Habibullo Abdussamatov, Dr. Sc. 2012

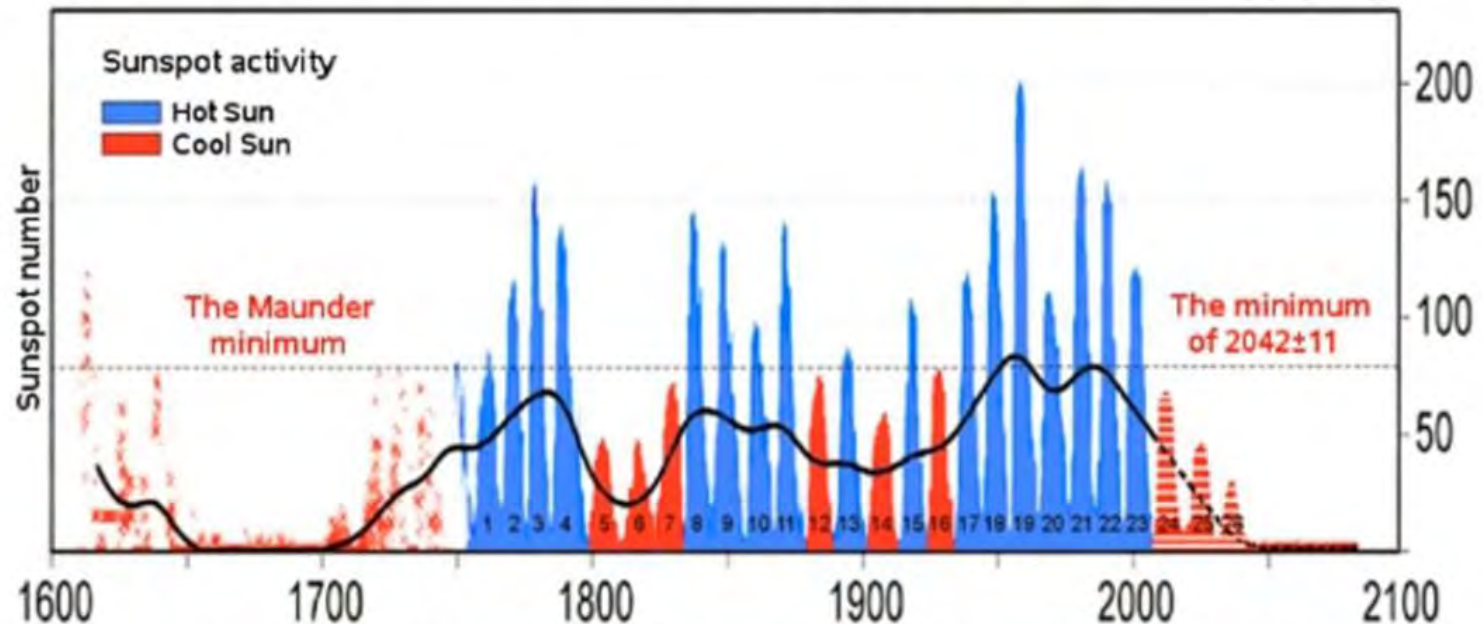


Fig. 3. Variation in the TSI drawing on the data reconstruction of Lean, J.L. (2000) and Wang Y. - M., Lean J.L., Sheeley N.R. (2005) up to 1978, sunspot activity of the Sun from 1611, and changes forecast by us after 2008 (dotted lines).

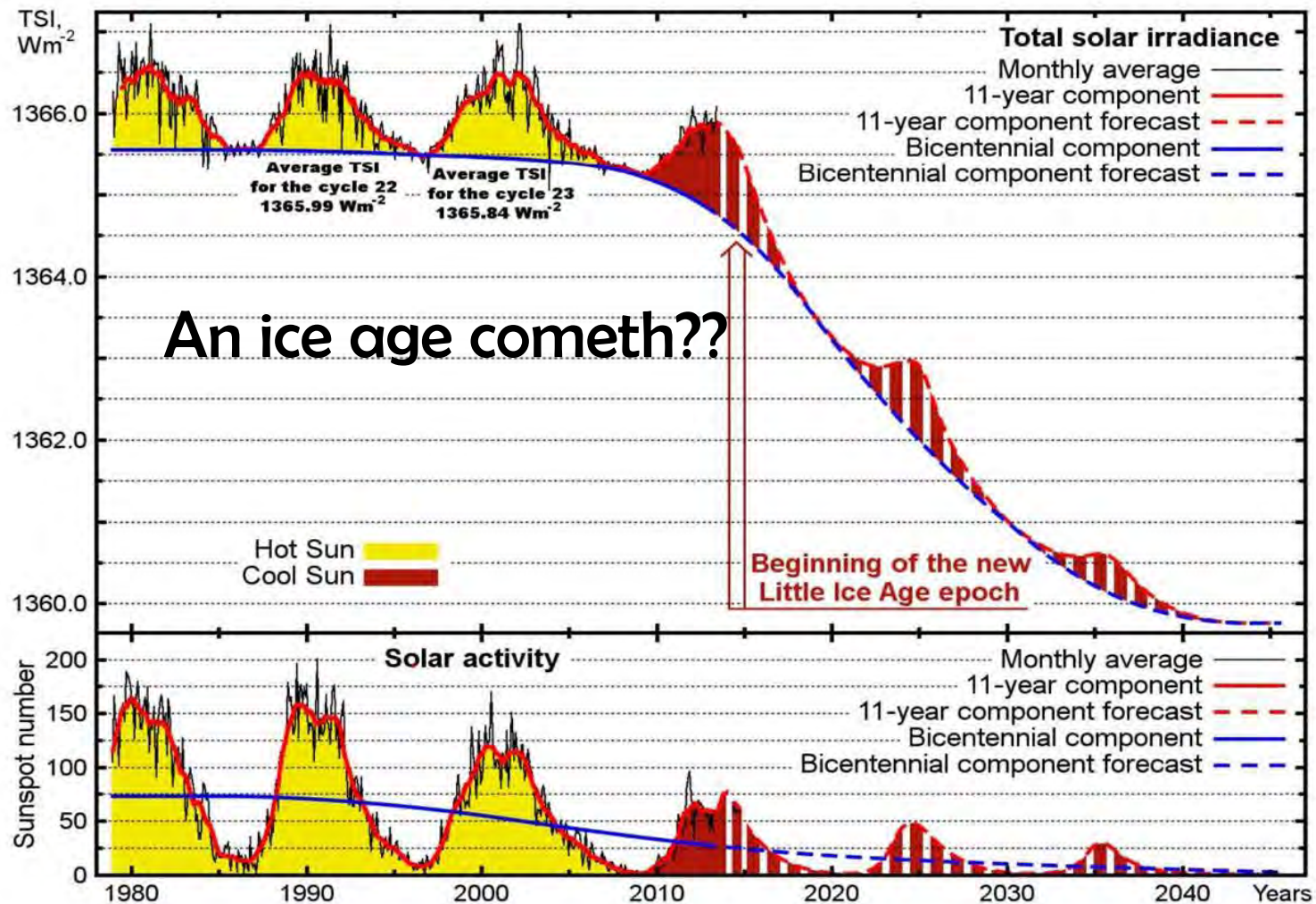


Figure 1. Cyclic variations of the TSI (data are taken from [14]) and sunspot number (data are taken from [15]) are synchronized and inter-correlated in both phase and amplitude (the hot Sun is marked by (yellow) gray and the cool Sun is marked by (red) black). The arrow indicates the beginning of the new Little Ice Age epoch.

Section 8

Are you levelling with me ??



Antonio Guterres

Secretary General of the UN

'Time' cover 2019

Sadly, just another
UN climate
propagandist trying
to scare you, like
Greta . . .



*Greta Thunberg,
Sweden*

The Maldives president went after YOUR money in 2009
'send me money to stop the sea levels rising. '

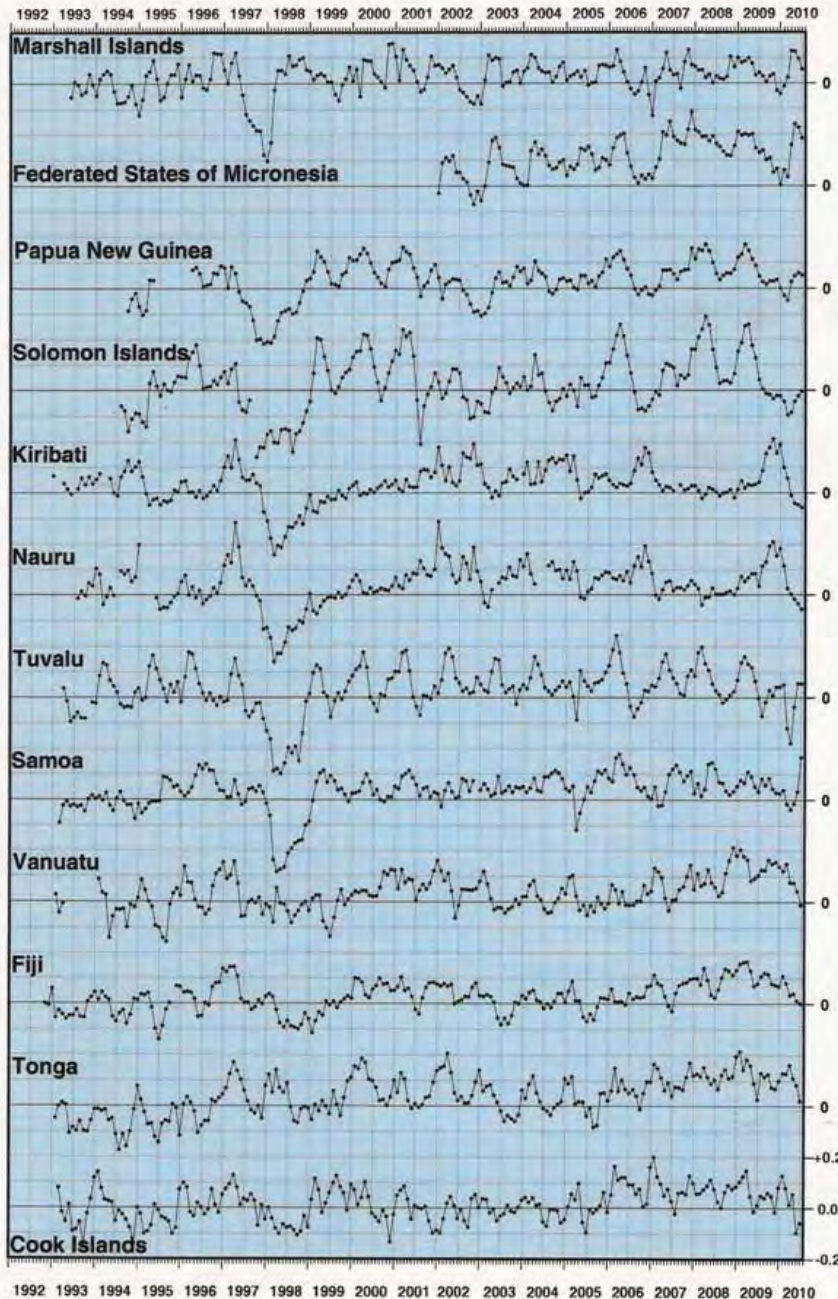




But Maldives hypocrisy has no limits – new resorts are built with water lapping the floors

MONTHLY MEAN SEA LEVELS TO JUNE 2010 (m)

The zero line represents an arbitrary fixed offset from the zero of the tide gauge.

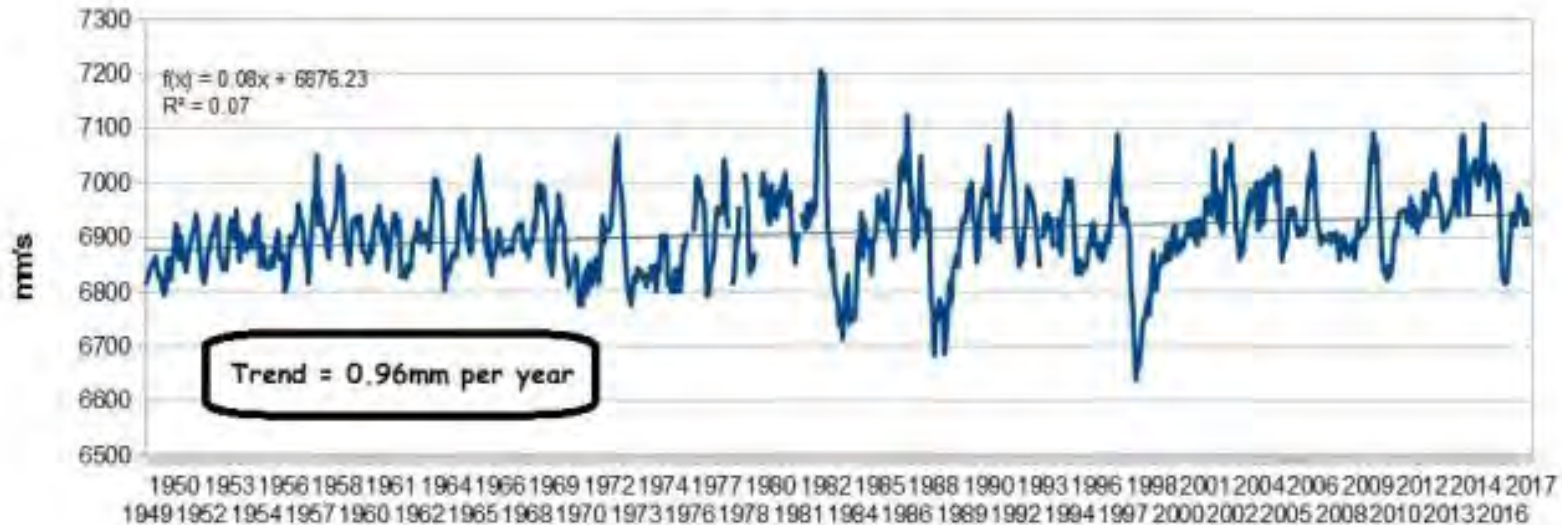


The Pacific Island nations peddle the same victimhood, but tide gauge data say otherwise, at least to 2010. . .

<http://joannenova.com.au/2010/08/south-pacific-sea-levels-no-rise-since-1993/>

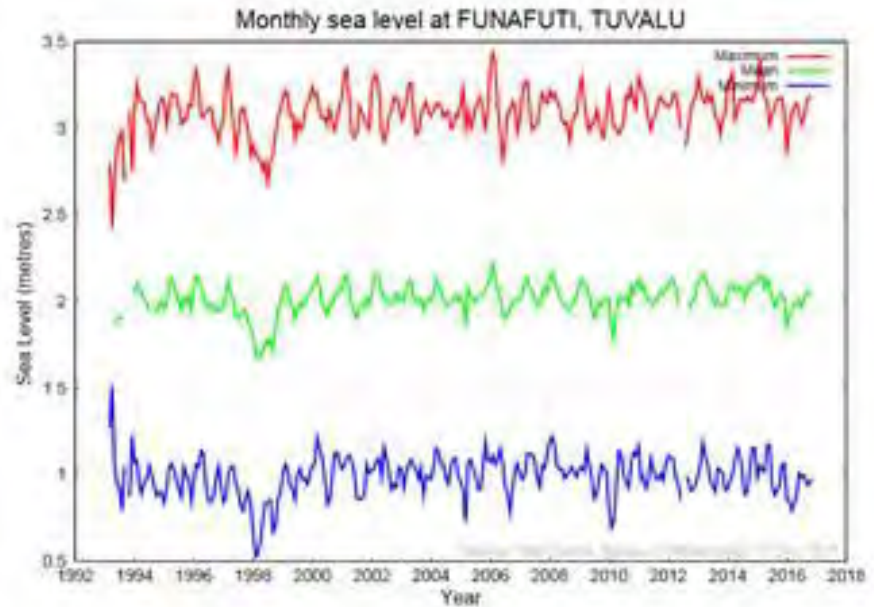
Kiribati Composite Sea Level

June 1949 to June 2017



from [PSMSL](#) (Permanent Service for Mean Sea Level)

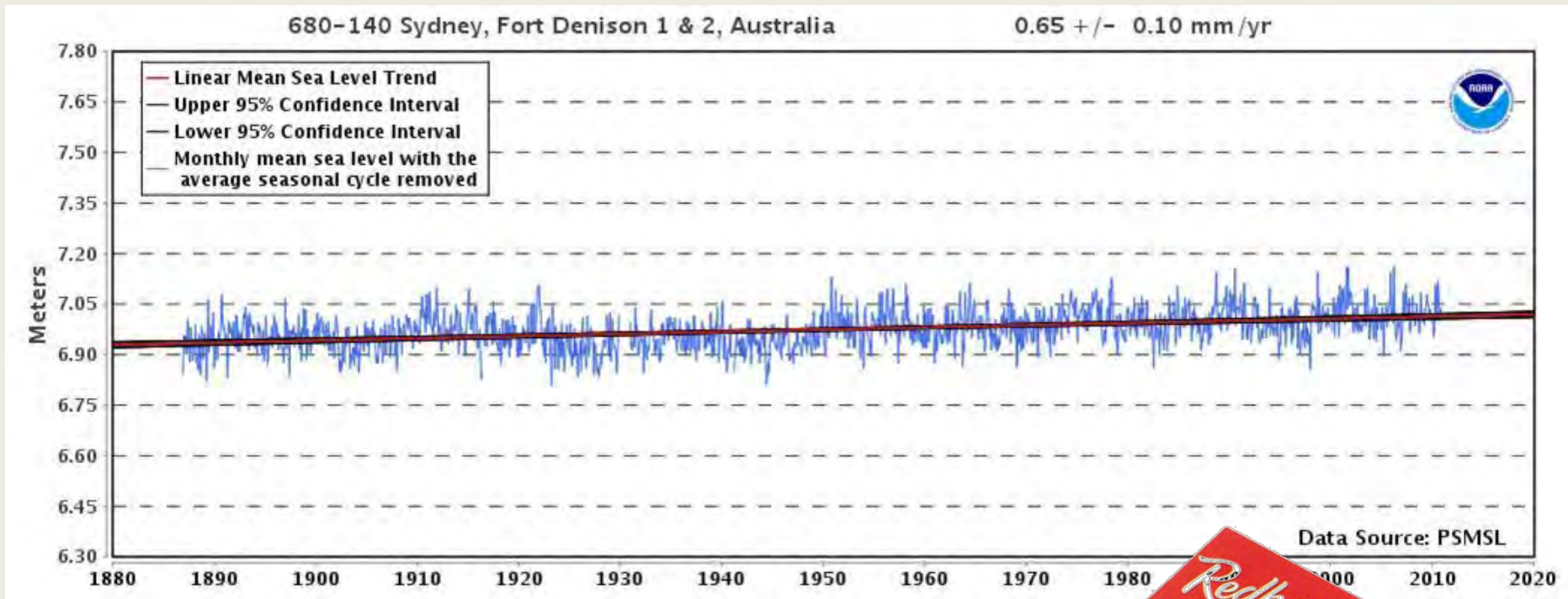
And the scare is no more convincing for Tuvalu and Kiribati – there is **NO PROBLEM** related to rising Sea Levels !!



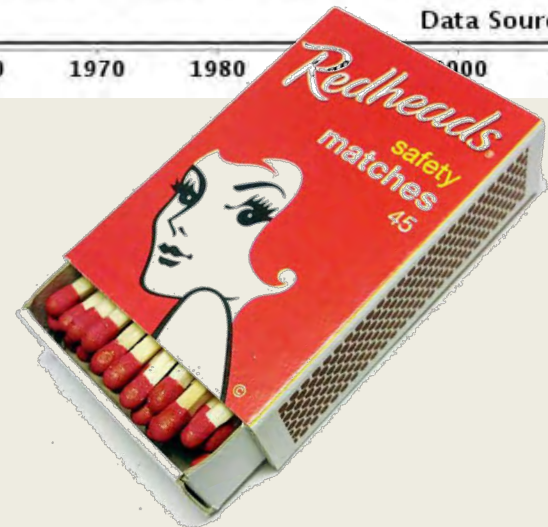
And closer to home at Fort Denison . . .



The Fort Denison (Sydney) tide gauge since 1886



**Do the maths: 0.65mm per year is
65mm per century – a rise of about the
height of a matchbox - over 100 years**



100 years of Mean Sea Levels at Fort Denison

Daniel Fitzhenry—Hydrographic Surveyor, 2019

1914 – 1.11 metres

1924 – 0.98 metres

1934 – 0.98 metres

1944 – 0.97 metres

1954 – 1.00 metres

1964 – 1.09 metres

1974 – 1.09 metres

1984 – 1.02 metres

1994 – 1.04 metres

2004 – 1.08 metres

2014 – 1.12 metres

2019 – 1.05 metres

The Fort Denison Mean Sea Level data are also recorded by BOM.

In 105 years, this data set shows a **FALL** of 6cm in the period



Clover Moore and her recent 'Sydney climate emergency' is *peak stupidity*

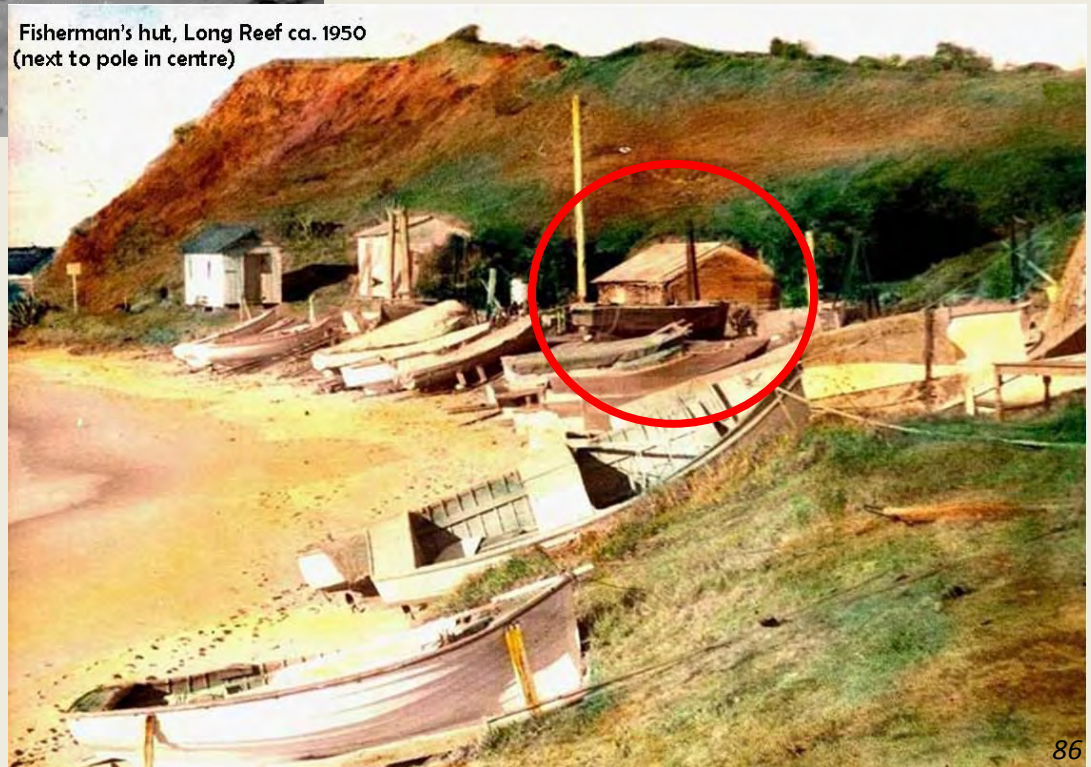
Cross the Spit Bridge and head to Collaroy. . .



**Fisherman's hut, built 1875,
shown here in 1936**

And here in 1950

**Fisherman's hut, Long Reef ca. 1950
(next to pole in centre)**



**The hut appears
untouched by any
sea level change for
the past 144 years**

Long Reef headland at Collaroy, 2014

The 1875 fisherman's hut looks just fine with
our stable sea levels . . .

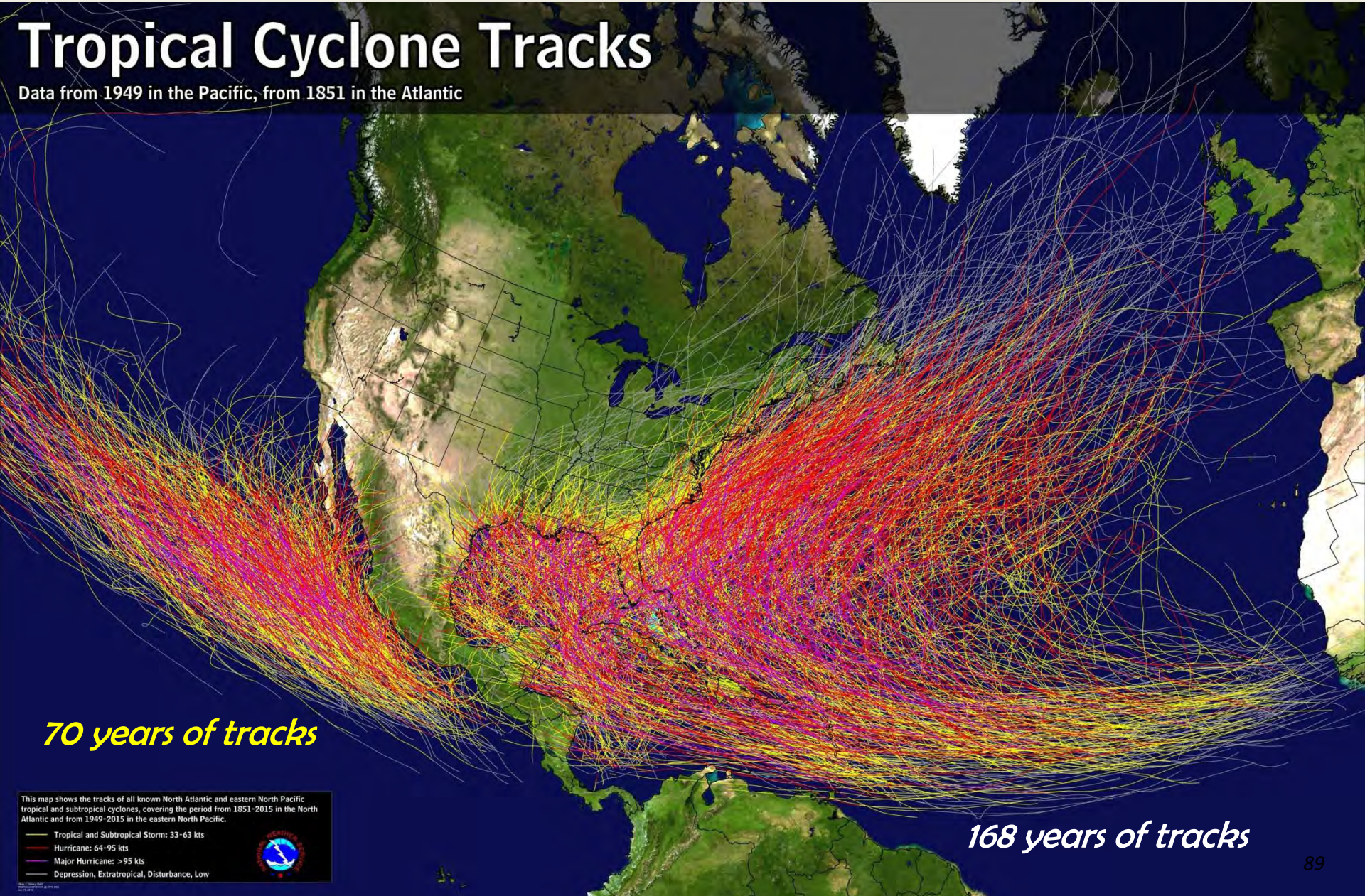


Section 9 – weather amnesia



Are things getting worse, bro?

Which ones were caused by 'global warming' ??



Insurers will always complain. . .

Global Weather Losses as Percent of Global GDP: 1990-2018

Sources:

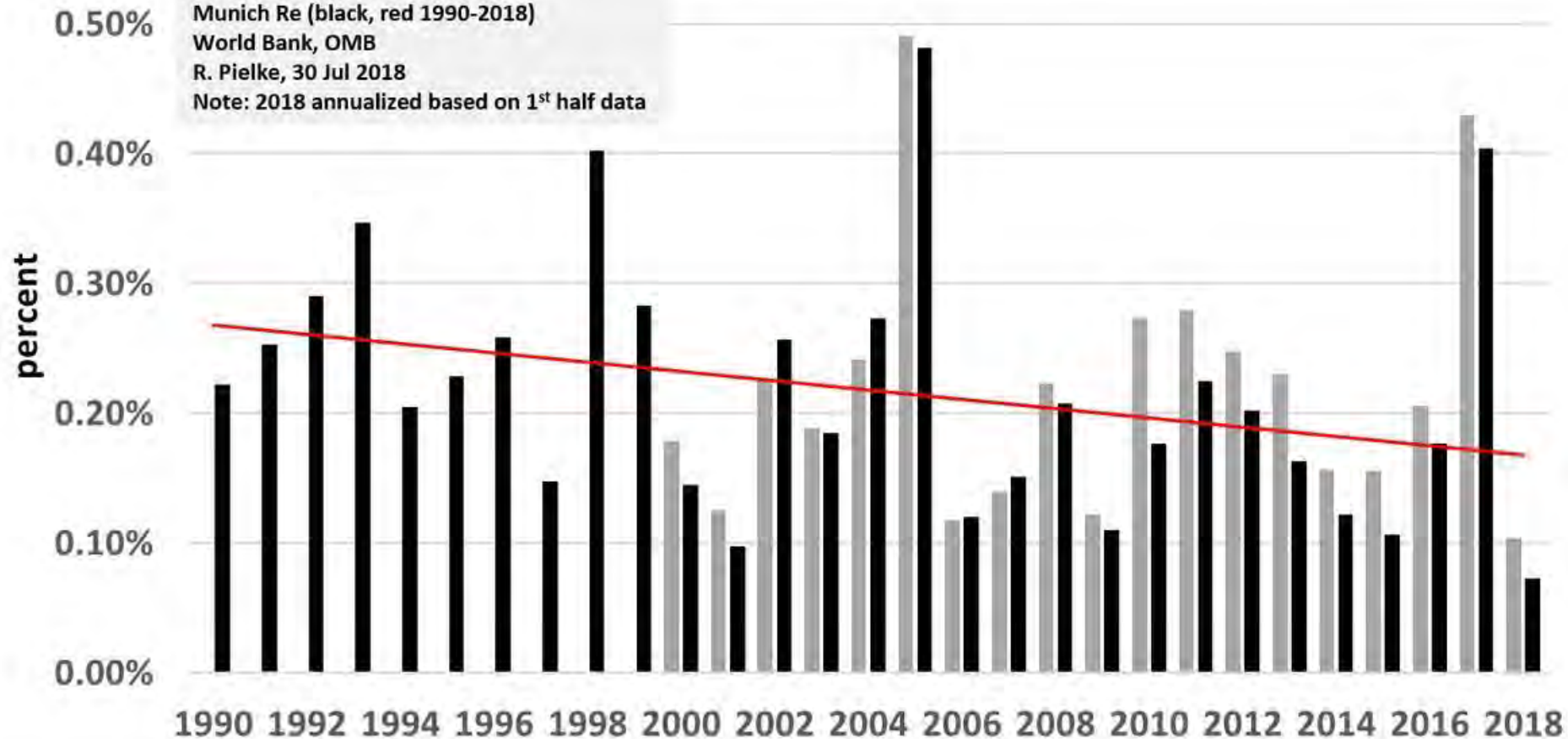
Aon Benfield (grey 2000-2018)

Munich Re (black, red 1990-2018)

World Bank, OMB

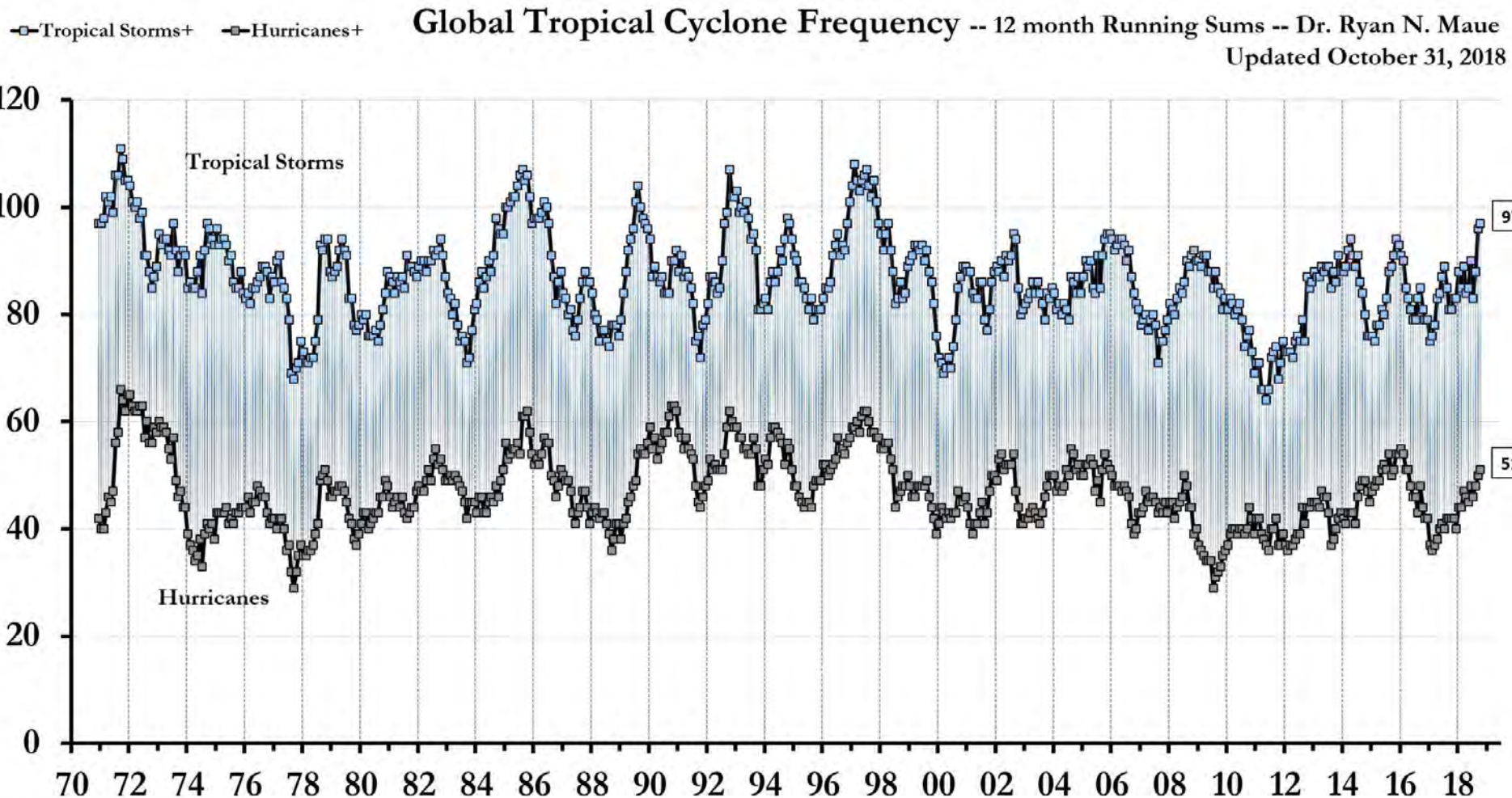
R. Pielke, 30 Jul 2018

Note: 2018 annualized based on 1st half data



But neglect to mention urbanisation, population increase, more possessions etc etc

And tropical cyclones have no relation to CO₂



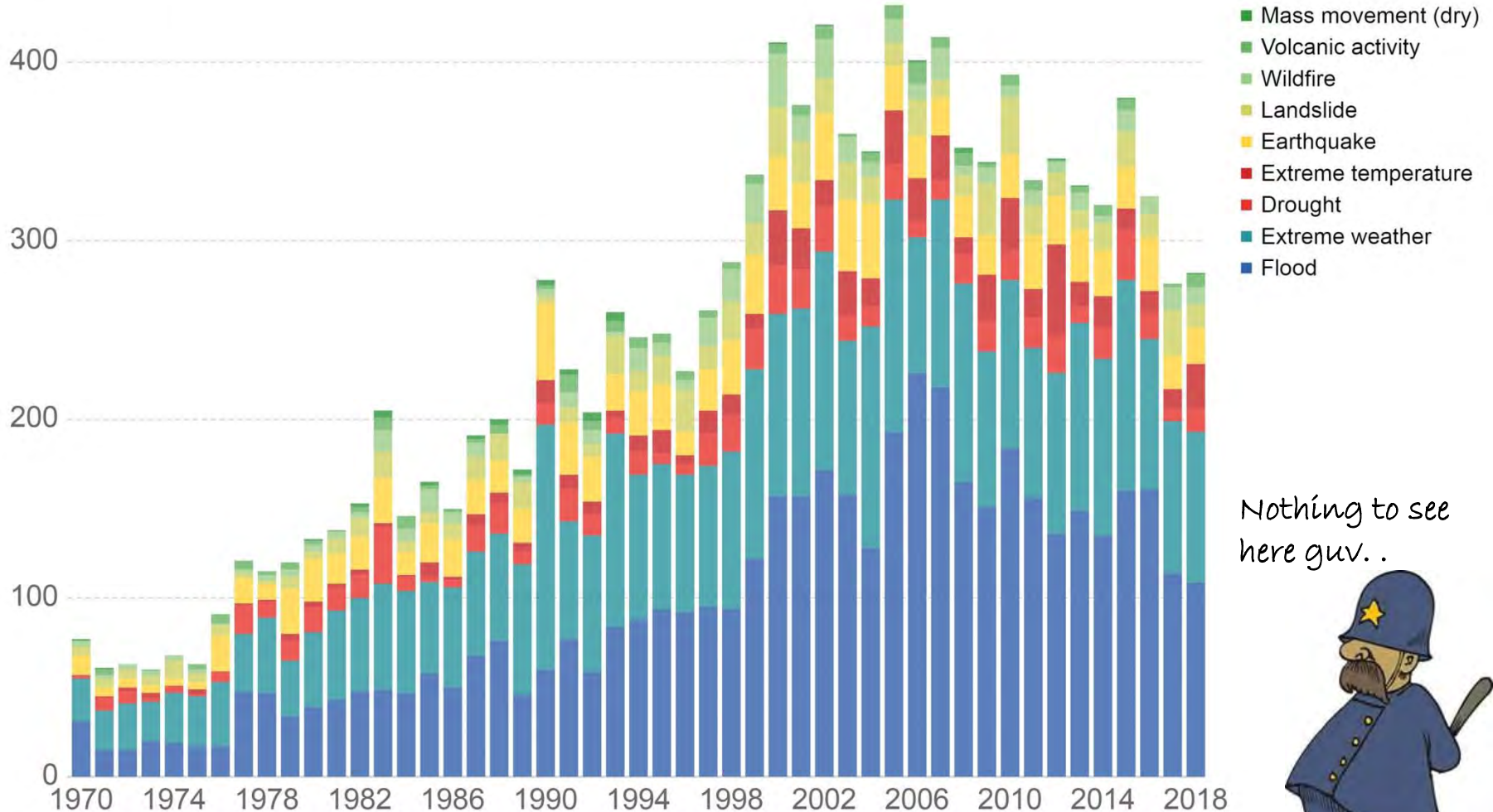
Not even ***BARRY*** – New Orleans July 2019

Overall, the frequency of natural disasters is FALLING. .

Global reported natural disasters by type

The annual reported number of natural disasters, categorised by type. This includes both weather and non-weather related disasters.

Our World
in Data



Nothing to see
here guv. .



Source: EMDAT (2017): OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium
OurWorldInData.org/natural-disasters • CC BY

Al Gore spins lies and exaggerations and can't use Photoshop properly

Original image for Gore book



Arctic ice gone, Florida drowned, and hurricanes spinning the **WRONG WAY!!**

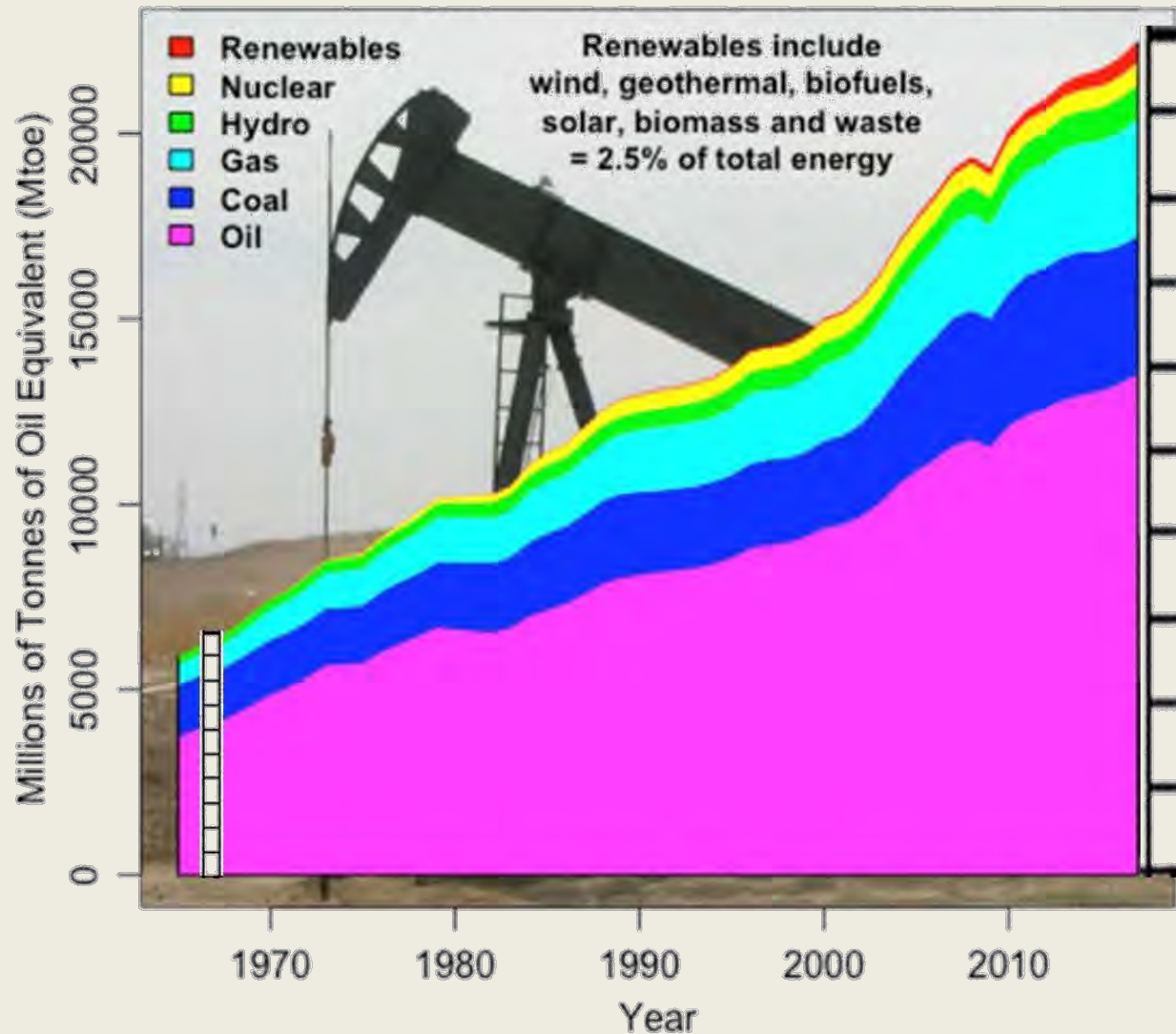
Gore's SCARY cover – more hurricanes, Greenland melting, rising sea levels, less greenery



Section 10

Some conclusions . . .

Total Primary Energy Consumption
1965 - 2017, By Fuel



SOURCE: BP Statistical Review of World Energy 2018

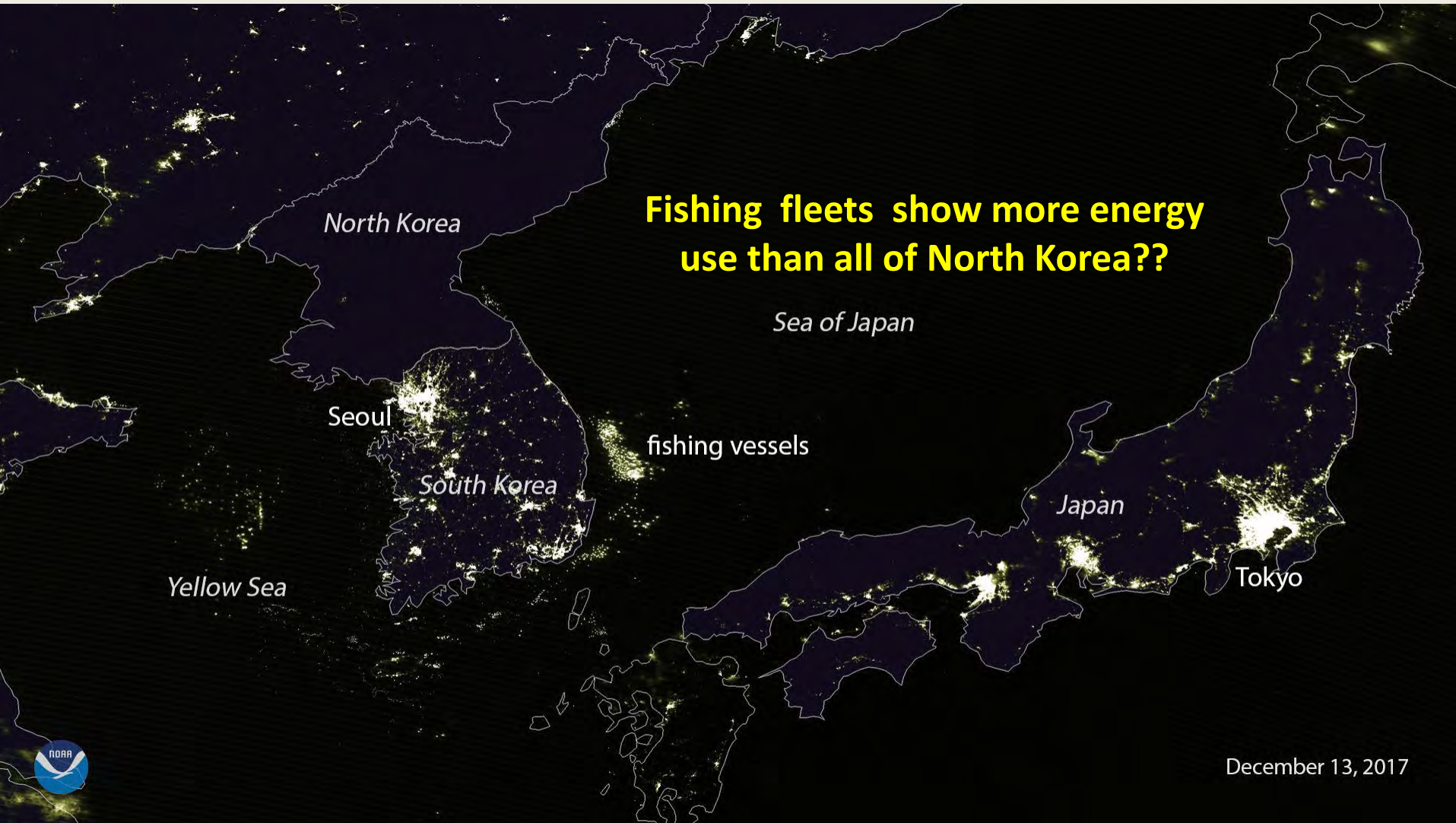
World Energy demand is not declining; after spending \$trillions on renewable energy, it constitutes only 2.5% of energy consumed

HYDROCARBONS – OIL, NATURAL GAS AND COAL – ARE THE WORLD’S PRINCIPAL ENERGY RESOURCE TODAY, AND WILL CONTINUE TO BE IN THE FORESEEABLE FUTURE.

Mark Mills, Manhattan Institute,
March 2019

Figure 1: Global Total Primary Energy Consumption, 1965-2017

The reality is that cheap and reliable power is a key to economic power and reduction of poverty globally



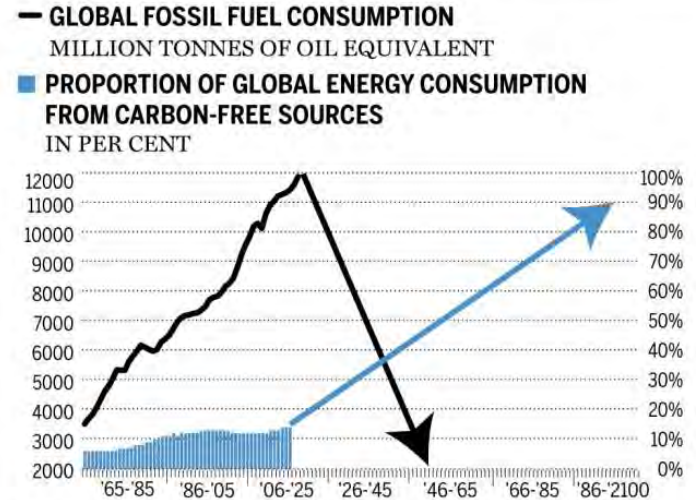
The “ZEROISTAS”



“ I don’t remember what year the Cold War was, but I know it was in the winter. . .”

“Innovations in the Australian Forest Industry”, Brisbane 22 July 2019

THE BIG GREEN PLAN



SOURCES: BP STATISTICAL REVIEW 2019;
ROGER PIELKE JR., CENTRE FOR SCIENCE AND
TECHNOLOGY POLICY RESEARCH, UNIVERSITY OF
COLORADO.

NATIONAL POST

*Alexandria Ocasio
Cortez* - her Green New
Deal is simply a green
suicide note – the
**‘Sovietisation of
the US economy’**

**And at the G20, June 2019 –
‘It doesn’t always work with windmills, Theresa’**



A “ZEROISTA”

“Innovations in the Australian Forest Industry”, Brisbane 22 July 2019

And the “Fracker”

Geoff Derrick, G M Derrick Geology

And some FINAL THOUGHTS . . .

There is NO demonstrable science that says carbon dioxide causes any dangerous global warming. Repeat often !!!

Carbon dioxide is your friend, not your enemy. It is essential plant food and is greening the planet. Embrace it, not demonise it, and keep planting trees.

We can alleviate poverty and protect the poor from the (supposed) ravages of climate change by making them middle class – and that takes ENERGY.

Cheap energy ultimately determines the wealth and economic power of a nation. Only wealthy nations can successfully ADAPT to natural disasters which will always be with us – earthquakes, fires, floods, droughts.

Nothing to see here Guv, move along . . .

Thank you





HUMAN-INDUCED CLIMATE CHANGE: FACT OR FICTION ?

A Geoscientist's View

Dr Geoff Derrick

