



# Mother Nature's View of Climate Change



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***Smart Resilient Communities, UVM***

***February 15, 2023***

***(Betts, 2021: Climate Change and Society***

***AIMS Geosciences, 7(2): 194–218. DOI: 10.3934/geosci.2021012 )***

***(Betts (2022): “The Earth’s View of Climate Change”***

***AIMS Geosciences, 8(2): 224–232. DOI: 10.3934/geosci.2022013)***

***(Betts (2023): Accelerating Climate Change and the Living Earth***

***J. Int. Environ. Clim. Change, 13(2): 1-11. DOI: 10.9734/ijecc/2023/v13i21639)***

# Earth's climate sustains life

- Greenhouse gases keep Earth warm

- Increase of CO<sub>2</sub> warms oceans
- Evaporation of more water vapor triples warming

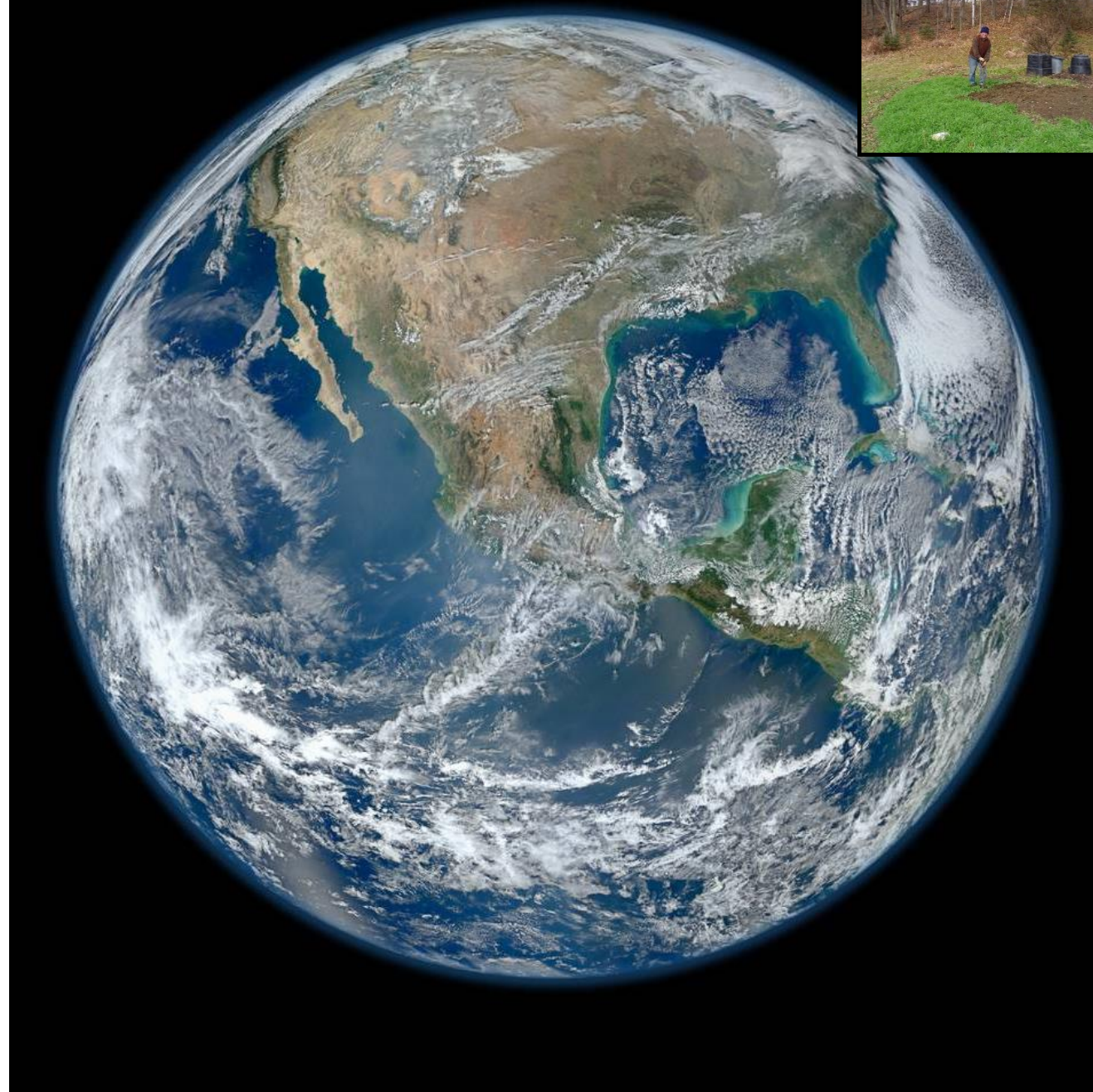
- Ice & snow melt; less reflection of sun

- Poles warm faster
- Winters warm

- Oceans store heat & get warmer

- *Extreme weather is increasing as Arctic warms; westerlies slow down*

January 4, 2012: NASA





# My Wake-up Call: Gardening in January, Pittsford, VT



**January 7, 2007**

**December 2006:**

- Warmest on record
- (Gardening since 1977)



**January 10, 2008**

**Warm Fall:**

- Record Arctic sea-ice melt
- Snow cover in December,  
ground unfrozen



# February 5, 2016

(Digging in Feb. first time ever)





# January 3 and Feb 5, 2020



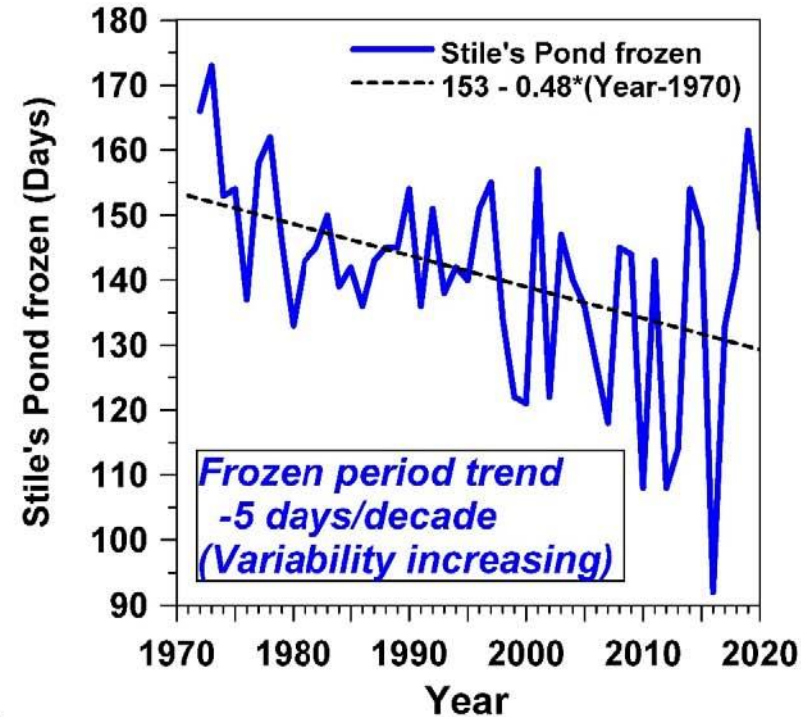
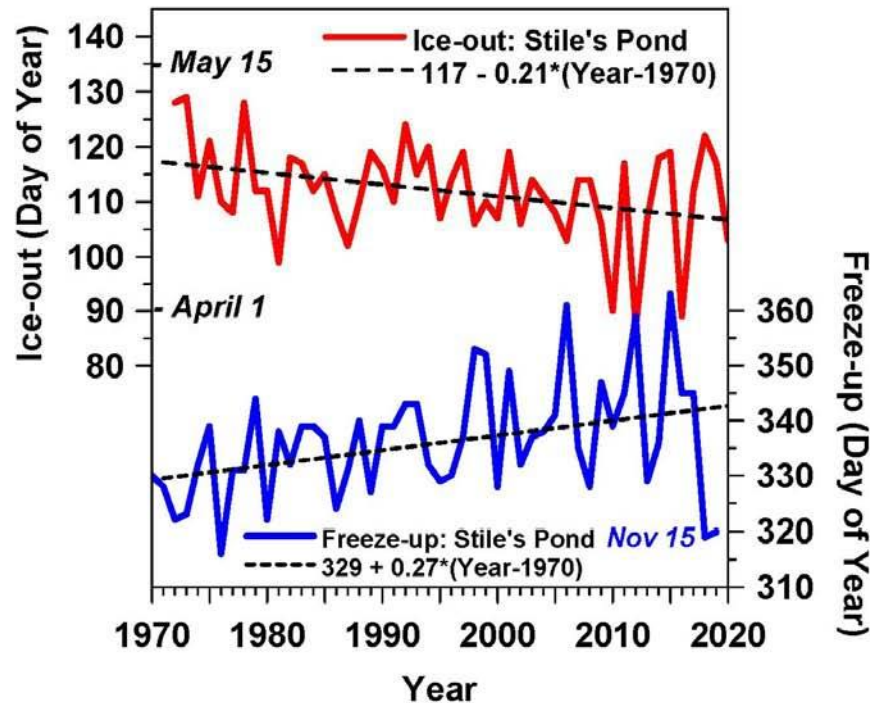
**January 3, 2020**  
**Digging cover crop**  
**(smart resilience)**



**February 5, 2020**  
**Soil still unfrozen**

# Marker: Lake Freeze-up & Ice-out

## Frozen Period Shrinking: variability huge



- Freeze-up later by +3 days / decade
- Ice-out earlier by -2 days / decade
- Lake frozen period trend - 5 days/decade
- Interannual variability now huge  $\approx$  40 year trend

**Stiles Pond**

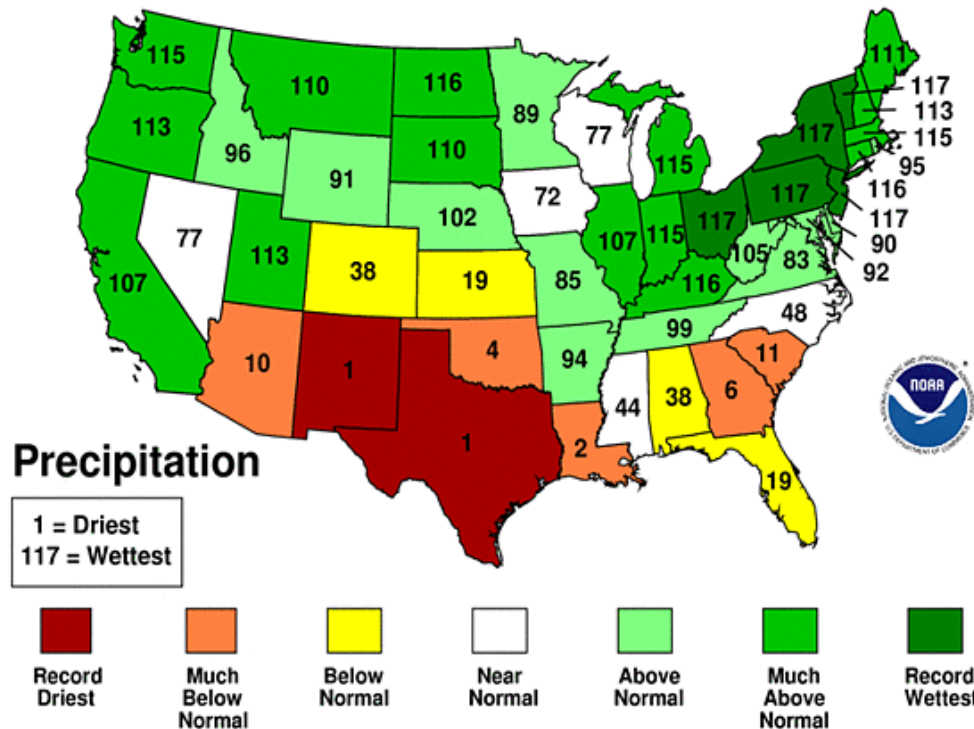


# 2011 Floods: VT and NY

- Record spring flood: Lake Champlain
- Record flood with Tropical Storm Irene

## March-August 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



## March-August, 2011

- Record wet : OH to VT
- Record drought: TX & NM
- Pattern nearly stationary

# Outline-1

- **Climate Science “policy”**
  - Policy dictated by “rich and powerful”
    - Global Climate Crisis has arrived
  - Indigenous\* world-view needed - but ignored
    - Let us say “Mother Nature’s View”  
*[to replace 1000’s years of male power]*
- **The Fossil Empire dictates policy**
  - “Corporations with fossil fuel interests”
    - Webs of lies confuse public, and bribed politicians; lied about climate change for 40yrs
- **Misuse of human power is historic**
  - *‘Europe’ back to the Council of Nicea in 325 AD*
  - *Through the rise of ‘western’ science*
  - *And the destruction of indigenous world-view*



# Clash of Realities

## Mother Nature

- Indigenous world
- Preserve web of life
- *She is the Truth that sets you Free*
- *Power unlimited*
- *Join her: she can read your mind and help you!*

## Capitalism/Fossil Empire

- Human/natural resources
- Exploit people and the Earth for profit
- Make money: \$\$
- Use money and lies to bribe & control
- *“We’re in charge”*

# Are Science & Policy 'separate'?

- *Separation was the traditional frame*
  - How scientists are trained
  - It helps protect the integrity of science
  - Invaluable for global cooperation
- *This does not solve global challenges*
  - *Politicians do not understand* Betts, 1976, BAMS  
alanbetts.com
  - Misuse of human power is central to both science and policy – *Driving destruction of the Earth*
- Fifty years ago, I realized science was not enough: needs wisdom – direct insight
- *I went searching as it was my responsibility*



# Alan Betts (BAMS 1976)

- **“Scientists should do what society says”**
- Consider this hierarchy of allegiances of a research scientist
  - 1) **to the planet Earth**
  - 2) to mankind
  - 3) to science
  - 4) to the United States
  - 5) to one's own science (e.g., atmospheric science)
  - 6) to one's own specialization
  - 7) **to a specific research contract**
- Most research owes allegiance to 7), 6) or 5)
- No-one accepts responsibility for the **Earth 1)**
- **To me unacceptable: Meant disaster lies ahead**
  - *Stepped out of academia; built passive solar house in Vermont with solar panels in 1978*
  - *5-yr grants from NSF as an individual for 35 years (zero overhead!)*
- **1980: Free to go searching for the Truth**

# 2011 Blue River Declaration

*Oregon's Blue River*

- *“A truly adaptive civilization will align its ethics with the ways of the Earth. A civilization that ignores the deep constraints of its world will find itself in exactly the situation we face now, on the threshold of making the planet inhospitable to humankind and other species”*
- **Indigenous\* world-view**
  - **Far from our ‘We are in charge – we can exploit the Earth and the people for profit’**
  - **Reality: Earth is far more powerful/smarter**



# Indigenous Mindset-1

- *Holistic teachings of the indigenous\* Aramaic prophet Yeshua (whom we know as Jesus) [The Hidden Gospel: Douglas-Klotz]*
  - *Indigenous teachings not framed in terms of human power but Mother Nature is within all Creation*
  - *Join with the Creation to see the Truth of the web of life and be set Free to act on behalf of Mother Nature – NOT human self-interest*
- *This Truth is heresy to human power*
  - *Critical to survival of Earth now: IT IS REALITY*
  - *Not a 'religious issue': in fact most religions reject this Truth to protect their own power (& male chauvinism)*

# Christianity lost this heresy

- Jesus executed as Truth is heresy to power
  - Christianity survived, persecuted, till 325 AD
- Council of Nicea: Emperor Constantine dictated
  - Persecution will end if
  - *Destroy the Aramaic gospels; keep the Greek*
  - *Greeks understood male Imperial power*
  - *Established “male human power over nature”*  
Aramaic Christians (Jewish, Assyrian) became the heretics to be killed
  - **Persecution of Jewish Christians - in time became the persecution of the Jews**
- The Roman church carried “Male human power over nature” through Middle Ages till now
  - “Moved God into heaven so he couldn’t interfere”



# Science adopted Frame

- Science rose with great success within the “Power over Nature” frame
  - *Without moral standards and wisdom*
- Europeans travelled world, exploiting and killing indigenous people with church support (horrified that they recognized & understood the indigenous Jesus); enslaving people etc
- *European societies controlled by rich & powerful*
  - Capitalism arose within frame (no moral standards)
- *US controlled global oil supply/price for 70yrs*
  - *Fueled ‘fossil’ capitalism and exploitation of the Earth and the poor*

*Oil, Power and War: Matthieu Auzanneau*  
*The New Climate War: Michael Mann*

# Deceit by Exxon-Mobil

- Impact of burning fossil fuels known 45 years
- 1978: Exxon senior scientist James Black modeled impact of doubling CO<sub>2</sub> on climate
  - Told management that man has a time window of five to 10 years before critical energy decisions
  - Exxon silenced him and started a web of lies: first denial, later to shift responsibility to individuals
- **Bribed US politicians to deflect legislation**
  - 139 Republican deniers cost a mere \$61 million
  - So govt. as well as oil companies responsible
- Global ecocide by Fossil Empire to keep profits flowing, with political help & large subsidies (US)
  - We refuse to bill these criminals for the costs!

# Review-1

- ***Burning fossil fuels: transforming climate***
  - *Many water cycle amplifying feedbacks*
  - *Climate extremes increasing; new stationary patterns*
  - *Floods and drought, heatwaves and fires*
- **Avoidance of responsibility for decades**
  - Stable Climate is incompatible with business-as-usual
  - Fossil Empire dictates rules, bribes US politicians
- **Technology/economics: *misuse of human power***
  - Soluble by changing system guidelines (*moral choice*)
  - Create efficient society, based on renewable energy
- **Choices are value based: moral issue**
  - Needs shift to indigenous world-view [Betts, Herald 1/18/2020]
  - Society must value the future of life on Earth  
above global ecocide for current profit



# Glimpses of the Journey

[Betts (2022): “The Earth’s View of Climate Change”]

- In 1980 when I asked: “How can science be merged with wisdom” I was told “*Ask Yogi Ramsuratkumar in Tiruvannamalai (India) – he would know*” (send telegram!)
- But first on arrival, *I sat* in the meditation room of his teacher *Ramana Maharshi* and slipped gratefully into meditation – it was 30 years after his passing
  - I was noticed at once by the Creation; taken back & forward through my life for an hour and shown my connections with the Earth and the Creation. I emerged ecstatic and joyful for days
  - As a scientist I had no concept that Creation was watching; that a place could be so sacred that all I had to do was surrender
  - I then sat with a living saint *Satya Sai Baba* for weeks - and I was on my way
  - I learnt the indigenous mindset from *Ven. Dhyani Ywahoo in VT*
  - Much later I learnt the words of indigenous *Aramaic teacher Jesus*  
*Join the Creation: see the “Truth that will set you Free”*

# Shift to Earth-system Frame

- **Mother Nature or Fossil Empire?**
  - Obvious choice, but few understand it
  - “Mother Nature” (Creation) is in charge:  
She is the indigenous frame!
  - Even watches when you garden!
- **Explore recent climate disasters from Mother Nature’s perspective**
  - *WHAT? She doesn’t have ‘perspective’*
  - *WE are smart (& destroying it for profit!)*
    - Reality: We are beyond stupid
    - Earth Day is our “token” day!

# 2021 Climate Catastrophes

- *Obviously not under our control*
- *Mother Nature is selecting modes*
  - Aug 21: TS Henri floods NYC: new records
  - Sept 1: Remnant Ida, breaks records again
  - Floods NYC subways, roads, basements
  - Flood till finance/banks grasp it is ecocide to fund Fossil Empire
  - *Makes perfect sense: how long will it take?*



# Texas infrastructure

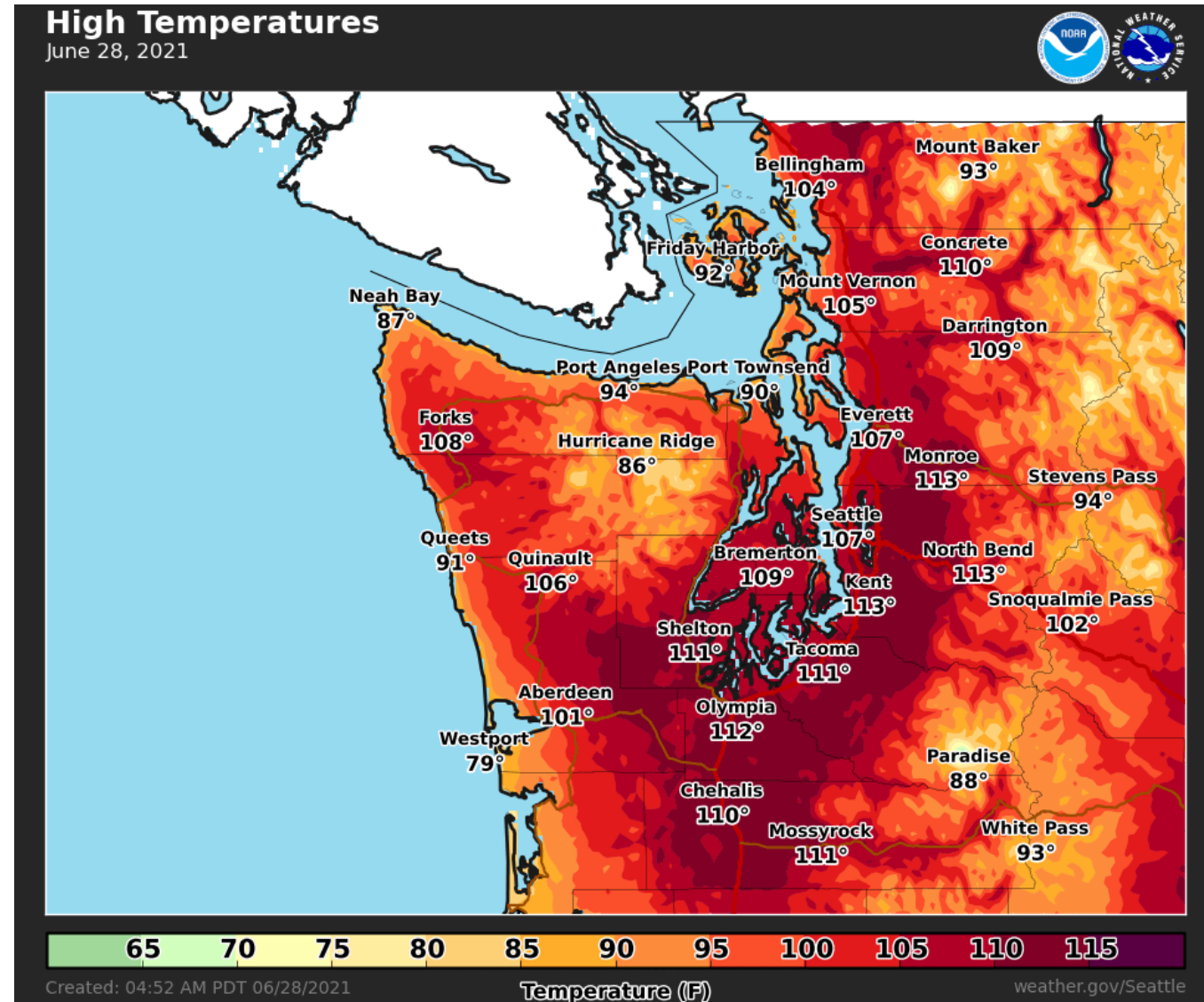
- **Lynch-pin of Fossil Empire**
  - With thousands of off-shore wells
  - 2017: Cat 4 Harvey floods Houston; damages wells; cost \$125B+ – very fitting
  - 2020: Hurricanes Hanna, Cat 4 Laura and TS Beta
  - 2021: Cat 4 Hurricanes Nicholas and Ida
  - Mar. 2021: Record-breaking Arctic blast destroyed power grid and refineries (\$100B) – very fitting
  - Since TX will not close its oil wells, hurricanes and freezes must destroy them
  - *["Refineries in the US are not at capacity"]*

# Northwest US & British Columbia

- **Extremes of 27-29 June 2021**
  - Temperatures were 8-10°F (4 to 5°C) above historic maxima – described as
  - **“Most anomalous regional extreme heat event to occur anywhere on Earth since temperature records began” (Chris Burt)**
  - Broke all Canadian record that had stood for 80 years by 8°F (4.6°C); Ended in fires
- **November: Pacific atmospheric river**
  - A month of rain in 2 days on burnt region in BC
  - *Landslides closed TransCanada highway & railway*
  - ***Cutting the export of liquid natural gas, tar sands***

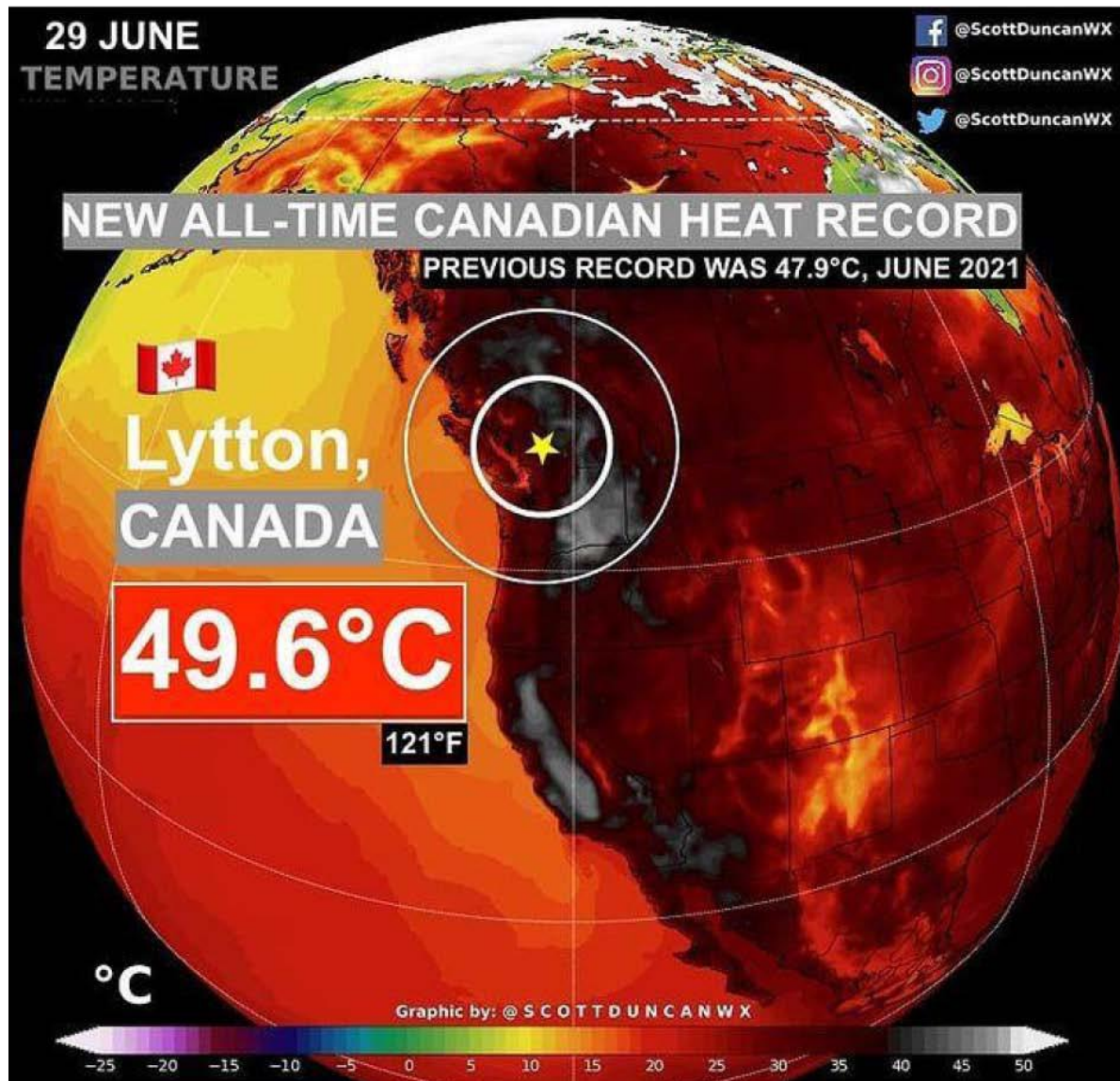
# Pacific NW June 28, 2021

- 3 days:  
 $T \geq 110^{\circ}\text{F}$   
( $43^{\circ}\text{C}$ )
- *Record T's*
- 1 in 1000 yr
- Climate Change!!
- 'Stationary High'





# Lytton BC, Canada: 3 days of Records



- Scottduncanwx
  - Planet Earth
- Canadian record crushed on all 3 days June 27-29
- Total 4.6°C [8°F]
- Reached 121°F
- Fire, June 30 on, destroys 90%
- Stationary High

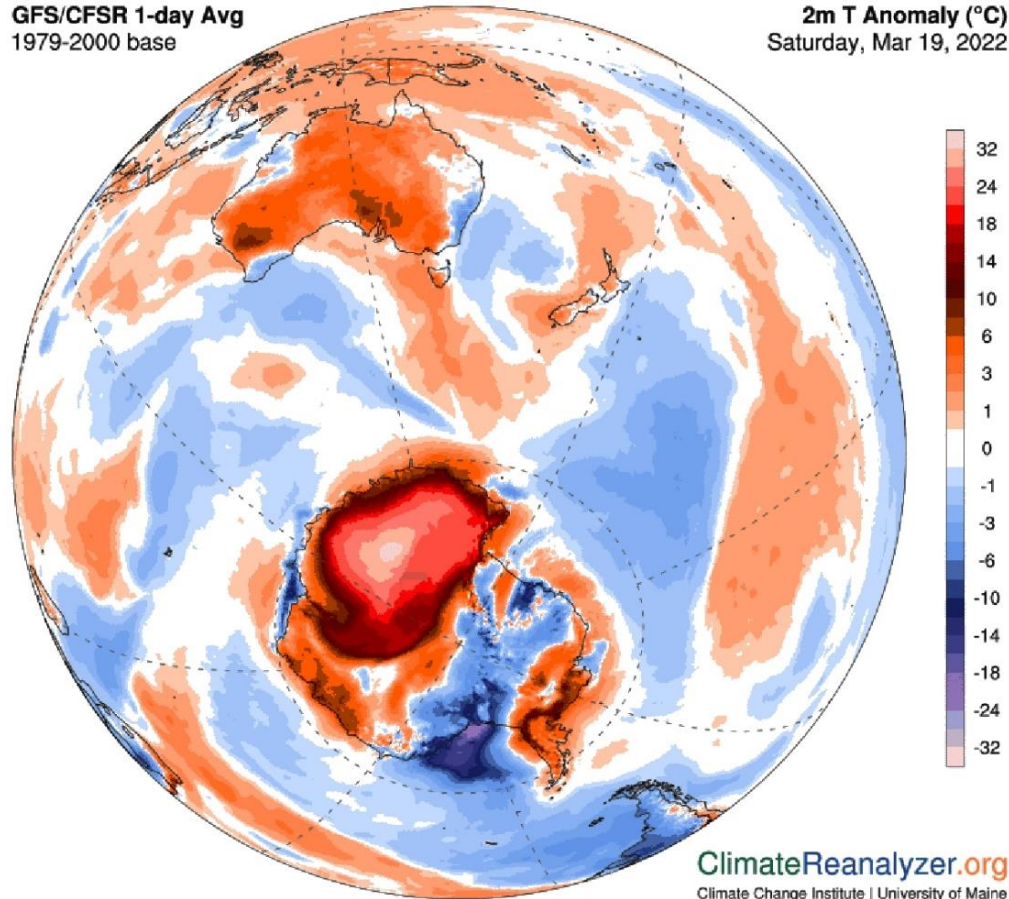
# Storm Fiona and Hurricane Ian

- Sept 23, 2022 Fiona, “Most extreme storm ever to hit eastern Canada”. \$1B damages. Floods will continue as Canada develops fossil fuel industries to make billions destroying the Earth
- Sept 28, 2022: Ian after slowing down and amplifying to Cat 4+ off west Florida coast, comes ashore with devastating rain, storm surge and floods. [ DeSantis is anti-climate change, anti-renewable energy etc with a neofascist mentality - and Mother Nature can read his mind]
  - Nov 10, 2022: Hurricane Nicole hit Florida’s east coast: damage/flooding
- **Mother Nature knows what she is doing**
  - *so don’t build on the coast!*

# Antarctica: Extreme T Record

GFS/CFSR 1-day Avg  
1979-2000 base

2m T Anomaly (°C)  
Saturday, Mar 19, 2022



World  
+ 0.5 °C

Northern Hemisphere  
+ 0.8 °C

Arctic  
+ 2.3 °C

Tropics  
+ 0.3 °C

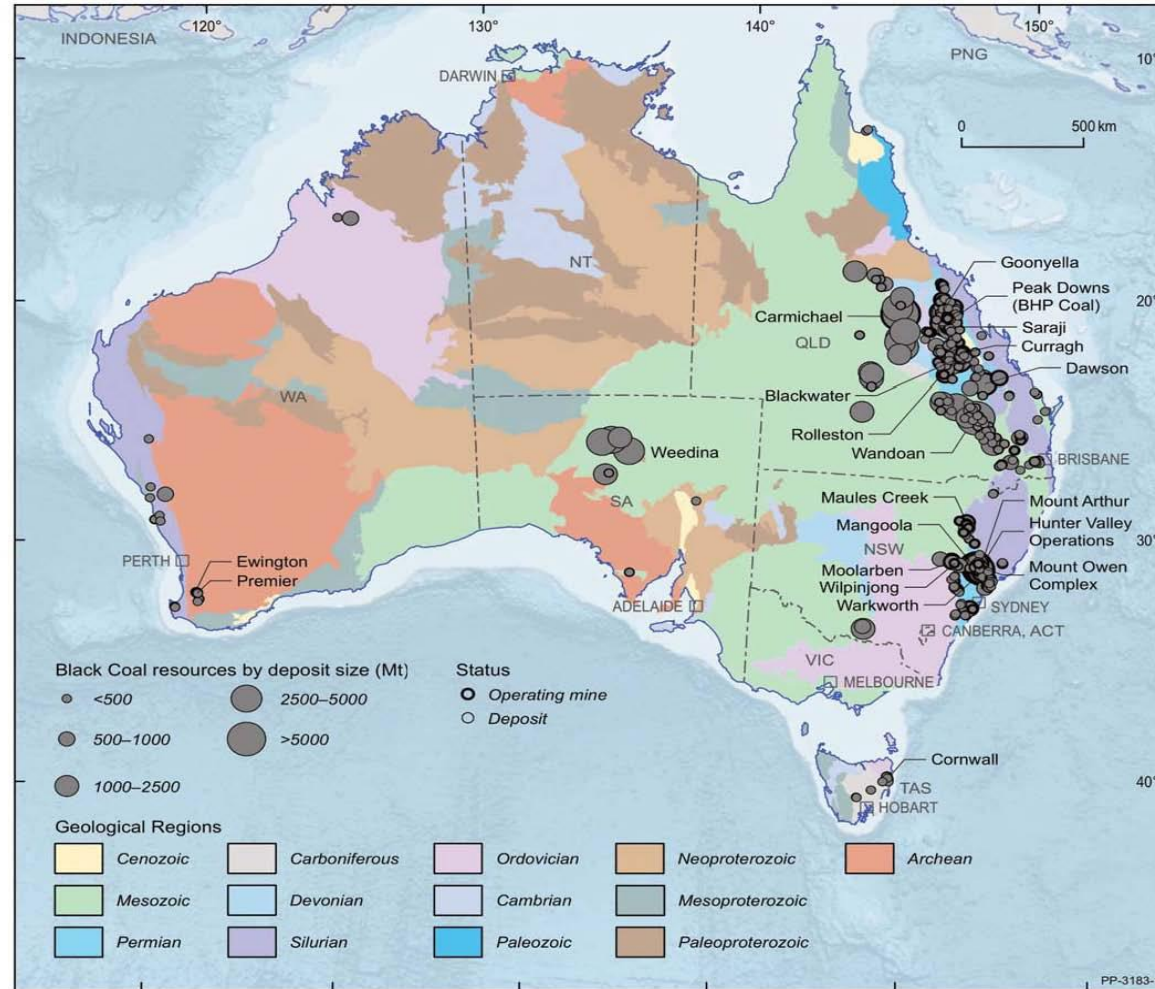
Southern Hemisphere  
+ 0.3 °C

Antarctic  
+ 3.7 °C

- March 19, 2022
- New Antarctic record on 10000 ft icecap
- + 70°F (40°C)  
in 2 days
- “Impossible”
- *Weather station in Concordia over the E.Antarctic plateau with 66-year record*
- Coming melt may give 20-30 ft sea-level rise



# Eastern Australian Coal Mines



# Eastern Australia

- Largest coal exporter in world. 45% net cash profit on \$44 billion sales each year
- July 2-4, 2022 : Four ft of rain in 3 days on Sydney and its coal mines (three earlier 2021 floods following large fires in 2019-2020)
  - Queensland also had a series of floods
- Oct 13-25, 2022: Massive floods up the whole eastern coast of Victoria, New South Wales and Queensland (*“Uninhabitable”*)
  - Some areas got four times the mean October rainfall in 24 hrs.
  - NSW: More catastrophic floods Nov 11-13. Rescue teams from NZ
- Australia says it has no responsibility for Climate Change since the coal is burnt elsewhere (*and its profits are huge!*)
- *Mother Nature disagrees!*

# Perspective challenges us

- Living Earth is generating extremes that we must deal with, but forecasting them is difficult - as some are totally new
- Mother Nature is intelligent and responsible for the living Earth system
  - Able to communicate with all of life
- Watch weather, Mother Nature and prepare
  - Realize she is aware of your choices; can help you!
  - Surrender to her frame if you can
  - She will communicate to you in ways you may barely grasp – serendipitous insight

# Contrast once more

- “Mother Nature has no perspective, intelligence or power to protect the interests of life”
- “That is us: Humanity” – and we are so smart that we are destroying it for profit
  - *Total misuse of human power*
  - *Good thing we are not in charge!*
- We must shift from this mindset with no wisdom & connect directly with Mother Nature
  - *We are the only species that does not listen to her*
  - But we are untrained: and it needs surrender
  - *(male militarism ‘fight, fight and never surrender’)*
  - *Immerse yourself in natural world: can you take a step further, beyond, let go and surrender*



# Global crises

- **Global protests by youth and indigenous people**
  - *Right to stop “business as usual” from destroying the Earth*
  - *To stop the “rich and powerful” from killing our children*
- **Emergencies/extremes everywhere**
  - Floods, then droughts in China set new records
  - Siberian 2021 fires bigger than all the fires on Earth together
  - California floods : Jan 2023 (after extreme drought)
- **Finance industry waiting for ‘economic growth’ to drive more destruction of planet for profit**
  - **No help at all – just crazy capitalism**
  - Russia-Ukraine war; China wants Taiwan
  - Global manufacture, connectivity, & trade crumbling

# Review - 2

- The Climate Crisis needs new perspective
  - *An indigenous perspective of the Earth*
  - *It is 'Truth that sets you Free' from webs of lies that are everywhere in society*
  - *Mother Nature is now selecting extreme modes to damage our fossil and industrial infrastructure and save life on Earth: Harder to forecast*
- Step into the indigenous perspective
  - *Connect with what Mother Nature is doing daily*
  - *It feeds us inspired choices through intuition and serendipity and deepens our web of connections*

# My suggestions to you

- Discuss this talk
  - *listen to the spread of different reactions*
- Ask who feels connected to Mother Nature and would like to explore deeper
  - *Connect with her and report back*
  - *Try connection in pairs: with diversity &/or male/female* *[review Betts, Herald: 1/18/2020]*
- See how your group dynamics change
  - *And your relation to Mother Nature*

# Clash of Realities/Goals

## Mother Nature

- Indigenous world
- Preserve web of life
- *She is the Truth that sets you Free*
- *Power unlimited*
- *Join her: she can read your mind and help you!*

## Capitalism/Fossil Empire

- Human/natural resources
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- Make money: \$\$\$
- Use money and lies to bribe & control
- *“We’re in charge”*



# Human talents and limits

- The massive eruption of the Hunga Tonga volcano on Jan 15, 2022

The global atmospheric shock-wave circled the earth many times in both directions, and first sent a tsunami across the Pacific. *With our network of satellites and models we could track everything precisely and issue warnings.*

Yet scientists noticed that creatures along the Pacific coast simply moved to higher elevations well before the approaching tsunami was visible (as they always do). *They don't read our satellite data, so how do they know?*

**Mother Nature just tells them to move and they listen.** *We think we are the 'intelligent ones in charge' but we are the only species foolish enough not to listen to the Earth! Our technology is our current substitute.* **The coming reality is we will now have to surrender to the Earth's perspective as climate extremes increase, but this is going to be hard for most to grasp.**

# What did Yogi Ramsuratkumar say!

- *Spent 20 years on sacred mountain, 20 years on temple steps – now in basement apartment opposite*
- *Line of teachers back through 20<sup>th</sup> century*
- *I arrive and ask Q about: “Merging science and wisdom”*
  - *He says nothing, but goes to my left to 8x3 stacks of papers 7ft tall; picks out one, opens it, hands it to me and says: **Read***
- **Science gathers facts and thinks it knows, but wisdom as she walks, hears the echo of her solitary tread on the shore of an infinite ocean (of Truth) (Sri Aurobindo c. 1919)**

- Are you saying the Earth can bypass the laws of physics?
  - Yes ‘Creation’ is responsible for physics
  - It can if she chooses, even “suspend gravity”
- Example: sitting meditating on a rock by a rushing stream in the Adirondacks (*see paper*)
  - I was ‘lifted up’, arms first, joints unfolding up smoothly & elegantly from cross-legged position
  - Then “danced” for an hour
  - [a new dance to the Four Directions to correct my misunderstanding!]
  - To show me the Truth of who is really in charge!
  - It is not just the creation of humans!