Welcome to this week's presentation and conversation hosted by the **Canadian Association for the Club of Rome**, a Club dedicated to intelligent debate and action on global issues.

The Earth's View of Climate Change.

Our speaker today is Dr. Alan Betts, a climate scientist in Atmospheric Research in Pittsford, Vermont. He is a local columnist and, before COVID19, he was a frequent speaker on climate change issues around the state. He is a Fellow of the American Geophysical Union (AGU), the American Meteorological Society (AMS), and the Royal Meteorological Society, the American Association for the Advancement of Science, and a post-president of the Vermont Academy of Science and Engineering (VASE). He has written >175 reviewed scientific papers and received several prestigious awards. He argues few in modern industrial society understand the depths of our climate crisis and what it will take to solve it. Surrounded by a web of lies spun by the Fossil Empire, we will struggle until we understand various truths about Earth's ecology and our place in it. If we don't succeed in changing our views, Earth will destroy our society and re-educate those who survive.

Dr. Betts' presentation will be followed by a conversation, questions, and observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, and Inuit in Canada) and their descendants.



2022 May 04



Earth's View of Climate Change:



Dr. Alan K. Betts Atmospheric Research, Pittsford, VT 05763 akbetts@aol.com https://alanbetts.com Canadian Association for the Club of Rome

> CACOR May 4, 2022

(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)

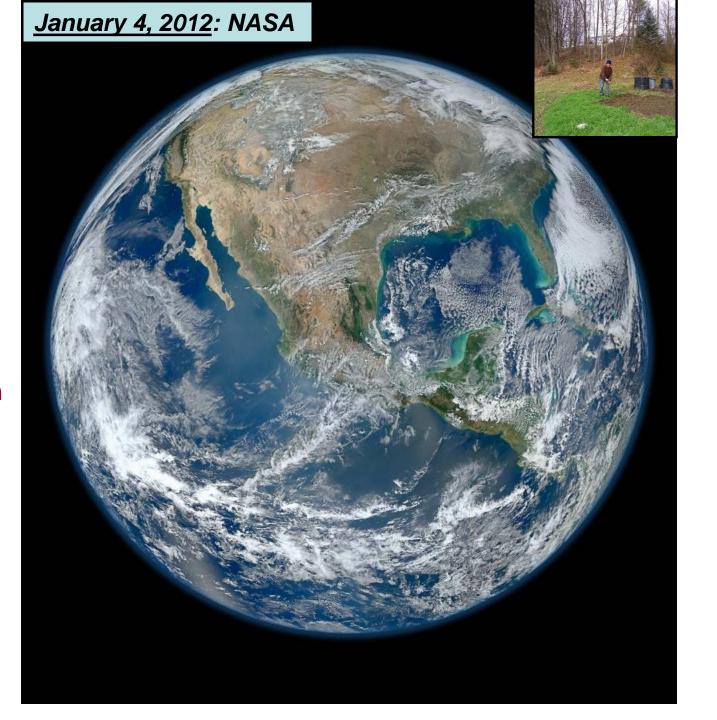
Earth's climate sustains life

- Greenhouse gases keep Earth warm
 - Increase of CO₂
 warms oceans
 - Evaporation of more water vapor <u>triples warming</u>

Ice & snow melt;
 less reflection of sun

- Poles warm faster
- Winters warm
- Oceans store heat
 <u>& get warmer</u>

• Extreme weather is increasing as Arctic warms; westerlies slow down



<u>My Wake-up Call:</u> Gardening in January, Pittsford, VT





January 7, <u>2007</u>

December 2006:

- Warmest on record
- (Gardening since 1977)

January 10, <u>2008</u>

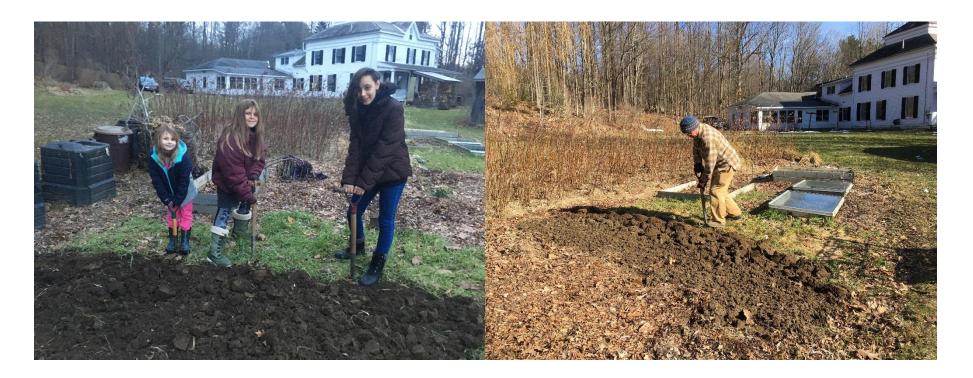
Warm Fall:

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

February 5, 2016 (Digging in Feb. first time ever)

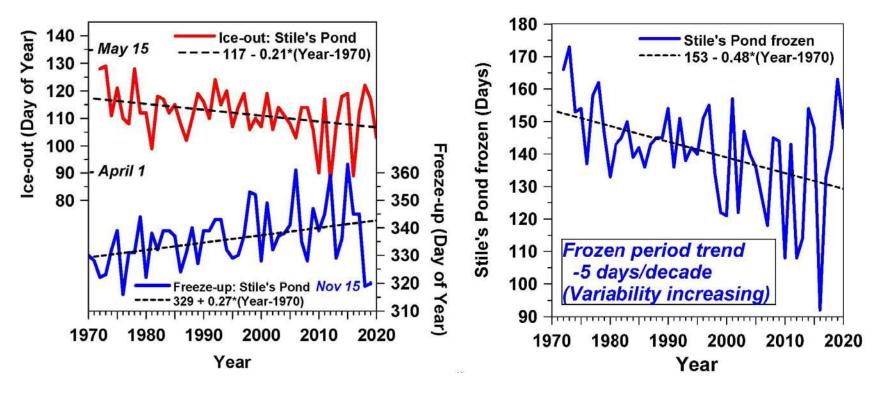


January 3 and Feb 5, 2020



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

Stiles Pond

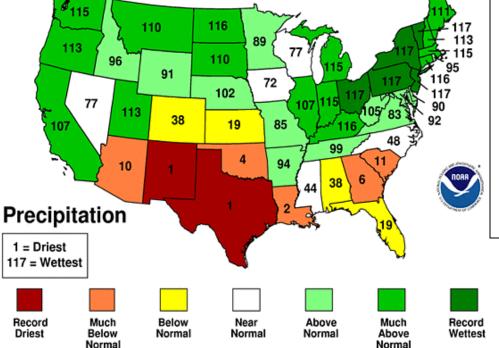
- Ice-out earlier by -2 days / decade
- Lake frozen period trend <u>- 5 days/decade</u>
- Interannual variability now huge ≈ 40 year trend

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 <u>March-August, 2011</u>

- Record wet : OH to VT
- Record drought: TX & NM
- <u>Pattern nearly stationary</u>



Outline-1

- Climate Science "policy"
 - Policy dictated by "rich and powerful"
 - Global Climate Crisis has arrived
 - Indigenous* world-view needed but ignored
- 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

Are Science & Policy 'separate'?

- Separation was the traditional frame
 - How scientists are trained
 - It helps protect the integrity of science
 - Invaluable for global cooperation
- We cannot solve global challenges when no-one is responsible <u>Betts, 1976, BAMS - alanbetts.com</u>
 - <u>Misuse of human power central</u> to both science and policy – with ancient roots
 - Driving destruction of the Earth
- Fifty years ago, I realized science was not enough: needs wisdom – direct insight – I went searching (as my responsibility)

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
 - Not our 'We are in charge we can exploit the earth and the people for profit'
 - <u>Reality</u>: 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 framed not in terms of human power, but the understanding that the Creator was 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 the Creation not human self-interest
- Absolutely true, but <u>heresy</u> to power
 - Critical to survival of Earth now
 - <u>Not a 'religious issue'</u> as religions reject this truth to protect their own power

Christianity lost this heresy

- Jesus executed as <u>Truth is heresy to power</u>
 - Christianity survived, persecuted, till 325 AD
- Council of Nicea: <u>Emperor Constantine dictated</u>
 - Persecution will end if
 - <u>Destroy the Aramaic gospels;</u> keep the Greek
 - Greeks understood Imperial power
 - Established "human power over nature" till now
- Aramaic Christians (Jewish, Assyrian) became the heretics. In 2 centuries a million (?) killed
 - Persecution of Jewish Christians in time became the persecution of the Jews
- The Roman church carried "Human power over nature" through Middle Ages (Priests over people)
 - "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 the indigenous Jesus); enslaving people etc
- European societies controlled by rich & powerful
 - <u>Capitalism arose within frame (no moral standards)</u>
- 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

Deceipt by Exxon-Mobil

- Impact of burning fossil fuels known 40 years
- <u>1978</u>: Exxon senior scientist James Black modeled impact of doubling CO₂ on climate
 - <u>Told management that man has a time window of</u> <u>five to 10 years</u> before critical energy decisions
 - <u>Exxon silenced him and started a web of lies</u>: first denial, later to shift responsibility to individuals
- Bribed US politicians to deflect legislation
 - 139 Republican deniers cost a mere \$61 million
 - Still claiming govt. not oil companies responsible (!)
- <u>Global ecocide by Fossil Empire</u> 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; 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 <u>system guidelines</u> (moral choice)
 - Create efficient society, based on renewable energy
- <u>Choices are value based: moral issue</u>
 - Needs shift to indigenous world-view [Betts, Planet: 1/18/2020]
 - Society must value the future of life on Earth

above global ecocide for current profit

Alan Betts (BAMS 1976)

- "Scientists should do what society says"
- Consider this hierarchy of allegiances of a researcher
 - 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 is responsible for the Earth 1)
- Unacceptable: Means disaster lies ahead
 - Rejected academia; built passive solar house in Vermont with solar panels <u>in 1978</u>
- Freed me to go searching (my responsibility)

Glimpses of the Journey

- In 1980 when I asked: "How can science be merged with wisdom" I was told "Ask Yogi Ramsuratkumar in Tiruvannamalai (India) – <u>he would know</u>"
- On arrival, I first sat in the meditation room of another saint Ramana Maharshi and slipped gratefully into meditation – it was 30 years after his passing
 - I was picked up within minutes and taken through my life for an hour and shown the web of all my connections with the Earth and the Creation. I emerged ecstatic and joyful for days
 - As a scientist I had no concept that a place could be so sacred that all I had to do was surrender. (*The Truth will set you Free*)
 - 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
 - Much later I learnt the words of indigenous Aramaic teacher Jesus Join the Creation: see the "Truth that will set you Free"
 [Betts (2022): "The Earth's View of Climate Change"]

Shift to Earth-system Frame

- Earth-system or Fossil Empire?
 - Obvious choice, but few understand it
 - Earth is in charge: indigenous frame!
 - Even watching you gardening!
- Explore recent climate disasters from Earth system perspective
 - WHAT? Earth doesn't have 'perspective'
 - [Earth Day is our "token" day!]
 - WE are smart (& destroying it for profit!)
 - Reality: We are beyond stupid

2021 Climate Catastrophes

Obviously not under our control

- Appears Earth 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?

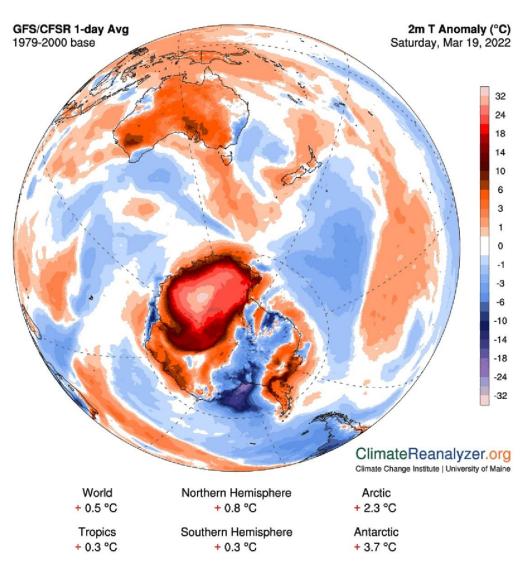
Texas infrastructure

- 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 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 <u>all Canadian record</u> that had stood for 80 years by 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 off the export of liquid natural gas

Antarctica: Extreme T Record



- March 19, 2022
- New Antarctic record
- <u>+40°C (70°F)</u>
- (1979-2000 base)
- Weather station in Concordia over the E.Antarctic plateau with 66-year record
- Coming melt gives <u>20-</u> <u>30 ft sea-level rise**</u>
- [Some stations near the North Pole reached 30°C above normal]

Perspective challenges us

- Earth is generating extremes that we must deal with, but forecasting is challenging on all timescales
- Earth is intelligent and responsible for the living Earth system
 - Able to communicate with all of life
- So watch the weather, the living Earth and prepare
 - Realize the Earth is aware of your choices
 - Surrender to the Earth's frame if you can
 - The Earth will communicate to you in ways you may barely grasp

Contrast once more

- "Earth has no perspective or intelligence to protect its interests"
- "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 Earth
 - But we have no training: and <u>needs surrender</u>
 - Difficult as trained to 'fight, fight and never surrender'
 - Immerse yourself in natural world: can you take a step further, beyond, let go of your mind and surrender

Global crises

- Finance industry waiting for 'economic growth' to drive more destruction of planet for profit
 - No help at all
 - Global crises, floods, droughts and wars
 - Manufacture scattered, connectivity crumbling
 - Global trade has crumbled
- Emergencies everywhere
 - Floods in China set new records
 - Nearly destroying the Three Gorges Dam
 - Siberian fires are bigger than all the fires on Earth together
- 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

Review - 2

- The Climate Crisis needs new perspective
 - An indigenous perspective of the Earth
 - That is the 'Truth that sets you Free'
- Earth's physical climate system can be analyzed and modeled after the fact
 - But the <u>Earth is now selecting extreme modes</u> to damage our fossil and industrial infrastructure
 - And save life on Earth
- Step into the indigenous perspective
 - Connect with what the Earth 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 the Earth and would like to explore deeper
 - Connect to the Earth and report back
 - Preferably at least two: with diversity and male/female [Betts, Planet: 1/18/2020]
- See how your group dynamics change - And your relation to the Earth

- Are you saying the Earth can bypass the laws of physics?
 - Yes 'Creation' is responsible for physics
 - It can if it chooses, even "suspend gravity"
- Example: sitting meditating on a rock by a rushing stream in the Adirondacks (see paper)
 - I was lifted up smoothly & elegantly, arms first, body unfolding up from a 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!