



Newsletter *Fall 2024*

P.O. Box 787, Summerland, B.C. V0H 1Z0

Phone: 250-486-2235 • Email: bremmer@mtkobau.bc.ca

EDITORIAL

Interestingly, we have heard a number of beliefs about our world and its climatic future over the past couple of years. This has been especially true during the election seasons in the United States and British Columbia that have just concluded. Indeed, we may shortly hear much more as we approach a national election. Not all these beliefs, and their consequential positions, are based on scientific evidence, known facts, or even thoughtful consideration. However, it appears that they are all deeply held and felt by the adherents. As a result, it is imperative that all points on the circle listen to the others and consider what they have to say.

Sometimes what appears to be true, even after much consideration, is proven to be false. The person believing this 'account' may be using all their observation, detection, and extrapolation skills and factors beyond their control do not allow them to reach any other conclusion without evidence that they can incorporate into their view of the world. Many of us have made such errors in the recent past. Consider the car driver growing up in the mid-Twentieth Century. We never thought about the idea that carbon was being distributed by our vehicles around the world and that it would change climates. Even in Los Angeles, we knew that they had smog, but it was believed by the general public, if it was considered at all, to simply be a blight on the scenery or at most an irritant to those among us with weak lungs. There are several, at the time, common sense issues that we have changed our stance on with the availability of evidence that demonstrated the contrary. Consider smoking, lunchtime martinis, unprotected sex and others.

Continued on next page...



'Overwhelmed with fish': Record sockeye run numbers through Okanagan Valley, with salmon returning further north

'EXCITING' SOCKEYE RETURN' OCT 23, 2024

After a decade of hard work at the fish hatchery and more than two decades from the Okanagan Nation Alliance restoration project, the Valley is expected to see a record return this year for sockeye.

As of Tuesday, October 22, the ONA team is estimating upwards of 300,000 fish making it into the Okanagan River to spawn. "It's safe to say that we are just overwhelmed with fish this year, which is great news to hear," Hatchery Biologist Tyson Marsel said. "Everyone around the ONA, the word

is heartwarming, where you actually have numbers coming back, where you can see the success."

Crews have been working down the river in Oliver, collecting broodstock for the hatchery located on Penticton Indian Band land. Salmon are sorted by gender and quality, then loaded into bags and floated down the river into larger tanks which would bring them up to the hatchery for fertilization.

Continued on page 3...

Please use the enclosed membership form on the back page to help us carry out our mission.

Quotations

"We can use 1990 as the year when no government, organization, or company could claim any longer that they did not know climate change was happening, and what caused it. But even by using 1990, we are giving governments and oil companies the benefit of the doubt. In 2015, journalists from the Pulitzer Prize-winning news organization Inside Climate News uncovered documents which revealed that Exxon's executive management was warned by its own scientists back in 1977 that CO₂ released by the use of fossil fuels and would warm the world and could potentially endanger humanity. In the U.S., the oil and gas industry's largest trade organization knew the harm emissions could do since at least the 1950s, and other fossil fuel companies (such as the coal industry, General Motors and Ford) since the 1960s or 1970s."

-Ingrid Robeyns in *Limitarianism: The Case Against Extreme Wealth*, (2024) Allen Lane, p.99

"But the greatest disaster in the communication of science, I guess, could turn out to be global warming; the problem is not just

people's understanding of it, but their very ability to understand it. We still have a poor grasp of how science works. When research contradicts a previous finding, it sounds as though scientists can't make up their minds. Peer review sounds like bickering. We don't really get it that weighing evidence is different from taking on belief. Someone told me once that he believed in chaos theory. I didn't really know what he meant, but apparently, he felt that you could accept it or not, based on how it struck you; how it felt.

As long as most of us don't understand how scientists think, then self-serving politicians can label the work of respected researchers 'junk science.' How can we help people see the difference between junk science and junk politics?

Maybe it won't be so bad. Maybe global warming won't turn out to be a disaster unlike any we've faced since we've been on the planet. We've lived through the small ice-age; maybe we can live through another of the great extinctions.

But even if it turns out to be nowhere near that bad – if all we had to face was the world's oceans moving inland a little, chasing people out of their homes – the economic impact

would be huge.

Ten percent of the world's population lives near the ocean at an elevation of less than thirty-three feet above sea level. If the Greenland ice sheet were to melt, it's estimated the oceans would rise twenty-one feet. Even a three-foot rise would swamp cities all along the eastern seaboard. A six-foot rise would put most of Florida underwater. This all sounds so catastrophic that it's almost impossible to hear it without a voice in our head saying, 'This can't be. Somebody has to check these figures. That's exactly what I wish we could get the public to do: check the figures. We're shooting a game of craps in a game where we've bet our house and home and have no idea what the odds are.'

We've got to move on from this blind date. We can't excommunicate ourselves from science – we need, not just to make people aware of natural disasters, but to avoid the greater catastrophe of the death of knowledge itself."

Alan Alda, Writer, actor, director and science podcast host, from a Commencement speech (circa early 2000s) at Rockefeller University

Things I Overheard While Talking to Myself (2007) Random House

...Editorial continued from front
People need to feel that their ideas are respected, but that does not mean that what they contribute must be accepted without scrutiny. Demonstratable evidence for a position must be a prerequisite for holding it, let alone sharing it. Long gone is a time when we should be accepting beliefs on faith and trust alone. We need to think about the consequences of living in a world that does not address problems and needs that have been demonstrated to us through authentic research, study, and consultation.



The Big Picture: Scientists warm the tundra

As Earth becomes warmer, climate change could be exacerbated by carbon released by tundras. These hexagonal chambers, dotting the landscape in Latnjajaure, Sweden, were being used to test that theory.

Tundra ecosystems hold a lot of planet Earth's organic carbon — that is, carbon released by the decomposition of plants and animals. Over time, tundras slowly release carbon through ecosystem respiration (the sum of all respiration by flora and fauna there) during the summer.

Scientists knew from previous research that, as tundras warmed, they could begin

to respire more and consequently release more carbon.

Researchers in Sweden used open-top chambers, which acted as mini greenhouses, to simulate an average increase of 1.4 C in air temperature and 0.4 C in soil temperature. Though the results varied across the 28 tundra sites, a new study in *Nature* found ecosystem respiration increased by 30 percent on average during the summer months.

Sybryn Maes, the study's lead author and researcher at Umeå University in Sweden, said in a news release that it was "a remarkable increase — nearly four times greater than previously estimated."

If global warming reached these extremes, the tundra would transform from a carbon sink into a carbon source.

— Gabrielle Huston

...“Overwhelmed with fish” continued

On Tuesday, staff were on their eighth day of collecting eggs from mature fish. Marsel said he expects to be collecting right to the end of October. “Currently, we are at just over 2.5 million eggs at the facility, and all that credit goes to our hard-working crews,” he added. “We have a goal to reach about 5 million eggs that we’re going to take into the facility this year.”

The fish will be raised until they reach around one gram in size, and then they are released into the Okanagan system. “There are multiple different tributaries that hold great spawning habitat where those fish used to spawn, but due to [a] blockage with the dam, they weren’t able to make it there for a number of years,” Marsel said.

The hatchery work began in the late 1990s as an experimental reintroduction into Skaha Lake, since there were no salmon upstream of McIntyre dam. The long-term program aims to restore the historical range of sockeye in the upper Okanagan watershed, Okanagan Lake, and Skaha Lake systems — part of the Columbia River Basin.

The reintroduction officially got underway in 2004, with the team increasing the number of hatchery fry they raise. In the past five years, the Sockeye have had partial access to Okanagan Lake and in the past two years, full access. “This year is really exciting, having a good return coming up because we’re actually seeing those adults from four years ago making their way into the Okanagan Lake system and spawning in all those tributaries.”

Each year, sockeye and chinook salmon make their journey from the ocean all the way up into the Okanagan River system. Hatchery teams get a first look at salmon return numbers when they swim past Bonneville Dam, the first dam at the bottom of the Columbia River. Marsel said Bonneville Dam saw well over 700,000 fish pass over, and well over 400,000 that passed a dam just below the confluence of the Okanagan River.

The return was later than usual, as the warm fall temperatures kept the fish back from moving from the glacier waters of the Columbia River to the warmer Okanagan River. “It was a major, major thermal barrier that was set. It was strictly set with no fish movement.



The Okanagan Nation Alliance studies the returning salmon after capturing them in weirs positioned along the Okanagan River

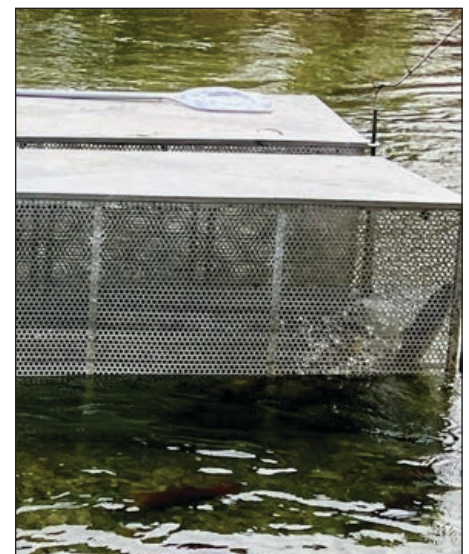
And we were waiting and waiting,” Marsel said. “There’s always the worries of if they’re actually going to make it up all this way with all the fishing going on down there, and all the climate change environmental conditions they have to face for them to actually be making it to the system.” But make it they did, with some salmon heading all the way up to Mission Creek in Kelowna.

“It’s just super exciting to see that what we’re doing is working. These fish are homing into where we’re releasing them, and they’re spawning in the habitat where we release them. So everything we’re doing is working and reintroducing that population.” Marsel said as a conservation facility, the motto and end goal is to work themselves out of a job. “We want to have a wild, sustainable population where we do not need this hatchery impact, where our hatchery fish are getting put into the system. We want a completely wild, sustainable run over the four-year cycle,” he said. “We just got to keep up our hard work, and hopefully one day we’ll be able to see those days where you can walk across the backs of the salmon in the river like it used to be.”

Seeing such a strong return year gives the group confidence their work has an impact. “We have multiple different teams, all our habitat crews, all our biologists out in the field doing all the work in stream assessments and water quality management,” Marsel said. “All those little steps are the important piece of

the puzzle. The hatchery here, where we’re the ones putting the fish into the system, is just a small piece of that puzzle.

“So actually looking after the water and having that data and that availability to tell what’s happening in the system is going to allow us to actually grow our numbers, not just from the hatchery-wise, but also helping out that wild population where we have an active work crew always out wondering and seeing what the water and what the environment is doing.” While full numbers won’t be finalized until later on, Marsel said it’s impressive to be going past 2022’s numbers, also a record-breaking year. “It’s exciting to see such large numbers making it into the river to spawn.”



Diversity

2016

The Okanagan Similkameen Parks Society has been promoting the idea, and value, of biodiversity for some time. The concept is important to the society because it has been shown to be one of the major factors influencing the health of natural environments. Healthy, functioning biomes and habitats contribute to the existence of spaces and places for animals, plants and people. The preservation of such environments was one of the founding goals of the O.S.P.S.

A stumbling block in the protection of flora and fauna contributing to biodiversity is the lack of an appreciation for the true value these plants and animals and the lands on which they exist. Since Canada, and the Okanagan in our instance, has so much 'natural' wilderness it is often erroneously assumed that using or changing a bit of it will not be a problem, after all, "everybody should share". What is often left out of the equation used to 'value' the environment is the manner in which rich biodiversity leads to strong networks and systems which are part of how our world, or local habitats, works. The true actual value of one indigenous species or a

particular group of plants may be very hard to determine. We do not wish to commodify our natural surroundings but if they ever were the value would be much more than what is usually considered to be 'free land'. We protect our environment for animals, plants, children and grandchildren, but we must also realize that we protect it for ourselves.

Lack of indigenous biodiversity can have effects on the local or regional biomes. This can result in a changed habitat through such alterations as soil loss, vegetation transformation and other such occurrences. With enough alteration, weather patterns, natural water retention capabilities and climate can be affected.

Hence it is extremely important that the value of our public lands, animals and plant life be understood to be high. The value of forests are often calculated according to the wholesale price of wood but we need to come to an understanding that the true value is not in the price of the wood but also in the other services that the forests provide (think oxygen and breathing at least). A couple of hours of fun is all that someone on a machine is after but the question must be asked, "Are the tires destroying an area that will take generations to return?". The machines are expensive in and of themselves but the true costs of

the habitat must be considered. There are some places that can be afforded to provide a place for forestry harvest and motocross or all-terraining but we need to consider the value of the location in all manners before deciding. There are some habitats that are too valuable to allow horses, bicycles or hikers to encroach.

Before the OSPS representatives took part in the Land Resource Management Plan process for the Okanagan Shuswap area, the society was touting the ideas of protecting indigenous plants and animals. During this process in the 1990s it was the society's intent to recognize indigenous species, of both flora and fauna, at risk, and strive to negotiate terms that would protect them.

While all areas are important the areas that house such species are probably the most precious of all, due to their rarity. Once such habitats and their inhabitants are gone they seldom come back. While we understand that nature's systems, networks and processes are based on diverse factors we generally do not understand how they interact and work. We do know that they are interdependent and require all aspects to be functioning in order to operate at the optimum level required to keep our planet healthy. The biodiversity of our environment is important but

what the elimination of one Louise's Woodpecker or one Northern Leopard Frog will do, can only be estimated based on its rarity and the prospects for its species to thrive. We must value all life and consider it prior to making our changes, regardless of how large or small we assume them to be.



Amazingly, forests are still sucking up as much carbon as they were 30 years ago. But there's a catch.

Besieged by logging, fires, and pests, this global balancing act might not last long.

Each year, burning fossil fuels puffs tens of billions of metric tons of planet-warming carbon dioxide into the atmosphere. And for decades, the Earth's forests, along with its oceans and soil, have sucked roughly a third back in, creating a vacuum known as the land carbon sink. But as deforestation and wildfires ravage the world's forests, scientists have begun to worry that this crucial balancing act may be in jeopardy.

A study published in the journal *Nature* on Wednesday found that, despite plenty of turmoil, the world's forests have continued to absorb a steady amount of carbon for the last three decades.

It appears to be stable, but it actually maybe masks the issue," said Yude Pan, a senior research scientist at the U.S. Forest Service and the lead author of the study, which included 16 coauthors from around the world.

As the Earth's forests have undergone dramatic changes, with some releasing more carbon than they absorb, Pan warns that better forest management is needed. "I really hope that this study will let people realize how much carbon is lost from deforestation," Pan said. "We must protect this carbon sink."

Roughly 10 million hectares of forest — an area equivalent to the size of Portugal — are razed every year, and ever-intensifying wildfires almost double that damage. The planet has lost so many trees that experts have warned forests may soon reach a tipping point, in which this crucial carbon vault would emit more planet-warming gases than it absorbs. Some studies have suggested that the Amazon rainforest, often called the lungs of the world, is already there.

Using data reaching back to 1990, the researchers analyzed hand measurements of tree species, size, and mass from 95 percent of the globe's forests to calculate the amount of carbon being tucked away over three decades. For each biome studied — temperate, boreal, and tropical forests — the researchers consid-

ered how long-term changes in the landscape altered the region's emissions-sucking power.

In the boreal forest, the world's largest land biome that stretches across the top of the Northern Hemisphere, the researchers found a dire situation. Over the study period, these cold-loving tree species have lost 36 percent of their carbon-sinking capacity as logging, wildfires, pests, and drought devastated the land.

Some regions are faring worse than others: In Canada, wildfires have turned boreal forests into a source of carbon emissions. In Asian Russia forests, similar conditions caused the region to lose 42 percent of its sinking strength.

It's the clear consequence of decades of worsening fires. A study published in *Nature* in June looked at 21 years of satellite records and was the first to confirm that the frequency and magnitude of extreme wildfires has more than doubled worldwide. The change is especially drastic in boreal forests, where these wildfires have become over 600 percent more common per year.

"I was just shocked by the magnitude," said Calum Cunningham, a postdoctoral researcher at the University of Tasmania and lead author of the wildfire study. | The best of Grist's essential climate reporting, delivered straight to your inbox every Saturday.

Down near the equator, where tropical forests make up over half of the world's tree cover area, the global carbon sequestration study found a complicated, three-part equation. Agricultural deforestation has caused a 31 percent loss of the old forest's carbon-sinking strength. But new plant life has reclaimed large swaths of abandoned farmland, and the carbon-sucking power of these younger forests has made up for the losses from logging. Although persistent deforestation continues to create more emissions, the study found that when adding up these gains and losses, tropical forests are almost carbon-neutral.

So how has the globe managed to keep up the overall balancing act? The answer lies in temperate forests, where the carbon sink has increased by 30 percent. The study found that decades of reforestation efforts, largely by nationwide programs in China, are finally paying off. But the trend might not last. In China, urbanization and logging have begun to cut into tree cover. In the United States and Europe, wildfires, droughts, and pests have caused the temperate forest carbon sink to drop by 10 percent and 12 percent, respectively.

Forest management efforts, along with the rate of emissions, will determine how this all plays out. A paper in *Nature* last year found "striking uncertainty" in the continued potential of carbon storage in U.S. forests, highlighting the need for conservation and restoration efforts.

Chao Wu, a postdoctoral researcher at the University of Utah who led that 2023 study, said that mitigating emissions should be the biggest priority for solving the climate crisis. "But the other important part is nature-based climate solutions, and the forest will be a very important part of that," Wu said.

Richard Houghton, a senior scientist at the nonprofit Woodwell Climate Research Center who contributed to the latest sequestration study, says it's "luck, in a sense" that the global forest carbon sink has remained stable.

For it to stay that way, Houghton and Pan said that increased restoration efforts and reduced logging are needed in all biomes, and especially in tropical forests, where 95 percent of deforestation occurs. "We don't have enough preservation," Houghton said, adding that protecting forests has added biodiversity and ecosystem health benefits. "There's always more reasons to do a better job."

Why some say fighting wildfires should be a year-round job in Canada

Dave Pascal worked almost 25 years in the B.C. Wildfire Service, and now works with the First Nations' Emergency Services Society of B.C. as a cultural and prescribed fire specialist.

When Dave Pascal began working as a forest firefighter, it was a three-months-a-year job. He spent the summers fighting wildfires, then went back to his regular job as a forest technician.

"It was like the little boys' club. And we would just jump on helicopters, fly out into the bush, go and put fires out and come home and go back to our regular job," he said.

But then, with climate change, the fire seasons kept getting longer — and so did Pascal's work.

"All of a sudden, I don't have another job anymore," he said. "Now, it's a career."

Climate change has changed almost every industry — and provided opportunities to rethink established practices. Pascal, a member of the Lil'wat First Nation, is a cultural and prescribed fire specialist at the First Nations' Emergency Services Society of British Columbia, where he's bringing

traditional Indigenous knowledge back to managing wildfire.

Communities across the province come to him with proposals for prescribed burns, which are controlled and planned burns to reduce the amount of fuel around their lands and make them safer during fire seasons.

"It's their territory, it's their land," Pascal said.

"They know how to manage it. So they'll tell me what their plan is, and I'm there to support their plan."

The need for bringing back those practices is growing, especially after the historically bad 2023 fire season in Canada, and the devastating fires in Jasper this year.

That means greatly expanding the number of people working in this field, just like Canada needs more people to work in green retrofitting or to drill for geothermal energy. And like other parts of the green economy, that can mean changing the way the agencies fund these job positions and choose the people for them.

Amy Cardinal Christianson, a former research scientist at the Canadian Forest Service, advo-

cate for more Indigenous wildland firefighters. She says the recruitment process requires a change to what some typically consider as "expertise," especially when many Indigenous firefighters may not have had access to the usual degree programs and certificates for leadership positions in their field.

"They know their area, they know the values, they know how fire moves on the land, but they're totally withheld from decision-making in their territories," she said.

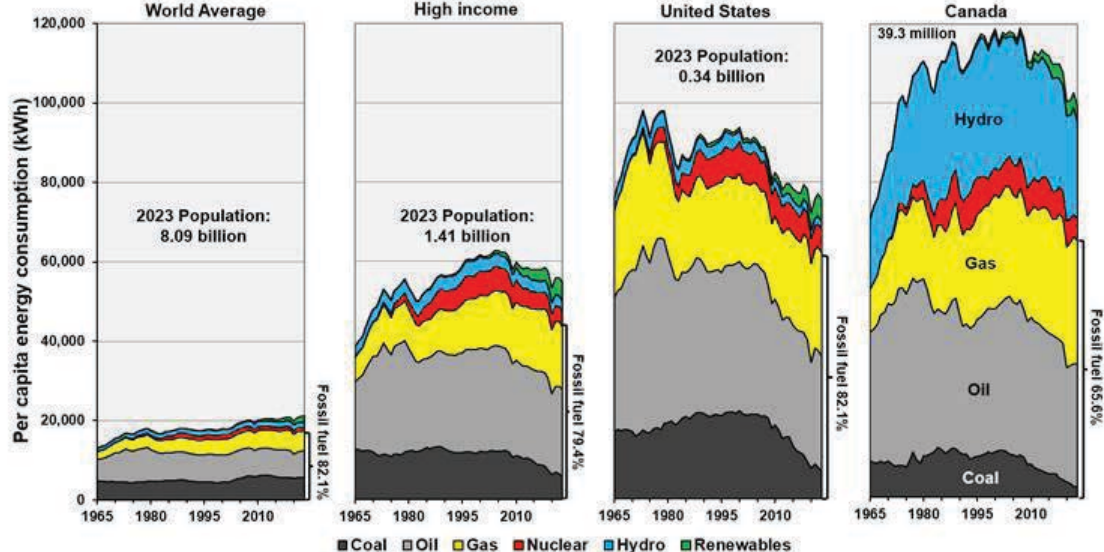
Along with changing that rigid template of who qualifies for certain jobs, stable funding from the government for year-round job security is also important to attract new people to the job, said Christianson.

"We need to stop thinking about fire as something that we can just throw money at in the summer and the problem will go away," she said.

"What we're seeing now with these summers of smoke is that it's something that we need to invest in year round."

— Inayat Singh

Per capita energy consumption by source, income class and country, 1965-2023



© Hughes GSR Inc, 2024

(data from *OWID* based on Energy Institute using substitution method, 2024, UN and other sources; traditional biomass not included; October, 2024)

Researchers expect year-long fire seasons in northwestern Canada

AREA OF LAND BURNED BY WILDFIRES NATIONALLY THIS YEAR EXPECTED TO BE 2ND-HIGHEST SINCE 2000

CBC News · Posted: Sep 25, 2024 1:42 PM PDT | Last Updated: September 25

The federal government expects wildfires to continue burning into the winter near the junction of B.C., Alberta and the Northwest Territories. (HOBC Wildfire Service/The Canadian Press)

Social Sharing

Federal officials and researchers say elevated levels of drought across the country are making wildfire seasons longer — particularly in northwestern Canada.

At a technical briefing on Wednesday, researchers from several federal departments sharing their findings for this year said higher-than-normal drought levels are driving fire behaviour year-round, and fires are expected to burn at least until the winter in the Northwest Territories, northern Alberta and B.C.

Yan Boulanger, a federal forest ecologist, said although fire behaviour is winding down across the country, the federal government will need to shift to a year-round fire management strategy.

“We must continue to be vigilant against fires starting all year round,” he said. “We need to shift away from viewing wildland fires

simply as seasonal events and move toward the concept of a continuous fire year.”

Longer fire seasons

Jean-François Duperré, with Public Safety Canada, said the number of fires across the country has now dropped to about 240, indicating fire behaviour is winding down.

- Forecasters predict thunderstorms, strong winds in southwest B.C.
- Expect more evacuation orders and alerts, B.C. wildfire officials warn

The researchers primarily attribute the shift in fire behaviour to climate change-driven drought, Natural Resources Canada says.

This year, researchers say they predict wildfires will burn 53,000 square kilometres of land nationally. That’s the second-highest area burned since 2000.

About a fifth of that activity is in B.C. So far this year, more than 10,700 square kilometres have burned in the province.

Boulanger said fire behaviour was driven by elevated drought levels across the country.

Canada has seen higher-than-normal drought conditions and heat over the past 12 months, and the country can expect to see dry conditions occur more often with climate change.

Drought and storm damage

B.C. Hydro is warning residents that three years of prolonged drought has weakened trees and vegetation, making B.C. communities more vulnerable to climate change. They’re asking residents to prepare for power outages caused by falling trees during storms.

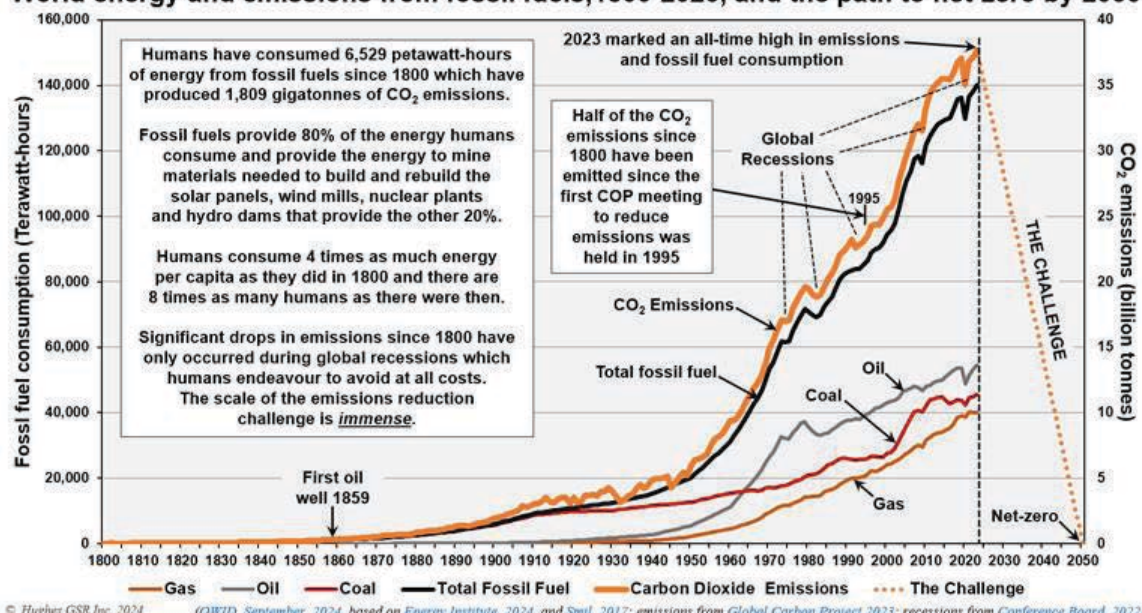
“Trees weakened by years of drought can be more susceptible to wind and stormy weather and could be at risk of falling over into our infrastructure, contributing to power outages,” Susie Rieder, a spokesperson for B.C. Hydro, told CBC News.

B.C. Hydro says the risk of power outages are higher on Vancouver Island, which has sustained higher levels of drought, and northern B.C., which has experienced major wildfires.

The warning comes as atmospheric rivers begin to hit some parts of the province.

With files from Jenifer Norwell

World energy and emissions from fossil fuels, 1800-2023, and the path to net-zero by 2050



Has the world ‘surrendered’ to climate change? These authors think so.

This year’s UN climate summit, COP29, opened in Baku, Azerbaijan, on Monday, November 11, 2024. Since the signing of the Paris Agreement in 2015, most climate discussions have centred on the need to keep global warming below 2 C, and ideally below 1.5 C. But Swedish academics Andreas Malm and Wim Carton think many of our leaders have resigned themselves in the last decade to reaching neither of those goals.

In their provocative new book, *Overshoot: How the World Surrendered to Climate Breakdown*, they examine how politicians, business leaders and, yes, even some climate scientists have downplayed the imperative to make deep emissions cuts. Malm and Carton call it an “overshoot philosophy”: a belief that it’s impossible to meet our emissions targets, but that we’ll be able to cool the planet at a later point, using some as-yet unproven technology.

Malm and Carton spoke to CBC’s Andre Mayer via Zoom from Paris and Malmö, Sweden, respectively.

Q: The subtitle of the book is ‘How the World Surrendered to Climate Breakdown.’ When do you think the surrender began?

Wim Carton: We’ve never really tried to mitigate climate change. So in that sense, we started by surrendering. But I mean, if we take the overshoot notion as kind of the organizing principle here ... this idea that, you know, we can somehow reach these [carbon reduction] targets by going past them and

then returning, by lowering temperatures, by sucking CO2 out of the atmosphere, then I guess the surrender began around 2007, thereabouts.

Andreas Malm: You can potentially, if you want to be chronologically specific, focus on the period between 2018 and 2022. Because it was in 2018 that the special report on 1.5 degrees was published by the [Intergovernmental Panel on Climate Change]. And that was a moment in time when it was almost universally recognized that we need to cap the warming at 1.5. This was also the moment in time when the climate movement began to surge in the Global North, and [the emergence of] Extinction Rebellion This surge continued until the outbreak of the pandemic in early 2020, and then it completely came to an end.

In these years, you had the International Energy Agency pronouncing very clearly that if we want to stay at or below 1.5, we cannot have any new fossil fuel installations.

Then what happened in 2021 and 2022 was a complete contradiction of this, in that you had this wave, this new cycle of profits from fossil fuels and reinvestment in them.

Q: The period you’re referring to was after most of the restrictions of the COVID-19 pandemic had been lifted. In the early part of the pandemic, when people were being urged to stay at home, global emissions dropped precipitously. Some climate reporters thought this could be a dress rehearsal for driving emissions down permanently. This was naive, wasn’t it?

Andreas Malm: This was a widely shared feeling. And I was, I think, prone to having this feeling as well, that this could be like a moment of rupture. All the flights coming to a standstill and nature returning into cities and the skies being clear ... yeah, it was a moment when people could perceive a different way of life.

But all of that just, you know, ended in absolutely nothing. An obvious explanation for that is that none of these emissions cuts happened because governments wanted to act on climate. They only happened as an accidental byproduct of trying to contain the spread of the virus.

Q: In the book, you argue that “local resistance” is perhaps the most productive way to reduce oil dependency. Could you elaborate?

Wim Carton: We give this example of Colombia, of Ecuador — places where there are social movements. And obviously this is in many cases people who have been directly affected by the other effects of the fossil fuel industry, right? Not just climate change, but also its direct environmental effects, and [they] push back on the basis of that. I think you need that kind of ... ground-anchored movement to be able to push back. We think that ultimately any change will have to happen through the state, but the only way we can capture the state or that you can change the direction of the state is through these mass movements of resistance, so yeah, that’s the only pathway that I think seems feasible.

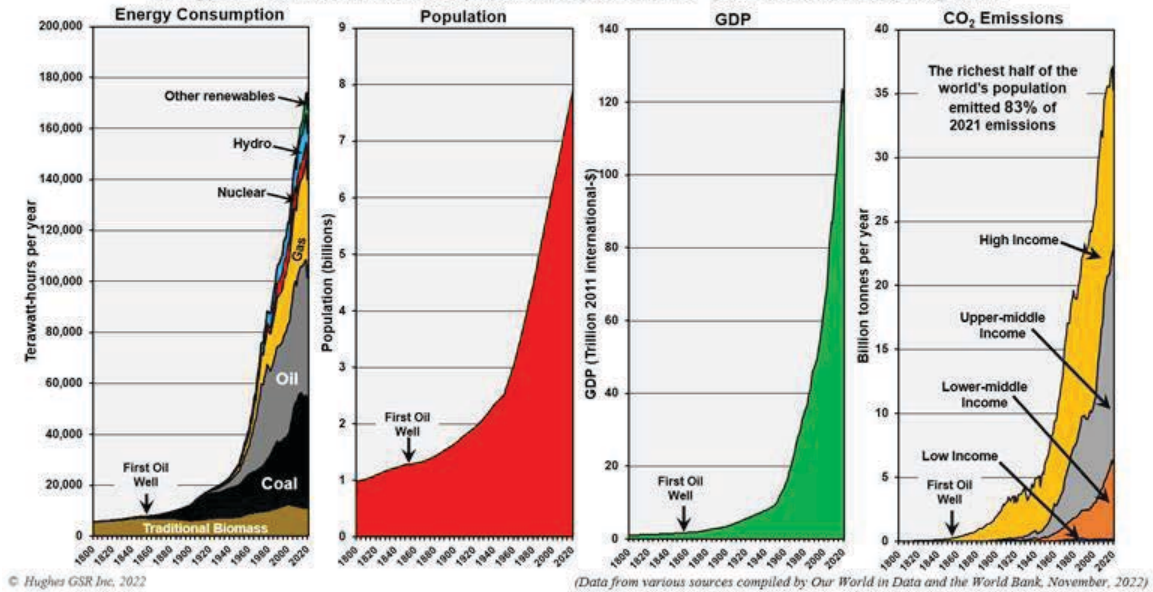
— Andre Mayer



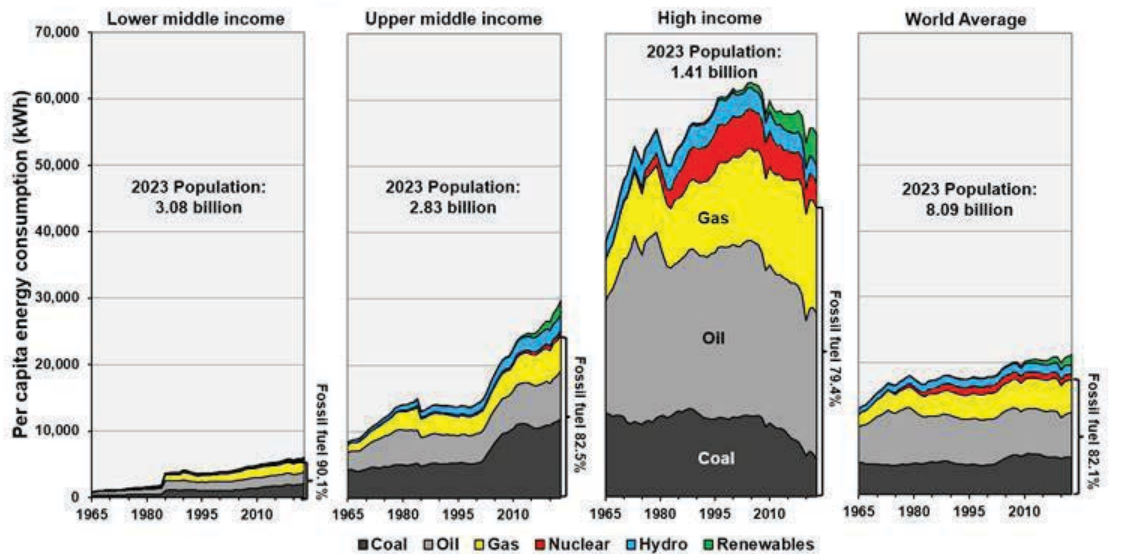
Okanagan Nation catching Salmon for research purposes

THE GREAT FOSSIL FUEL BLOWOUT: PLANET EARTH, 1800-2021

Energy abundance has allowed population growth, GDP growth and emissions growth



Per capita energy consumption by source and income class, 1965-2023



Graphs on pages 6,7,9
courtesy of Dave Hughes

MEMBERSHIP FORM Okanagan Similkameen Parks Society • Box 787, Summerland, B.C. V0H 1Z0

Name: _____ Phone: _____

Address: _____

Email: _____ Postal Code: _____

Individual (\$10.00) _____ Family (\$15) _____ Organization (\$20) _____

Donation: _____ (Income Tax Deductible) ☐ I wish to receive the OSPS newsletter by email

 _____

Sheila White

March 12, 1924 - September 26, 2024

The Okanagan Similkameen Parks Society and the communities that we operate in lost one of our greatest friends and resources September 26, 2024. Sheila White, a lifetime member and long-time OSPS conservation activist, passed away quietly in Vancouver. Sheila, who lived for a great portion of her 100 years in Summerland, was active as a parks society member and director of the executive. Recognized as an OSPS Pioneer during a ceremony in 2018, Sheila served in several roles, including secretary, membership chair, newsletter editor, fundraiser and, possibly most importantly, historian. In many ways, for untold years alongside her husband Bert, she was the glue that held our society together.

As well as belonging to the OSPS Sheila was a UBC Economics graduate, WWII Air Force vet, teacher, town Councillor, democratic socialist, choir member, bridge and

tennis player. The waves from her impact will ripple through the lives of those who knew and loved her for years to come. Born in Cranbrook B.C. on March 12, 1924, Sheila outlived her conservationaly active husband, Bert as well as her brothers John, Arthur and Henry.

Sheila will be remembered for her keen intellect, quick wit, strong opinions, ethical beliefs, determination, warmth, curiosity and love of nature. In her position as secretary, she could be relied upon to provide an ethically sound point of view for issues concerning the parks society. Coupled with her extensive net of contacts and her memory for the roles which numerous Okanagians and Similkameenites played in our communities and villages, Sheila’s work ethic ensured that many Society projects were completed to a high standard.