



CURRENT NEWS ON ECOLOGICAL WELLNESS AND GLOBAL HEALTH

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Hi,

It was -12C when I took a walk around my neighbourhood the other day, already warming up from a low of -17C, but it was sunny. While there weren't any kids in the playground, there were shoppers and others about on the main street. But it was so cold, I really couldn't think of much anything else, other than getting from A to B and taking some photos to share with you along the way (see End Shots). I was thinking, though, about the giant storm that had just hit Newfoundland with snow completely covering streets, cars and the doors of homes, and later got reminded it was Martin Luther King Jr. Day in the USA (he being one of my all time greatest heroes). But my mind kept mostly blank until I was back indoors. At least I had some down time from the political and ecological crises all over the world, which I love to share with you.

In today's ***Planetary Health Weekly*** (#4 of 2020) you'll first see a most incredible story about our oceans, warming fast and faster than ever imagined, all to the peril of its creatures and those who receive life from it, including us.

In other stories you'll also read about:

- Big business seeing climate threats at the top of their list of risks,
- Microsoft's commitment to become carbon negative (also so interesting),
- A summary of a continuing British Columbia Indigenous struggle,
- New life for a TB vaccine and TB research layoffs,
- Australian fire ash killing fish,
- The Dutch Supreme Court ordering the government to take climate action,

- Making your New Year's resolutions count,
- Children having the right to play,
- Giving birth near home in northern Quebec,
- A climate statement from Mary Robinson,
- A bunch of new conferences listed for 2020,
- A great new movie 'Dark Waters' and its book 'Exposure',
- Plains Indian spirituality (and a new series on Indigenous spirituality),
- Discoveries of new bird species and a stingless jellyfish in Indonesia,
- How note taking helps you learn and more.

I hope you'll take a look below.

Best, david

David Zakus, Editor and Publisher



Credit: David Zakus

A VERY COLD DAY IN RENNIE PARK, TORONTO

JANUARY 20, 2020

Ocean Temperatures Hit Record High As Rate Of Heating Accelerates

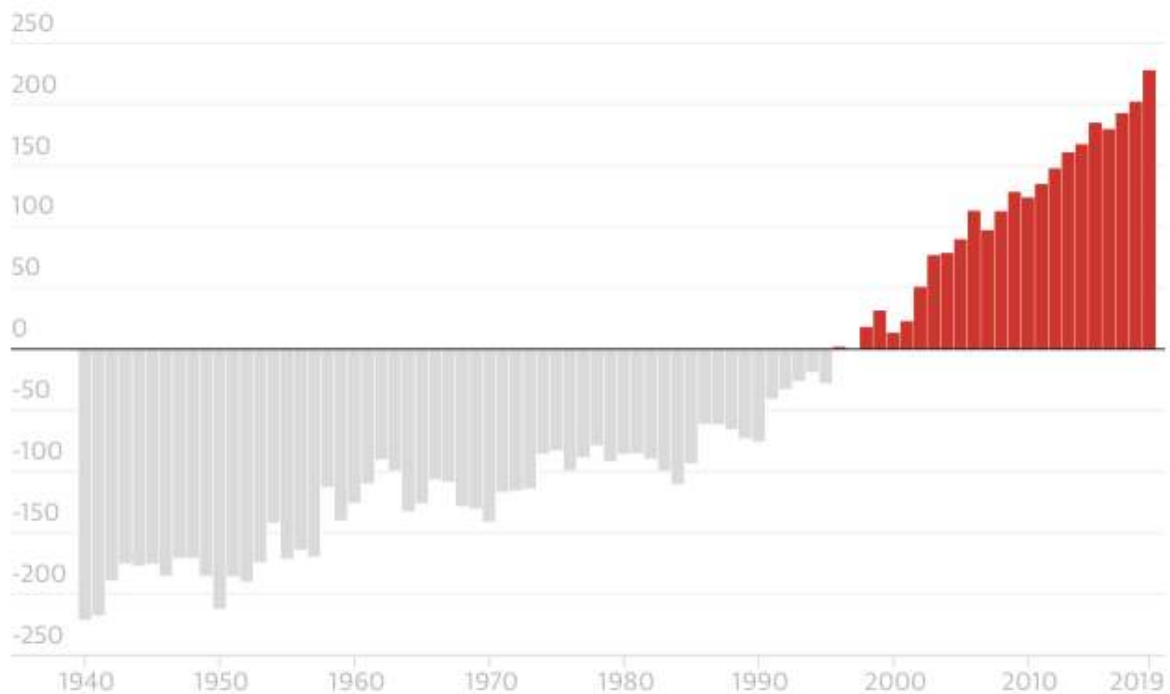


Credit: Modis/Terra/Nasa

Oceans are clearest measure of climate crisis as they absorb 90% of heat trapped by greenhouse gases. The heat in the world's oceans reached a new record level in 2019, showing "irrefutable and accelerating" heating of the planet. The new analysis shows the past five years are the top five warmest years recorded in the ocean and the past 10 years are also the top 10 years on record. The amount of heat being added to the oceans is equivalent to every person on the planet running 100 microwave ovens all day and all night. The results show heat increasing at an accelerating rate as greenhouse gases accumulate in the atmosphere. The rate from 1987 to 2019 is four and a half times faster than that from 1955 to 1986. The vast majority of oceans regions are showing an increase in thermal energy...leading to higher intensity storms, more extreme weather, relentless ice melt and expanding seas. "We found that [2019 was not only the warmest year on record](#), it displayed the largest single-year increase of the entire decade, a sobering reminder that human-caused heating of our planet continues unabated," said Prof Michael Mann, at Penn State University, USA. [Read More at The Guardian](#)

Oceans are getting hotter due to global heating

Change in heat content relative to 1981-2010 average in zettajoules*



Guardian graphic. Source: Cheng et al, Advances In Atmospheric Sciences, 2020. *One zettajoule = 1,000,000,000,000,000,000 joules

Climate Threats Sweep The Board In 2020 Global Risk Ranking



Credits: John Carnemolla

For the first time the top five long-term risks facing the world are environment and

climate related, the latest report from World Economic Forum reveals. Experts and world leaders have woken up to the climate threat, with this year's Global Risk Report 2020 from the World Economic Forum (WEF) for the first time ranking climate and environmental issues as the top five threats facing the world. [Read More at Business Green](#)

Microsoft Will Be Carbon Negative By 2030

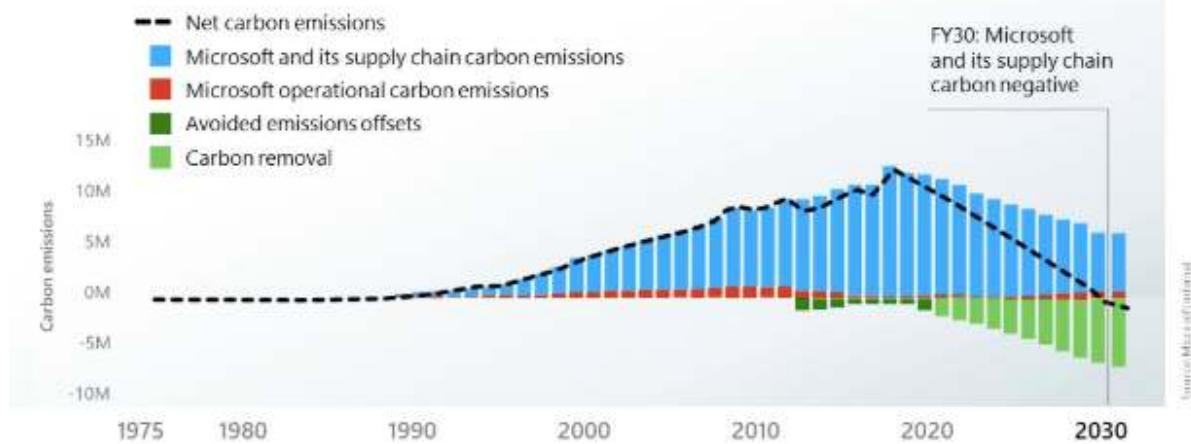


Credit: Brian Smale

The scientific consensus is clear. The world confronts an urgent carbon problem. The carbon in our atmosphere has created a blanket of gas that traps heat and is changing the world's climate. Already, the planet's temperature has risen by 1 degree centigrade. If we don't curb emissions, and temperatures continue to climb, science tells us that the results will be catastrophic. The world's climate experts agree that the world must take urgent action to bring down emissions. Ultimately, we must reach "net zero" emissions, meaning that humanity must remove as much carbon as it emits each year. This will take aggressive approaches, new technology that doesn't exist today, and innovative public policy. Reducing carbon is where the world needs to go, and we recognize that it's what our customers and employees are asking us to pursue. This is a bold bet — a moonshot — for Microsoft. And it will need to become a moonshot for the world. [Read More at Microsoft Blog](#)

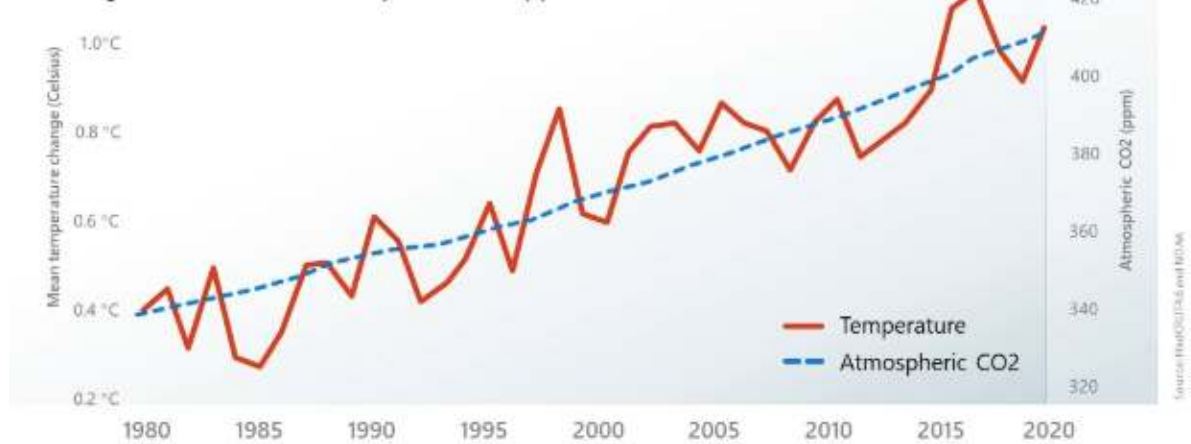
Microsoft's pathway to carbon negative by 2030

Annual carbon emissions

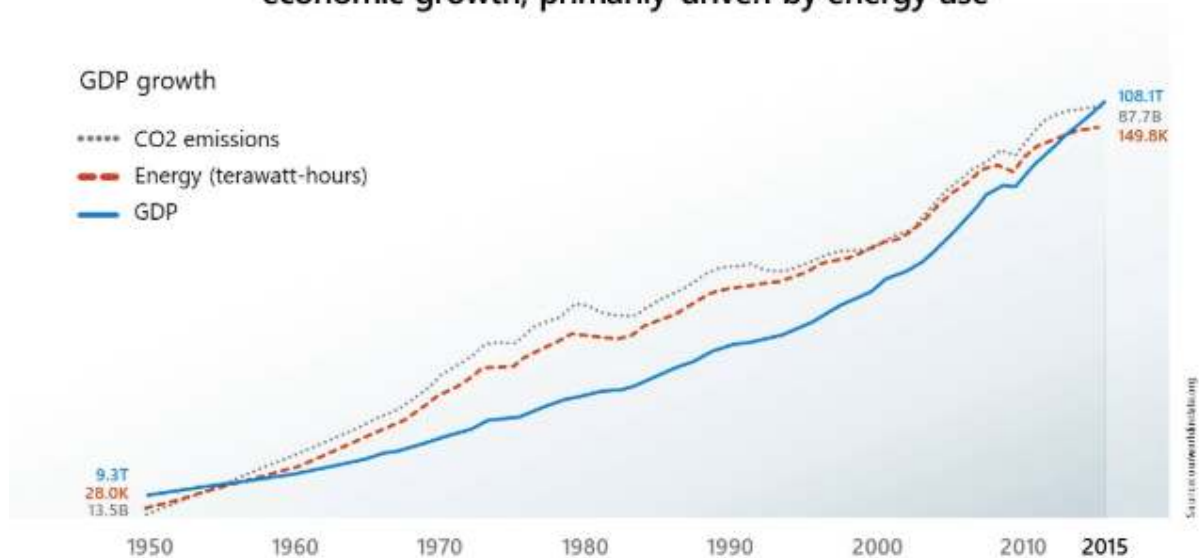


Increase in carbon dioxide emissions is the primary driver of rising global temperatures

Mean temperature change relative to 1850–1900 in degrees Celsius and atmospheric CO₂ (ppm)



Over the last century, the world has experienced unprecedented economic growth, primarily driven by energy use



Credit: Microsoft Blog

A Look At The Conflict In The Wet'suwet'en Nation

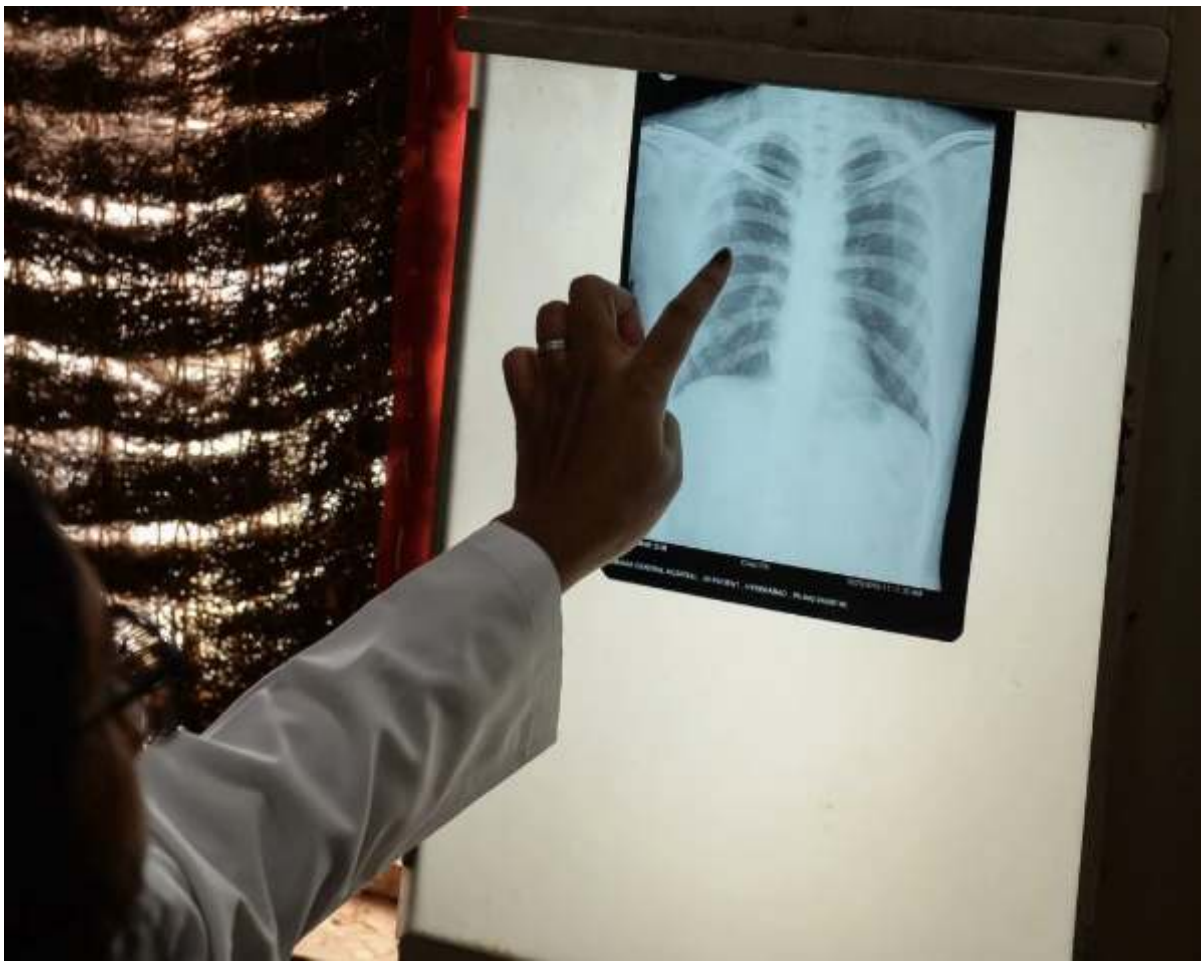




Credit: Andrew Burton/Getty Images

A year ago the RCMP raided the Gidimt'en checkpoint along the Morice River Road in Wet'suwet'en Nation, in northern British Columbia. While police blocked access to a number of media outlets, including APTN News, video of the raid leaked out around the world. Mounties in paramilitary uniforms with rifles stormed the checkpoint. They went over the barricade and arrested 14 land defenders. Tensions are again running high between the Hereditary Chiefs, Coastal GasLink and the RCMP. In January 2019, land protectors at the Gidimt'en checkpoint say they were trying to stop CGL pipeline workers from accessing preliminary construction areas further up the road, past the Unist'ot'en Village, with approval from Wet'suwet'en's highest hereditary chiefs. In the end the Gidimt'en checkpoint was dismantled and CGL gained access to the site. But now another conflict has arisen. The hereditary chiefs issued an eviction notice to CGL. [Read More at APTN News](#)

Research Nonprofit Shuttters TB Vaccine Effort And Lays Off Scientists



Credit: Noah Seelam/Agence France-Presse — Getty Images

A financially troubled Infectious Disease Research Institute in Seattle, WA research recently cut back programs, leaving researchers to find new homes for work on infectious diseases like tuberculosis and leprosy. Senior executives and board members in the institute pinned a lot of the blame on the director, whom they called a passionate scientist however voiced concerns regarding his fiscal stewardship and possible conflicts of interest, such as ties to for-profit companies to which the institute had licensed some of its own technology. [Read More at The New York Times](#)

Hundreds Of Thousands Of Fish Dead In NSW As Bushfire Ash Washed Into River



Credit: Larry Newberry

Hundreds of thousands of native fish are estimated to have died in northern New South Wales after rains washed ash and sludge from bushfires into the Macleay River. One freshwater ecologist told Guardian Australia the impact of the fish kill might be felt for decades to come, with long-lived species like Australian bass hit hard. A NSW official statement said its fisheries department “continues to investigate a fish kill event on the Macleay River”. The statement said: “The suspected cause of the incident is poor water quality leading to low dissolved oxygen. Rainfall events are adding ash from the extensive bushfires throughout the region into local catchments, as well as other organic matter and sediment. This can cause rapid drops to oxygen levels in the water. [Read More at The Guardian](#)

See also in The Guardian: [Huge ‘Hot Blob’ in Pacific Ocean Killed Nearly a Million Seabirds](#)

GOOD NEWS

New Injection Method Makes An Old TB Vaccine Far More Powerful



Credit: Joao Silva / The New York Times

Giving the currently used vaccine intravenously to monkeys provided 90% protection against tuberculosis. More testing is needed before humans can be inoculated that way. Based on findings from clinical research with macaques monkeys, researchers reported that injecting the tuberculosis (TB) vaccine, Bacille Calmette-Guérin (BCG), into a vein versus injecting the vaccine under the skin was more effective in preventing TB infection. This is similar to the success seen with injecting a malaria vaccine into the vein with children in Africa. Experts caution that further research is needed to determine the safety and practicality of this method prior to using it with humans. In addition, exposure to live TB would be dangerous for those with HIV. Another potential mechanism for preventing TB might be injecting just the cell walls of the bacteria. [Read More at The New York Times](#)

MORE GOOD NEWS

In 'Strongest' Climate Ruling Yet, Dutch Supreme Court Orders Leaders To Take Action



Credit: SEM VAN DER WAL

The Supreme Court of the Netherlands on Friday ordered the government to cut the nation's greenhouse gas emissions by 25% from 1990 levels by the end of 2020. It was the first time a nation has been required by its courts to take action against climate change. Michael Gerrard, director of the Sabin Center for Climate Change Law at Columbia University, said the decision was groundbreaking. "There have been 1,442 climate lawsuits around the world," he said. "This is the strongest decision ever. The Dutch Supreme Court upheld the first court order anywhere directing a country to slash its greenhouse gas emissions." [Read More at MSN](#)

OPINION

One Thing You Can Do: Make Your New Year's Resolutions Count



Credit: Tyler Varsell

New Year's resolutions suggest an abstract faith in the future. If we do this thing, we tell ourselves, our 2020 selves will look or act or feel better than our 2019 selves did. There's an implicit acknowledgment that change is possible and that we are capable of making it happen (though just under half of us won't hold on to our resolutions through February). Talking about fighting climate change is a lot like that. What will things look like if nothing changes. But if we reduce greenhouse gas emissions by a little — through the end of February, maybe — what happens? If we reduce reduce them a lot, what will the world look like and what will it take to make that happen? We can't fix this alone. We can't all do everything. But, we can all do one thing. So just pick one thing — whether it's eating less red meat, or composting, or riding your bike to work, or cleaning up plastic litter in your community, or buying secondhand clothing — and actually do it. [Read More at The New York Times](#)

SPOTLIGHT ON POLICY

If In Doubt, Let Them Out — Children Have The Right To Play



Credit: Shutterstock

[New research](#) from Statistics Canada's Canadian Health Measures Survey reaffirmed the dramatic decline in Canadian children's fitness over the past 35 years — with only one-third of Canadian school-aged children meeting physical activity guidelines. In late November, 2019 the United Nations Convention on the Rights of the Child marked its 30th anniversary. The convention also commits states "to develop preventive health care" and "guidance for parents" which can include the health benefits of active play. But Canada is failing to honour these commitments. The [2018 ParticipACTION Report Card on the Physical Activity of Children and Youth](#) gives Canada a "D" grade for "Active Play and Leisure Activities," while the [2019 UNICEF Canada Baseline Report for the Canadian Index of Child and Youth Well-being](#) shows that only 21% of children aged five to 11 engage in at least 1.5 hours a day of active play and unstructured activities. The recent Statistics Canada research reaffirms these findings.

But the research is clear: injury statistics show that children today are [safer than at any other time in Canada](#) and children's outdoor play supports a myriad of health and developmental outcomes. Despite these benefits and the remoteness of adverse events we restrict our children's right to play outside. [Read More at The Conversation](#)

SPOTLIGHT ON INDIGENOUS WELLNESS

Giving Birth Where the Family Is



Credit: Amber Bracken

Canada's government once pressured Inuit women to travel south to give birth. Now, they can have their babies at a hometown maternity clinic led by Inuit midwives. As Canada tries to make amends for its brutal history of relations with its Indigenous population, midwives and other members of the community in Inukjuak, a town of around 1,800 people in a remote region of northern Quebec, point to the clinic as an example of a way forward. Today around three out of four pregnant women in the town give birth in its clinic, attended to by Inuit midwives. First-time mothers here are often young, Megan Epoo said, and having their own mothers, aunts and sisters there for their labor is vital. [Read More at The New York Times](#)



Credit: Pro Shots, via Associated Press

Quote Of The Week

“After the U.N. climate talks in Madrid, the urgency of increasing our efforts to reduce greenhouse gas emissions could not be clearer.” The new decision by the Dutch Supreme Court, “affirms that governments are under a legal obligation, as well as a moral obligation, to significantly increase their ambition on climate change. Our human rights depend on it.”

Mary Robinson, former United Nations High Commissioner for Human Rights and a former president of Ireland

For more see in New York Times: [In ‘Strongest’ Climate Ruling Yet, Dutch Supreme Court Orders Leaders To Take Action](#)

Upcoming Events

- January 24th - 26th: [International Forum's 2030 & Beyond : Solutions Without Borders](#) (Montreal, Canada)
- January 27th - 31st: [ACAPS introduction to humanitarian needs analysis \(HRN\)](#) (Toronto, Canada)
- January 30th, 31st & February 1st: [Early Years Conference 2020: Listen Together, Learn Together, Act Together](#) (Vancouver, Canada)
- February 5th: [When The Storm Uproots: The Impact Of Climate Change On Displaced Populations Around The World](#) (Montreal, Canada)
- February 7th - 8th: [International Development Week Conference: Sustainable Development In A Climate Crisis](#) (Ottawa, Canada)
- February 19th - 20th: [2nd World Congress on Primary Healthcare and Medicare Summit](#) (Paris, France)
- March 6th - 7th: [International Women's Day: Research and Revolt Conference](#) (Guelph, Ontario)
- March 21st - 24th: [Oxfam Summit And Day Of Action](#) (Ottawa, Canada)
- March 31 - April 2: [World Public Health Nutrition Congress 2020](#) (Brisbane, Australia)
- April 6th -7th, 2020: [17th World Congress on Paediatrics and Neonatology](#) (Tokyo, Japan)
- April 18th -20th, 2020: [CUGH Conference 2020: Global Health in a Time of Worldwide Political Change](#) (Washington, D.C., USA)
- April 24th - 26th, 2020: [PEGASUS IV Migration - Climate Change - Sustainable Development](#) (Waterloo, Ontario, Canada)
- April 28th - 29th: [Global Health Impact Expo + Exchange](#) (Ottawa, Canada)
- April 28th - 30th: [CPHA's Public Health 2020](#) (Winnipeg, Manitoba, Canada)
- May 2nd - 4th: [RESULTS CANADA National Conference: From action to impact: working together to end extreme poverty](#) (Ottawa, Canada)
- May 21st - 23rd: [Indigenous Health Conference: Building](#)

FYI#1 SPOTLIGHT ON MEDIA: NEW MOVIE

Dark Waters



Editor's Note: I recently saw this movie and it is excellent, highly recommended. See also FYI #5 for related book.

Dark Waters is inspired by a true story of one man – Rob Bilott , a corporate lawyer – and his decades-long battle against big chemical companies who have been poisoning us and our communities. PFAS, also known as forever chemicals, are a family of per- and polyfluorinated chemicals that are bio-persistent, meaning they do not break down in the environment and build up in humans and animals over time. We understand that the fight against forever chemicals, as in Teflon, can feel overwhelming and undefeatable. But there are ways to protect yourself and hold polluters accountable. Make sure your family, friends and loved ones know about forever chemicals and how they can protect themselves.

[See more at Dark Waters](#)

FYI #2

Climate Surprises



Credit: Getty Images

The reality of climate change hits us harder with every passing extreme weather event — drought or flood, hurricane or heatwave. Severe water shortages are parching Cape Town and Chennai, forest fires are singeing California and killing much in Australia, storms batter the Caribbean and the threat of drowning looms over low-lying islands in the Pacific. But the impacts of climate change extend well beyond the news we read on the front pages of newspapers and on our mobile apps with increasing frequency. OZY's latest original series, **Climate Surprises**, gives you a front-row seat to the global warming-induced changes — from your home to your holiday and from forests to food — that you've never heard about, but that could shape the world.

[Read more at OZY](#)

FYI #3

A Brief Overview Of Northern Plains Indian Spirituality



Credit: Neeta Lind

The Northern Plains include what is now North and South Dakota, Eastern Montana, northeastern Wyoming, and the Canadian provinces of Alberta and Saskatchewan. Northern Plains Indian spirituality tended to be different than the spirituality expressed in Christianity. For most of the Christian missionaries—both those of the early contact period and those of today—it was felt that the Indian nations of the Northern Plains either had no religion, or they worshipped Satan. Thus, places associated with Indian spirituality were either ignored or renamed with the designation *devil* (Devil's Tower in Wyoming is just one example of this). One important element of the spirituality of the Northern Plains tribes is the vision or dream. It is through dreams that people can obtain spiritual power. Furthermore, dreams can reveal the future. Thus, dreams that tell of success in war, in hunting, or in love bring with them the confidence that good things are going to happen.

[Read More at Daily Kos and See About Entire Series 'Indians 101'](#)

FYI #4

Trove Of New Bird Species Found On Remote Indonesian Islands



Credit: James Eaton/Birdtour Asia

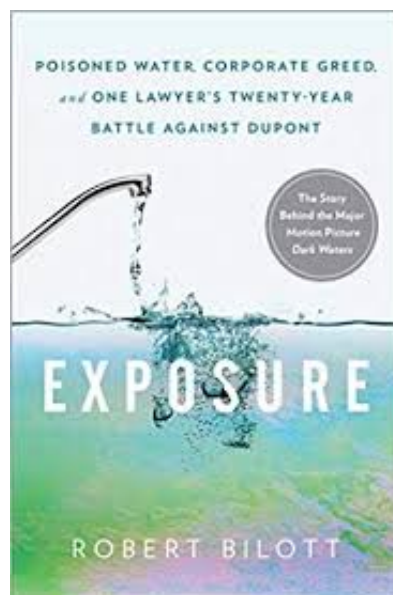
Researchers found 10 new species and subspecies of songbirds off the coast of Sulawesi, Indonesia with distinct songs and genetics from known birds. Dr. Frank Rheindt, from the National University of Singapore, and colleagues recently published a study in [Science](#) on their findings from that six-week trip and a follow-up in 2013. They identified five new songbird species and five subspecies — a number considered remarkable from one place and time. Their proposed names for the birds include: Peleng Fantail, Togian Jungle-Flycatcher and Sula Mountain Leaf-toiler. “The discovery and description of biological diversity can be considered a significant driving force behind the development of one of the greatest ever scientific theories,” said Dr. Jonathan Kennedy, from the University of Sheffield. “The findings of Rheindt et al. suggest to me that there is still so much more to discover and learn about life in this area of the world” - the area where Alfred Russell Wallace, the 19th-century naturalist, developed a theory of evolution alongside Charles Darwin’s, and from where Wallace sent his famous letter to Darwin, laying out what he had reasoned about evolution and persuading Darwin to publish his own ideas for the first time.

See also: [An Indonesian Lake With Stingless Jellyfish and Hints of Hotter Seas](#)

Read more at The New York Times

FYI #5: WINTER READING

Exposure - Poisoned Water, Corporate Greed, And One Lawyer's Twenty-Year Battle Against Dupont



Credit: Nathaniel Rich

The story that inspired the major motion picture *Dark Waters* (see FYI #1), starring Mark Ruffalo as Robert Bilott. In 1998, Rob Bilott began a legal battle against DuPont that would consume the next 20 years of his life, uncovering the worst case of environmental contamination in modern history and a corporate cover-up that put the health of hundreds of thousands of people at risk. Representing a single farmer who was convinced the creek on his property had been poisoned by runoff from a nearby DuPont landfill, Rob ultimately discovers the truth about PFAS—unregulated,

toxic chemicals used in the manufacturing of Teflon and a host of other household goods. DuPont's own scientists had issued internal warnings for years about the harmful effects of PFAS on human health, but the company continued to allow these chemicals to leach into public drinking water. Until Rob forced them to face the consequences.

Exposure is an unforgettable legal drama about malice and manipulation, the failings of environmental regulation, and one lawyer's quest to expose the truth about this previously unknown—and still unregulated—chemical that presents one of the greatest human health crises of the 21st Century.

[Read more on Amazon](#)

FYI#6: SPOTLIGHT ON EDUCATION

How To Take Notes To Improve How You Learn?



Credit: Troy House/Getty Images

Routledge presents its fourth video, "Note Taking," from their "Did You Know..." five-

video series with Helena Seli, one of the authors of *Motivation and Learning Strategies for College Success: A Focus on Self-Regulated Learning*, 6th Edition, co-written with Myron H. Dembo.

In this video, Seli covers what research says about the different modes of note taking (digital vs. pen and paper), reading a hardcopy vs a digital copy, and determines which strategies might work best for each type of student. Hint: the old fashion way of note taking wins!

[Watch Video at Youtube](#)

END SHOTS

A COLD SUNNY DAY WALK IN THE NEIGHBOURHOOD

SWANSEA/BLOOR WEST VILLAGE, TORONTO, ONTARIO

JANUARY 20, 2020











Credits: David Zakus



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