

Do you want to know what local environmental ecological and climate events (on-line and in person) have been scheduled for Grey, Bruce and environs?

They're listed and described at Grey Bruce Climate Action's event listing: https://greybruceclimateaction.ca/events,

where you can also add your own organization's upcoming events.

NATURE CONSERVANCY SAYS WE LIVE IN A "CRISIS ECOREGION"

The Nature Conservancy of Canada has released its first comprehensive look at where nature in southern Canada needs to be protected in the face of habitat loss and climate change. The assessment maps out some of the most important areas within each ecoregion that must be conserved to protect species at risk, wildlife corridors and other important places for nature.

Of 77 southern Canadian ecoregions examined by the study, nine are considered "crisis ecoregions" where wildlife and their habitats are the most diverse and under the greatest threat. These nine crisis ecoregions represent less than 5% of Canada's area, but contain 70% of Canada's population and over 60% of Canada's at-risk species. They have few protected areas or remaining natural areas.

Grey and Simcoe County folks live in one of the nine crisis ecoregions – the **Manitoulin–Lake Simcoe ecoregion** stretching from Kingston to Owen Sound, including Manitoulin Island. This ecoregion's climate and biodiversity are much influenced by the Great Lakes. The region is highly threatened because of habitat loss and fragmentation, and has over 75 national species at risk. It offers opportunities for large-scale conservation that maintains ecological processes and habitat for wide-ranging species, but there are important and irreplaceable sites in the southern portion, where competing land uses are greatest.

We live next door to another crisis ecoregion – the **Lake Erie Lowland ecoregion** stretching from Toronto to Windsor, one of the most altered ecoregions in all of Canada: only 14% of its natural cover remains. There are over 130 species at risk in this ecoregion.

A user-friendly version of the study can be viewed at www.natureconservancy.ca/casc.

BLUE MOUNTAINS CONTEMPLATES VEHICLE CHARGING STATIONS

According to a March 19 article in the Blue Mountains *Review*, the Council of the Town of Blue Mountains is considering approving the installation of 12 electric vehicle charge stations in six locations, generally described as: the Hester Street parking lot, the Town Hall, the Thornbury Post Office parking lot, the Beaver Valley Community, Centre, the LE Shore Library, and the Craigleith Heritage Depot Museum. The *Review* article is at https://bluemountainsreview.ca/public_docs/news/The%20Review%20March%2019.pdf.

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COURT ALLOWS YOUTH-LED CLIMATE LAWSUIT TO PROCEED

On March 25 the Ontario Divisional Court dismissed the Province of Ontario's request for leave to appeal a November decision, in which a judge rejected the government's motion to strike down a youth-initiated climate lawsuit before it reached a full hearing. In essence, seven young Canadians can now proceed with their lawsuit asserting that Ontario's 2030 greenhouse gas emissions target is inadequate, unconstitutional and must be struck down.

According to Ecojustice, whose lawyers represented the youth, this case is a Canadian first – the first of its kind to clear key procedural hurdles and move to a full hearing on its merits. Said Ecojustice:

"That landmark ruling marked the first time in history a Canadian court has ruled climate change can threaten Canadians' fundamental rights. It further affirmed that citizens have the ability to challenge a government's climate actions under the Charter of Rights and Freedoms."

Said Shaelyn Wabegijig, one of the seven youth applicants:

"I am relieved the courts recognize the significance of our climate case and that we will be allowed to move ahead with this lawsuit. As a young person, I worry about how the climate crisis will affect us every day. I see the way the world around me is rapidly changing. I hear from Elders about how things used to be, and it makes me sad to think about all we've lost. But it also makes me determined to take action for all our relations and future generations. I am proud to be part of this case and look forward to our day in court."

The date for the full hearing has yet to be set.

SUPREME COURT UPHOLDS CANADA'S CARBON TAX

By a six to three decision Canada's Supreme Court has upheld the constitutionality of Canada's 2018 Greenhouse Gas Pollution Pricing Act that imposed a carbon tax across the country, ruling against a claim by Ontario, Alberta and Saskatchewan that the federal government's 2018 carbon tax law infringed on their jurisdiction. The ruling went beyond the legal issue, stating that there is "broad consensus among expert international bodies that carbon pricing is a critical measure for the reduction of [greenhouse gas] emissions". The Court went on to describe climate change as "an existential threat to human life in Canada and around the world" and said the harms went "beyond provincial boundaries and that it is a matter of national concern."

The carbon tax is basically a way to charge polluters a fee to dump CO₂ into the atmosphere.

The tax has two parts: a carbon levy on fuel purchases, and a big emitter program for industrial facilities. Under the law, provinces without their own pricing system in place must abide by the federal tax that will ratchet up by C\$10 per ton every year (the current price is C\$30 a ton). Ninety percent of the proceeds of the tax are returned directly to taxpayers in the form of an annual rebate. Those who heat large homes and drive frequently will pay more under the plan. The government estimates an average yearly cost of C\$357 for a household in Ontario, for example, but with an average rebate of C\$439, most taxpayers would end the year in the green. According to recent analyses, most low- and middle-income households would receive more in rebates than they pay in carbon-related taxes

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Wrapping himself in the flag of "ordinary Joe" populism, federal Conservative leader Erin O'Toole responded to the ruling in a March 25 tweet: "Canada's Conservatives will repeal Justin Trudeau's Carbon Tax. We will protect the environment and fight climate change, but we won't do it by making the poorest pay more."

The federal government announced last year that it will increase the tax up to C\$170 per ton by 2030 to try to meet Canada's targets under the Paris Agreement. Some argue, however, that such a steep rise is politically unfeasible. Said a March 26 article in *Grist* about the Supreme Court ruling:

"That, after all, is the problem with carbon taxes: In theory, they can decarbonize the economy efficiently and fast. But in practice, they often run aground on political infighting, with prices never getting high enough to actually cut emissions. The next decade will show which path Canada's carbon tax will follow."

TORIES REJECT CLIMATE CHANGE RECOGNITION

At its policy convention in mid-March, Canada's Conservative Party took a step backward in terms of facing up to climate change. Fifty-four per cent of delegates voted not to expand the party's policy declaration on climate change by including the sentences "We recognize that climate change is real. The Conservative Party is willing to act." This puts the party in the odd position of having a policy on climate change while denying the existence of the problem the policy is meant to address.

In addition to acknowledging the reality of climate change, the defeated resolution stressed the need for highly-polluting businesses to reduce greenhouse gas emissions and be accountable for the results, and said that the party supports green technology innovation.

In a speech to delegates the evening before the vote, Conservative leader Erin O'Toole made a pitch for recognizing the reality of climate change:

"I will not allow 338 candidates to defend against the lie from the Liberals that we are a party of climate change deniers. We will have a plan to address climate change. It will be comprehensive, and it will be serious."

Before the convention, the anti-abortion group Campaign Life Coalition urged delegates to vote against the climate resolution because "global warning alarmism was being used to justify population control and abortion."

B.C. SETS GREENHOUSE GAS EMISSION REDUCTION TARGETS

On March 26, British Columbia's environment and climate change minister George Heyman announced greenhouse gas emission reduction targets for major sectors of the province's economy, including the oil and gas industry. Said Heyman, "If we want to leave a planet that's more sustainable, that's healthier for our children and grandchildren, we need to account for the costs of doing that. Our plan is in place to move steadily toward our targets and to partner with individuals, families and businesses to do just that." He said C\$84 million in investments by the province and industry will eliminate more than one million tonnes of atmospheric carbon dioxide over the next ten years.

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The emission reduction targets range from 33% to 38% in oil and gas, up to 32% for transportation and from 38% to 43% for industry, Reduction targets for communities and buildings are as high as 64% and include making homes more energy efficient, retrofitting buildings and improving landfills. The targets are meant to be reached by 2030, based on pollution levels from 2007.

B.C. is the first province in Canada to set industry and community reduction targets.

Environmental groups praised the move, but called for an end to subsidies to oil and gas companies.

COAL KILLS B.C. FISH

Teck Coal, a subsidiary of Teck Resources, must pay a \$60 million fine after a B.C. provincial court judge found the company had violated the Fisheries Act because it "did not exercise all due diligence to prevent the deposit of coal mine waste rock leachate into the Fording River from settling ponds." Rock waste from its mines has produced leachate containing selenium and calcite. Selenium in large amounts causes fish deformities and reproductive failures. Calcite coats stream bottoms, destroying trout breeding habitats.

In 2012, Environment Canada investigators found selenium concentrations related to Teck's mine waste many times higher than safe levels for river ecosystems. The Fording River and other streams in the area are home to west slope cutthroat trout, an endangered native species.

Vickie Thomas of the Ktunaxa First Nation, addressing the court, said "Fish and fish habitat are critical to the maintenance of Ktunaxa rights. The ability to drink confidently from a mountain stream is an aspect of Ktunaxa rights that all future generations should enjoy."

ALBERTANS CONNECT CLIMATE AND AGRICULTURE

To many of us, Alberta conjures up images of oil-drenched opponents of climate action, but the province has its climate action proponents, particularly in its agricultural sector. Alberta is home to one-third of Canada's agricultural land and two important carbon sinks – grasslands and the boreal forest. It also has some of the best solar and wind power resources in Canada.

An Alberta-based organization, *Rural Routes to Climate Solutions*, provides a wealth of information for anyone interested in the climate-agriculture connection. Through workshops, farm field days, virtual farm tours and a podcast series, the organization helps agricultural producers to understand topics such as soil carbon sequestration, perennial cereal grains, onfarm solar and energy efficiency, protecting biodiversity to increase yields and operating passive solar greenhouses. Says the organization's home page:

"Climate solutions are often viewed as being an inconvenience to our everyday lives. But farm solutions are climate solutions and many of them have multiple concrete benefits that go beyond stopping climate change: improving soil fertility; creating new economic opportunities; protecting biodiversity; energy independence and building resiliency against droughts and floods."

Folks can subscribe to its newsletter and its podcast through its "about" page at https://rr2cs.ca/about/.

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LETTER: KICK POLLUTERS OUT OF GLASGOW CLIMATE SUMMIT

A March 25 letter drafted by the activist group *Glasgow Calls Out Polluters*, and signed by over 185 grassroots groups, urges the U.K. government to "kick out" polluters from sponsoring or even visiting COP 26, the international U.N. climate summit scheduled for Glasgow from November 1 to 12. The letter claims the presence of polluters poisons the climate debate. In total, the letter demands five actions from COP26 organizers and the British government:

- 1. **Don't let polluters in** (don't give U.K. passes to polluters or their industry representatives, don't invite them to speak at events, and don't share the stage with polluters. Encourage others to do likewise)
- 2. **Don't take polluters' money** (don't take sponsorship money from polluters, inside or out of the formal talks. Challenge other countries and participants to do the same)
- 3. **Don't promote polluters' lies** (reject the false solutions put forward by climate polluters such as Carbon Capture and Storage, Bio-Energy Carbon Capture and Storage, fossil-powered hydrogen, solar radiation management, natural gas as a bridge fuel, or the use of wood-fired power plants)
- 4. **Lock polluters out** (permanently shut climate polluters out of UN processes by adopting a conflict of interest policy that blocks access to accreditations, expert and advisory bodies and UNFCCC posts, and bans sponsorship deals. The World Health Organization has moved to block tobacco companies; the same principle applies here)
- 5. **Deliver climate justice** (silence the voices of polluters and instead prioritize those worst affected. Pushing for fair-shares commitments to cut climate pollution, support adequate funding for loss and damage to communities and ecosystems, and show global leadership with a bold and just transition away from fossil fuels for the U.K.).

The letter is at https://www.gcop.scot/open-letter/.

SOLAR GEOENGINEERING TEST TOUTED BY BILL GATES

A proposed experiment by Harvard University scientists to dim sunlight and thereby cool down the planet has had new life breathed into it recently as a result of support for the project from Bill Gates. The experiment involves launching a huge balloon into the stratosphere, carrying 600 kg of calcium carbonate (chalk), which would be sprayed 12 miles above the Earth's surface. The chalk would, in theory, reflect some sunlight back into space and thereby slow global warming. The balloon launch test could happen as early as June of this year, and would ascend from the town of Kiruna in Sweden.

Critics of the project say that cooling the planet in this way would only mask the problem of climate change, it would undermine international commitments to act under the 2015 Paris climate agreement and could have unwanted side-effects.

Said Gates, the project is "not a solution to climate change. At most, it would delay the problem for 10 or 15 years while we get rid of sources of emissions. But when you're faced with this catastrophic problem, proving which paths are a dead end, which are not, we need to get going on that."

Said Johanna Sandahl, president of The Swedish Society for Nature Conservation, "It must be stopped. We're talking about a technology with the potential for extreme consequences that could alter hydrological cycles, disrupt monsoon patterns and increase drought. It stands out as unmanageable and too dangerous to ever be used – a false solution that dilutes focus from the necessary actions to reduce emissions."

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The controversy over this experiment highlights what could become an increasingly fractious debate over the role of engineering – particularly large scale engineering – in addressing climate change. As nation states and industrial and agricultural sectors fail to meet targets for carbon reduction and sequestration, and as the catastrophic results of climate change become more intense and more common, the world may face increasing demands for big engineering fixes. Desperation may lead us to ignore the risks of large-scale geo-engineering. Conversely, opposition to large-scale engineering solutions may lead to a rejection of smaller-scale, less risky engineering contributions to addressing climate change.

Somewhere between unquestioning faith in engineering, and unthinking rejection of engineering, is a pragmatic middle point. We haven't found it yet.

OCEAN HEALTH AND HUMAN HEALTH: NEW STUDY CONNECTS THEM

Ocean pollution is widespread and getting worse, and when toxins in the oceans make landfall they imperil the health and well-being of more than 3 billion people, according to *Human Health* and *Ocean Pollution*, a new report by an international coalition of scientists led by Boston College's Global Observatory on Pollution on Health and the Centre Scientifique de Monaco. The study is the first comprehensive examination of the impacts of ocean pollution on human health. Among its key findings:

- Mercury pollution is widespread in the oceans, accumulating to high levels in predator fish. Once in the food chain it poses documented risks to infants, children and adults.
- Coal is the major source of mercury pollution, its toxins vaporizing into the air as it burns and eventually washing into the oceans.
- Pollution along the coasts by industrial waste, agricultural runoff, pesticides and human sewage has increased the frequency of harmful algal blooms producing toxins associated with dementia, amnesia, neurological damage and rapid death.
- Plastic waste, entering the oceans at a rate of more than 10 million tons each year, kills seabirds and fish and is consumed by humans in the form of toxic microscopic particles, now found in all humans.
- The waters most seriously impacted by ocean pollution are the Mediterranean Sea, the Baltic Sea and Asian rivers.

To remediate ocean pollution, the researchers recommend banning coal combustion and the production of single-use plastics, controlling coastal pollution and expanding marine protected areas. Says Dr. Philip Landrigan, Director of the Boston College Global Observatory on Pollution and Health:

"People have heard about plastic pollution in the oceans, but that is only part of it. Research shows the oceans are being fouled by a complex stew of toxins including mercury, pesticides, industrial chemicals, petroleum wastes, agricultural runoff, and manufactured chemicals embedded in plastic. These toxic materials in the ocean get into people, mainly by eating contaminated seafood. We are all at risk, but the people most seriously affected are people in coastal fishing communities, people on small island nations, indigenous populations and people in the high Arctic. The very survival of these vulnerable populations depends on the health of the seas."

The full report is at https://annalsofglobalhealth.org/article/10.5334/aogh.2831/.

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BLADELESS WIND TURBINES ON TRIAL

Vortex Bladeless, a Spanish startup company, has created a turbine that harnesses wind energy without the long blades of most wind turbines. The design recently won the approval of Norway's state energy company, Equinor, which designated Vortex as one of the 10 most exciting startups in the energy sector. The bladeless turbine, three metres high, comprises a vertical cylinder with an elastic rod that oscillates within the wind range and generates electricity from the vibration. Its inventor claims these turbine is particularly useful in urban and residential areas – wind power's answer to the home solar panel that produces electricity during the day, while wind speeds tend to be higher at night. The turbine is no danger to birds or wildlife, and allegedly creates noise at a frequency virtually undetectable to humans. Vortex hopes to find an industrial partner to scale up its turbine to a 140 metre version.

In another innovation, Alpha 311, a U.K. firm, makes a small vertical wind turbine that generates electricity without wind. The turbine fits onto existing streetlights and generate electricity as passing cars displace air. Each turbine generates as much electricity as 20 square metres of solar panels, enough to keep the streetlight on and to help feed the local energy grid.

An innovation from the German startup SkySails, plans to harness wind power directly from the sky, using large kites that fly 400 metres in the air that capture high-altitude wind power, conducted to the ground via a cable attached to the kite.

IN MY HUMBLE OPINION: WHAT CHANGES OUR MINDS?

Climate activists, by the nature of activism, don't want to keep their opinions, insights and passions to themselves. They want to change the behaviors that ruin our planet, but they usually want to change minds as well. They want to create kindred spirits, fellow concerned souls who help change the world, or who at last acknowledge that the world needs to be changed.

So we often ask the question, "What will change people's minds?" And the answer is often, "It depends on whose mind you have in mind."

Each of us has our own preferred ways of receiving and imparting messages about climate matters. Some of us are swayed by statistics presented in the language of academia. Some are swayed by the kinds of short sharp messages that Twitter and Instagram provide. Some are swayed by the personal characteristics and credibility of the person delivering the message (think David Suzuki or Richard Attenborough or Smokey the Bear). Some are swayed by visuals, some by the spoken word, some by the written word. Some are swayed by the magic in poetry, song, theatre, novels, cartoons and all the other forms that transform fact into art. Some are swayed by appeals to emotion; others consider emotional pitches to be tawdry. Some find appeals to our moral sense to be highly persuasive; others find such appeals annoyingly preachy. Some of us are swayed by celebratory optimism; some are motivated by warnings of things that go bump in the night.

We need every tool in the toolbox to change enough minds in enough places to avert climate disaster. Unfortunately some of us – beautiful souls though we are – have difficulty supporting or helping to disseminate messages that are not framed in our preferred ways of changing minds. Some of us don't like turning up at demonstrations, so we discourage demonstrations. Some of us don't cotton to social media, so we don't think social media are valid messagebearers. Some of us don't think a poem can say anything important about our climate, so we wouldn't dream of sharing a climate-focused poem.

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There are still too few of us to change the world the way we'd like, so we have a stake in respecting every ethical means of communication that will entice people to become, and remain, climate activists. This doesn't stop us from ensuring that the right messages reach the right audiences in the most effective way possible. But we shouldn't assume that our own preferred ways of learning and communicating are the best ways for others. And if we are open to understanding other ways of communicating, we are open to lovely surprises when we discover voices well raised in ways we would not have chosen.

This was on my mind recently when I discovered a graph showing the global rise in CO₂ levels.

I'm not a visual thinker or communicator. I prefer written words. Information presented in graphs usually leaves me cold. But out of curiosity I looked at an animated graph on the U.S. National Oceanic and Atmospheric Administration website that literally gave me a nightmare that night. It shows the inexorable increase in atmospheric carbon dioxide across the world, year by year, for the past 40 years – starting at 336 parts per million in 1979, and running until 411 parts per million in 2019. The current CO₂ level, as measured at the Mauna Loa Observatory in Hawaii, is 418.05 parts per million (as of March 27). Because it shows seasonal variations during each year, it's like watching the earth increasingly struggle for breath as it develops lung disease. The right side of the pulsating line is the high-polluting northern hemisphere – the leading edge of our lung disease. The animation is at https://www.esrl.noaa.gov/gmd/ccqg/trends/history.html.

Up-to-date readings from Mauna Loa are available each day at https://www.co2.earth/daily-co2. This web site contains a whole lot of additional CO2 and temperature information

So while I remain wedded to the written word, I try to leave my mind open to the surprises that other modes of communication produce. May I get better at it. So may we all.

Respectfully submitted to the polis, John Butler

OUR READERS KNOW A THINK OR TWO

If you want light in the middle of doom and gloom, take a look at a website and online event recommended by a dear reader. Titled *Earth Optimism*, the U.K.-based but globally relevant website has this purpose:

"Earth Optimism is a worldwide movement aimed at fundamentally shifting how we frame the environmental narrative, from one of doom and gloom to one focused on solutions and success. Earth Optimism has emerged from two key realisations: that fear without hope leads to apathy rather than action, and that conservation successes are numerous but largely invisible to the general public. The last few years have seen an unprecedented groundswell of concern for the future of our planet. Earth Optimism 2021 will respond to the call for positive change, and help translate activism to action. Led by the Cambridge Conservation Initiative, this online celebration will bring people together to share our understanding of what works in conservation and how we can make the changes we know are needed on the ground, in the workplace, and in our everyday lives. Across generations and across the world people are calling for action, and asking for that action to evidence-based. Earth Optimism 2021 will showcase some of the extraordinary efforts already being made, explore why they are working, and consider how they can be scaled up."



When you read this, Earth Optimism's 2021 program will have started (it runs from March 26 to April 4), but there's plenty on the website to show us that our earth has busy friends and helpers. The website is at

https://www.earthoptimism.cambridgeconservation.org/about/what-is-earthoptimism/.

SHE SAID / HE SAID

"Sea levels are rising, rainfall patterns are changing, polar ice and glaciers are melting, weather disasters are increasing. And the impacts of these changes are already falling most heavily on people and nations struggling in poverty, those least able to adapt to changing conditions because they have few resources to do so. We see their stories in the news: drought in Africa; hurricanes in Central America; coastal flooding on small Pacific islands. People are hungry, forced to leave their homes and struggling to rebuild. Perhaps we are moved to act: to give money to a disaster appeal; to write a letter to our member of Congress urging them to provide international aid. But are we called to do more in the face of mounting evidence that this problem is growing worse? Christ taught us to seek justice, to care for our neighbor and to provide special care and consideration for 'the least of these' – those living in poverty. Our response to climate change must heed this call to justice."

Poverty and Hunger in a Changing Climate, Evangelical Lutheran Church in America, http://download.elca.org/ELCA%20Resource%20Repository/Poverty And Hunger In A http://download.elca.org/ELCA%20Resource%20Repository/Poverty And Hunger In A http://download.elca.org/ELCA%20Resource%20Repository/Poverty And Hunger In A http://download.elca.org/ELCA%20Resource%20Resource%20Repository/Poverty And Hunger In A <a href="http://download.elca.org/ELCA%20Resource%20Resou

"In the 5 years since the Paris Agreement, the world's 60 biggest banks have financed fossil fuels to the tune of \$3.8 trillion. Runaway funding for fossil fuel extraction and infrastructure fuels climate chaos and threatens the lives and livelihoods of millions."

Introduction to *Banking on Climate Chaos*, Rainforest Action Network, 2021 (available through https://www.ran.org/bankingonclimatechaos2021/)

"U.S. climate policy has been painfully slow and painfully incremental. Young people lost faith that our leaders could get the job done, so they launched the first fossil-fuel divestment campaigns in 2011. Today, more than thirteen hundred institutional investors with about \$14.5 trillion in assets have pledged to ditch fossil fuels."

Clara Vondrich, a leader in the U.S. fossil fuel divestment movement

"We know that no one can go on forever, but those who have put into their work a sense of very great faith, of love for God, of hope among human beings, find it all results in the splendors of a crown that is the sure reward of all who labor thus, spreading truth, justice, love and kindness on the earth."

San Salvador's Archbishop Oscar Romero, in a homily delivered during Mass on March 24, 1980. Before he finished the homily, Archbishop Romero was assassinated by right wing gunmen in his cathedral.

"If we ever questioned the dependence of the human spirit on nature, fresh air and beauty, the coronavirus crisis has surely laid an end to it."

conservationist Fiona Reynolds, quoted in a special issue of *The International Journal of Protected Areas and Conservation*

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plum blossoms everywhere, I should go south, I should go north

Yosa Buson (1716-1784)

LET THEM NOT SAY

Let them not say: we did not see it. We saw.

Let them not say: we did not hear it. We heard.

Let them not say: they did not taste it.

We ate, we trembled.

Let them not say: it was not spoken, not written.
We spoke,
we witnessed with voices and hands.

Let them not say: they did nothing. We did not-enough.

Let them say, as they must say something:

A kerosene beauty. It burned.

Let them say we warmed ourselves by it, read by its light, praised, and it burned.

Jane Hirshfield

For information about *The Village Green*, or to subscribe to it (free), please contact John Butler at 519 923-6335 or agora@xplornet.com