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COVER ART

Justyna Werbel werbeljustyna.com My work explores translating soundscape ecology into graphic notations. This piece was created during a time of change and reflection. I remember crouching in a wetland with a field recorder listening to the Spring Peepers' chorus. It felt like a beginning, a gentle reminder that we are a part of this ecosystem.

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Ecology Action Centre

Ecology & Action is published two times a year by the Ecology Action Centre (EAC), a charitable organization (PM Registration # 40050204).

The EAC is a member-based environmental charity in Nova Scotia / Mi'kma'ki. We take leadership on critical environmental issues from biodiversity protection to climate change to environmental justice. We are grounded in community and a strong voice and watchdog for our environment. We work to catalyze change through policy advocacy, community development and building awareness. We take a holistic approach to the environment and our economy to create a just and sustainable society. Views expressed in *Ecology & Action* are those of the writers and do not necessarily represent the EAC or its supporters.

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Letter from the Centre

WE LOVE HEARING FROM YOU! EMAIL YOUR THOUGHTS TO MAGAZINE@ECOLOGYACTION.CA

The start of 2025 has been tumultuous and difficult. In the past few months, we've seen political and economic instability, divisive messages, threats to democracy and the rolling back of hard-fought wins far away and close to home, all while the climate and biodiversity crises continue to unfold. One thing tough times can offer is a reminder of the value in recognizing difficult emotions and giving ourselves the grace to feel them. This issue of Ecology & Action is all about grief and love, and in it, we hope to make space for you to feel and appreciate both.

In the following pages, you'll find articles about grief: how we can honour our pain for the world, what we can learn from the unfiltered life and loss in wild places and how our nostalgia and grief can be channeled into meaningful action – an important lesson in our current political landscape.

On the other side of this coin, there is so much to love and to sustain us through challenging times. You'll also find articles in these pages about how the fight for green spaces is an expression of love, how citizen science can help people with eco-anxiety find community and how beauty and joy are present in environments once considered barren.

It is inspiring for us at the Ecology Action Centre to see and share with you a deep love for our communities, our ecosystems and the natural world. We hope you gain strength from reading about how love and grief fuel our collective work for a better future of respect, belonging and ecological resilience. We will continue the fight to prioritize clean air, clean water and healthy communities over harmful extractive industries, like fracking, and corporate greed. In the months to come, take care of yourself, find strength in community and take meaningful action where you can.

You are not alone, and together, we are resilient.

Correction

In our article titled Nurturing Well-being: A Key Part of Ecological Action (Ecology & Action, Fall 2024, p. 19), we mistakenly identified Nancy Blair, who is a registered counselling therapist, as a doctor.

WHAT WILL YOUR LEGACY BE?

Make a legacy gift to the Ecology Action Centre



When you leave a gift to the EAC in your will, your commitment to support environmental protection beyond your lifetime ensures that we can keep our voice independent and strong for years to come. Use your legacy to build a sustainable and equitable future for all.

To discuss your lasting impact, please contact, Karen Gilmour at (902) 429-2202 ext. 115 or karen.gilmour@ecologyaction.ca.



Advocate

There are many reasons why we are located in Atlantic Canada but the greatest reason is simply that **WE LOVE IT HERE**. We strive to make our home a better place for ourselves and our children, as we pursue economic growth, social progress, and environment protection in a sustainable manner.

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The urban core of the Halifax Regional Municipality (HRM) is uniquely situated close to many ecologically significant green spaces. Interacting with these areas is a way for communities to channel fear and grief for our environment into hope and action. Access to communal green spaces allows people to see and feel the changes that are happening around us. The Halifax Green Network Plan provides an opportunity to protect the ecological integrity of these spaces as they face threats of development, but is real progress being made to protect these crucial natural environments?

Channeling climate grief into action

How do we cope with the weight of the climate and biodiversity crises?

Katherine (she/they) is a graduate of Dalhousie University and a student in Nova Scotia Community College's oceans technology program. The simple answer is, we don't – not all the time. We all succumb on occasion, when it feels as though our world may be falling apart in front of us. But we learn to feel the waves of emotions. Interacting with the natural world while experiencing fear and grief over what we are losing can lead to transformative action and resilience, turning environmental grief into environmental hope.

"To have active hope is not to be an escapist. Rather, it's a mindful response to grief and anger, a realization we can choose to shape the future we want." – Erin Hitchcock, the Green Gazette.

Our communities deserve access to green spaces that are facing the threats of climate change and development. Recreation activities in nature – as well as simply spending time outside together – provides a sense of community that helps turn fear into fight. Knowing that others are just as scared and passionate about making real change provides an opportunity for activists to work together.

These green spaces are more than the intersection of grief and hope – they hold many tangible benefits:

• Offering free public recreational opportunities for residents of urban areas, helping with physical health and well-being

- Providing habitats for many species
- Protecting ecological functions, such as acting as carbon sinks, which contributes to climate change adaptation
- Directing growth into existing urban areas, which promotes more affordable and sustainable settlement patterns; and
- Retaining lands for industrial uses like agriculture and sustainable forestry.

Halifax Green Network Plan

The urban core of the HRM is close to many ecologically significant green spaces – namely Sandy Lake in Bedford, the Blue Mountain—Birch Cove Lakes and the Backlands. These and other important areas make up the Halifax Green Network Plan, which outlines and advocates for best practices for establishing our urban green spaces as a "greenbelt." A greenbelt is a network of natural, undeveloped and agricultural/forestry lands surrounding an urban area. It highlights the intersection of environmental, economic, social and cultural value in multi-use land planning and management.

The plan was adopted by the Halifax Regional Council in 2018 with 79 actions to support its goals and objectives with themes of ecology, working landscapes, community shaping, outdoor recreation and cultural landscapes. The **most recent updates from 2022** highlight the progress being made to promote sustainability, preserve important land and aquatic systems, provide education on ecosystem functions and develop strategies to manage these spaces. Despite this progress, ecologically significant areas are still facing intense threats from development.

Sandy Lake threatened by development

Sandy Lake Regional Park encompasses 1,000 acres of land that is already designated for protection. An expansion of the park to include another 1,800 acres as the Sandy Lake-Sackville River Regional Park was proposed based on several municipal planning processes. There have been ongoing efforts to preserve this surrounding area of green space for many years.

The area is home to 15 species-at-risk and has several significant freshwater bodies and sections of old growth within its forests. This area provides significant ecological services, such as filtration and runoff mitigation as part of the Sackville watershed.

Research and activities facilitated by community organizations such as the Sandy Lake - Sackville River Regional Park Coalition, Sandy Lake Conservation Association, and Dr. David Patriquin (Sandy Lake & Environs) demonstrate Sandy Lake's ecological significance. However, as time goes on, research is showing that water quality is declining and the vital species supported by this environment are facing extreme risks due to developmental pressure.

TAKE ACTION

Write to your MLA about Sandy Lake! Tell them why this space is meaningful to you and that you want to see it protected from rushed, unsustainable development.

The **proposed development** would remove over 660 acres of forested lands to the west of Sandy Lake to build a housing development. HRM residents recognize that we need more housing, but at what cost to our environment? Species-rich habitats should not pay the price. And will this lakeside development truly help our need for accessible, affordable housing?

The ecological significance of these lands should be enough of a reason to expand the park borders. Sandy Lake and the surrounding area is a habitat for numerous bird species and offers habitat connectivity for wildlife. When paired with the social and cultural value to the public, it's clear this area deserves protection.

We often hear the "bad news" stories first when it comes to the impacts of climate change and biodiversity loss, while the progress being made towards adaptation is buried beneath the headlines. Sandy Lake, and the community organizations working to protect it and other green spaces, could be a positive story in the fight to protect our climate and environment. And in these efforts, we can find a way to channel grief into action and hope.





If a tree falls in the forest, does it make a sound? What is certain is that the tree will rot and decompose until it becomes dirt, allowing new plants and trees to grow in the space it once occupied and use the nutrients that it left behind.

Death is often an overlooked part of the life cycle. As a society, we steer away from conversations concerning our sorrow and own mortality. This is seen in the societal pressure we face when dealing with grief.² It leaks to all aspects of our life, even to how we talk about flora and fauna.

Xochil (she/her) is a marine biologist with an MBA. She is a born and raised Nova Scotian and cannot think of a better place to live surrounded by forests and the ocean. Her hopes are that she will be able to use both her degrees to make a difference in her community and the environment.

Fungi are nature's decomposers. Unlike plants, turning the energy of sunlight into new growth, fungi instead digest and feed on organic materials. These remarkable organisms have the ability to digest and break down cellulose and lignin, which is present in trees.3 Thanks to fungi producing energy from organic matter, the nutrients within a tree make their way back to the earth. This process in turn will provide the nutrients needed for new plants and

While it is always sorrowful to see a big tree reach the end of its life, death is an essential part of an ecosystem. Often there are so many trees blocking the sun that the light is unable to reach the forest floor. Plants low to the ground, then, can't access the solar energy they need to grow. In such circumstances, the death of an old tree makes space in the canopy, bringing hope and light to the forest floor.

When the tree falls down, spores from fungi will find a place to settle and start to grow, feeding off the matter from the tree. This in turn helps decompose the tree faster, leading to an increase in insect activity. Many insects depend on the rotting trees for food and shelter. There are also fauna, like woodpeckers, bats, snakes, lizards and salamanders, to which this decaying tree is a vital part of their home environment. The tree offers shelter, and ideal environmental conditions for their survival, which may not exist if not for the death of the tree.

Even when the plants starts to grow back and the sun no longer reaches the forest floor, fungi will continue to thrive. In some cases, there will be an increase in the diversity of fungi you will see, a by-product of the growing flora causing increased humidity and darkness. In turn the fungi will continue to break down remaining matter, releasing the essential nutrients needed by plants to flourish.

So now when you take a walk in the forest and see a patch of fungi growing, take it as a sign of an environment that is thriving. Take a moment and appreciate the key role these fungi play in the environment, turning death into new life. Appreciate how something so small and seemingly insignificant has such an essential role in the world around us.

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Last summer, I had the privilege of living and working in Jasper National Park. Jasper, located on Treaty 6 and 8 territory and the traditional lands of the Anishinabe, Aseniwuche Winewak, Dene-zaa, Nêhiyawak, Secwépemc, Stoney Nakoda, Mountain Métis and Métis, holds a cherished place in the hearts of those who have spent time in this very special place. Known for its vast wilderness, majestic peaks and abundant wildlife, Jasper is home to outstanding natural beauty.

During the summer of 2024, due to a severe thunderstorm, wildfires swept through the park. I was in the backcountry then, and evacuated as flames encroached on the landscape I had come to love.

Jasper's landscape was already strained before the fires. The mountain pine beetle had devastated the forest, leaving behind deadfall.¹ Decades of fire suppression had allowed dense undergrowth to accumulate, creating conditions for more intense fires. It wasn't a matter of if wildfires would strike, it was a matter of when.

The fires in Jasper burned longer and hotter than they would have in a healthy forest. While forests are resilient, the increasing severity

Gabrielle (she/her) is beginning to harbour some regrets for not having studied environmental science. Lately, she's been taming watercolor, reading the works of Alan Watts and listening to Mac Demarco's '20221102 The Truth' on repeat.

of recent fire seasons are pushing them beyond what they are naturally equipped to recover from, raising concerns about long-term ecological shifts. Human activity and the effects of climate change, such as extreme temperatures and drought, have disrupted natural cycles, making fire seasons longer, more intense and closer to home than in years past.²

Certain forest ecosystems need occasional wildfires for renewal and to stimulate new growth: they are part of a healthy forest. Understanding how forests regenerate after fires can offer a glimmer of hope amid rapidly changing wildfire seasons. Let's explore what happens one hour, one day, one month and one year after a wildfire.

One hour after the fire

In the immediate aftermath of a wildfire, the landscape is smouldering. The forest floor is coated in ash and the acrid scent of burnt vegetation lingers. Most plants have been scorched by the flames, leaving only charred trees standing. Larger animals have mostly made a run for it, while smaller animals hide underground or in sheltered places.

Even at this early stage, the groundwork for regeneration is being laid. Many coniferous trees, such as lodgepole pines and jack pines, have evolved serotinous cones that require fire to release their seeds. As the flames wither, these seeds are scattered across the charred soil, ready to sprout.³

One day after the fire

Once a fire has swept through an area and is fully extinguished, subtle changes become apparent. The fire's heat has sterilized the top layer of soil, eliminating harmful pathogens and invasive species while leaving behind essential nutrients. Scavenger species, such as beetles and flies, move in to feed on the remains of plants and animals. These insects break down organic matter and accelerate decomposition.⁴

One month after the fire

The forest shows signs of life. Grasses and shrubs begin to emerge. These plants thrive in open environments and play a vital role in stabilizing the soil. The tender green shoots of a regenerating forest support populations of bears, elk, moose and deer.

Insects proliferate, followed by the birds, rodents and other small animals that depend on them as a food source. Charred trunks of trees become habitat for the black-backed woodpecker. These birds locate burnt forests weeks to months after a fire and then live off the bounty of insects over the next five to eight years.⁵

One year after the fire

The landscape looks dramatically different. Young saplings, particularly from fire-adapted species like lodgepole pines, begin forming the next incarnation of the forest. Thanks to increased soil fertility, the ground is teeming with fire-loving wildflowers. Red paintbrushes, wood lilies, calypso orchids, wild roses and the aptly named fireweed emerge alongside buffalo berries. These berry-producing shrubs, which thrive after fires, are a vital food source for bears.

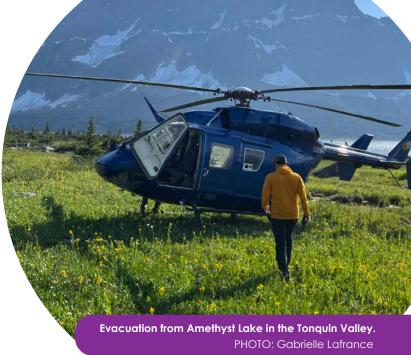
Wildlife populations have largely returned, and some species gain advantages from the altered habitat. Predatory birds, such as hawks and owls, benefit from the increased visibility and access to prey. Larger mammals like moose and bears have an easier time moving through the less densely forested areas.⁷

Reflections on love and grief

It's hard to describe the human pain wildfires cause from the loss of life, homes and jobs. The devastation extends not only to the injured, displaced and diseased, but also to the firefighters and support teams who relentlessly battle the flames.

Watching flames consume the landscapes I loved filled me with a grief that I am still processing. Yet as I rode the evacuation vehicle to Edmonton and saw a herd of elk waiting at the fire's edge, I still felt that spark of amazement. Nature does not mourn like we do; perhaps it can't. It can only move forward. The elk knew that new life would emerge from the ashes, just as it always has.

My love for Jasper is intertwined with some of the most joyous moments of my life and my greatest challenge yet. Jasper's ability to heal after such devastation is a reminder of the incredible power of resilience, both in nature and in ourselves.



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Honouring Our Pain for the World: WALKING THE SPIRAL PATH

by **JOANNA BULL** /// EAC Staff

I am looking out at the snow that is falling outside my cafe window. It will likely turn to rain later, as it so often does in our Mi'kma'ki winter, but for now the snow is absolutely beautiful. The sun peeking through the branches nearby makes everything glitter as though it is from another world. I take a deep breath and finally feel my feet beneath me.

Everyone I know has been on edge lately. We are living through a time of accelerated and converging crises. None of the crises are new, but they have intensified. Climate breakdown, fascist authoritarianism, oppressive inequality, the unimaginable tragedy of the loss of species: all of these bombard us every time we open our phones.

Joanna Macy describes living in these times like walking along a path with a deep ditch on either side. On one side is apathy, on the other is panic. When things are overwhelming, we often have the urge to check out: to hide under the covers, to numb ourselves. Or we freak out, burning ourselves out in cycles of unsustainable and sometimes misguided action, desperate to feel like we are doing something. As activists, many of us know these twin ditches all too well.

Joanna (she/her) is a queer settler woman who is grateful to live in Mi'kma'ki. She is also the EAC's associate director of community engagement. She is deeply indebted to Joanna Macy, as well as her mentor Lydia Violet Harutoonian, whose wisdom and words are the backbone and heart of this article.

In times like these, I return again and again to the Spiral of the Work that Reconnects. The Spiral is a methodology for collective resilience and action that was developed by Joanna Macy through hundreds of experiential group workshops all over the world. The Spiral takes us through four stages: Grounding in Gratitude, Honouring our Pain for the World, Seeing with New/Ancient Eyes and Going Forth.

The first step is **grounding in gratitude**. The wisdom of gratitude can be found in many ancient traditions around the world, perhaps most famously in the Haudenosaunee Thanksgiving Address – the words that come before all else. The practice of gratitude reconnects us to the truth that it is a remarkable miracle to be alive at all on this beautiful planet – spinning in space with its vast and teeming oceans, blue whales, symbiotic lichens and soft mosses, wild strawberries in springtime, glittering ice crystals in the winter, endless cycles of renewal and growth and human beings with our complex and beautiful minds.

This is not an exercise in "good vibes only" toxic positivity – grounding ourselves in gratitude is a radical act. Our capitalist society tells us that scarcity is the basis of our existence and the only way to make ourselves feel better is to buy more things we don't need. What if, instead, we took stock of the incredible abundance of life? Remembering the basic miracle of our existence frees us from these oppressive narratives, energizes us and brings us joy.

Of course, when we start to open our hearts to what we love, we also become keenly aware of the anguish of all we are losing. We

become aware of the suffering of our beloved world. We may feel rage, sorrow, fear or numbness. All of these are expressions of pain for the world.

We have often been told that our pain for the world means there is something wrong with us. It is pathologized as a weakness or illness; the term "climate anxiety" seems to indicate a mental disorder to be corrected or calmed down. **Honouring our pain for the world** flips this view on its head. Being upset, angry, fearful or sad is actually an intelligent, sane and necessary response when faced with the atrocities that are happening in our world. In fact, these feelings are a call to action.

As Joanna Macy points out, we are part of the living system of our world. Just like our own cells are small, living systems within the larger system of our bodies, we can see ourselves as cells in the larger living body of Earth. When we feel pain in our own bodies, it is a signal of vital information telling the body that there is something wrong: there is a wound here. When our body receives that signal of pain, it mobilizes its natural healing response to address the wound.

When our hearts break in response to seeing our neighbours suffer or witnessing ecological devastation, our pain is telling us that something is wrong: there is a wound here. It awakens our love for the world and our desire for justice. It calls us to join in the response of the larger body of Earth to address the wound.

This experience can be like a portal that opens us up to the belonging that we have been seeking. It helps us to **see with new/ancient eyes**, to remember our place in the web of life. The truth is, we are not isolated individuals, marooned in time and making a go of it all alone. We are one thread in an infinite tapestry of living beings, connected to each other through space and time with every breath. Opening to our place in the larger body of Earth gives us access to wisdom, strength, power, different perspectives and joy. We are part of our world.

LEARN MORE

Learn more about the Spiral and Joanna Macy's work: **joannamacy.net**

Read the Haudenosaunee Thanksgiving Address:

<u>danceforallpeople.com/haudenosaunee-</u>
<u>thanksgiving-address</u>

Take an online workshop with the School for the Great Turning: **schoolforthegreatturning.com**

TAKE ACTION

With a friend or with your journal, move through the Spiral using the following prompts for reflection:

- Some things I love about being alive on Planet Earth are...
- When I witness what is happening to our world, what really breaks my heart is...
- Some of the people or beings I draw strength from are...
- No matter what happens, I am committed to...

When we are grounded in this knowledge, we become fearless and grounded in our action. The last stage of the spiral is **going forth**. We each have a vital role to play in the struggle for a just and livable future. What is the flame in your own heart? Where is it pulling you to act, even though the outcomes of our struggles are uncertain? Listen for your calling and breathe in the courage you need to take it up.

There are so many humans and other beings all over the planet who are working in big and small ways every day on behalf of life. We are not doing this all alone. And if we hold each other close, we can walk this path together without falling into the ditches of panic and apathy. Our resilience and endurance come from our gratitude, our capacity for compassion, our interconnectedness, our resolve and from the living Earth themself.

This is lifetime work, and it will not end with us. As times continue to be hard and harder, let us stay grounded, stay connected and stay open to what the world is calling us to do in this moment. Let us fill up each other's cups, honour our hearts of compassion and rise to this time.

An illustration of the Spiral by artist Dori Midnight.

ILLUSTRATION:
Dori Midnight





When I was a child, I used to make snow tunnels in my grandparents' backyard. I can't tell you how much snow there used to be. All I remember is it felt boundless, like more than anything I could understand at the time. My sister and I would spend afternoons imagining that we were snow leopards, hiding in our cave and eating snow for dinner, waiting for spring. I don't know how the snow disappeared over the years. Was there less and less until there was none? Or did it just leave one year and never come back? My memory is unreliable, which is to say, I am forgetting the past and I am scared. What happens when things change? Will I remember everything I've lost?

We have always had a deep connection to the land we live on. When I walk down to the river behind my grandparents' house, I know every spot; I've skipped rocks and captured minnows in the shallows. This sandy shore reminds me of every past version of myself, every year of growing and learning. The land remembers

Kit (they/them) is an aspiring kelp farmer and ceramicist currently working towards their master of oceanography degree at Dalhousie. Among other things, they love

TAKE ACTION

Stand by the ocean and listen to the waves. Walk through the forest and notice the dappled sunlight falling through the trees. Sit in a meadow and feel the grass brush your legs. Remember the joy of these moments.

the past, too; a chronological retelling of billions of years of weathering, sedimentation and fossils, telling a clear story about the changes our planet has experienced. But there are also things the Earth cannot remember. The sound of a glacier-fed stream long dried up. The vibrant colours of a coral reef, now bleached and deserted. A child's footprints in the sand, washed away as soon as they were made.

These types of memories belong to us: sights, sounds and sensations we carry with us to connect to the world. Unlike the layers of history in Earth's crust, we can't remember everything exactly as it happened. I'll never remember exactly how the snow disappeared as I grew up. But I'll always remember the feeling of delight in crawling through a snow tunnel I could stand up in. When I look at photo albums with my Granny, there are photos of me in places that don't exist anymore. In one photo I'm sitting on a red swing hanging from the big pine tree in their backyard. That tree is gone now. My grandparents cut it down because they were afraid it would fall in a storm and hit the house. Every time I look out the back window, I forget what the landscape looked like when it was still growing. But looking at that photo, the tree is alive; I'm swinging from the big branch as my dad pushes me, screaming and laughing because this is the best moment of my life.

Climate change is collective grief. We don't know when we will lose what we have; we don't know when those memories will become all that we have left. Once something is gone, it can feel like it never existed. And it's hard not to mourn things before they end; every day I feel like I am grieving a world I still live in. But I want to love. I want to love, I want to feel, I want to live. And I might not remember the specifics, but I will remember those feelings. So, I will love and lose, again and again. And I will decide, again and again, to keep that love with me when I think about what I've lost. I will not be sitting scared, waiting around for everything to change. I will be loving my life.

Harnessing Our Invisible Footprint by MISHELL ITKIND /// EAC Volunteer Our invisible footprint is tied to power to create change in the world. MAIN PHOTO: Jimmie Pederson TOP RIGHT PHOTO: Simon Ryder-Burbidge BOTTOM RIGHT PHOTO: Mishell Itkind

Every day, we make thousands of decisions. This ranges from what we do, where we go, how we get there, what we buy and what we say. It's impossible to align all of our actions with our personal values of caring for the environment. Regardless, it's still worth being mindful of the choices we make. Although the immediate environmental consequences of our day-to-day lives may not be evident, these choices add up and affect the world in ways that we may not consider. When we don't pay attention to our invisible footprint, we also miss our invisible power to create change in the world.

Let's imagine a warm night in mid-July. You've decided to go camping, straying off a forest trail and to natural clearing in the backcountry. Birds wheel in the sky above you as you set up your tent. Breaking small branches off trees to nurture a small fire, you throw trash from your hiking snacks into the flame. As you continue to unpack, you notice a "leave no trace" sign. You didn't leave a trace, did you?

The countless decisions we make, even with something as simple and restorative as spending time in nature, can have cumulative effects on local ecosystems long after we've returned home. Straying from established trails to find a wild clearing can scare away and disturb endangered populations of birds, particularly during breeding seasons in late spring and early summer. Burning plastic wrappers with ink or paint releases harmful chemicals and toxic remnants for curious animals. Even something as small as not cleaning the soil from hiking boot soles between trips can introduce invasive species to an area.

Mishell (she/her) is completing Dalhousie University's master of resource and environmental management program. She's passionate about biodiversity conservation and hopes to work with orangutan conservation projects in the future.

TAKE ACTION

Acting intentionally with a larger vision can amplify the impacts of our actions. By being mindful of our day-to-day choices, we unlock the power to find like-minded communities and make transformative and sustainable change together.

Learning about our larger invisible footprint and adapting some of our habits accordingly can make the change from simply appreciating nature to conserving it. Becoming more aware of these small choices can help create momentum and guide us to opportunities to take bigger actions.

When we integrate environmental principles into our daily lives and into more of our small decisions, it becomes easier to find likeminded people, become involved in your community and advocate for meaningful action together. Sharing your newfound knowledge with your community, writing letters to a company about their greenwashing or forming a group to meet with your political representatives about an environmental policy are just a few of the ways that changing one person's mindset and thinking about our invisible footprint can lead to further action.

Together, our individual choices, when combined with a larger vision, have the power to turn our invisible footprint into a tool for positive change – creating ripples that extend far beyond our immediate reach.

smiley fries, gardening and their dog Pip.

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There is an expression on the Internet "go touch grass," used to tell people to step away from their screens and spend more time outside. While often used as a playful jab, there is a truth to the sentiment: nature can be healing. From forest bathing to long walks on the beach, being outdoors has a way of refreshing the mind and the body. But what if this time could benefit both ourselves and nature itself? In an ever-increasingly digital age, we can spend more time outdoors, while at the same time contributing to plant and species-saving research through the practice of citizen science.

Makayla (she/her) is a graduate of Dalhousie's master of resource and environmental management program and now works as an environmental scientist. Among other things she enjoys good coffee, great books and thrifting.

What is citizen science?

Citizen science is a form of participatory research. Members of the public contribute to conservation and environmental initiatives through data collection, analysis and other forms of scientific inquiry. Citizen science may seem like a new concept borne of environmental crisis, but ordinary people have long played a significant role in understanding the natural world. Some scientists were never professionals as we might think of the term. Gregor Mendel – known for his work on pea plants and genetics – was an Augustinian friar. Charles Darwin never obtained a formal degree in science. On Turtle Island, citizen scientists were instrumental in the documentation of Canadian flora and fauna in the 18th and 19th century: John Macoun, a schoolteacher in the 19th century, documented and preserved over 100,000 plant specimens for museums.

Today, numerous biological datasets are used to track changes in landscape, habitat and species diversity in Canada. These datasets are as robust as they are because of citizen scientists; there are not enough

professional scientists and funding to create and maintain the largescale datasets required for provincial, national and global conservation efforts. Without citizen scientists, our understanding of the climate crisis, its impacts and ways to counteract it would be diminished.

Becoming a citizen scientist

For many, science seems reserved for those with the right academic credentials. Citizen science challenges this mindset: you don't need a degree – just curiosity and a willingness to learn. Opportunities for citizen science are everywhere, and getting involved can be as simple as opening your phone and snapping a photo of a cool plant or animal. Apps like iNaturalist allow users to upload species photos to a central database with no prior experience in species identification required. If your observation meets iNaturalist's research-grade qualifications, your observations could be used to help monitor and track biodiversity around the world.

In Canada, iNaturalist is used by scientists at both Kejimkujik and Cape Breton Highlands National Parks to monitor populations of large predators, inform recommendations for installing road crossings for amphibians and reptiles and restore forests.

At Kejimkujik National Park Seaside, the Gone Crabbin' program allowed park visitors to help restore eelgrass by trapping, measuring, sexing and then removing invasive crabs from the park. As a result, nearly two million green crabs have been removed, and nearly 40 per cent of the original eelgrass beds have returned.

In Mi'kma'ki/Nova Scotia, citizen science has also led to new discoveries. In response to logging threats, a group of citizen scientists began documenting lichen species near Goldsmith Lake. With the help of a lichenologist, they found a species of lichen previously undocumented in the Maritimes, as well as several species-at-risk, proving that areas recognized as old growth were larger than previously realized by the provincial government. Their efforts led to a pause in provincial harvest plans in the region.

Fostering community and ecological citizenship

By engaging in citizen science, we can cultivate a deeper connection with the natural world. Practicing science is, in its own way, an act of mindfulness. Going out and offering your attention to the natural world, be it the smallest spray of moss to vast ocean shores, is not just an act of observation, but an act of reverence and wonder. At a time of ever-increasing ecological challenges, our connection to nature becomes more than just one of healing – it becomes essential for emotional resilience.

Giving back to nature strengthens us, gives us resilience in the face of an increasing number of ecological crises and opens our eyes to our place within the broader tapestry of existence. Citizen science

TAKE ACTION

Check out the Facebook group "Citizen
Science Mi'kma'ki (Nova Scotia)" for ways to
get involved in citizen science initiatives.

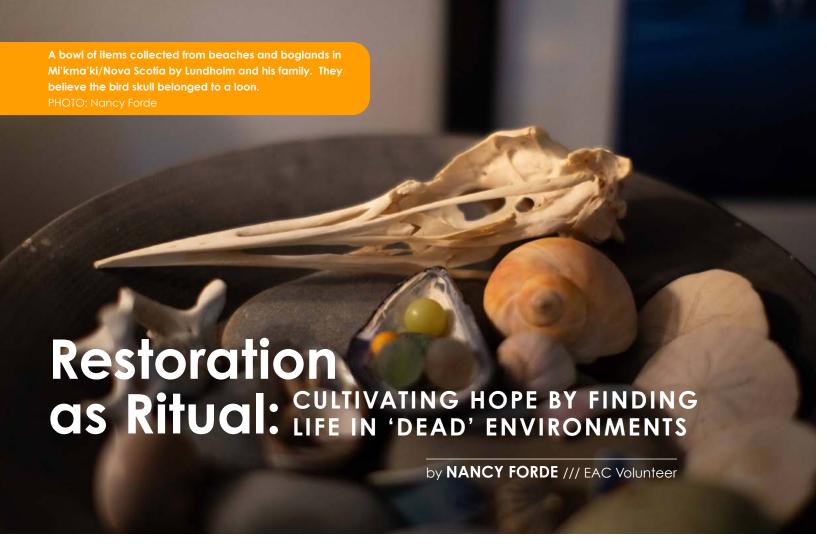
reminds us that we are not separate from nature but a part of it. By embracing curiosity, collaboration and care, we not only contribute to scientific discovery but also deepen our sense of belonging in the world, ensuring that future generations inherit a planet rich in resources, biodiversity and wonder.

Tips and tricks for taking research-grade photos

Observations that are accurate, complete and verifiable are key to giving researchers the confidence to make informed decisions about current phenomena and to craft conservation strategies that will have an impact. Here are some quick tips and tricks to help:

- Make sure your photos have a date.
- Make sure your photos are georeferenced: have latitude and longitude coordinates to mark the location of your observation.
- Take multiple photos.
- Take high-quality photos.
- Use objects for scale. Place a coin, a pencil or even your hand beside the specimen you are photographing.





Nothing like when a passenger travelling next to you asks about your research trip focus and you respond, "death." Lately, I've been exhuming research on thanatology; the study of death and how communities perceive, mourn and mark it. For my current Master of Fine Arts pursuit, I'm writing a book on preservation and bog bodies — prehistoric humans deposited into peatlands across Northern Europe. During the Iron Age, around 600 BC to AD 400, most of the dead were cremated. Why were certain Iron Age humans murdered and placed in bogland instead? Scientists believe the practice involved ritual human sacrifice to Nerthus, an Earth goddess.

It's a wintry Thursday afternoon when I enter a second-floor room at the Central Library in Kjipuktuk/Halifax to attend a Death Café. The event may sound morbid, but it's a supportive space for people dying, grieving or pondering end-of-life preparation for themselves or their loved ones. Among those leading the meeting is Dawn Carson, President of the **Green Burial Society of Nova Scotia**, and a 'Death Doula' for **Grief Matters**. A discussion ensues on why death remains a taboo topic in North America compared to other cultures globally. As I'm Irish, I mention traditional customs of keening –

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waking deceased loved ones at home, sitting up and keeping their remains and spirit company in the days and nights following death.

Days later, with grief and ritual still haunting my thoughts, I meet with Dr. Jeremy Lundholm, a long-time adjunct professor of ecology at Saint Mary's University and research associate for <u>TransCoastal Adaptations Centre for Nature-based Solutions</u> and <u>CB Wetlands and Environmental Specialists</u>. He invites me to his home near Amntu'kati, the Mi'kmaq name for the area also known as Point Pleasant Park. Translated, Amntu'kati means 'spiritual place' or 'place of spirits.' What better spot to discuss death and life, grief and hope?

What does one unearth in an ecologist's home? Framed herbarium specimens related to Lundholm's doctoral dissertation hang upon earth-toned walls, alongside photographs of ferns and fiddleheads. A loon skull nestles amid snail shells, sea glass and sand dollars. Indoors is a veritable homage to outdoors.

Lundholm boils water and we settle opposite each other in the living area, where I sip tea infused with fennel and honey. I first met my humble host in July 2024 when he led a hike at Polly's Cove during Wetlands Appreciation Week. Lundholm is writing his own book on Nova Scotia's 'Barrens' and, because I've personally battled infertility, we begin by unpacking language. Lundholm remarks on the colonial ties to language that view areas as wasteland or solely in terms of usefulness to settlers, for purposes like resource extraction. Highly acidic with low oxygen, peatlands, among other wetlands, have long been termed 'barren' or 'lifeless' environments.

"When I think of bogs, time slows," explains Lundholm. "Sugar maple forests are considered 'productive' because they grow fast. Bogs are sloth-like." Bogs begin as lakes and form over thousands of years. Whenever I mention my own bog research, people sometimes picture the '**Dead Marshes**' of Tolkien's *Lord of the Rings* trilogy. The eerie depiction is not far off. Bogs are comprised of dead plant matter that builds up over millennia. Essentially, bogs are layered strata of geologic time, or 'Deep Time' death.

Certain plant life within bogs is even carnivorous. In raised wetlands, for instance, the only way to secure life-sustaining nutrients is to trap them. When an insect lands upon the sticky hairs of a sundew, its spindly arms, reminiscent of red veins, are triggered to fold inward. The plant holds and digests the insect over the course of two hours, then re-opens its arms for future food. Lundholm suggests pitcher plants are more passive in their nutrient capture. Their cups collect rainwater into which insects fall. Unable to escape, they drown. "Pitcher plants are their own ecosystem," Lundholm explains. "Certain mites live their entire life cycle within them eating whatever's trapped for decomposition." In bogs, death sustains life.

Some wetland areas are considered part of the 'Barrens' of Mi'kma'ki/ Nova Scotia. The Barrens comprise open heathlands with rocky terrain and few trees. Lundholm's attraction to them is sensory. The painterly palette of lichens and moss. The taste of wintergreen. The cinnamon scent of crowberries. Lundholm relishes the redolent mixture of ocean and fresh phytoplankton, especially in summer when plants 'volatilize,' dispersing their vaporous essence. I ask: what first drew him to ecology?

"In high school, I heard about a research group doing ecological restoration and was hooked. Growing up in the '80s, news about acid rain and the ozone hole felt terrifying. For me, conservation plays a vital role, but ecological restoration offered an active element that appealed. It's interventionist, a way to get your hands dirty, literally and figuratively." When I ask what wetland flora or fauna he'd champion, he offers oyster plants, more whimsically known as 'sea bluebells.'

Lundholm sits on the board for the province's plant recovery team. He hopes through increased protection and restoration, plants might be monitored and championed before becoming endangered or extinct. He wonders what effect extirpated (locally extinct) fauna – like caribou, moose and wolves – would have had upon the province's prehistory. He mourns the loss of their presence.

Scientists believe Iron Age people regarded bogs as sacred environments, possibly preferred sites for ritual. I ask Lundholm whether events like his hike, people visiting land during Wetlands Appreciation Week or Earth Day, are akin to ancient rituals that celebrated environment as sacred? Lundholm names Bill Jordan III among the 'intellectual parents of ecological restoration' who regarded the work as ritual. Jordan's primary text The Sunflower Forest: Ecological Restoration and the New Communion with Nature summarizes the author's years of work on the topic. Might bird counting or seed planting count as kinds of ritual response to

TAKE ACTION

Follow Dr. Jeremy Lundholm on the <u>iNaturalist</u> app, where he'll announce a forthcoming ecological restoration project. In the meantime, document coastal erosion and check out Coastie, another collaborative citizer science project at **coastiecanada.ca**

extinction? Might such acts heal eco-grief? Like the Green Burial Society and Death Café organizers, Lundholm believes part of healing is allowing ample space and time for grief, something as an ecologist he readily admits he's guilty of repressing. I don't want to end the interview on a sorrowful note. I ask him about hope.

How do ecologists and other environmentalists combat succumbing to despair or cynicism? Lundholm perks up, avowing "ecological restoration acknowledges humans are part of nature," one among myriad species who belong to Earth's singular ecosystem. He recounts a project in northern New Brunswick where he helped restore a cobble beach. The restoration led to piping plovers returning to nest there. "I'm still sent photographs of baby plovers," he says, smiling. "That lifts the heart, my spirit."

For me, connecting with environmental folks like Lundholm to learn more about ecological restoration lifts my own.



Ecologist Jeremy Lundholm is aptly framed by green plants at his home in Kjipuktuk/Halifax in January 2025. PHOTO: Nancy Forde

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Ecologies of Intimacy: LOVE AND LOSS IN LEANNE

BETASAMOSAKE SIMPSON'S "THIS ACCIDENT OF BEING LOST"

by PAIGE SWEENEY /// EAC Volunteer

I was compiling research for an academic paper earlier this year when I came across the term "an ecology of intimacy" in an anthology by Leanne Betasamosake Simpson. The words made me pause. I immediately thought of another one of her literary collections, This Accident of Being Lost, and the ecology of intimacy she constructs between love, grief and land in the book.

An award-winning writer and musician, Betasamosake Simpson creates ecologies of intimacies between love and loss, land and memories, songs and stories in her works. She is from the Michi Saagiig Nishnaabeg territory, along the north shore of Chi'Niibish (Lake Ontario). Her definition of an ecology of intimacy, from the anthology, is an "ecology of relationships in the absence of

Paige (she/her) is a writer, runner and student at Dalhousie University, where she is completing her master's degree in English literature. She loves reading by the ocean, playing her violin with the windows open and cooking meals for friends.

PHOTO: Lindsay Lee

coercion, authority, or authoritarian power." It is an ecosystem of connectivity, reciprocity and responsibility, formed by Indigenous resistance against colonialism and nurtured by diverse Indigenous ways of being and knowing.

In This Accident of Being Lost, Betasamosake Simpson writes about the entanglement between love and grief in Indigenous communities in Canada. Fragmented stories and poems portray Indigenous characters reclaiming land and traditional ways of being, grieving the years spent unable to do so and loving each other in an intimate web of connections. Her experimental form transcends conventional genre rules by constructing an ecology of intimacy that draws on the love and grief present in human, morethan-human, and natural relationships. For example, in the poem "to the oldest tree in the world," she writes:

"i'm worrying about / what you're drinking / you're worrying about what i'm breathing" - This Accident of Being Lost: Songs and Stories by Leanne Betasamosake Simpson (House of Anansi Press, 2017)

I read this book last year overlooking the Atlantic Ocean, bundled against the cold, my gloved hands clumsily flipping pages. I learned about Anishinaabe language and stories, as well as networks that rely on the intimacy of love and loss. The intimate relationship between the two is present in the story, "Leaning In," when she describes a spirit world interlaced with a natural one:

"When you were ready, Niibin [Summer] took your hand, kissed your cheek, and led you to the canoe, which you paddled down the river to the west, crossing back over the sky, into a better world." - This Accident of Being Lost: Songs and Stories by Leanne Betasamosake Simpson (House of Anansi Press, 2017)

Reading is an act of resistance and relation-building. As a white settler living on colonized land, reading, listening and learning are part of my responsibility in my community's ecosystem. To read this book is to enter into an ecology of intimacy within literature and language. It is to learn how to resist destruction of Indigenous peoples and the land on which we all live with love, grief and hope.

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An old-growth sugar maple PHOTO: Irwin Barrett

TAKE ACTION

Read Leanne Betasamosake Simpson's This Accident of Being Lost and find an intimate ecology of love and grief that showcases how storytelling can be an act of decolonization and climate action.



We hang in the balance, as my best friend waits for news of her home on a ridge of the Santa Monica mountains, the traditional land of the Chumash and Tongva, in Los Angeles. I notice she has taken to lovingly calling it her 'tree house' during this emergency; this Palisades fire that still threatens as I write. We wait as her 'tree house' and the woodlands around it huddle at the mercy of the wind's whim, and I am reminded of another vigil I shared with her over a decade ago, when her mom was dying of brain cancer. Now, the glint of hope remains; back then, the gloom of inevitability loomed. Both times, grief: love, and so grief.

"Seeing the end of something precious to you gives you the chance of loving it well," writes Stephen Jenkinson. "Loving and grieving are joined at the hip, for all the beauty, soul, and travail that brings. Grief is a way of loving what has slipped from view. Love is a way of grieving that which has not yet done so."

The psychiatrist Dr. Daniel Amen reminds us "grief activates the suffering pathways in your brain, keeping you in a cycle of sadness. Recognize the loss, but remind yourself that healing begins with action" (@doc_amen on Instagram, Jan. 12, 2025). That bedside vigil with my friend and her mom inspired me; in the years afterwards, I took courses and training to volunteer in hospice,

Shannon (she/her) has a background in architecture, music and language. She currently spends time researching, designing and tinkering with sound; she also volunteers in hospice care.

TAKE ACTION

Listen to your heart, to the nature around you and to your local Indigenous wisdom keepers. Consider listening to botanist/ chemist Diana Beresford-Kroeger, who would have each of us plant an indigenous tree where we live and relearn the skill of listening to trees: calloftheforest.ca/how-to and dianaberesford-kroeger.com.

which is "a special kind of care that focuses on a person's quality of life and dignity as they near the end of their life." Today, as the fires burn, I feel I'm of little help to my friend from afar; but then I remember the deep listening of hospice, so I lean further in, lending not only an ear but the fullness of my attention.

People often think of hospice as a place; this is sometimes the case, but to me it's a quality of attention, deep listening and presence that we can bring anywhere. As a patient shifts from an urgent or chronic crisis to the world of palliative care and hospice, the ferocity of diagnosis, results and quantity defers to a softer focus, encompassing whole-person care and quality of life. Care teams still attend to whatever the patient needs and wants for comfort, but

somehow in hospice there descends upon us a quiet knowing: we are attending to a hero's journey as they approach the horizon. It is a time of grief, but the traveller's agency shines like the sun, and each breath feels like an honour.

Loss in the urgency of the California fires feels like a far cry from hospice; the gentle comfort of hospice seems like a luxury in comparison. As this firefighting ferocity battles on, first responders lead the charge with muscle memory leaping into action. Neighbours and communities follow, rising like an army of organizers, donators and service and space providers, attending to chronic needs that build with each loss. Others, from near and far, radiate help in the form of words to console, connect or inspire. All these shades of courage push past the pain to serve a common cause. In the shadow of this horror and destruction, the goodness of human nature shines. This is the silver lining of loss; this is love in action.

In nature, we can see with patience that death is not an end, but a transformation; the materials that once constituted a living body are reconstituted in new forms, over time. In these fires, non-native and highly flammable trees like eucalyptus and palms contribute to the spread of fire, while many native, fire-resistant trees like the coast live oak are more resilient.³ If damaged, these oaks are able to resprout from their base.⁴ In the eyes of grief, thousands of trees are slipping from view, but beneath the soil, life scurries on. Roots, mycelium, bacteria and critters: the web of life continues hatching its plans. Fires can be urgent, pollution causing and climate changing, but nature is a beautiful genius. Still, we grieve; we so love this thing that is changing.

Together, in grief, we keenly feel our interconnectivity with the world, and our kinship with one another. We are in sympathy: "sym" from the Greek, meaning together, and "pathos," meaning feeling or emotion. Grief runs through us all; a sympathetic vibration not only through the human body but the very fabric of nature, mirroring its cycles of death, decay and rebirth. As I finish writing, on the anniversary of her mother's death, my friend and her family are given clearance to return to their 'tree house.' A fortunate outcome, this time: the Santa Ana winds have turned northward, instead of pushing east towards her door. The destruction of adjacent neighbourhoods remains, and fires continue elsewhere; but so too do the many acts of courage and ingenuity.

As our ecological crisis continues, we can set our intention to remain present and accounted for; doing what we can, from wherever we are. If we listen deeply, we'll hear the web of life that sustains us, calling us to face loss courageously from the other side of grief. We'll find ourselves showing up in ways we never knew possible. Forever entangled with the world around us, we are a living part of its transformation; by drawing action from our grief, we can play our part in making this transformation beautiful.

"To honor our grief, to grant it space and time in our frantic world, is to fulfill a covenant with soul—to welcome all that is, thereby granting room for our most authentic life." - *The Wild Edge of Sorrow: The Sacred Work of Grief* by Francis Weller (North Atlantic Books, 2015).



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Sept. 5, 2024, marked world Plastic Overshoot Day – the day each year when global plastic production exceeds our maximum capacity to process plastic waste. By Dec. 31, around 500 million metric tonnes of plastics were added to global stockpiles.

Are we headed for a future of garbage everywhere? Current trends project annual production increasing to **884 million metric tonnes** by 2050. With pollution accumulating in oceans and waterways, up and down food chains and in our bodies, we're trending in that direction. Even when disposed of by the best means available – landfilling, incineration or, **about 9 per cent of the time**, by recycling – processing plastic waste consumes energy, money and land.

lan (he/him) is a writer with Ecology & Action.

What to do besides wring our hands? The <u>relative apathy</u> we seem to have towards this problem is frustrating. And this apathy shows itself in slow political will.

In November 2024, the meeting of the UN International Negotiating Committee (INC) on Plastic Pollution in Busan, South Korea adjourned without agreement. Since 175 nations voted to adopt a legally binding treaty to end plastic pollution in 2022, the INC has met five times. A treaty framework was supposed to be in place in 2024.

The INC discussions have been driven by two groups: the <u>High</u> <u>Ambition Coalition</u> (HAC), which is chaired by Norway and Rwanda and includes Canada, wants to restrict plastic production. Another group, led by fossil fuel powerhouses Russia, Iran and Saudi Arabia, wants to focus only on dealing with waste.

How did we get to this point?

Only in the latter 20th century did plastics begin to truly replace plant- and mineral-derived substances as materials of choice. In 1909, chemist Leo Baekeland patented Bakelite – a hard, mouldable material made from the chemical reaction of two common small molecules, phenol and formaldehyde. Bakelite was the first of the many commercial plastics made from long, chain-like molecules called polymers. In this case, phenol and formaldehyde were the chain links. These long chains, and the specific links you use, give plastics their distinctive properties.

Cheap production of these lightweight, easily customizable materials has allowed a proliferation of manufactured household goods and enabled many technological innovations of the last 75 years. But it's really only in recent decades that the alarm has been raised over waste. The discovery of plastic debris floating in the mid-Pacific by oceanographer Elizabeth Venrick in 1972 may have been the proverbial canary in the coal mine, but few were paying attention. Even Venrick's **own paper** described the threat of plastics as "chiefly aesthetic." The materials were thought to be inert: we didn't think there were chemical reactions happening between plastic molecules and other molecules – say, those in the environment or the human body.

We now know that's not the case. An abundance of recent research shows that tiny plastic pieces composed of the long, supposedly inert molecules affect **reproductive**, **respiratory and digestive** health. Larger plastics interfere with fragile marine ecosystems.

Because so much plastic pollution is transported by water, plastic waste has an outsized impact on coastal areas. Apart from the destructive impacts on nature, aesthetic concerns are a serious issue for places where beauty and tourism are essential to the economy. Nova Scotians, with our 13,000 kilometres of coastline, know this as well as anyone.

So-called single-use plastics, such as cigarettes, food wrappers, bottles and bottle caps, are deservedly vilified as culprits. Accounting for 31 per cent of plastic production, packaging is the single largest use of plastics by weight. Plastics have also increasingly replaced other materials in construction (17 per cent), auto parts (12 per cent) and consumer products (10 per cent). Recycling rates remain stubbornly low, due to both specific technical challenges compared to metals, glass and paper recycling, and poor infrastructure.

Why a plastics treaty needs to limit production

The disagreement at the heart of the INC meetings is really a disagreement over the first of the <u>Twelve Principles of Green Chemistry</u>, which basically says that it's better to prevent waste than to clean it up. The solution must be to radically reduce plastic



production and consumption, as the HAC group led by Norway and Rwanda advocates. Countries must take a <u>full life cycle</u> <u>approach</u> – meaning, addressing not only the use and disposal of plastics, but also their production.

An intermediate "plutilateral" agreement between around 95 of the 175 INC commitment signatories, to ban the most harmful plastic ingredients and set targets for production and reuse, is a possibility. But this committee has the potential to do a lot more.

What can we do? Realistically, plastic waste is rarely among most people's top five political concerns. It may be less urgent than climate change. However, the common ground this challenge shares with climate change and habitat destruction is that it requires a shift in our habits. We've done it before, shifting away from grocery bags and straws. As a next step, let's tackle the plastic packaging problem. A global plastics treaty significantly reducing production would be a powerful step.

TAKE ACTION

Reduce plastic packaging by bringing your own containers, the BYO idea: <u>usreduces.org/the-case-for-byo</u>. This would be a first step towards putting pressure on producers and politicians to reduce production.

Stay tuned for the date and locale for the next INC meeting on plastic pollution.

Home Is Where We Make It:

RESISTING THE LURE
OF NOSTALGIA AMID
CLIMATE GRIEF

by HOPE MOON /// EAC Volunteer



I have a recurring dream where I walk through my childhood home. It no longer exists — at least as I knew it. I wade through my fluid subconscious memories, room by room, meeting my past in my present slumber. When my dad sold the house, these dreams would often greet me with granted passage back in time. Seven years later, the house appears to me less often. But it always returns at some point, as grief tends to do. After reading about the fires in Los Angeles, I thought, how many more people may begin to have dreams like mine? How many are haunted by a desire to return to a home that is lost? As the climate crisis continues to worsen, and our present and future look increasingly unrecognizable, we turn toward the one thing that holds a degree of certainty and stability: the past.

Nostalgia comes from the Greek Homeric word for homecoming and describes a sentimentality for the past. Stemming from Odysseus' long journey homeward after the Trojan War, he and his crew feel nostalgic as they yearn for their homes and pasts alike. Tackling the climate crisis today can feel like a contemporary Greek Odyssey of sorts – a decades-long journey filled with monsters and villains set on delaying our progress. But unlike Odysseus, as we rattle towards twinning social and environmental crises, it hardly feels like we are heading towards anything looking like home. So often we settle instead for substitutes that remind us of the home that once was, of who we once were, in the form of nostalgic products.

Within the last 10 years, the nostalgia industry has risen to prominence. From superhero mega-franchises, to beloved '90s and 2000s reboots, the return of Y2K fashion and toys and stuffed animals bought up by adults, these trends reveal a consumer base that is desperately seeking comfort in familiarity. These products try to make us feel like we're wandering through familiar territory and promise a kind of predictable stability. As our changing climate departs from memories of simpler times, nostalgic products offer a temporary return.

Nostalgic commodities lull us back through time to carefully fabricated realities that hook us and make us want more. Sitcoms boast of times of impossibly affordable housing. Vintage clothing reminds us that natural fibres once dominated over petrochemical-based synthetics. Stuffed animals bring us back to our childhood, when we could still wake up from our nightmares. The past is sold to us as a romantic product, convincing us that the more we buy, the more we can return. But it is this very urge to consume that is at the root of our dread. We cannot buy ourselves out of our social and climate crises. Those who claim that we can are those who wish to profit off our grief.

The production of nostalgia has become financially and politically advantageous as corporations and politicians create products and ideologies that offer salvation, if only we buy and follow. A "positive feedback loop" develops, where the more nostalgic we become, the more vulnerable we are to manipulation, and the more likely we will be to consume products or buy into rhetoric that promises some sort of comfort. We become increasingly dependent upon

TAKE ACTION

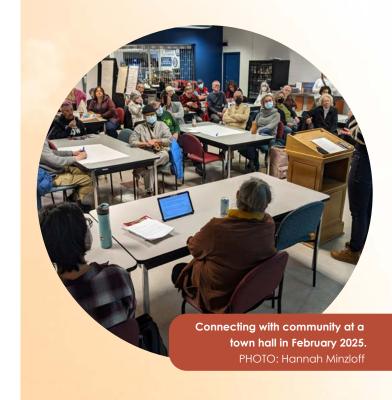
Resist the lulling of nostalgia and soothe your fears instead by getting more involved in your community! Start or join a regular club, or volunteer with an initiative or a working group through the EAC. Don't get lost in the past. Honour your climate grief by cultivating your community now and for the future.

consuming the past to feel even the slightest degree of ease in the present. The commercial and political production of nostalgia further destabilizes our sense of the present and future, willing us to keep our gaze firmly on the past. But the longer we are stuck in the past, the more we cement a worse future.

Nostalgic consumption makes us idle beings. We are pacified from our reality only long enough before the next hit. But the root of our grief remains. The loss of a livable future looms ahead, and this loss is what we are so desperately trying to escape. But what if we were to no longer try to flee it, and instead actively work to fix it? If nostalgia is truly about returning home, it is up to us to ensure there is a home to return to, now and for generations to come. The Odyssey reminds us there is no saviour that exists that will help us home. It is neither romanticizing his past nor giving into temptations of comfort that facilitate Odysseus' return home, but rather his steadfast love and dedication to his family and community. While nostalgic consumption slows us down, nostalgia-induced community building can push us towards the home we want, and that we can reach together.

Unlike manufactured nostalgia, home does not live exclusively in the past, nor is it purely physical or ideological. Home is rooted within us and our communities that grow and adapt into resilient legacies of love and care. Even though I grieve the loss of my childhood house – the lilac bushes, the stained-glass rainbows I would dance my hands through, the creaking floorboards – my home lives on through my memories I share with my family, and the ways we continue to build our relationships forward. Where our grief may be tethered to the physical, our love is grounded in each other.

As we lose our sense of home to many social and environmental changes, nostalgia can be quick to settle in. But as hard as it can be to witness such degradation, we must resist the temptation of the past that pacifies us into stagnancy and passive consumption — it will only be a band-aid solution. Taking action to strengthen your relationships in community and to get involved in building a livable future for all will fulfill you more than a new outfit, or stuffed animal or binge watching a TV show ever will. You can still enjoy these things, just don't get stuck there! May we channel the hero's journey homeward within us, fighting the will of wannabe gods and profit-seeking monsters with a steadfast commitment to our communities, environments and futures.





The Seasonal Gourmet

by JILLIAN RAMSAY /// EAC Staff

White Pine Cookies with Citrus Glaze

Eastern White Pine is a keystone species of the Wabanaki (Acadian) forest. These towering trees provide shade, shelter and food for many species. These evergreens keep their soft needles year-round, making them an excellent introduction to tree identification and foraging. White Pines are abundant in our forests, and harvesting a small number of needles for this recipe has minimal impact.

These delicious citrus cookies involve not only baking but also the mindful act of foraging - choosing each needle with care and gratitude and deepening our relationship with the land. Foraging in this way is only possible because of the stewardship the L'nu/ Mi'kmaq have practiced for generations, caring for the land in ways that sustain its health and abundance.

This recipe is adapted from Wild Muskoka Botanicals, an Ontario-based foraging business specializing in locally sourced wild foods and tinctures.

How to ID Eastern White Pine Needles

- From a distance, the needles will look like giant puffballs near the ends of the branches
- Eastern White Pine is the only conifer species in Nova Scotia that grows needles in clusters of five. This means that the needles grow off the branch in clusters, with five needles stemming from one base.
- The needles are thin and very pliable, with a pointed end. On average they are as long as an adult's pinky finger.
- Only harvest if you are 300 per cent sure they are white pine needles. This means you are 100 per cent sure, an expert you know is 100 per cent sure, and a field ID guide is 100 per cent sure.

Jillian (she/her) is the green cities officer with the EAC. Learn more about native species around HRM by joining Jillian during Hike the Greenbelt this spring and fall. All hikes will be posted on the EAC's website and social media channels!



DIRECTIONS

Rinse pine needles in cold water and chop into small pieces, about the size of standard rainbow sprinkles. You could also use a food processor. Add them to a mixina bowl.

PHOTO: Irwin Barrett

INSETS: Jillian Ramsay

- Add citrus zest, granulated sugar, softened butter and vanilla extract to the bowl. Mix with a spoon or your hand until it is all incorporated.
- Gradually add flour, about a 1/2 cup at a time, mixing as you go. I use my hands. Keep mixing/kneading until you've got a ball of dough. It should stick together easily and be firm but pliable. Set the dough in a bowl in the fridge for 30 minutes.
- Set your oven to 350 degrees. Prep a baking sheet with parchment paper or a baking mat.
- G Use a spoon or your hands to scoop out about 1 Tbsp of dough. Roll it into a ball and squish it firmly into a circle of even thickness, ~1cm. You could roll it out onto a lightly floured surface and use cookie cutters if you're feeling fancy. Pick out or smooth in any stray needle fibers.
- Bake cookies for 9–12 minutes, until the edges are golden brown. Let them cool on the pan for a few minutes before setting on a cooling rack. Once cookies have cooled completely (~30 minutes), they are ready to be glazed.
- Mix the citrus juice and icing sugar together in a small bowl. You want the consistency to be similar to white glue. Add icing sugar to thicken, or juice to thin measure with your heart.
- (?) Dip your cookies into the icing or drizzle it on with a spoon. Let icing harden before enjoying your cookies with good company.

Action is Our Middle Name

Nova Scotia
Provincial Election

Ecology Action Centre

COASTAL & WATER

The Coastal Protection Act (CPA) was a top environmental issue of the 2024 provincial election — a reflection that the desire for pan-provincial coastal protection legislation remains top of mind for Nova Scotians. The Coastal & Water Team continues to field regular inquiries from the community concerned about the changes facing their coastline. We also field multiple media inquiries on the CPA and coastal issues each month. The EAC continues to be a proud member of the Coastal Coalition; together we continue to advocate for the CPA to be proclaimed for the benefits of all Nova

We also continue to stay involved and follow other on-going local coastal issues. Earlier this year, the Halifax Regional Municipality invited the public to submit comments regarding their proposed amendments to prevent infilling at Dartmouth Cove. The EAC supports these amendments and encourages city council to explore bylaws that would prevent similar coastal infilling issues elsewhere in the municipality.

There was also an open public comment period concerning the Department of Nation Deference's (DND) proposal to engage in shoreline stabilization at Hartlen Point. The EAC is advocating that DND engage in implementing nature-based shoreline designs, as they have economic, social and environmental benefits, rather than using hard-armouring approaches (like sea walls) which can destroy important habitat, alter wave patters, impact coastal access and cost more financially.

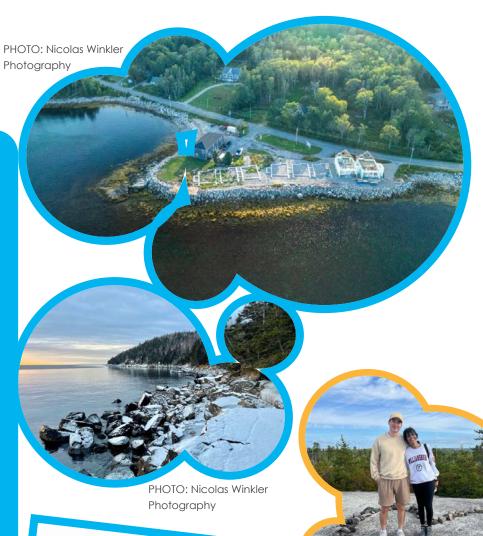


PHOTO: Jillian Ramsay



The Built Environment Team led the EAC's engagement with Halifax Regional Municipality's newly elected regional council, focusing on policy and planning priorities for Halifax. To support this work, we enlisted a Dalhousie planning student to research non-market housing solutions, such as community land trusts and affordable housing initiatives.

As the weather cooled, we wrapped up our Hike the Greenbelt series with our final four events, including a Hike and Fungi Foray and Hemlock Woolly Adelgid species surveys at Sandy Lake and Cox Lake. Feedback from participants in the Hike the Greenbelt campaign revealed that 96 per cent of attendees gained a deeper understanding of native ecology and development pressures, 94 per cent felt confident in knowing how to find more information and take action to protect the area and 42 per cent were discovering these green spaces for the first time.

The Built Environment Team then shifted indoors to host a workshop on the implementation of the Halifax Green Network Plan for members of Our HRM Alliance, a coalition advocating for sustainable growth across the region. Finally, we organized a special craftivism event, Love Letters to Sandy Lake, where we used art to rally the public in the fight to protect Sandy Lake, sending dozens of handmade valentines to key decision-makers.

ENERGY & CLIMATE

In January 2025, the Clean Electricity Regulations Act was released – a federal policy that mandates the phase-out of coal and that followed a multiyear effort campaigning for a greener energy grid for all Canadians. The Energy & Climate Team is continuing this momentum by pursuing research into innovative community energy models such as microgrids and energy co-ops.

Our electric school bus project has been building partnerships with health advocates following the launch of Driving Towards a Healthier Future in October. This report outlines the negative impacts of diesel on children's health and debunks aasoline alternatives for school buses.

Our efficiency work finished 2024 with 71 free energy audits secured for faith buildings across Nova Scotia! We hit the road this March to kick-off our Faithful Footprints Roadshow to showcase retrofits already completed by United Churches across the Atlantic provinces.

Our energy poverty campaign worked to centre affordable energy as a key election issue, promoting a universal service program in the provincial legislature and advocating for increased funding for EfficiencyOne's low-income programs.

In October, the EAC and HalifACT launched the Climate Commitment Badges — a program for HRM residents to earn artist-designed lapel pins (badges) by learning about and committing to climate action. Current badges include Climate 101, Home Energy and Getting Around, with more in the works.

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PHOTO: iStock



FOOD

Between October and December 2024, the Food Team continued to implement priority recommendations identified in Part B of the JustFOOD Action Plan. Progress and outcomes are captured in the JustFOOD Status Update report, published in early March. The report can be found at justfoodhalifax.ca.

In December, the Halifax Food Council concluded two pilots in collaboration with Feed Nova Scotia's Innovation and Learning Lab. The Rural Food Access Pilot delivered affordable, shelf-stable food items to 51 households in the Musquodoboit Valley, while the Social Supermarket pilot explored partnerships and potential sites to launch Halifax's first multi-vendor social supermarket. In January, the Food Team worked with Feed Nova Scotia to distribute over \$131,500 in funding to grassroots groups and community organizations across HRM, targeting projects that increase access, availability and/or choice of food; increase community-led food production; and promote food justice and sovereignty. In February, the Food Team supported the launch of a Community Garden Grants Program for community gardens and urban farms located on municipal land, with \$40,000 in funding to support participation, community-led food production and procurement of tools and infrastructure.

The Food Team continues to support the Coalition for Healthy School Food – Nova Scotia Chapter in its advocacy around the province's school lunch program, focusing on localizing the program to allow for more choice and flexibility in menu development, creating pathways for schools to develop and maintain relationships with local food suppliers and reducing food waste.



PHOTO: iSto



STOP BURNING TEM
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Distinguishing truth from fiction has become more difficult as some politicians spout divisive rhetoric, big polluters spread disinformation

and corporate interests seem to heavily influence policy.

In the past months, the Wilderness Team has continued to advocate for a healthy environment and healthy communities. These efforts have gained urgency as valid concerns are twisted into "fear mongering" and public interest groups are painted as "special interests." In this landscape, the Wilderness Team is determined to continue bringing you credible information.

We released fact sheets this spring about industries such as uranium mining and royalties for resource extraction, providing important, factual information amid a confusing sea of projects, policies and industries that claim to be sustainable but are actually distracting from — and delaying — vital environmental action. We took our role as an environmental watchdog to heart, calling out disinformation and mobilizing with our allies in the face of emerging issues that put our communities at risk.

We continued to address the problems around burning forest biomass for electricity, unsustainable mining and industrializing the rural landscape for so-called "green hydrogen" for export — all things lobbyists falsely claim are necessary for the green transition.

We helped to sound the alarm when rural advocates, community groups and citizen scientists noticed a disturbing trend: while the government dragged its feet, industrial forestry companies appeared to be targeting areas communities have proposed for protection.

MARINE

The Marine Team attended the seventh International Marine Conservation Congress, sharing our work on community-led marine planning and protection in Gros Morne and our work at international fisheries management bodies to advance compliance with shark conservation measures.

We played a critical role in negotiations at the International Commission for the Conservation of Atlantic Tunas. This year, led by Canadian scientists, a new management procedure for North Atlantic Swordfish was adopted and gives Canada a fair portion of swordfish catches. With our coalition partners, we built an unprecedented number of supporting countries (43!) who proposed a measure requiring that all sharks caught are brought from boat to market with their fins naturally attached. This is an important rule for ensuring sustainable harvest and compliance.

It was an exciting fall for our Kelp Kurious team as we worked on growing new kelp seedlings, planting out lines of seedlings for businesses to create new seaweed products and for our partners researching nutrients and growing techniques. In addition to sugar kelp, we also planted horsetail kelp and worked with National Research Council to improve techniques. We hope to be the first in Atlantic Canada to have a successful harvest!

We held a series of workshops on how to build a nursery and reproduce kelp with eager sea farmers. We broadened our reach by partnering with the Confederacy of Mainland Mi'kmaq to host kelp workshops in Pictou Landing, Glooscap and Bear River, hopefully turning a few more people from Kelp Kurious to Kelp Serious.



PHOTO: Sara Farias



TRANSPORTATION

Each season brings a different kind of busy for the Transportation Team. These last months have been spent wrapping up funding reports and building new proposals to keep pace with the demand for accessible and safe transportation options. The team's annual two-day retreat was spent reflecting on the wins and challenges and building out plans and strategies for 2025.

We held successful active transportation events for Nova Scotia schools, with over 8,000 students participating in our fall IWALK event and over 14,255 students across 66 schools participating in Winter Walk Day this February.

We led successful youth mobility audit sessions with Amherst Rural High School and engaged youth in Baddeck to provide input on their Core AT Network Design.

We launched our road safety campaign with the goal of getting the Traffic Safety Act proclaimed and photo radar actualized in Nova Scotia to help reduce avoidable collisions and deaths.

For the second consecutive year, we offered a series of bike maintenance and repair workshops for individuals identifying as women, trans or non-binary through Bike Again's Shifting Gears sessions.

Sixteen participants enrolled for the full program. We were excited to add a new workshop series aimed at empowering African Nova Scotian youth that took place during March break, engaging 12 participants in a three-day bike maintenance workshop experience.

We continued to engage the communities of Spryfield, Eskasoni First Nation and New Glasgow to develop and implement interventions that support active and sustainable transportation as part of our new Local Activations program.

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Reflections from Sable Island:

Sable Island's unsheltered environment.

LIFE, LOSS AND SURVIVAL

by RHYL FRITH /// EAC Volunteer



I am writing from a crescent of sand on the far edge of the Continental Shelf, 300 kilometres from my home in Kjipuktuk/Halifax. I am an ebullient observer of the artistry of this seabed and subsoil that expresses far more than the obvious summation of sand, grass and sky. Sable Island is a remnant of glacial history – a realm where life and death intertwine with an inextricable sense of wilderness pervading every inch of the landscape. It is a harsh reality for the creatures who – by fate – call this place their home. Seal pups and horse foals are born into a world unsheltered from death and decay, far from the humans that seek to hide and flee from these realities. The young roam the beaches and the meadows among the still and silent bodies of their kind, a solemn and ubiquitous reminder that survival is for the strongest individuals. The healthy are round, sturdy and full of life – while the weak lie frail and hollow-eyed – their dying bodies betrayed by nature's indifference.

By now, I have covered nearly the entirety of the island on foot, noticing contrasts in light and dark, young and aging, life and death every step of the way. I sit in the grass watching a heartbroken mare lay quietly beside her dying foal while gulls scream overhead, waves crash along the shore and other horses graze nearby, inattentive to her pain. I watch a courting pair of Ipswich sparrows dance gracefully around each other, twirling above the mist-covered heath, full of life and hope for a future. I hear hungry peeps from day-old gull chicks calling to their parents for food, I see seal pups with uncoordinated bodies do their best to scramble out of the way of my approaching footsteps while stallions stand guard over their herd, protecting their foals. I see countless species of birds seeking a resting place on their migratory path across the Atlantic Ocean, many of them lost in this land far from their natural habitats, blown off course in relentless winds.

As I pass by the remnants of sea creatures and shipwrecks that the tides lay to rest on the banks of Sable Island, I contemplate the stories of life and loss buried beneath the sand, remaining forever untold. The windswept dunes and barren stretches are reminders of a world where survival demands loss and resilience as a form of companionship. Here, beauty resides not in what survives - but in the contemplation of survival itself. Here is life; unfiltered, uncompromising, unapologetic and achingly beautiful.

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The Ecology Action Centre's Hike-A-Thon is back!

Dust off your boots and fill your water bottles: our second annual **Hike-A-Thon fundraiser** is happening this June! Get out in nature for a great cause and help us reach our goal of \$15,000.

How it works:

- **Sign up and pledge** to raise \$100 or more in support of the Ecology Action Centre, and set a hiking goal.
- Fundraise in the lead-up to Hike-A-Thon week.
- Hike as much as you can across
 Mi'kma'ki/Nova Scotia during Hike A-Thon week to hit your goals!

Visit <u>ecologyaction.ca/hike-a-thon</u> to sign up or for more information.

Want to host your own Hike-A-Thon hike? Contact **brandy.rivers@ecologyaction.ca**.



PHOTO Simon Ryder-Burbidge

Want to know what it feels like to join thousands of other voices for change?

Become a member of the Ecology Action Centre today and find out!

How?

Call or email Laura Crovetto and Lis Landry of our membership team.

Call: 902 429 2202 ext. 178

Email: membership@ecologyaction.ca