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How Protected Areas Are Chosen 

Ko'wey Net "Biodiversity?" 

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The Ecology Action Centre is a member-based environmental charity in Nova Scotia. 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 focus of our Spring Issue is biodiversity. In the coming pages, you'll learn why biodiversity matters, how the biodiversity of a forest changes following a clearcut, how one Nova Scotia community is helping to protect biodiversity along their shores without sacrificing their traditional way of life, and more.

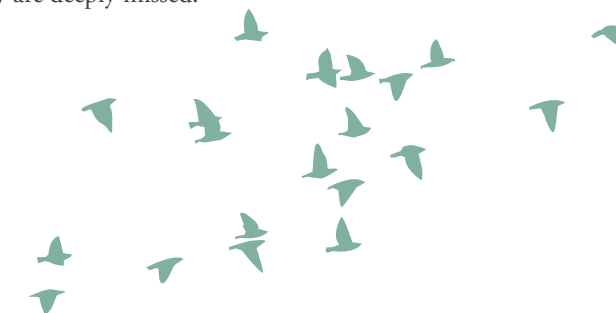
The topic of biodiversity is hard to approach without addressing loss, and even grief. As you'll learn in this issue, it is generally agreed among biologists that a biodiversity crisis or sixth mass extinction is underway.

In embracing the topic of loss in this issue, we wanted to also acknowledge the loss of three strong, influential voices in our environmental movement in 2017.

Rudy Haase was a true conservation hero in Nova Scotia. He was a pioneer in land conservation and environmental protection campaigns in Nova Scotia, Maine and as far away as Costa Rica. He was also a longtime member and patron of dozens of charitable organizations including the EAC. In his 90s, living in his small Chester farmhouse, and even sledding down the slope of the steep hill behind it, he was an inspiration.

Rhea Dawn Mahar was a well-known, passionate environmental consultant who dedicated her life to helping people, and particularly, children, connect with native species. For a time, she worked at the EAC. Her natural landscape playgrounds helped close the widening gap between nature and people.

Derek Davis was actively involved at the EAC for a decade, starting in 1996. His love of nature, including snails and freshwater mussels, and his practice of natural history lives on in many people working in the fields of science and conservation today. Rudy, Rhea, and Derek were environmentalists since before the term was used. We dedicate this issue to their memory. They are deeply missed.



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WHAT WILL YOUR LEGACY BE?

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"As long time proud supporters with passionate concerns for the environment, it was easy for us to decide to leave a gift to the EAC in our wills. We have long respected the work EAC does for the environment and know that its strong voice must continue into the future." - Karen Hollett & Fred Harrington

Why Biodiversity Matters

by JEANA MACLEOD /// EAC Staff

Biological diversity—or biodiversity—refers to the variation of life across the entire globe. It includes the number of species, genetic differences within each species, the variety of ecosystems in which these species live, and the interactions between species and the rest of the environment.

We are still learning about biodiversity on local and global scales, with discoveries of new species and important species interactions every year. We don't yet know exactly what's out there, though it is estimated that there are somewhere between two million and 100 million different species co-existing with us on our planet.¹

However, the fossil record prompts us to think bigger. Upwards of 50 billion species may have existed on Earth at varying points in history, and more than 98 per cent have disappeared.

PHOTO: Ryan Fisk

The Biodiversity Crisis

There have been five—the so-called Big Five—mass extinctions and many other smaller events over the history of our Earth. The last major extinction, in the end-Cretaceous period, exterminated not just the dinosaurs but 75 per cent of all species on earth.

Extinction is a natural phenomenon, occurring at a background rate of about one to five species per year. Scientists estimate that the planet is now losing species at 1,000 times the background rate, with literally dozens going extinct every day.² It is generally agreed among biologists that a biodiversity crisis or sixth mass extinction is underway. By the year 2100, nearly half of earth's current species could be gone.

Human activities that destroy natural habitats are driving the current biodiversity crisis, and we could lose a lot because of these actions.

“Scientists estimate that the planet is now losing species at 1,000 times the background rate, with literally dozens going extinct every day.”

Why Does Biodiversity Matter?

All species on our Earth are connected in the web of life and “rely on each other to survive and thrive.”³ Biodiversity within an area is a unique community of organisms interacting with the air, water, rocks, and soil to form an ecosystem. Microbes in soils, phytoplankton in oceans and top predators in the wilderness all interact in their ecosystem to regulate the state of the planet.

“Extinction of species may not result in a total collapse of our ecosystems—but the more we lose, the less productive, efficient, and healthy our environment will be. And the more at risk we put ourselves,” says Jeremy Hance, writer for *The Guardian* and author of *Life is Good: Conservation in an Age of Mass Extinction*.⁴

With loss of biodiversity, we progressively affect purification of air and water, climate stabilization, moderation of extreme weather events, nutrient cycling, formation of soils, pollination of plants, and endanger the provision of food, fuel, and shelter for all of Earth's inhabitants.

The importance of biodiversity extends far beyond the species for which we see direct benefit to us as food, fuel, medicines, or other uses. World Wildlife Fund has produced reports showing that, globally, we are using 25 per cent more natural resources than the planet can sustain, which puts habitats and species survival under severe pressure. By not protecting biodiversity, we rob ourselves and other species of choices for the future.



PHOTO: Samantha Stephens

Balsam fir (*Abies balsamea*) is a common tree species throughout the Maritimes.



PHOTO: Dave Coulson

Looking to spot local bird species at HaliBlitz, a biodiversity discovery event in fall 2017.

Initiatives to Protect Biodiversity

The UN Convention of Biological Diversity—of which Canada is a signatory—was introduced in 1992 to combat the global loss of biodiversity. At the 10th meeting of the Convention in Aichi Prefecture, Japan, a Strategic Plan for Biodiversity for the 2011-2020 period was adopted that included the Aichi Biodiversity Targets.

These 20 targets push all nations to reduce the direct pressures on biodiversity and to improve the status of biodiversity by protecting ecosystems, species and genetic diversity. Canada has committed that by 2020, at least 17 per cent of terrestrial and 10 per cent of coastal and marine areas should be conserved as protected areas.⁵ A review in *Science* Journal of biodiversity protections found that the rate at which mammals, birds, and amphibians have slid toward extinction would have been 20 per cent higher were it not for similar conservation efforts since the 1960s.²

Unfortunately, protected areas are often too small, and surrounding areas too heavily exploited, to retain all of their species. Governments are more likely to prioritize protection of areas that do not offer substantial benefit to human use. For example, forests that are difficult to access for resource extraction, or fishing grounds known to be less productive. Protected areas are important, but we also need to care about what happens on the landscape between them.

A Biodiversity Act for Nova Scotia

The Government of Nova Scotia recently committed to create a Biodiversity Act for our province. In doing so, we will be one of the few provinces with specific legislation around biodiversity. At the EAC we hope that the Biodiversity Act will go a step beyond the Species at Risk Act to encourage significant wildlife habitat protection and conserve species across the landscape before their survival is threatened.

“The protection and maintenance of biological diversity is a pillar of our work at EAC. It's core to our mission and has been part of our Wilderness work since we began,” says Raymond Plourde, the Wilderness Coordinator at the EAC. “We shouldn't wait until a species is almost gone before we care about its needs. Resource extraction and other threats to biodiversity are a big deal in Nova Scotia, and we need to be proactive about this.”

East Coast Environmental Law Executive Director and Senior Lawyer, Lisa Mitchell, encourages legislation like this that provides accountability and clarity for all. “This is the chance for government and citizens to make a commitment in regard to the future of the province by setting goals for biodiversity conservation,” says Mitchell, “If we don't put it on paper, we have no authority to enforce it.”

Mitchell also emphasized the need for public involvement in creation of our Biodiversity Act. Consultations are an opportunity for education and awareness around biodiversity and its importance to Nova Scotia and beyond.

Biodiversity underpins the health of the planet and has a direct impact on all our lives. Whether we are one of two million or 100 million species cohabiting this Earth, it's about time we learn to share the air, water, and land.

¹ Convention on Biological Diversity. “Strategic Plan for Biodiversity 2011-2020.” United National Environment Programme. cbd.int/sp/

² Pimm, S.L. et al. 2014. “The Biodiversity of Species and their Rates of Extinction, Distribution, and Protection.” *Science* 344, no. 6187 (February). doi.org/10.1126/science.1246752

³ WWF Global. “Biodiversity: Why Variety in Nature is so Vital.” 2017. World Wildlife Fund for Nature wwf.panda.org/about_our_earth/biodiversity/

⁴ Hance, Jeremy. 2018. “Could Biodiversity Destruction Lead to a Global Tipping Point?” *The Guardian*, January 16, 2018. theguardian.com/environment/radical-conservation/2018/jan/16/biodiversity-extinction-tipping-point-planetary-boundary

⁵ BiodivCanada. 2017. “2020 Biodiversity Goals and Targets for Canada.” Government of Canada. biodivcanada.ca

Jeana MacLeod is part of the Wilderness team at Ecology Action Centre, working to connect people in NS with biodiversity in our parks, protected areas, and other nature spaces.

Charting a New Path

HOW THE EASTERN SHORE IS TAKING A COMMUNITY APPROACH TO MARINE PROTECTION

by TRAVIS ATEN // EAC Staff

PHOTOS:
Nick Hawkins

The Facts

Stretching over 150 km of Nova Scotia's coastline, a section of the Eastern Shore comprised of communities from Musquodoboit Harbour to Sherbrooke are working to ensure a sustainable future for their communities. Faced with economic and demographic decline, the Eastern Shore community is taking an active role in directing their future. Armed with an interest in preserving access to traditional natural resources and conservation, the community is working together to explore innovative economic models of development, maintain lucrative near-shore fisheries, and establish new values to guide their course. In doing this, the Eastern Shore is striving to maintain a sense of empowerment, pride in their identity, and ensure a bright and sustainable future.

This mindset is not new to the Eastern Shore. Over the past two decades, local communities have worked collaboratively to protect their environment and their livelihoods. They have rallied together to prevent open-net pen aquaculture and taken action to protect over 374 islands off the coast through the Nature Trust's 100 Wild Islands Legacy Campaign.

The community now faces a new challenge. Recently, Fisheries and Oceans Canada announced the Eastern Shore as an area of interest for a marine protected area (MPA). In order for Canada to meet its international targets under the Sustainable Development Goals and the Aichi Targets, the Federal Government has committed to formally protect at least ten percent of its marine and coastal environments. Close to eight per cent of Canada's ocean environment has been protected, but many of these areas are offshore. In order for Canada's protected areas to accurately represent our diverse ecosystems, more coastal areas will need to be protected.

In many ways, the Eastern Shore is an attractive area for MPA designation. It represents a unique coastal area consisting of an archipelago of over 500 islands that provide critical habitat for many endangered species, including atlantic salmon and several bird species. Furthermore, the Eastern Shore provides important habitat for haddock, cod, and hake and hosts several other important habitats like eel grass, salt marsh and kelp beds that support numerous coastal species.

Colourful seaweeds decorate the intertidal zone around the Eastern Shore islands.

Understandably, the potential for the Eastern Shore to be designated as an MPA has been met with mixed feelings from the community. Many fishers fear that such a designation will restrict their access to the area and threaten their livelihoods. Others see this as an opportunity to build on the tourism plans for the terrestrial protected areas and the 100 Wild Islands.

Sandy Moser is a resident of the Eastern Shore and member of the Sheet Harbour & Area Chamber of Commerce and Civic Affairs. She says that the Eastern Shore has suffered a steady decline of industries, economic growth and population over the past few decades. "The lobster fishery has become a viable industry which needs to be protected," Moser says. Moser notes that a tourism strategy is being developed that highlights "the pristine waters" of the Eastern Shore. "This area offers a tourism experience like none other in North America, which has become possible due to the conservation efforts of fisherman, the community and partners," Moser says.

In light of these complexities, the community is advocating for a community-based approach to marine protection, where they will be actively involved in the creation, design, management, and monitoring of an MPA and where traditional use of the area by locals is maintained. A bottom-up approach to MPAs is relatively new in the Maritimes, and the Eastern Shore could be an opportunity to transform the MPA process in Canada into one where communities work collaboratively with government to ensure the sustainable management of their natural resources.

Now that the Eastern Shore has announced as an area of interest, individuals within the community and community groups such as the Chamber of Commerce, the Association for the Preservation of the Eastern Shore, Eastern Shore Forest Watch Association, Eastern Shore Protective Fishermen's Association, the Wild Islands Tourism Advancement Partnership, lobster producers, and aquaculture groups will continue to engage with organizations like the EAC, as well as DFO, to ensure that if an MPA is designated, it will have been achieved through a community process where the community has a major say in how their ocean area is managed.

Aerial view of Wolfe's Island, part of the Eastern Shore archipelago of Nova Scotia.

An Opportunity

The current approach to MPAs is relatively top-down. Typically, either government identifies and establishes areas for protection or areas are put forward for protection by large industry players, such as oil and gas, leading to little trust in the government from fishers. In addition, coastal fishers are reluctant to support protection of areas that have been traditional fishing grounds. A community-based approach can act as a potential solution to these perceptions and realities, and ensure that broad community engagement and support is achieved.

A growing body of literature and place-based research suggests that a community-based approach can lead to more successful MPAs from economic and sociocultural perspectives, while still achieving conservation goals. A bottom-up approach also empowers local communities to assume greater responsibility for coastal marine resources, either through their own or through collaborative management arrangements with government. Examples of successful community-based MPAs can be found all over the world—from Africa, South America, Europe and South-East Asia. It is time for Canada to adopt a similar approach, and this can start with the Eastern Shore.

The Eastern Shore presents a unique opportunity as they chart a path forward to achieve a balance between the need for resource-based jobs and protecting the environment that provides these jobs in the first place. Pursuing a community-based approach to MPAs could lead to a win-win-win situation for the Federal Government,

TAKE ACTION

Interested in learning more about how communities on the Eastern Shore have worked together to overcome challenges and move forward in a sustainable manner? Check out the panel discussion at the CCRN Conference from May 28-30! Find out more at: communityconservation.net/communities-conservation-livelihoods-conference/

The Eastern Shore archipelago is made up of over 500 islands that contain every habitat that can be found along the Atlantic coast of Nova Scotia.

fishers, and the community. With such a natural and unique marine environment, and the community's willingness to work together to create a sustainable future for the Eastern Shore, the right ingredients are there to establish a new approach to marine protection in Canada and fully engage communities in the creation, design, and management of marine protected areas.

WHAT IS A MARINE PROTECTED AREA (MPA)?

- Areas in the ocean established to protect ecosystems and sustain fisheries
- Designated in Canada by the Federal Government through the Oceans Act
- Span a range of habitats, including the open ocean, coastal areas, inter-tidal zones and estuaries
- Different regulations/restrictions exist within and between each MPA depending on the conservation objective(s)
- MPAs can help maintain biodiversity, mitigate the impacts of climate change, act as carbon sinks, increase fish stocks and preserve culture and livelihoods

BENEFITS OF COMMUNITY-BASED MPAS

- Ensuring that fisheries and conservation goals are both met
- Demonstration of higher compliance with regulations compared to MPAs that take a top-down approach
- Empowerment of community members and an increased sense of pride and ownership over MPAs
- Sustainable and vibrant coastal communities and livelihoods
- Establishment of trust and relationships between governments and communities
- Demonstration of high public participation leading to high public satisfaction
- Enable greater community understanding of MPAs and their process

Travis Aten is the Marine Conservation Officer at the Ecology Action Centre. At the EAC, Travis works on marine biodiversity conservation within Canadian and international waters.

Inside a Clearcut

by **SOREN BONDRUP-NIELSEN** /// EAC Volunteer

There is often disagreement when biodiversity is discussed in the context of clearcutting. Some say there are more species in young forests that grow up on former clearcuts than there were before, so biodiversity has increased. Others say that different species exist in older forests, so biodiversity has changed.

What really happens when clearcutting takes place on a landscape?

PHOTOS: Ray Plourde

To understand the impact of clearcutting, you need to know a little bit about biodiversity. The term biodiversity first appeared in 1985 but it was not until 1992 at the UN Earth Summit in Rio de Janeiro that the term was officially adopted by the Biodiversity Convention, of which Canada was one of the first signatories.

Biodiversity is a term that is not well understood and often used incorrectly. It's popularly thought of as the variation (diversity) of species in an area. But biodiversity is much more than the diversity of species. It's the combined diversity of genes within a species in a given area, the number of different species within an area, the variation of species that coexist within different areas, and the variation of these areas across landscapes. Thus, biodiversity is the variation at all levels of biological organization.

The biodiversity of a forested landscape is a function of topography, soil type, climate, past vegetation, time, and chance. Forested landscapes tend to be highly diverse and they vary over time. This is neither good nor bad. The species found in these diverse forested landscapes have adapted to these conditions and a certain harmony exists. But nature is not static, it's dynamic.

When a forest is harvested by clearcutting, all the trees are removed. The diverse habitats that existed for all kinds of wildlife are eliminated during this process. For the various animal species that lived there, they are either killed directly or face a slow death. Surviving species cannot just move elsewhere because elsewhere is already occupied. Clearcutting creates wildlife refuges.

In the years following a clearcut, a process called succession starts to take place. There may indeed be more species in a young forest than there would be if that forest were allowed to age. Initially fast growing shade intolerant species such as alders, white birch, poplars, red maple and balsam fir may become established on the area. Over time these are replaced by sugar maple, ash, yellow birch, red spruce and maybe hemlock—the slow growing shade tolerant species, depending on conditions. A myriad of organisms also become established in sequence depending on the habitat available. This is a natural progression.

The forestry industries often try to justify clearcutting by telling the public that they replant the area. However, generally only one or two conifer species are planted. These species are cloned (genetically identical), reducing biodiversity. Herbicide spraying often follows planting and this additionally reduces biodiversity by killing all broadleaved trees and plants. It has its own set of negative environmental effects.

The industrial forestry process is a short-term rotation cycle. Forests are often not allowed to get old. Early succession species dominate the landscape and late succession species are diminished.

Older ecosystems, such as old-growth forests often have species that are unique. They exist almost exclusively as a result of slow growth or poor ability to disperse (move) to their preferred habitats. Certain species of lichens, fungi and beetles are examples.

Commonly when we think of wildlife and forestry we think of “animals,” that is, mammals and birds, and maybe reptiles, amphibians, and fish. Generally we think of the vertebrates, but not the insects, worms, lichens, mosses, and fungi. The organisms in forest ecosystems most significant in the process of nutrient cycling—the process that makes the forest system sustainable—are insects and fungi. Insects and fungi recycle the nutrients in the forest back into the soil. Unfortunately, these essential organisms are the ones that we know the least about.

With few to no old-growth forests remaining, biodiversity across our landscape has been reduced.

When we clearcut an area we disrupt biodiversity patterns unique to that area. The result is that the sustainable processes maintaining the area will be lost. If we have already impacted the biodiversity of an area by clearcutting there is no telling what climate change will bring.

Soren Bondrup-Nielsen was a wildlife biologist for 27 years in the Department of Biology at Acadia University. He supervised over 70 students and taught a variety of courses the most significant one being Conservation Biology.

Trees left standing in a clearcut provide little for species that need dense forest habitat.

Clearcutting impacts species living in all aspects of the forest, including the soils and water.

Standing cavity trees are refuges for birds and small mammals.

Cloud Lake in Kings County is a protected representation of South Mountain Rolling Plain landscape. PHOTO: NS Dept. of Environment

How Protected Areas Are Chosen

by IAN JOHNSTON // EAC Volunteer

According to *Our Parks and Protected Areas: A Plan for Nova Scotia*, the government of Nova Scotia committed to protecting 12 per cent of Nova Scotia's land from exploitation and ecological harm by 2015. As of writing, 12.39 per cent is protected, with a new goal of 13 per cent indicated on provincial government websites. The Plan calls for the creation and expansion of provincial parks, wilderness areas, and nature reserves. It is an ongoing project, along with Canada's international commitment to protecting 17 per cent of terrestrial, and 10 per cent of marine territory by 2020.

Selection Criteria

Downtown Halifax would not make a particularly good nature reserve. So what would? According to Ray Plourde, Wilderness Coordinator at the EAC, there are a number of factors. Preserving representative samples of Nova Scotia's landscape is one criteria. Protecting rare and endangered species and their habitats is another. Ray explains it is "meant to save relatively large, relatively roadless, natural areas of habitat for wild creatures." The ideal is untouched, primordial wilderness. Unfortunately, Nova Scotia doesn't have much, if any, of that. Plourde estimates less than one half of a percent of Nova Scotia is old-growth forests, and these are only around one hundred years of age. True, mature old growth forest would be dominated by 400 to 600 year old trees. It is no wonder that species that once thrived in those forests are now struggling.

TAKE ACTION

Contact your MLA and ask them to prioritize completing the Plan and designate the remaining identified sites. From there, ask them to continue the designation of new and expanded protected areas. Find your MLA using the tool at: enstools.gov.ns.ca/edinfo2012/

The unfinished provincial *Plan* identifies the criteria used when selecting sites for protection, calling them the "6 R's":

REMOTE: large areas in a mostly natural state with few human impacts

REPRESENTATIVE: examples of the full spectrum of Nova Scotia's natural Landscapes

RICH: productive and diverse—where plant, lichen and animal life flourish

RARE: unique or rare landscapes, plants, or animals

RESTORATION: areas that fill important land gaps but need time to restore from past use

RE-CONNECTION: areas that provide important natural connections for plants and animals

Designation of new areas or expansion of existing protected sites often requires public input and consultation with Mi'kmaq communities. Private lands may also need to be acquired through purchase or trade.



Polletts Cove-Aspy Fault Wilderness Area in Cape Breton protects unique coastal habitat for endangered piping plover.



Initially designated as a game sanctuary, the Tobiatric Wilderness Area is now the largest protected area in the Maritimes offering significant biodiversity protection.

Designations

The *Plan* explains that there are three designations for protected areas in modern use. Each designation protects against resource extraction and development on protected land. Special considerations may be made for existing mineral rights, for maintenance or easement of existing roads, and necessary infrastructure like electric lines.

There are Provincial Parks that are only counted by the *Plan* when their main purpose is protecting nature. They still allow recreational use. Parks that mainly protect culturally or recreationally significant sites do not count toward protection goals.

Wilderness Areas are generally large habitat areas that are less accessible than parks, but still available for low-impact recreation. They are selected to encompass Nova Scotia's typical natural landscapes and biodiversity, and tend to be further from areas of human activity when possible.

Areas designated as Nature Reserves are the most protected and are smaller areas that protect rare or endangered species and their habitats. They are generally only accessed for research and educational purposes.

RESOURCES

- Aaron Beswick: thechronicleherald.ca/novascotia/1545009-nova-scotia%E2%80%99s-game-sanctuaries-protect-game-but-not-their-habitat
- Liscomb Game Sanctuary: novascotia.ca/just/regulations/regs/willicom.htm
- Interactive Map: novascotia.ca/parksandprotectedareas/plan/interactive-map/

Game Sanctuaries

The concept of protecting nature is not new, but it has historically been protected for human benefit. For example, in Nova Scotia we still have areas designated as game sanctuaries that have recently come into public scrutiny, as they surprisingly do not do much to conserve nature.

Around a hundred years ago, hunting was still a necessary source of food for many Nova Scotians. At the time, hunting was having a significant impact on many species. By the 1920s, there were few remaining moose or caribou. The beaver population was dwindling due to unrestrained trapping. The answer was the creation of game sanctuaries. The Liscomb, Tobiatric, Waverley and Chignecto Game Sanctuaries were all created in the 1920s and 1930s.

These sanctuaries forbade hunting and trapping. In theory, the endangered animals would shelter and breed in the safety of the sanctuary, and eventually their numbers would require the surplus to migrate to unprotected areas. Of course, this was all for the purpose of preserving species that were valued for their meat or pelts.

On February 12, 2018, Aaron Beswick of the *Chronicle Herald* reported that large areas of the Liscomb Game Sanctuary had been clear cut for timber and dug up for gold mining. The regulations for the sanctuary clearly define restrictions on hunting, but have no protections for the land itself or the habitat required by wildlife species. Resource extraction within the Sanctuaries is perfectly legal with normal permits.

The animals were protected, but their environment was not. Today we recognize that you cannot safeguard the former without concern for the latter. Game sanctuaries are not currently counted toward Nova Scotia's conservation goals. If they ever will, the regulations around game sanctuaries will need to be updated, or the sanctuaries could be designated as protected areas.

Conclusion

Nova Scotia has been a regional leader in its designation of protected areas for nature. But our progress in recent years seems to have stalled, with almost one hundred sites identified in the *Plan* still waiting for official protection designation from the provincial government.

Ecology, boardgames, Shakespeare, mental health, fantasy, and real estate are the unusual topics Ian Johnston writes about. He received an Master of Arts from The University of Western Ontario and a Master of Education from The University of Ottawa. He lives in Dartmouth, Nova Scotia.

Ko'wey Net "Biodiversity?"

by TUMA YOUNG // EAC Volunteer

Unama'kik:² Aklasie'iktuk Tan Teliwi'timiek Na "Biodiversity" na L'nuwiktuk Teliwi'su'wa'tasik Msit Mimajuaqn.³

In order to understand the concept of biodiversity from the L'nu⁴ perspective we first need to see it from that perspective. This can be a challenge because many expect that the L'nu perspective is reduced to a simplistic or animistic view of the world; that contemporary science does not really play a part in the L'nu view of biodiversity.

This outdated approach is changing but there are still challenges for L'nu allies, environmentalists and scientists. Often, despite evidence being presented that the L'nu people have a huge foundational scientific knowledge about biodiversity within Mi'kma'kik, it can be difficult for non-L'nu to accept this knowledge as equally valid as other disciplines.

What usually happens is the L'nu knowledge is given surface accommodation or tokenism but not really used as a factual knowledge base to bring biodiversity concerns to the conversation. The primary hurdle seems to be the misunderstanding of how the L'nuwitasimk⁵ about biodiversity is expressed. The question is really how non-L'nu can locate it in order to fully use it.

The short answer is that L'nuwitasimk is located in the language, the stories, the ceremonies, the rituals and the teachings that are embedded in all of these various expressions of L'nuwitasimk. These teachings have been passed down from countless generations to today.

The primary expression or location of L'nuwitasimk is in the language which is currently in danger of becoming extinct in Mi'kma'kik⁶. Once the language becomes extinct, the vast biodiversity knowledge that can be found within it will be also extinct. Thus, protection and conversation of biodiversity needs to include protection and promotion of L'nuwitasimk.⁷

In addition to the language, L'nu tell stories: stories about life, daily living, struggles, keen observances about what is happening in the world around them, about the fishes, the birds, the trees, the animals and other life forces. These stories are teaching stories. They teach about how to live and how to interact with the other life forces that share the same ecological spaces as the L'nu. The stories carry and teach the laws of proper behaviour while you are in another life forces Wi'kwom⁸. One must pay particular attention to the special areas where these Wikwomk intersect or where you enter or exit.

The life forces in each Wikwom shares space with other life forces, thus it is necessary to create respectful relationships with each other. L'nu share the Wikwom with plants, animals, fishes and other life forces just as plants and animals share their Wikwomk with fungi and bacteria. Air interconnects all of these Wikwomk and energizes all life forms. All of these life forms and forces are constantly seeking relationships and alliances with each other.



For example, often a large tree is seen as the entrance/exit to several different Wikwomk or the connection between them. A large kuow⁹ or a snawey¹⁰ can be seen as connecting the Wsitqamuk¹¹ Wikwom with the Musikisk¹² Wikwom. Along the route you can still find Apsi'kuomk¹³ (small lodges) where other life forms live. You can locate iketu (fungi), musikn (moss) and juji'ji'jk (insects) in these Apsi'kuomk.

Thus, when thinking about the question of what is biodiversity from the L'nu perspective, the first step is to think of it in terms of relationship among life forms and how they all connect with each other, including our own lives as humans. You can find the rules, protocols, and guiding principles that govern our interactions with other life forms in L'nuwitasimk. They have been expressed through the language, stories, songs, ceremonies, rituals, chants, and dances that have been passed down from past generations to us today. These foundational principles show us how to find, establish, maintain and renew these alliances and relationships with the other life forms within all of the various Wikwomk in Mi'kma'kik.

¹ What is Biodiversity?

² Land of the fog and refers to Cape Breton.

³ In English, what is called Biodiversity is what the L'nu (Mi'kmaq) refer to as all forms of life.

⁴ I use this term as this is the traditional name for my people, the Mi'kmaq. It means people of the same tongue. The addition of a "k" at the end denotes plural.

⁵ Thinking like a L'nu or the L'nu way of thinking.

⁶ The name for the traditional territory of the L'nu.

⁷ To speak L'nu or to speak Mi'kmaq.

⁸ Meaning a lodge, a traditional dwelling or a lodge.

⁹ Pinus strobus or white pine.

¹⁰ Acer saccharum or Sugar Maple.

¹¹ The Earth.

¹² The Sky.

¹³ Meaning small lodges or small Wikwomk.

Tuma Young is assistant professor of Indigenous Studies at Cape Breton University and ethnobotanist.



Hydrostone

In their own personal ways, Richard Nickerson's clients work hard to leave the world a better place than they found it. For many clients, this means investment decisions that support companies which act in accordance to that client's values. Richard is a socially responsible investor and he supports his clients in choosing high quality investments that align with their values.

LEARN MORE AT: assante.com/advisors/richardnickerson



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FOR MORE INFO: mec.ca/community



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LEARN MORE AT

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LEARN MORE AT: garrisonbrewing.com

Lights, Camera, Conservation

by **EMMA BOARDMAN** /// EAC Volunteer

It's clear a bold move is necessary to preserve biodiversity in Nova Scotia and beyond. As a solutions based organization, we came up with a pilot project to help species threatened by habitat loss while also entertaining the masses. Inspired by Celebrity Big Brother, we bought a house for a few endangered, threatened and rare Nova Scotian species. We'll keep cameras on them as they compete for the big prize of survival. To remind our contestants what is at stake, images of extinct species like the Great Auk and Sea Mink line the walls of the house.

Meet this season's cast!

Graham the Monarch Butterfly

Graham expects to win big in endurance competitions. It runs in his blood, coming from a species that makes a 2,000-5,000 km migration South every year. That's quite a feat for a species with an average individual lifespan of six to eight weeks (migrating generations of monarchs live longer, four to five months, spending the winter in a semi dormant state)! "My great, great, great grandparents flew to Nova Scotia earlier this year with high hopes for a better life. I don't want to let them down. I plan to make the most of my time in the house by educating the public about the dangers of habitat fragmentation and careless pesticide use. After all, I might spend my entire life here! I don't want it to all be in vain."



Herman the Piping Plover

This tiny ball of feathered charisma is a singing, dancing, triple threat of talent. His species was named for their beautiful singing voice. He is currently in rehearsals to perform an elaborate slow dance over a pebbly beach. "I got into it to impress the ladies," he says, "They go wild for it." Currently single, Herman would like to find a mate with whom to raise chicks and help him fight off deadly nest threats like leashless dogs and dumb humans driving over dunes. He hopes the special lady will then accompany him to his winter home in Mexico.

***Note: this is satire. Wildlife need wild homes and strong legislation to preserve their natural habitat.*

Bailey the Wrinkled Shingle Lichen

Bailey is going into the house already planning strategic alliances. They're hoping there will be a sturdy, mature red maple in the house with whom to align and possibly also eject spores onto in an unprecedented showmance. Otherwise, Bailey may make a shocking alliance with a large ruminant to take it to the end. "No one will suspect me to align with a species that eats people like me. But we're both on the same team against unsustainable forestry practices."



Pierre the Caribou

Pierre is the only out-of-province houseguest, visiting from Quebec to educate viewers about extirpation. Most people don't know Nova Scotia was home to a population of caribou until the early twentieth century. "I'm keeping it real for my calves. What happened to our Nova Scotian cousins, that could happen to any one of us," says Pierre.

Olivia the Blanding's Turtle

Olivia's strategy will be to lay low this season—specifically, she plans to spend most of her time underwater in the backyard pond. "I'm a loner at heart," she says. "I don't even like to spend time with my own children! I just laid my eggs in a nice sandy nest and left them to their own devices. No helicopter parenting here."



Lana the Lynx

Don't be fooled by this native Cape Bretoners spectacular beauty. Lana's original plan was to gradually stalk, then eat, some of the other houseguests. She was not happy when told this house will have a strict, 'no-killing-other-houseguests,' rule. "That's the cycle of life, baby," she protested in a pre-interview, sensuously licking some fresh hare blood off her paw. "You know what should be forbidden instead? Sloppy greenhouse gas emission regulation for starters. How are you powering this house anyway?"

Emma Boardman is a longtime E&A committee member.

Waves of Change

by **DANKER KOLIJN & VICTORIA FERNANDEZ** /// EAC Volunteers

Atlantic storms in early January 2018 generated significant storm surges throughout the Maritimes, including Nova Scotia's south shore, where several barrier beaches were breached and adjacent shoreline properties damaged and eroded. Public awareness about our current climate crisis is growing, and so is the awareness of the limitation of hard infrastructure to adapt to these changes. With the rate of climate change accelerating, we are seeing an increase in weather intensity and variability, in addition to rising sea levels.

To homeowners and municipalities, erosion of shoreline property is a significant concern. The immediate reaction of property owners and municipalities is to seek solutions that strengthen shoreline defenses. One solution is hard infrastructure that is designed to engineering guidelines and a careful balance between risks and tolerance to damage. When designed properly, methods such as concrete seawalls and revetments have been effective in protecting property from erosion and extreme wave agitation. However, hard infrastructure methods are often costly, visually unappealing and could lead to loss of important habitat. Further, they offer limited adaptability to the effects of climate change.

Alternatively, some coastal communities have begun taking their cues from nature. Consider areas exposed to mild or moderate waves and currents, such as the many inland lagoons and lakes behind barrier beaches along Nova Scotia's coastline. They create and sustain marshlands and natural vegetated shorelines that naturally bounce back from storm damage. This is a great example of natural resiliency. Mimicking these natural shorelines and marshlands provides an innovative approach to mitigating erosion damages while reducing habitat loss, protecting food supply, sustaining livelihood and adapting to the effect of climate change. This approach is known as

living shorelines and is becoming a growing trend in the Maritimes and Canada as a whole.

Living shorelines address loss of coastlines and beaches by providing protection in the form of strategically placed plants, stone, sand, or other living and non-living materials. The approach promotes natural coastal processes, regrowth of vegetation and better water quality. It also supports fish species, and provides opportunities for recreational activities. With successful implementation, such coastlines can better withstand impacts from storms and sea level rise, while improving the overall health of the surrounding ecosystem.

Compared to hard infrastructure, the living shorelines approach often lacks the parameters needed to quantify risks and probabilities, preferred by engineers, planners and municipalities. Soft, or green infrastructure, can be perceived by authorities and regulators as more difficult to manage, quantify and regulate according to building codes. There are only a few examples of successful living shorelines implementation in Canada thus far. But communities are beginning to ask their elected representatives to advocate for, and assist in, the integration of sustainable and progressive green shoreline infrastructure.



PHOTOS:
Jessica Sypher



Communities, along with authorities, regulators, and technical experts can take some steps to increase their understanding and comfort with the use of living shorelines in their community, while reducing the risks of improper implementation and damage to adjacent areas. This initial roadmap outlines key steps and approaches that can address these challenges and facilitate the implementation of greener solutions to foster healthy and resilient shores:

- **Community meetings:** Communities that are susceptible to shoreline erosion, or in need of restoration, can increase their understanding of living shorelines by holding community meetings that include technical experts, engineers, researchers, municipal planners, and citizens. By working together they can collectively identify and work to mitigate risks and uncertainties of a living shorelines project. With increased understanding and capacity, communities can engage with their local authorities to find a sustainable, robust and safe solution that works for the community and the environment.

- **Call in the professionals:** A qualified technical expert can help determine whether the living shoreline approach is suitable for a particular site, based on an analysis of the historical levels of wave agitation, the environmental conditions of the site and the needs of the community. Technical advice is necessary to identify the methods that could work best for a given area. For example, a technical expert could identify factors that cause erosion, the magnitude of such processes, the environmental and habitat conditions in the area, levels of sunlight exposure required for plant fauna to establish, the land uses and vulnerabilities of adjacent properties, sea level rise projections, interpretation of soil conditions, and the historical records of storm surges and currents.

LEARN MORE

- ecologyaction.ca/livingshorelines
- fisheries.noa.gov/insight/living-shorelines
- coastalzonecanada.org/cop/
- vims.edu/features/research/living-shorelines.php

- **Engage the community:** The construction of a living shoreline in a community provides an excellent opportunity to engage community members and volunteer groups throughout the planning, implementation, and maintenance phases of the project. Community participation can promote ownership over the project, valuable input, and an invested interest which encourages maintenance and upkeep.

- **Engage decision makers:** The implementation of a successful living shoreline also involves regulatory considerations from federal, provincial, and municipal levels of government. Permitting and environmental impact assessments could require the study of impacted aquatic plant and fish species, to name a few. In some instances, living shorelines will also require public support from individual land owners near impacted areas. Municipal and provincial support are also essential to securing reliable and sufficient funding for such projects.

- **Monitor your progress:** Post-construction monitoring plays an important role in transitioning a living shorelines concept to a long-term, robust, and resilient solution. Citizen science and monitoring programs can assist in tracking the effectiveness and resiliency of the solution to changing seasons. Collecting monitoring data can also assist with the design of future living shorelines solutions and act as a tool to advocate for the effectiveness of the solution within the community and the region.

Living shorelines offer opportunities for sustainability and adaptation that are valued traits in the search for shoreline protection alternatives.

Danker Kolijn is a coastal engineering with CBCL Limited and holds a position on the board of directors for the Coastal Zone Canada Association, as well as a special chair position for the CZCA Cold Regions Living Shorelines Community of Practice. Within Canada and abroad, Mr. Kolijn has a particular interest in building with nature solutions, and living shorelines integration in regional and local climate adaptation and infrastructure resiliency planning.

Victoria Fernandez is a coastal and water resources engineer with CBCL, a member of the Board of the Coastal Zone Canada Association and co-editor of their newsletter The Zone. Ms. Fernandez is keen to implement an integrated approach to flooding risk management, based on sustainability and adaptability. Her experience includes the design of living shorelines, river restoration and low impact development stormwater management.



The Birds are Back In Town

by **PATTI GREEN** // EAC Staff

Nova Scotia is home to approximately 478 species of birds. Many are migratory species that typically return from locations south of N.S. in the spring for breeding. These birds all occupy different habitats but the species highlighted in this edition you might encounter in your neighbourhood, nesting or passing through. While seemingly common, several of these birds are threatened by human intervention. This includes window strikes, and predation by house cats as many of the species nest or forage near the ground or are attracted to feeders. Birds require extra care, especially during nesting, breeding, and fledging season, when the young are especially vulnerable.

Let's welcome these long-distance travellers back to N.S.

● = Threatened*

**Assessment by Committee on the Status of Endangered Wildlife in Canada*



American Woodcock

Photo by **DAVID CURRIE**

ARRIVES IN MARCH

This bird has large dark eyes, allowing it to see while active in evening and night. The long bill is designed for probing the soft ground for earthworms and other invertebrates.



American Robin

Photo by **DAVID CURRIE**

ARRIVES IN LATE MARCH

Robins are considered the first sign of spring. They often sing late, and start early in the morning!



Common Nighthawk

Photo by **IAN MCLAREN**

ARRIVES IN MID-APRIL

Travelling 6000 km, the nighthawk lays eggs directly onto soil, sand, gravel or rocks—always on the ground where they may face predation.

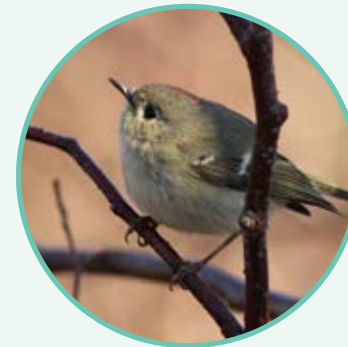


Yellow Bellied Sapsucker

Photo by **JUDY O'BRIEN**

RETURNS IN LATE APRIL

One of Nova Scotia's few migratory woodpeckers, these birds travels to West Indies/Central America for the winter. It drills evenly spaced "tap" holes to trigger a flow of sap to attract insects and then will return to it over and over again.



Ruby Crowned Kinglet

Photo by **DAVID CURRIE**

ARRIVES IN APRIL

A partial migrant, northern populations fly to southern states or Mexico to winter.



Barn Swallow

Photo by **DAVID CURRIE**

ARRIVES IN LATE APRIL TO MID-MAY

Nesting alongside barns and bridges, modernization of farming techniques may play a role in population declines of this threatened bird.



Grey Catbird

Photo by **DAVID CURRIE**

ARRIVES IN EARLY MAY

Actually named for its call, which mimics a "meow". These birds prefer to nest close to humans in low, dense shrubs making domestic cat predation a major cause of mortality for this species.

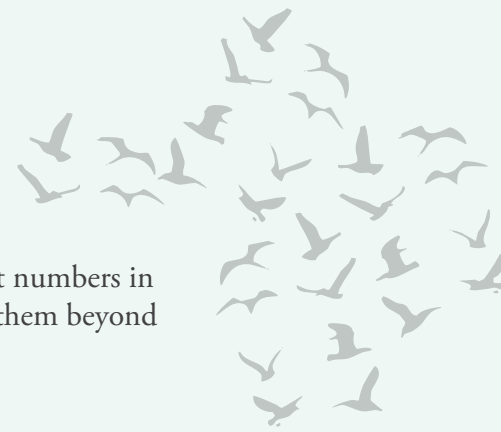


Indigo Bunting

Photo by RITA VIAU

ARRIVES IN MID-MAY

Indigo Buntings sometimes arrive in significant numbers in early Spring caused by strong winds that push them beyond their normal range south of Nova Scotia.



American Redstart

Photo by DAVID CURRIE

ARRIVES IN LATE MAY

These tiny warblers migrate 5,000-6,000 km to the tropics for the winter!



Canada Warbler

Photo by PETER BRANNON

ARRIVES IN LATE MAY

This bright little bird is in decline across Canada, and may be at additional risk of predation by cats due to their behaviour of nesting on, or close to, the ground.

RESOURCES

- Nova Scotia Bird Society: nsbirdsociety.ca
- Black Swamp Bird Observatory. Timing of Spring Migration: bsbo.org/timing-of-spring-migration.html
- Wildlife and Birds of Nova Scotia. Department of Natural Resources: novascotia.ca/natr/wildlife/wns/wns7e.asp
- Bird Conservation Strategy for Bird Conservation Region 14 and Marine Biogeographic Units 11 and 12 in Nova Scotia: Atlantic Northern Forest, Scotian Shelf and Bay of Fundy, and Gulf of St. Lawrence. Oct 2013. Environment Canada: publications.gc.ca/collections/collection_2014/ec/CW66-320-2-2012-eng.pdf
- Species at Risk Public Registry. Government of Canada: registrelep-sararegistry.gc.ca/sar/index/default_e.cfm

 = Threatened*

*Assessment by Committee on the Status of Endangered Wildlife in Canada

Patti Green is a Registered Veterinary Technician, cat owner, and Bird Conservation Outreach Coordinator for the Ecology Action Centre.

The Seasonal Gourmet

by CHAITI SETH // EAC Volunteer

Corsican Pie

This is a meal that looks like it involved sweating for hours in the kitchen without requiring the work! It is also amazingly versatile—use any combination of fresh seasonal greens that are plentifully available (think chard, beet greens, spinach, nettles). The greens pack a solid punch of nutrition and flavour. If you are a gardener or have a friend who grows zucchini, and understand what it means to be drowning in a flood of them, I highly recommend adding the zucchini flowers. Adapted from a recipe by Ottolenghi.



INGREDIENTS

- **4-6 cups** packed greens, coarsely chopped
- **3** celery stalks and leaves, thinly sliced
- **1 small** red onion, thinly sliced
- **4 cloves** garlic, thinly sliced
- **2 Tbsp.** mint leaves
- **2 Tbsp.** parsley
- **2 tsp.** sage
- **½ cup** feta, crumbled
- **½ cup** parmesan, finely grated
- **2 Tbsp.** pine nuts, toasted
- **1 Tbsp.** lime juice
- **300 g.** all-butter puff pastry
- **1** egg, lightly beaten
- Salt and pepper
- **6-7** zucchini flowers (optional)

DIRECTIONS

Heat a little olive oil in a large skillet over medium-high heat. Sauté the onion, celery and garlic until the onions are translucent. Add the coarsely chopped greens and cook for about 15 minutes until the greens are wilted. Finely chop the mint, parsley and sage and add to the greens. Cook for another 2-3 minutes. Remove from heat and stir in the feta, parmesan, toasted pine nuts, lime juice, salt and pepper. Leave aside to cool.

Preheat the oven to 425°F/ 220°C. Spread the puff pastry out on a baking tray. Spread the filling on the pastry, leaving about an inch on all sides. Bring the pastry up on the sides and fold and press the corners together firmly to seal. Brush the pastry with the beaten egg and place the zucchini flowers on top, if using. Bake for 30 minutes or until the pastry is golden and cooked on the bottom. Serve warm or at room temperature.

Chaiti Seth is an avid home gardener and cook who loves to grow and eat food! She works on helping build healthy and sustainable local food systems near Wolfville, Nova Scotia.

Action is our Middle Name

ENERGY

Leaving Fossil Fuels Behind, and Setting our Sights for the Green Economy

The Energy Action Team has had a busy winter. We have been fighting to ensure the fracking moratorium stays in place in Nova Scotia, and advocating for the phase-out of coal electricity. We've been advocating for new renewable energy development in Nova Scotia to meet federal commitments, including coordinating a letter to the Provincial Government on the need for climate jobs and new climate goals. We had 28 signatories representing organizations and individuals from organized labour, ENGOs, Indigenous communities, social justice and anti-poverty advocates, academia, and the private sector!

Our team delivered five Green Collar Career workshops to youth and New Canadians across Nova Scotia, we launched a campaign for new targets for climate action and climate justice in 2030, and have been assisting community groups and Mi'kmaq bands with community solar projects. We're looking forward to seeing what else 2018 brings!

MARINE

New Direction and Fresh Perspectives on Sustainable Seafood and Marine Protection

We teamed up with local nature photographer Nick Hawkins to host a stunning photo exhibit at the Halifax Central Library that offered an up close look at the diversity and natural beauty of Nova Scotia's marine and coastal environments. As a partner in SeaChoice, the Marine team celebrated the launch of a new website. It marks the public debut of SeaChoice's new direction for sustainable seafood, seeking improvements in priority fisheries and aquaculture operations, providing retailers with the tools to achieve their sustainable seafood purchasing goals, working towards improved transparency and traceability in the seafood supply chain, and finally ensuring that certification systems are credible and result in improvements in sustainability of fisheries and aquaculture. The Marine team continues to work with our partners in the High Seas Alliance and Deep Sea Conservation Coalition to achieve biodiversity protection in areas adjacent to Canada's seas.

COASTAL & WATER

On a Mission for Truth, Justice and Healthy Coasts & Waterways

The Coastal and Water Team has been on an undercover mission—revealing everything from crucial information to helping Nova Scotians deal with sea level rise (SLR) impacts in their communities, to truths about environmental justice, to a literal section of the Sawmill river! Working with excellent partners, our team hosted over 35 workshops across Atlantic Canada about SLR planning, launched an interactive map of community SLR stories, and a discussion toolkit to help communities start their own conversations. Check out sealevelrise.ca to connect. Our team has also been celebrating the launch of season two of *Shades of Green* (read about it on the back cover), and the liberation of the Sawmill River, now happily flowing above ground in downtown Dartmouth! We can practically hear her whispering "Water is Life" as she flows by. Thanks to everyone who has aided our mission. We look forward to continuing to uncover a future where coasts and waters are better understood and respected.

TRANSPORTATION

Moving Forward

We continue to celebrate and promote walking and wheeling of children and youth across NS through our School Travel Planning program. International Walk to School Month achieved the participation of over 11,000 students, while Winter Walk Day was celebrated by 60 schools/youth groups and nearly 9,000 students. Similarly, Making Tracks trained close to 3,000 children and youth in safe cycling, walking and skateboarding. Welcoming Wheels provided bicycles, safety equipment and safe cycling training for over 100 newcomers of all ages and aims to grow 50 per cent more in 2018-2019.

FOOD

Fostering Dialogue and Mobilizing Action

In November we met with MPs in Ottawa to discuss support for healthy school food across Canada. We've since joined the National Coalition for Healthy School Food that advocates for a universal healthy school food program. The Island Food Network of Cape Breton held a Farmer to Farmer Retreat in Baddeck for farmers and aspiring farmers to share their experiences and celebrate their contribution to the local food movement. Plans are in motion for the Cumberland Food Action Network to support the long term sustainability of community gardens and other food policy initiatives in the region. In New Brunswick we co-hosted *Good Food in Motion*, a day for community members to bring food actions to life.

WILDERNESS

Keep Protected Areas Protected, and Let's do Better on the Land Between Protected Areas Too

In October, we hosted a Forest Funeral with the Healthy Forest Coalition—over 650 people mourned the loss of NS's forests to unsustainable forestry practices. We have continued to contribute to the ongoing provincial Independent Review of Forest Practices. Meanwhile, we are combatting attacks on our provincial Protected Areas by business interests including the Mining Association of NS. We joined forces with Mi'kmaq communities and allies to protest potential mining on Kluscap Mountain (also known as Kelly's Mountain) in December, and continue to advocate for more protected areas in 2018. Northern Pulp's proposal to pipe their wastewater into the Northumberland Strait has us flabbergasted. Not only does this present risk to species who reside in the strait, it does nothing to address the continued air pollution or the destruction of our forests to feed the mill. We join our allies in Pictou County in demanding that the time is now to clean up ALL aspects of Northern Pulp's operations.

BUILT ENVIRONMENT

A Tale of Two City Campaigns

We've been busy at work championing HRM's upcoming Green Network Plan, and are happy to say that we've procured over 500 letters sent directly to Councillors and the Mayor asking for their support of this protected landscape. Meanwhile, we launched our Regional Main Streets Campaign on January 9th to an audience of nearly 50 people at a small business in Spryfield. This campaign calls for HRM to begin the planning framework for our suburban and rural areas by focusing on growth within their main streets, helping to improve access to transit, active transportation, walkability, small business potential, sustainability, and local pride. If you'd like to write a letter to your Councillor in support of the Green Network Plan, or to keep up-to-date on our campaigns, visit ourhrmalliance.ca/take-action/

Action in Verse

by **JOANNA BRENCHLEY** /// EAC Staff

I am a home. A corridor for the eels, the salmon, the gaspereaux.
Love is the way the marten drinks from my shore's, the warblers song
harmonizing with my waves.

I am many places at once, and each moment new.
The L'nu stay by my side.

Care is everywhere, feeding all of our bodies and songs.
My surface glistens in the sun, and I cry at the beauty of it all.

My banks are filled with noise, but without sounds of life.
Where are the deer? The eagles? The L'nu?
I no longer recognize myself. I have begun to resent the pace at which the
world transforms.

And still I let go, each moment new.
New animals have migrated here. There is deep pain in their eyes, and they
move on this land like they're separate from us.
I long for them to really see me, to feel like a home again.
My surface glistens in the sun, and I cry at the loneliness of it all.

I no longer stretch and run through this land as I please.
I have upset the new animals, and they have buried me in darkness.
Powerful still, and each moment new.
My waters yearn for all that we once carried.
The celebration, the birth, the mourning, the cycles.
I remember my surface glistening in the sun, and cry at the disruption of it all.

The darkness lifts and I dance with the breeze once again.
My shores feel contained, but my magic knows no limits.
Flowing towards wholeness, each moment new.
Does this mean the animals too are awakening?
That the time has come to heal old wounds?
My surface glistens in the sun, and I cry at the possibility of it all.

PHOTO: Joanna Brenchley



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Recent Successes

- Halifax Regional Council passed the **Integrated Mobility Plan** supporting more sustainable transportation options for HRM. EAC's transportation team, with other transportation advocacy groups, worked hard to ensure support for the plan that includes a protected downtown bicycle lane network, dedicated bus lanes, and a Complete Streets approach.
- On February 1st, **Shades of Green** launched a five episode podcast series exploring what environmental justice could mean here in unceded Mi'kmaq territory. Subscribe and/or find past episodes on iTunes, Stitcher, Soundcloud, or Wordpress.
- In February, **The Mobile Food Market** received a national award from the Institute of Public Administration of Canada/Deloitte Public Sector Leadership Awards in Toronto. The award recognizes organizations that have demonstrated outstanding leadership by taking bold steps to improve Canada through advancements in public administration and management. The Mobile Food Market won silver!
- **Blue Mountain Birch Cove Lakes Regional Park** is finally becoming a reality after over a decade of advocacy by EAC, Our HRM Alliance members, CPAWS and many others! In January, Halifax Regional Municipality announced purchase of their first parcel of land (197 acres!) towards creation of the long-awaited Regional Park, and the municipality continues its efforts to acquire additional lands.
- **A new proposed Fisheries Act** was tabled in February 2018, marking the first time it has been fully modernized since its inception in 1868. EAC's recommendations on the Act are largely reflected within the amendments.

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