WINGSPAN

WILD BIRD TRUST OF BRITISH COLUMBIA
MAPLEWOOD FLATS • FALL/WINTER 2019 • FREE

SPECIAL FEATURE

Climate Change and Birds

Devastation in the Skies

MASSIVE DECLINE IN BIRD POPULATIONS

CLIMATE JUSTICE, EDUCATION AND CHILDREN

Photography Tips

COAST SALISH CONSERVATION AND TEK

FREE INSIDE

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AT MAPLEWOOD FLATS

FEATURING BIRDS SPOTTED AT MAPLEWOOD FLATS

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Providing wild birds with sanctuary through ecological protection and restoration, and supporting communities with education, culture, and reconciliation programs.

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Welcome Message

This September, bird lovers across the globe were disturbed to learn of the data revealing the populations of 529 bird species in the U.S. and Canada dropped 29 percent between 1970 and 2018. In this issue of Wingspan, we bring you a double feature by our writer Chris Rose, including his interview with Adam Smith, one of the co-authors of that alarming study which was published in the respected journal Science. Rose brings these facts about climate change to *Wingspan* in two features and confirms what scientists say about much needing to be done, and quickly, to avert even greater losses. But they also say birds are resilient and can rebound, given the right conditions.

While we wish the recent federal election had featured a leaders' debate on climate change, in *Wingspan* we believe it is our responsibility to educate the conservation community on the most important issue of our time. Chris Rose also spoke with David Yarnold, president of the National Audubon Society, who was also shocked by the study. "This is a bird emergency with a clear message: the natural world humans depend on is being paved, logged, eroded and polluted. You don't need to look hard for the metaphor: birds are the canaries in the coal mine that is the Earth's future," Yarnold told *Wingspan*.

Look for hopeful work that must be done to protect bird habitat across British Columbia. The Wild Bird Trust encourages our readers from wherever you are reading this issue to send us updates on your work promoting biodiversity and defending wild bird habitat. As BC's leading birding magazine we want to do more and that includes offering *Wingspan* as a service to our readers to share your good work to defend birds.

The Truth & Reconciliation Commission has challenged all of us to recognize Canada's colonial past that created so much harm to Indigenous communities. The effects of habitat loss and displacement of Indigenous populations has gone hand-in-hand for the past century as western science and industrial progress was deemed of higher value than the Indigenous communities who have stewarded wild bird habitat for millenia.

The Conservation Area at Maplewood Flats is a perfect example of this destruction, as we have spent the past 27 years restoring some biodiversity to formerly rich mudflats

ecology. Most recently we have commenced a process of apology to the adjacent Tsleil-Waututh Nation who stewarded this area since the last ice age. The words of Elder Iggy George and (former WBT Board member) Hillary Hyland can be found in this issue as they comment on climate change and the local lands and waters.

If you have been at the Flats recently, you will have seen the work underway for the Maplewood Marine Restoration Project which is repairing the formerly industrialized marine landscape. The WBT Board is continuing to discuss with the Vancouver Fraser Port Authority regarding how best to finish the $12M project to ensure all parties' objectives are met through this restoration effort.

In this *Wingspan*, there are more stories told from the perspective of North Shore elementary school children who tour Maplewood Flats. We know our readers share our delight and hopefulness when we witness children learning about nature inside the Corrigan Nature House. These 48-pages are filled with examples of our many special educational and cultural programs which our members make happen through their donations of time and money to our charitable work. A big shout out to our volunteers who do the work of habitat restoration in the summer heat and the rainy winter months. Do send an email to volunteer@wildbirdtrust.org to learn more.

Our AGM is coming soon on November 30 and we hope to see you for a fun and educational day (and the door prizes!) We have a special keynote address by SFU's Dr. Evelyn Pinkerton who will inspire us to consider the future of Maplewood Flats and collaborative conservation work needed to confront climate change. Make a day of it as we host several birding and conservation groups to discuss research strategies and the health of Burrard Inlet. Bring $20 to pick up our spectacular 2020 Coast Salish Birds calendar - as they make a great holiday gift!

We would like to thank our outgoing board members for their very positive and significant contribution of countless hours. Deepest appreciation to Tamiko Suzuki, Dan Straker, Gayle Robinson for helping us build an organisation that is based on participatory democratic principles. We look forward to the contributions of our new Board members as we continue to grow the Wild Bird Trust. In just four years our annual budget will have doubled to a sustainable level, enabling us to activate the Corrigan Nature House with education programs, hire inspiring summer staff, and increase our restoration efforts. Thank you to our donors to our summer 'Fill the Pond campaign,' to the Farmer Family Foundation, and to folks making a charitable donation before the year is out. It is easy to make a donation on our secure website at www.wildbirdtrust.org. Our online @MaplewoodFlats work has also grown with more than 1000 Facebook followers, 786 on Instagram and almost 300 on Twitter.

On behalf of the Board we want to thank you for taking the time to read Wingspan and share it with family and friends. Working together allows us to share hope that much good work can be done to restore nature, and build collaborative partnerships to defend wild birds. As our feature on climate change reveals, we can not do this work alone, and much depends on our actions.

Jude Grass, Vice President
Irwin Oostindie, President

Ocean Hyland with Soaring Eagle Nature School field trip.
Photo by Lianne Payne

Cedar Workshop - weaving bottom.
Photo by Maddie Edmonds

Cedar Workshop.
Photo by Maddie Edmonds

Restoration - Chloe checking barrier on Iris.
Photo by Maddie Edmonds

M'Girl at 13th Osprey Festival.
Photo by Gloria Newen Qananchiri

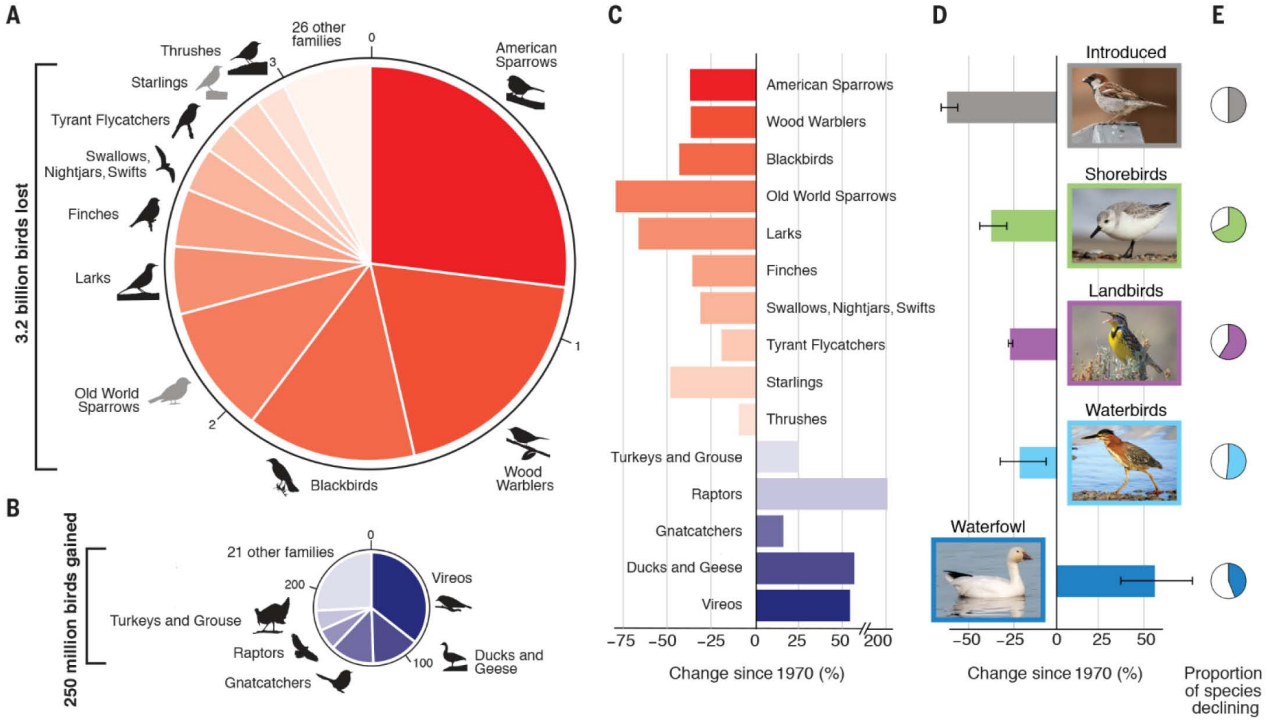
Marina tabling for Help FIll the Pond. Photo by Lianne Payne

Monthly bird surveys. Photo by Maddie Edmonds

At the Saltmarsh - Al Grass Nature Walk. Photo by Maddie Edmonds

Senaqwila SFU place-based ed class LP. Photo by Lianne Payne

Senaquila Plant Walk. Photo by Maddie Edmonds



Gains and losses across the North American avifauna over the last half century.
Source: K. V. Rosenberg et al., Science 10.1126/science.aaw1313 (2019).

Devastation in the Skies

Confirming a huge decline in bird populations over the past five decades, scientists say much needs to be done, and quickly, to avert even greater losses. But they also say birds are resilient and can rebound, given the right conditions.

BY CHRIS ROSE

When Adam Smith first saw the results of a massive study on declining bird populations in the U.S. and Canada, he was sure he had made some sort of terrible mistake.

He simply could not believe what his computer was showing: a drop of three billion breeding birds since 1970, three billion of the estimated total 10 billion birds throughout the U.S. and Canada.

But after checking various factors, it became clear there was no error, said Smith, senior biostatistician for Canadian Wildlife Service, Environment and Climate Change Canada.

Smith was one of the co-authors of the alarming study published Sept. 19, 2019 in the respected journal Science, which revealed the populations of 529 bird species in the U.S. and Canada dropped 29 percent between 1970 and 2018.

"I was the analytical computational work horse," Smith told the Wild Bird Trust in an interview from Ottawa. "The three-billion [bird decline] figure was generated on my computer."

"My initial reaction was one of shock and perhaps despair," he said. "I think it's striking that there has been this extreme change…across an entire continent in less than the span of a human lifetime."

Snowy Owl. Photo: DeborahJohnston/Audubon Photography Awards

Red-headedWoodpecker. Photo: Gary Robinette/Audubon Photography Awards

Described as the most comprehensive bird survey ever conducted in the two nations, the report also noted that the passage of migrating birds in the countries declined 13 percent between 2007 and 2017.

The study was conducted by Cornell University, American Bird Conservancy, Environment and Climate Change Canada, United States Geological Survey, Bird Conservancy of the Rockies, and Smithsonian Conservation Biology Institute.

Ken Rosenberg, the first author of the study and a conservation scientist at the Cornell University Laboratory of Ornithology, called the results staggering.

"This loss of bird abundance signals an urgent need to address threats to avert future avifaunal collapse and associated loss of ecosystem integrity, function and services," the study noted.

The findings raise fears that some familiar species could go the way of the Passenger Pigeon, a species once so abundant that its extinction in early 1900s seemed unthinkable.

"Extinction of the Passenger Pigeon (Ectopistes migratorius), once likely the most numerous bird on the planet, provides a poignant reminder that even abundant species can go extinct rapidly," the report notes.

It adds bird populations flying U.S. and Canadian skies have significantly decreased since 1970 in all habitats except for wetlands. Birds using grassland habitats were the most adversely affected, down about 53 percent, or more than 717 million breeding individuals.

The three bird habitats that occur in British Columbia include Boreal forests, Western forests and Arid lands. Across both countries, Boreal forest birds decreased by 33 percent, a loss of 500 million birds. Western forest birds declined by 29.5 percent, a loss of 140 million, and Arid lands populations dropped 17 percent, or almost 50 million birds.

"We were very surprised when we saw a net loss of three billion birds across all species," Rosenberg told the Wild Bird Trust. He said governments have to play a significant role in assisting bird populations because changes need to happen on a massive scale. Individuals, he added, will have to take a stand politically to pressure governments to strengthen environmental policies.

While the study findings are distressing, he noted that the bird loss is not irreversible. "We know that bird populations are resilient," Rosenberg said.

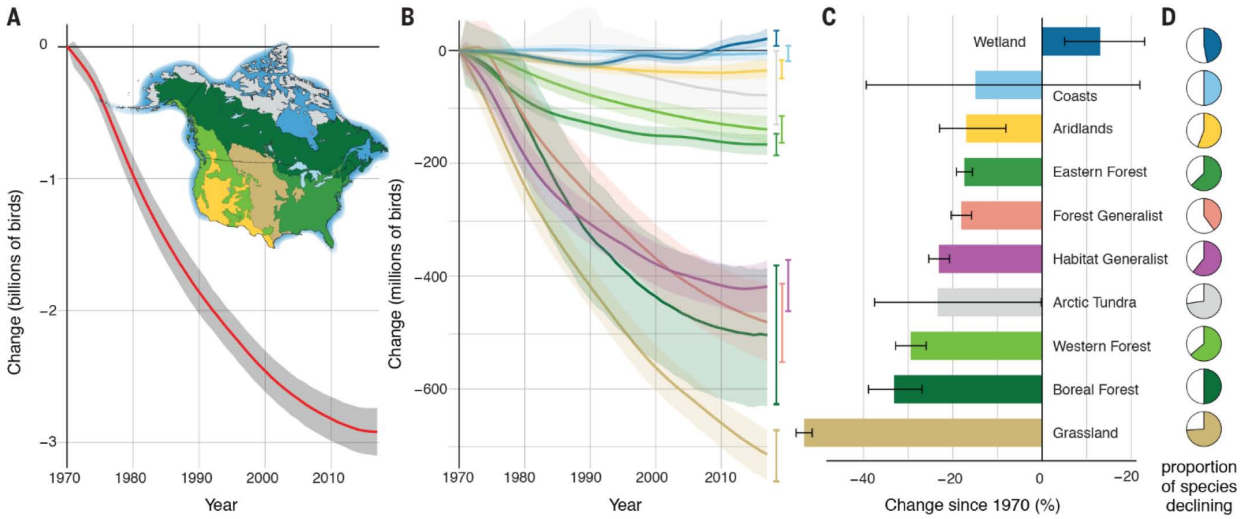
David Yarnold, president of the National Audubon Society, was also shocked by the study.

"This is a bird emergency with a clear message: the natural world humans depend on is being paved, logged, eroded and polluted. You don't need to look hard for the metaphor: birds are the canaries in the coal mine that is the Earth's future," Yarnold said.

"This is a full-blown crisis that requires political leadership as well as mass individual action," he added. "We have to act now to protect the places we know birds rely on."

Audubon said the bird declines are a result of human activity, including habitat loss, agriculture, urban development, predation from outdoor cats, collisions with buildings and windows, and widespread pesticide use.

"Birds are excellent indicators of environmental health. Severe declines in common birds, like those shown in this study, tell us something is wrong and underscores the need to become better stewards of the planet," said Nicole Michel, Audubon's senior quantitative ecologist.



Net population change in North American birds.
Source: K. V. Rosenberg et al., Science 10.1126/science.aaw1313 (2019).

A New York Times story about the study quoted Hillary Young, a conservation biologist at the University of California, Santa Barbara, saying that stopping the massive bird decline would require an immense effort including defending habitats, restricting chemicals and redesigning buildings.

"We're overusing the world, so it's affecting everything," Young said.

The study was published four months after the second State of Canada's Birds report, conducted by the North American Bird Conservation Initiative in Canada, under the leadership of Environment and Climate Change Canada, Bird Studies Canada, Nature Canada and Ducks Unlimited Canada.

The State of Canada's Birds report had many similar findings to the Science study, saying "human activities have resulted in dramatic changes to Canada's bird populations over the last 50 years."

Looking at 449 Canadian bird species, the report noted Canada has lost 40 percent to 60 percent of shorebird, grassland bird and aerial insectivore populations in the past five decades.

"The loss of important lands and waters, unsustainable agricultural practices, climate change and pollution are the most important causes of these declines," according to the NABCI-Canada.

"These threats affect birds on their Canadian breeding grounds, during their migration and on their wintering grounds, highlighting the need for strong international conservation action."

Smith said habitat loss and habitat degradation are the major factors that have driven the bird declines in the past five decades. "In the future, of course, climate change will almost certainly exacerbate and magnify the problem."

If there is any good news in the findings, he said, wetland birds have increased by almost 14 percent. "They are a guiding light to show us the way to help the rest of the fauna in North America." Raptors are another species that have increased, he added, because of bans on the disgraced pesticide DDT.

Smith noted international cooperation and broad systemic changes are the key to improving stressed bird populations. "The fact we have lost more than a quarter of the birds is profoundly important."

David Bradley, director of the B.C. office for Bird Studies Canada, also said he was shocked by the study findings.

"It's enough to shock anyone — three billion birds," Bradley said. "I mean, three billion is hard to fathom what it really means." Describing the study as a "wake-up call," he added both governments and citizens can do a number of things to help ailing bird populations.

Strong government legislation and regulations are vitally important in protecting the environment and managing land that birds depend on, Bradley said, while people can also make a number of small yet beneficial changes in their day-to-day lives.

Lindsey Ogston, a biologist and the environmental program manager for the Tsleil-Waututh Nation, said that while the recent Science study was disturbing, there are many signs indicating that different aspects of the larger ecosystem are also under attack.

"It's almost not that shocking anymore," she said. "It's not just the birds . . . These things don't just happen in a vacuum."

"This is a bird emergency with a clear message: the natural world humans depend on is being paved, logged, eroded and polluted. You don't need to look hard for the metaphor: birds are the canaries in the coal mine that is the Earth's future," Yarnold said.

Ogston said a holistic perspective needs to be brought to helping the natural world thrive, from insect populations to birds to animals that eat birds. "Apply that care to the whole system. That in the end is what's going to help the birds the most."

Rob Hope, the raptor care manager at OWL Orphaned Wildlife Rehabilitation Society in Delta, said he was not overly surprised at the Science study since most of the birds his organization helps are ailing because of human causes.

For example, he said sick eagles and vultures often need help because they have eaten bits of lead from decomposing animals that have been shot. Ailing owls, Hope added, have often eaten rat poison which contains extremely lethal components.

Increasing land development is also a problem, he said, as it reduces the size and number of open fields that many birds require. And in the forests, he noted, clearcutting logging also reduces bird habitat.

"These are all factors in the decline," Hope said. "Nature is sort of saying something to us: 'Something isn't right here'."

Just days before the startling Science study, the magazine released another report showing pesticides linked to global bee declines might also be negatively affecting migratory birds. The study abstract says "Neonicotinoids are neurotoxic insecticides widely used as seed treatments, but little is known of their effects on migrating birds that forage in agricultural areas."

The study noted that ingestion of imidacloprid by migrating white-crowned sparrows "caused a rapid reduction in food consumption, mass, and fat and significantly affected their probability of departure."

Migration delays, the report added, "can carry over to affect survival and reproduction; thus, these results confirm a link between sublethal pesticide exposure and adverse outcomes for migratory bird populations."

Chris Rose is a retired journalist living in North Vancouver.

7 Seven things we all can do to help birds

1. Make windows safer by installing screens or break up reflection by using film coatings or paint.

2. Keep cats indoors. Cats are estimated to kill more than 2.6 billion birds annually in the U.S. and Canada.

3. Reduce lawns and plant native species instead. There is huge potential to support wildlife by replacing lawns with native plantings.

4. Don't use pesticides. North America's most widely used insecticides, called neonicotinoids or "neonics," are lethal to birds and to the insects that birds consume.

5. Drink shade-grown coffee. Three-quarters of the world's coffee farms grow their plants in the sun, destroying forests that birds and other wildlife need for food and shelter. Shade-grown coffee preserves a forest canopy that helps migratory birds survive the winter.

6. Reduce your use of plastics. Plastic takes more than 400 years to degrade, and 91 percent of plastics created are not recycled. Studies show that at least 80 seabird species ingest plastic, mistaking it for food.

7. Watch birds and share what you see. You can enjoy birds while helping science and conservation by joining a bird club or taking part in a bird survey.

Source: #Bringbirdsback

Carbon Emissions Heating Up the Atmosphere Could Wipe Out Bird Populations

BY CHRIS ROSE

Climate change is threatening two-thirds of North America's birds with extinction, according to a new National Audubon Society report.

Published Oct. 10, 2019, Survival by Degrees: 389 Bird Species on the Brink forecasts a chilling future for birds because burning fossil fuels are rapidly increasing dangerous carbon emissions in the atmosphere.

The 68-page Audubon report came three weeks after a Science study showed approximately three billion breeding birds had disappeared from U.S. and Canadian skies since 1970, a drop of 29 percent.

"Two-thirds of America's birds are threatened with extinction from climate change, but keeping global temperatures down will help up to 76 percent of them," said David Yarnold, president of Audubon.

Declaring it "a bird emergency," Yarnold said there were hopeful aspects to the society's report. "But first, it'll break your heart if you care about birds and what they tell us about the ecosystems we share with them."

"A lot of people paid attention to [the Science report] that North America has lost nearly a third of its birds. This new data pivots forward and imagines an even more frightening future," Yarnold said. The society studied 604 North American bird species using 140 million bird records.

"Birds are important indicator species, because if an ecosystem is broken for birds, it is or soon will be for people too," said Brooke Bateman, the senior climate scientist for the Audubon Society.

"When I was a child, my grandmother introduced me to the Common Loons that lived on the lake at my grandparent's home in northern Wisconsin," Bateman said. "Those loons are what drive my work today and I can't imagine them leaving the U.S. entirely in summer but that's what we're facing if trends continue."

Bateman and other scientists also studied climate-related impacts on birds across the lower 48 states, including sea level rise, Great Lakes level changes, urbanization, cropland expansion, drought, extreme spring heat, fire, and heavy rain.

The report notes that scientists assessed the vulnerability of birds to climate change by using three different future temperature trajectories — increases in global mean temperature of 1.5 degrees Celsius, 2.0 degrees C, and 3.0 degrees C.

"The Intergovernmental Panel on Climate Change recommends limiting global mean temperature to less than 2.0°C (3.6°F) above pre-industrial levels, and, if possible, to 1.5°C (2.7°F)," the report says. "Currently, we are on track to surpass this limit, with approximately 1.0°C (0.8-1.2°C, or 1.8°F) of warming having already occurred and an expected temperature rise of at least 3.0°C (5.4°F) by 2100 under a conservative, business-as-usual trajectory."

In order to help the beleaguered birds, the Audubon Society suggests people reduce energy use at home. It also proposes that citizens lobby elected officials to support energy-saving policies and expand renewable energy projects like solar and wind power, reduce the amount of carbon released into the atmosphere, and explore innovative solutions that address every sector of the economy – like a fee on carbon.

People should also advocate for natural solutions from increasing wetlands along coasts and rivers that absorb soaking rains, to protecting forests and grasslands that are homes to birds and serve as carbon storage banks, and planting native plants everywhere to help birds adapt to climate change.

Photo credit for this page and next page by Stephen Price

The Essential Contradiction that Makes the Flats a Teaching Place for Climate Justice

BY STEPHEN PRICE

On a sunny day in early August 2018, Dr. Michael Markwick of Capilano University's School of Communication and I sat down at the Harmony Arts Festival before the music began for the day. We were there to try to figure out how to create better connections between the teaching happening in K-12 and the teaching happening at Capilano University. Traditionally, universities interacted with elementary and high school students as an added extracurricular outreach activity, very rarely did this include interaction inside the curriculum: we wondered: could the learning in an elementary class be amplified by connecting them to a university class and vice-versa?

There was, quite literally, a cloud hanging over our conversation. With wildfires raging in BC's Interior at the time, the sunny August day had taken on it's menacing orange hue just as it had the summer before. The smoke was palpable. The conversation turned away from the blue sky brainstorming and towards wondering: what impact would this have on the students starting our classes in a few short weeks?

Those orange skies created the impetus for what would be our teaching experiment: the Climate Justice Project. Our topic for the year was clear: Wildfires and Climate Change.

Dr. Markwick teaches a fourth year course in Crisis Communication at Capilano University. The crisis that would form the basis of their project work was Climate Change and Wildfires. The grade 5 curriculum includes resource economics, the scientific method, and government. The two classes would get a foundational lesson from experts

at the university, generate unanswered questions and then, as a group, take a real policy position and lobby the provincial government. Last year, their policy recommendations were taken by MLA Bowinn Ma to Premier Horgan.

This year, the Climate Justice Project has evolved: we added North Vancouver's Sherwood Elementary and changed the focus. Over the fall, we will study local and Indigenous government policy on adapting to climate change and sea level rise. This aligns with a public consultation planned by the Tsleil-Waututh Nation, the Port of Vancouver and the Municipalities of the North Shore that looks at the impact of climate change and sea level rise on planning over the next 100 years.

We began with a field trip to West Vancouver's municipal hall. There, we learned about what the local government can and can't do. We learned what the planners were predicting would be the impacts of up to 2m in sea level rise on the North Shore. We learned about our role as citizens in helping to shape policy.

We did this learning in council chambers. This was a space built for democracy; at its core a human construction to address social problems. But climate change is not only a social problem; our next trip would take us into nature and to CapU to learn from Indigenous voices about the importance of traditional knowledge in understanding this problem.

We arrived at the Maplewood Flats Nature Conservancy anticipating and began by pondering why this wasn't a government space – what purpose did charities and non-profits like the Conservancy face? What could they do that government could not? From there, we questioned the history of the land. We were on the traditional, unceded territories of the Tsleil Waututh. What would this land look like if the Indigenous government retained its control? How would planning decisions be different? On the flats, we looked for signs of nature, and for signs of disturbance – the constant interface between the social and the natural. Students watched, looked and listened. On our visit, the shoreline remediation project was well underway, depositing Fraser River Sand in the cove. Another sign of the ebb and flow on these tidal flats between human disturbance and human remediation efforts.

The most telling point, for me, was asking students to look across at the refinery and asking them what they thought that place might be. A factory of some kind, they agreed. Perhaps a water purification plant, to clean the harbour posited another. One of my students who likes to play the fanciful clown hoped aloud that it was a chocolate factory.

Not one of them knew until that moment, or even guessed until prompted, that this was the place where the gas that got them there was being refined. The place where the TMX pipeline that many had emerging opinions on terminated. This is the site of our physical and economic connection to the Athabasca tar sands.

That moment on the flats was the beginning of their efforts to generate questions that would be informed by resources created by their senior peers at Capilano U. The project is their first opportunity to grapple with the complexity of the issue of climate change, economic and government policy and the decisions made on their behalf. Over the coming month, they will not only be asked to learn, their learning will inform their policy position and attempt to influence those elected to make decisions.

As their teacher, the challenge presented to me by the Flats is its complex tension between nature and humanity and the implications for how we guide kids through that complexity. At the Flats, I was trying to connect them to nature and situate this place as a traditional territory of the Tsleil-Waututh nation, but also connect them to the facts of the resource economy represented so monumentally by the refinery and its pipeline. The point of this tension is driven home by the possibility that if the right policy choices aren't made as governments manage this tension, the ground beneath their feet could literally disappear.

Stephen Price is a Grade 4/5 teacher at Eagle Harbour Montessori in the West Vancouver School District. He is also the education columnist on CKNW's Lynda Steele Show. Find him on twitter @MrPriceBC.

Hillary Hyland and Iggy George

Tsleil-Waututh Perspectives on Climate Change

Hillary Hyland and Iggy George speeches from TWN Climate Summit 2018

IGGY: Everytime I get in front of a mic I want to sing: (to the tune of *Folsom Prison Blues*), "I hear the tankers coming. They are coming through the narrows. I don't know where they are going to crash. But I know it's some time soon."

HILARY: When I was asked to speak I was thinking of the different climate change impacts that I have witnessed myself. I thought I haven't lived long enough yet. But in my short 24 years, I started to think of the creeks and beaches that I used to visit. I thought of the salmon that I used to watch my Mom and Grandpa pull from the river and filet. I've seen all that be impacted by our changing climate. And I feel very privileged that I get to see both sides of the scientific world but also the cultural side. How our culture has been changing over the years. Yesterday, I asked my Uncle Iggy how can our culture sustain (through) climate change? How can we continue to pass on the skills of these teachings when I don't get to practice them everyday? I don't get to filet a fish every summer because of low salmon stocks. I don't get to visit the creeks that my grandma used to visit because they are all dried up now. What about all the forage fish that my grandma used to talk about that I haven't been able to because there are no sea beds or bull kelp beds. I am lucky to be able to talk to my Uncle Iggy to talk and be able to absorb that knowledge, because with changing times and technologies, as well. In the old times we used to orally pass down our traditions and now with technology that's

changing. We see that disconnect from our youth to our elders. Not as many of our youth are sitting down with our elders. I am very fortunate that our nation has been taking a big role in changing that. Our youth have been hosting a Climate Summit such as this. Being able to sit down with all of you and have your knowledge come to the table as well. I am very fortunate for that.

He (Uncle Iggy) is telling me right now, to push on. See, he is teaching me right now: "Keep pushing forward!" I am really happy to be here today, my younger sister has helped organize the Climate Ocean Summit as the Climate Action intern and my other sister Ocean Hyland has used her art as a way to be an activist. She is vocal. She is out there at the protests, and the demonstrations, on the megaphone encouraging the youth of today to not be discouraged by the climate change impacts and the big voices and big dogs on top. But to be able to stand strong and stand up for mother earth. To stand up for the values that we are all connected through the land and water, through the animals. Mother Earth gives to us what we need not what we want. She is a provider not a giver. Which means to me that she provides us but that we must provide as well. She doesn't just give to us. We need to respect that and we need to know that mother earth is living and breathing. The ocean is collapsing and expanding and it breathes. The trees breathe for us. We must protect them. I want to read from one of the speeches of my Great Grandpa Chief Dan George because I think it really captures why I am in the position I am in today:

> "The time will soon be here when my grandchild will long for the cry of a loon, the flash of a salmon, the whisper of spruce needles, or the screech of an eagle. But he will not make friends with any of these creatures and when his heart aches with longing, he will curse me. Have I done all I can to keep the air fresh? Have I cared enough about the water? Have I left the eagle to soar in freedom? And have I done everything I could to earn my grandchild's fondness?"

My great grandpa spoke that years and years ago, before my time, and the fact that it still holds true today makes me feel like I am on the right path. Makes me feel like I am following in his big footsteps. And it makes me feel really proud. I am proud that I got to go to Montreal to do my schooling but I am also proud to be able to come back and support my nation. And be part of the youth today that are really becoming part of the front line and main voices and activists that are out there today. All across the board not just environmental concerns. I am really glad to see my other family members out there as well.

Yesterday, I asked my Uncle Iggy how can our culture sustain (through) climate change? How can we continue to pass on the skills of these teachings when I don't get to practice them everyday? I don't get to filet a fish every summer because of low salmon stocks. I don't get to visit the creeks that my grandma used to visit because they are all dried up now.

IGGY: I'd first like to raise my hands to our youth for stepping up and helping with this conference. It makes me proud. I told them when they are doing their speech don't be saying "Umm. Umm. Umm." Laughter. Here I am because I am sorta stuck (Emotional) because I am so proud of them. I believe it's because they are learning their language. It gives them that much more confidence.

There's a joke between us because Hillary was telling a story and she says" you know, way back in the 90s" and I said "oh, yah!" (Laughter). Stewart Cohen (from Environment and Climate Change Canada) was talking about the rising tide. My grandson said that we have been married for 60 years and we built our house down on my Inlet in 1959. In 1959, the highest tide then was 13 feet. In the last few years we have gotten over 16 feet. That's a lot of water in 60 years. Their prediction is that the water will rise 1 metre by 2050 but I think it will be a little bit higher. I have a huge cedar stump in the front of my property. At high tide, the water comes up to the back of it. By 2050, I figure it is going to be floating and float away. I've lost about 25 to 30 feet off my western shore. The western shore was a huge boucle bank that the ancestors used for poultices and pottery and cooking utensils. And I have lost about 25 feet off the eastern side. Our pictures on the wall after the high tides in January are skewed. My house is still level but the ground is dropping, and the bank is dropping. The bank is sloping quite a ways down now. I heard about putting hard riprap against the beach to stop certain growth and insects that the fish need. What we have lost on our shore now. It's in the acres that we have lost off our little reserve

and that's not going to be replaced. There's a high ridge from Strathcona to Belcarra that when the tides come in, it swirls around through Port Moody, over to Strathcona, Dollarton, to Little Cates Park Whey Ah Wichen. At Cates Park it has lost about 100 feet off that point. Little Cates I'd say about 150 feet. And another point off the end of our reserve has lost about 100 feet off that too. All that silt ends up on our supposedly Maplewood Mudflats which is all cobblestone and shell, right now. The height of some of them gravel bars they're a good 15 feet or 20 feet high. All the silt has come around and the farthest navigational light at the point of the Mudflats. Up until the mid 80s you'd have to swim to the dolphin and climb up the ladder to the light. The last two years at zero tide or one tide you can just walk straight out the dolphin.

We GPSed the whole mudflats in 2007, or so. I'm really interested to do it again and compare. There was a marker that our uncles and my Dad put out in front of the old canoe shed for a starting pole. Up until the late 70s and early 80s, I'd have to wear hipwaders to go out and mark it, at a one or 2 foot tide. When we GPSed it in 2007 it was 35 feet high and dry. So all that silt has filled in on the mudflats there. I worked on a golf course all my life and one of the last jobs we did was out at Swanset Bay, we pumped 890 cubic yards of sand down river up to the golf course for sand to build on. My bucket list would be if we could take all that silt that washed up against the mudflats and put it back on the mudflats. Bring back the bullrush. Bring back the sea grass. And rehabilitate it close to how I remembered it by. That would help filter out the water. It would recircle. Just east of my (Dollarton Hwy) house there used to be a huge bull kelp bed. The heads were about that big. (gestures) The sheets were wider than this table and about twice as long. During the summer my mother worked for our grandmother who had 1000 chickens and my mother would gather eggs and feed the chickens. We had to do the dishes, do our chores. We just had a wood-burning stove so we had to prepare kindling and wood for the next day. After that we were on our own. So we would take the dugout and go fishing. Fishing for donny cod or sea bass amongst the kelp beds. If we didn't want fish we dug clams. If we didn't want clams we went and caught crabs. We fed ourselves and in doing so we actually gathered enough for our supper, for our parents supper. Ernie, the third oldest, he was last one I ever took fishing or digging clams. I've never been able to take my children and I won't be able to take my great grandchildren. But as Hillary was saying, they have the knowledge to know what was done and how it was done but will they get a chance to do it. In my heart, I would say yes, they will get a chance if we all work together, and accomplish a few of these things. They were talking about the acidity in the water and how the water absorbs the carbon. If we could get the kelp back, and what you call eel grass, I call seaweed - if we can get that back in there it would start the sea force would come back and absorb that carbon again.

My bucket list would be if we could take all that silt that washed up against the mudflats and put it back on the mudflats. Bring back the bullrush. Bring back the sea grass. And rehabilitate it close to how I remembered it by. That would help filter out the water.

In the inlet when dad was teaching me about the canoes, and about the currents, where the faster water was, it was easy back then. There was just one or one and half different ways the water was going around the inlet. Now the currents are going about 6 different ways. The younger people who are paddling are paddling in different water. There used to be so much seaweed at the old canoe shed that when the tide started dropping you couldn't paddle your dug out across it. Your paddle would get caught up in the seaweed. You would have to pull your way out and you would still get tangled out. Now, down in front of our place, I can pretty much count the seaweed. Our beach, we had a huge little neck clam bed. And my uncle and aunt next door had a huge one too. We just took what we needed, and it replenished itself and we never ran short. The soft-shell clam has taken over now. We used to have lots of cockles. My grandmother used to use the cockles for teething. My grandmother would give it to us and we would chew on it all night and still not get through it. When we'd go hunting the whole reserve would share on what we got.

Climate change is here and it's going to get a little bit worse until we all start working together. We can have all these studies, and agree and disagree, but we in the end, we have to come to consensus. We have to come together and say this is what we are going to do. We can't go hunting over here, somebody did something

Tsleil-Waututh youth representatives and allies met with Greta Thunburg to discuss shared concerns regarding climate change, and the ways that Indigenous science and laws are used to find solutions. October 25, 2019.

The younger people who are paddling are paddling in different water. There used to be so much seaweed at the old canoe shed that when the tide started dropping you couldn't paddle your dug out across it. Your paddle would get caught up in the seaweed. You would have to pull your way out and you would still get tangled out. Now, down in front of our place, I can pretty much count the seaweed.

wrong. What the old people did was always bury the entrails so the bear would come back to that place or the elk would come back to that place. If they left it open to rot sure the other animals and crows benefitted but that animal never came back to that spot again for years and years. I had 7 uncles and there were 7 different places in the inlet and up the arm that was their spot to hunt. If one of the uncles didn't get enough in his spot, he would go ask another uncle if he could get something from his spot. But he always asked. He could have just taken a deer from his brother's spot and told him he got it from another spot. But they were honest with each other. Can I hunt in your place. They would say sure. He always gave his brother a hind quarter to his brother for letting him hunt at his place and vice versa

Somewhere along the line the world got turned upside down. In the old days if you wanted to be the biggest chief on the coast you would give away more than whoever is challenging you. You're the bigger man because you give away more. The world is upside down now. The more you take supposedly you are the bigger man. But if you really think about it, are you really the bigger man? Or does it feel better when you share with everyone. Share your knowledge. Share your life. Share your love.

Photo by @anninvan

Integrating Traditional Ecological Knowledge (TEK) in Conservation Work

A Research Symposium from the Wild Bird Trust of BC

Saturday, Nov 30 10:30am-3:30pm

How do your research practices, education and conservation programs connect to reconciliation in Canada? We are inviting birders, conservationists, students, Indigenous scientists and Wild Bird Trust members to a day of learning about birds and conservation. Through a keynote address and panel discussion, we will share best practices and methods to integrate TEK in your conservation work. Are you curious about integrating Indigenous knowledge, but lack the models or organisational know-how to do this? Learn how to conduct an inventory about how your research and conservation work is in the way or out of the way of millenia of Indigenous stewardship practices here in BC. Through the symposium we hope to strengthen WBT habitat restoration and management policies, as well as encourage and support others to do this in our sector. Join us early for a nature walk, and hear our keynote on the nature of effective co-management agreements, including the role of TEK, and how they can achieve conservation?

KEYNOTE:

The role of comanagement and TEK in achieving conservation goals

Speaker: Dr. Evelyn Pinkerton, Resource & Environmental Management, SFU.

Dr. Pinkerton received her MAT at Harvard University and PhD at Brandeis University, and has played a key role in developing the theory and practice of power-sharing and stewardship through co-management agreements between Indigenous and settler communities. Dr. Pinkerton has conducted field research in fishing and forest-dependent communities up and down the west coast. She has been learning and developing models about when and how co-management is likely to arise and to endure.

TICKETS: teksymposium.eventbrite.ca
includes lunch, beverages, 1 year WBT digital membership. $20 regular, $15 Student, $5 existing WBT members.

SYMPOSIUM SCHEDULE

10AM	Optional Walk
10:30AM	Registration Opens
11AM	Symposium Keynote & Discussion: Dr. Evelyn Pinkerton
12NOON	Lunch served
12:15PM	Wild Bird Trust of BC AGM and motion on TEK
12:45PM	Panel 1: Integrating TEK in Conservation
2:00PM	Panel 2: Current Topics in Ornithological Research Protocols & Methods
3:00PM	Closing Discussion
(**OPTIONAL**)	Post-symposium reception at Maplewood Pub 3:30 pm – 5:00pm

3:30-5PM GREEN DRINKS
– Post-symposium reception at Maplewood Taphouse (1970 Spicer Rd, off Riverside Drive, east of Seymour River)

Let's talk green and unwind with new friends!

Spotlight: Sandhill Crane

Within the Lower Fraser, one of the last strongholds for the Sandhill Crane is found within the Pitt-Addington Wildlife Management area, part of the Katzie First Nation's lands. According to Katzie oral history, the Sandhill Crane is one of the most important animals in their culture and is highly revered, with the name for the crane being "haha´w" meaning "superior in everything."

Each year in March, thousands of Sandhill Cranes would stop over in their lands along the Pitt River and stage prior to moving north, and so the Katzie termed March the "month of the crane" or " li-´m□s."

Close to Sheridan Hill, Khaals (the creator) came upon the two sandhill-crane sisters, Swaneset's first wives, still digging up Arrowleaf potato. He asked them, 'Do you eat these potatoes that you dig up?'

'Yes, we have nothing else to eat.'

'Very well. You shall become birds.'

They laughed at him mockingly, but he added, 'You laugh, but now you shall fly, you shall become Sandhill Cranes. Henceforth, you shall roam over the meadows as you do now.' He raised his hand and transformed them into cranes.

So now cranes laugh and dance after they root up the ground, just as the two sisters laughed and danced when they dug up their Arrowhead potatoes.

— Extract from Suttles, W. 1955. Katzie ethnographic notes.

ABOUT THE ARTWORK

April White is a Haida artist who lives in Powell River is involved in conservation work, and uses her creative skills for those efforts. She is currently promoting ethics and Indigenous rights with herring fisheries on the coast. Her sandhill crane image reveals how life goes forward, with a frog going down the bird's gullet, a baby, and the continuation of life. For more artwork visit: www.aprilwhite.com

Sandhill Crane. Photo by John Lowman

The South Coastal Sandhill Crane Project

PROJECT OVERVIEW – MYLES LAMONT, TERRA FAUNA WILDLIFE SERVICES.

The South Coastal Sandhill Crane project is an initiative to obtain a better understanding of the highly unique and threatened population of Sandhill Cranes that inhabits the Fraser Valley and south coast portion of British Columbia.

This subpopulation is unique for several reasons:

It is the northernmost, non-migratory population of Sandhill Cranes anywhere in the world.

It has faced some of the most extensive habitat loss and degradation of any species within British Columbia.

The population has been facing incredible human-induced pressures since the early 1900's when most bogs and wetlands were drained and converted to agricultural or commercial use.

This subpopulation has never been formally surveyed to obtain a population estimate.

The genetic and subspecific status of this population remains largely unknown without further study.

CURRENT THREATS

A number of threats face the South Coastal population of Sandhill Cranes, these include:

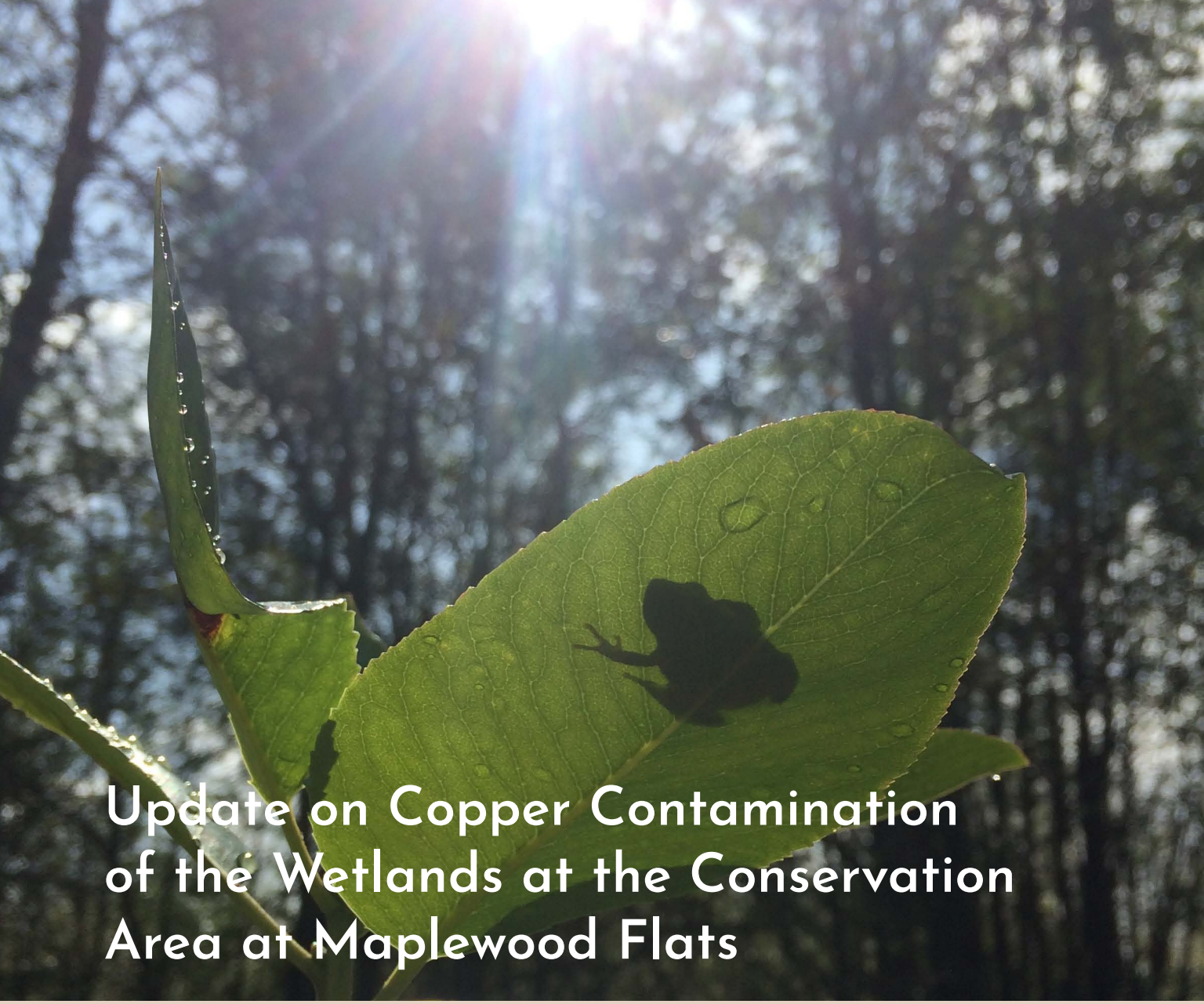
Loss and conversion of wetland habitats into agricultural or commercial, residential or industrial use. The Fraser Valley has lost nearly all of its original bog habitats except for a handful scattered throughout the Lower Fraser; those being Burns Bog, Langley Bog and the Pitt Polder.

Poor recruitment into the breeding population as a result of low chick survival.

Predation pressures due to increases in mammalian and avian predators such as coyotes, raccoons and Bald Eagles.

Injuries and deaths as a result of golf ball strikes for birds nesting or foraging on golf courses in the Fraser Valley. At least 5 adult birds and one chick are known to have been injured or killed as a direct result of foraging and occupying golf courses, particularly in Richmond. The near complete loss of original wetlands in the south coast has forced Sandhill Cranes to utilize these suboptimal landscapes which have proven to be highly dangerous.

To learn more about The South Coastal Sandhill Crane Project, visit www.terrafauna.ca/south-coast-sandhill-crane-project



Update on Copper Contamination of the Wetlands at the Conservation Area at Maplewood Flats

Photo by Maddie Edmonds

In the summer 2019 issue of Wingspan we reported on finding very high copper levels in water quality tests of the Conservation Area wetlands. At high levels, copper is toxic to life and amphibian surveys of the wetland system indicates the wetlands with high copper have no amphibian breeding. Just as the WBT began fundraising for resources to address the contamination, we learned that coincidentally, Environment Climate Change Canada was planning soil testing on the site.

ECCC leases the Maplewood Flats Conservation Area from the Vancouver Fraser Port Authority (Port) and then contracts the Wild Bird Trust to manage the conservation area on their behalf. ECCC are the agency that operate of the Pacific Environmental Science Centre (PESC), the research facility located at Maplewood Flats.

This ECCC Phase II Environmental Site Assessment (ESA) fieldwork is a result of a Phase I ESA that had been undertaken previously. This assessment looks at sites from a historical use perspective. The Phase I ESA identified that fill brought to the site in the past had the potential to impact soil and/or groundwater. After positive and productive discussions with the PESC, the Port, the WBT, and contractors, the Phase II ESA will include thorough testing of the groundwater well supply, the wetlands and adjacent soils. We are excited to be working collaboratively with ECCC on this issue. Visitors to the site over the winter may see a small drill rig operating off the trails, collecting samples for this research. This work brings us one step closer to finding the source of the water contamination.

Seed Planting Project Update

Photo by Chloe Hartley

BY CHLOE HARTLEY, B.ES, M .SC.

Maplewood Flats is one of very few natural spaces left along the industrialized shoreline of the north shore of Burrard Inlet, and unique in being the only conservation area on Burrard Inlet. The wetlands support a diversity of amphibian species including Northern Red-legged Frogs, nationally listed as a species of Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and provincially on the Blue List. The wetlands also support nesting marsh bird species including red-winged blackbird and marsh wrens, as well as breeding wood ducks and mergansers and a diversity migrating and over-wintering waterfowl in the spring, fall and winter.

RESTORATION PROJECTS FOR 2020

Along with ongoing site maintenance and planting days with schools and corporate groups, the WBT is planning some specific projects to target three restoration issues in the wetlands; 1) contamination of a wetland with high copper, 2) invasive species and, 3) loss of indigenous plant diversity. The WBT applied for funding from the Public Conservation Assistance Fund (PCAF) this spring and received a $10,000 grant to put towards these projects. PCAF provides small grants to organizations for conservation projects. Their funding comes from B.C. angling, hunting, trapping, and guiding licence surcharges.

Recently BCIT student researchers uncovered copper contamination in one section of the wetlands that exceeds British Columbia's Approved Water Quality Guidelines for Aquatic Life, Wildlife and Agriculture (Wingspan Spring 2019). This is the only portion of the wetlands that has had no evidence of amphibians breeding in three years of surveys. The source of the copper contamination is unknown. The WBT aim to use the PCAF funds to find the source of the contamination and explore remediation options.

Three invasive species will also be targeted in this restoration work: reed canary grass (Phalaris arundinacea), yellow flag-iris (Iris pseudacorus), and narrow-leaved cattail (Typha angustifolia). We will be trialing different treatments for these plants including applying a benthic barrier and a specific clipping prescription.

The third goal is to increase diversity and abundance of native plants on site and to this end we plan to propagate plants from seed collected on site to replant in the areas where the invasive species area removed. Late this summer we held a seed collection workshop with specialists from NATS Nursery and collected seeds from 10 rush, grass and sedge species. Further workshops are planned over the winter to propagate these seeds in the nursery and plant them out next fall.

These three projects have the potential to increase access to foraging, breeding, nesting, and cover resources for birds, amphibians and many other wildlife and insect species. For updates on the project visit wildbirdtrust.org, email us at habitat@wildbirdtrust.org or follow us on facebook @maplewoodflats

Neighbourhood Development Updates

Maplewood Marine Restoration Update

As evident by the crane moving sand from barges into the deep dredged tidal area south of the bridge at Osprey Point, the Maplewood Marine Restoration project is well underway. A project of the Vancouver Fraser Port Authority, it aims to restore mudflat and eelgrass habitat at Maplewood Flats as part of habitat banking/development offsetting program at the Port. Work consists of alternating phases of infilling and "holding" periods of marine salvage, to allow the sediment to settle. It is estimated that 38,000m3 of sand will be placed to ultimately raise the floor, which is intended to provide suitable conditions for marine vegetation to grow. Crews are working one 12-hour shift seven days a week, a schedule that is led by permits that ensure least risk time periods for fish and wildlife, and is also linked to the tidal cycle. Tsleil-Waututh Nation representatives are meeting monthly with crew members to ensure potential historical artifacts in the area are not disturbed. WBT is monitoring the progress, and is in contact with the Port. Members of the public may direct enquiries by email: habitat.enhancement@portvancouver.com or by phone 778-988-6180.

District of North Vancouver (DNV) Fire and Rescue Station

The District of North Vancouver (DNV) is considering revised site plans for the new Fire and Rescue Centre planned for construction in the forest north-west of the conservation area. The footprint of the firehall and parking lot may be shifted south on the lot. The new plan would reduce fragmentation of the forest and protect the buffer for the wetland located immediately west of the site. The DNV is in discussion with engineers and the Wild Bird Trust over stormwater drainage plans and their potential effect on the Conservation Area. The WBT strongly believes that any new development must be held to the highest standard in the context of the cumulative loss of habitat in the Maplewood neighbourhood. The WBT looks forward to hearing more from the DNV engineering department and consulting with the contracted engineering team on the drainage research.

What Carbon Emergency?

Within days of the District of North Vancouver Council voting to declare a climate emergency and calling for "more urgent climate action and ecological protection", (July 8th), the council voted to develop a wetland buffer located 200 metres north-west of the Conservation Area. In an effort to support a family run garden-nursery business, the DNV granted a "temporary use permit" on DNV property, allowing the proponent to replace the cottonwood and fir trees with buildings and a parking lot. The WBT appreciates the desire to support small independent businesses but expresses deep reservations about the decision to remove natural landscape.

Since the 1970's, bird, mammal, fish and reptile populations are down by 60% across the planet[1]. One in eight of all species of birds is threatened with extinction[2]. Habitat loss and climate change are the biggest drivers of these changes[1]. These drivers are inter-linked as habitat loss contributes to climate change1. The forest slated for clearing is valuable wildlife habitat. Researchers on biodiversity increasingly report that small pockets of landscape have great value in supporting wildlife populations[3]. As the available landscape for wildlife shrinks, the relative magnitude of the loss is greater and the effects on populations is greater.

There is a beautiful wetland on DNV property located immediately north of the site. Wetlands are hotspots of biodiversity and function as carbon capture ecosystems. Chipping away at the margins of the wetlands and the undeveloped green space in the Maplewood neighborhood diminishes the capacity of the forest, the wetland, and Maplewood Flats.

The landscape east of the Seymour River is rapidly losing green space. The nursery plans, the Firehall and Rescue Centre, and the Tsleil-Waututh Nation and Darwin Development plan north of the MCA will result in large sections of forest being lost. These blocks of forest serve as wildlife corridors linking the lower slopes of Mt. Seymour to Burrard Inlet. Maintaining connectivity between landscapes is critical to maintain wildlife communities.

CITATIONS

1. WWF. 2018. *Living Planet Report - 2018: Aiming Higher*. Grooten, M. and Almond, R.E.A.(Eds). WWF, Gland, Switzerland.
2. *BirdLife International (2018) State of the world's birds: taking the pulse of the planet.* Cambridge, UK: BirdLife International
3. https://www.theglobeandmail.com/canada/article-biodiversity-doesnt-stop-at-the-city-limits-and-conservation-needs/

"Thoreau" by Bre Mcdaniel

Artist-in-Residence: Bre McDaniel

Introducing Wild Bird Trust's featured artist-in-residence 2020 at the Corrigan Nature House. Bre McDaniel will be engaging on site beginning in spring until early fall, doing field recordings, making drawings, joining walks, talks, events, reaching out to meet community members and possibly offering workshops.

Bre McDaniel completed her Bachelor of Fine Arts at Emily Carr University in 2013 with a focus in painting and illustration. During her degree she began performing as a singer-songwriter, and has since toured across Canada multiple times, following in her mother's footsteps. Her past recordings have been described as having "an ethereal but intimate dream-folk sound," (*The Georgia Straight*) and her recent full length, *Howl* ruminates on how "we need the tonic of wildness", as Henry David Thoreau says.

Born and based in Vancouver, she works in a range of traditional media including ink, graphite, watercolours, acrylic and oil paint. She is a founding member of Open Book Art Collective, and her experience as a support worker has influenced both her art making and passion for inclusion.

Follow Bre on Facebook: facebook.com/bremcdanielmusic

'Flurry from the Well' by Bre McDaniel

From left: Oregon Grape, Western Columbine, and Pacific Silverweed. Photos by Maddie Edmonds

Walk in a Wild Yard

Read on for a taste of how ecological gardening can provide you with pleasure, while being environmentally friendly and improving wildlife habitat. By connecting yards and greenspace, we can create landscapes that support a diversity of life, including ourselves.

BY MADELINE EDMONDS

A weekend morning – you step outside into your garden, a hot cup of tea cradled in your hand. You glance down: something has chewed a few holes in the newest leaves at the tip of your Snowberry bush. You peer closer to see if you can find the culprit – but there's nothing there. Perhaps the chickadee chipping at you from the cover of the cedar has already snatched it up to fuel its morning forays. You plant a wide range of native species that host native insects. Earlier in the season, these disappeared into the gaping mouths of a clutch of chicks, now fledged.

The chickadee's chip notes express only mild alarm – it wants to come down to the bird bath – but you're a bit too close. Your feet crunch in leaves that you've let accumulate, not just for the pleasure of their rustle underfoot, but also to enrich your soil and provide shelter for creatures overwinter.

You pause to watch a bumblebee hum between the purple petals of your late-blooming Douglas Aster, brushing pollen onto its legs and belly. The bee is still a little sluggish, moving slowly in the morning chill. You take a sip of your own drink – harvested from a blend of native herbs from your garden – as you watch the bee sip its fill of nectar. The asters are just the latest performers in a sequence of blooms. You and the pollinators have a steady supply from early spring through late fall.

You may not have the largest space, but you've filled it with lush layers of green, from creeping groundcovers and wildflowers to shrubs and trees. You slowly replace chunks of lawn as you find the time. Instead, you've planted a diversity of plants adapted to your local conditions, many edible or medicinal. Once they're established, you barely have to water. Pest populations are kept in check by birds and predatory insects. Things stay balanced.

And even more gratifying – after chatting with your neighbour about your plans, they've started their own garden to attract hummingbirds. They happily accepted a handful of your seedlings to get started. Others without yards can grow a few plants on a balcony or window, find a plot in a community garden, or encourage their local governments and developers to shift their landscaping practices.

As wildlife populations face building pressures from habitat loss and a changing climate, making these shifts in our backyards and beyond provide connectivity, and living space for local birds and wildlife. This includes your thirsty chickadee, which has been joined by a companion, egging it on. *Dee-dee-dee-dee*. It grows bold and comes down to sip from the bird bath as you watch. You leave it to its day, and return to yours, feeling refreshed and hopeful.

Maddie Edmonds volunteers as a manager of the Coast Salish Plant Nursery. She wants to share her passion for native plants and empower people to improve their local habitats. She worked for Wild Bird Trust over the summer as Communications Assistant and is completing her Master's in Ecological Restoration at SFU/BCIT.

Hummingbird nest at Maplewood Flats. Notice the lichens (on the outside). Photos by Rob Alexander

Winter Hummers

BY AL AND JUDE GRASS

A quick check of the bird checklist for the Conservation Area at Maplewood Flats lists three hummingbird species that have been seen at the sanctuary – Calliope, Rufous and Anna's.

The Rufous winters in Mexico, and we see it here only in spring and summer. Calliope (Canada's smallest bird) is rarely seen at Maplewood, but again in spring or summer.

Anna's, on the other hand, is seen at the Sanctuary year round. In the local area (Greater Vancouver) we are seeing more Anna's all the time. One reason, it is thought that folks are putting up more Hummingbird feeders. Feeders are filled with nectar made from one part white table sugar and four parts of water. Now there are heated Hummingbird feeders to prevent freezing. Also, it is surprising how many plants bloom in cooler weather, and some of these, like Berberis (Oregan grape), are popular with Hummers.

Anna's also nest in cooler months. The nest is made of animal fur, small feathers and lichens. Lichens are thought to camouflage (hide) the nest and may also help to shed moisture.

When the weather gets really cold, Anna's can go into a sort of temporary hibernation called torpor. In this way the Hummingbird saves energy.

By the way, nectar is not only what Hummingbirds feed on – they also seek spiders and insects for protein (to build muscle). Spider silk is also used to hold the nest together – it's wonderful. Did you know that Anna's can "sing" – it's true!

If you see them "fighting" – don't worry, it is natural. I heard that Hummingbirds "hum", because they can't remember the words! Enjoy the birds.

Discover Autumn at Maplewood

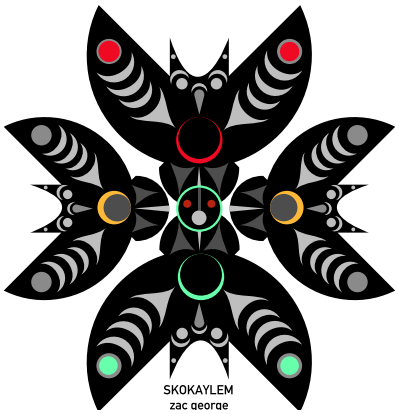
Autumn, of fall as the season is often called, has many wonderful things to discover outdoors as summer has slowly come to an end and the days are getting shorter – i.e. evening comes earlier and it 'seems' to come faster!

The season is called 'fall' beaseuse leaves having turned colour are floating

ANNUAL

Coast Salish

FAMILY DAY
AT MAPLEWOOD FLATS



Monday, February 17
10am to 3pm

FREE
for the whole family!

Follow
@MaplewoodFlats
social media
for more details.

Do you have a
workshop idea?
Email:
ed@wildbirdtrust.org

Learn about ways you can get involved in addressing climate change, buy a plant to grow in your backyard, plant a tree at Maplewood Flats

- Nature workshops
- Coast Salish storytelling
- Photography exhibition
- Holiday Nature Walk at 1pm
- Hot beverages and snacks in the Corrigan Nature House.

to the ground. At Maplewood, we can see maples, oaks and other trees changing from green to yellows and even orange. But did you know that red alder, a common tree at the sanctuary drops its leaves while they're still green? Here are a few other things to watch for on an autumn morning.

Mornings are getting chillier, so watch for frost on leaves, for example. See how frost sparkles like little jewels.

Some birds, like the Western Tanager, Purple Martins, Warblers, Black-headed Grosbeak (to name but a few), will have left (migrated) back to their tropical wintering grounds. The tiny Rufous Hummingbird goes all the way to Mexico for the winter.

Other birds such as ducks like American Wigeon, Northern Pintail, and Surf Scoters will be arriving to spend the winter here. Watch also for the Common Loon and the Horned Grebe which spent the summer on fresh water lakes in the province's interior. Remember too, that many of our birds are 'residents' – i.e. here all year, including the Spotted Towhee, Black-capped Chickadee, Northern Flicker, and Wood Duck. Please join in one of the Saturday morning bird walks (second Saturday of each month at 10:00am).

Amanita Muscaria. Photos by Rob Alexander

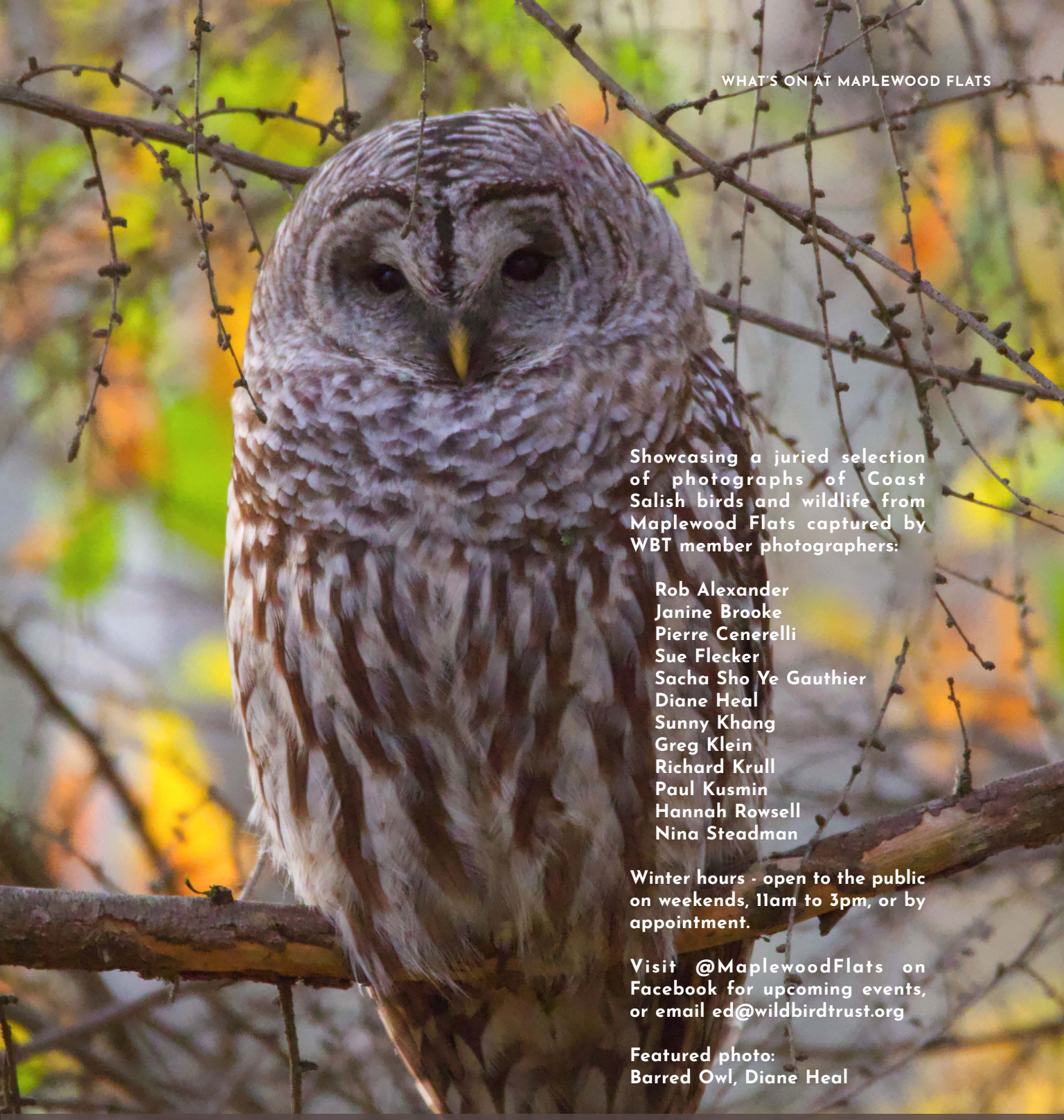
In autumn you will see lots of mushrooms 'popping up' everywhere – on the ground and rotten logs, One of the most colourful is called fly amanita – it is often red with white spots but some are orange or even yellow. Did you know that squirrels love to eat mushrooms? It's true! Mushrooms (fungi) are wonderful subjects for taking pictures.

You might see a few dragonflies dashing about – even in late October. These big blue ones are known as "darners". At Maplewood, the Paddle-tail Darner and Blue-Eyed Darners are two to watch for. It is also interesting that the Cross-spider's (it has a white cross on its 'back') webs are the largest in fall. It is a very common spider at Maplewood. It is also called the Garden Spider. In the spring, some birds like Hummingbirds and Bustits use spider silk to make their nests.

Speaking of nests, fall is also a good time to photograph (but not collect) bird nests as the leaves are gone from the trees! Then it is fun to identify the makers! Look for stray feathers too!

Do explore the Sanctuary in fall – it is a wonderful time, full of many exciting discoveries. Take lots of pictures, keep notes (lists of what you saw – i.e. a journal), and, yes, the Ospreys won't be at their nest. They'll be down somewhere on a warm beach way down south. We'll see them again in spring.

Legendary Naturalist Al Grass has worked for over 35 years throughout the province (BC Parks). Jude Grass has worked as Naturalist-in-Charge for Metro Vancouver Parks and the lower mainland, leading school programs and walks.



Showcasing a juried selection of photographs of Coast Salish birds and wildlife from Maplewood Flats captured by WBT member photographers:

Rob Alexander
Janine Brooke
Pierre Cenerelli
Sue Flecker
Sacha Sho Ye Gauthier
Diane Heal
Sunny Khang
Greg Klein
Richard Krull
Paul Kusmin
Hannah Rowsell
Nina Steadman

Winter hours - open to the public on weekends, 11am to 3pm, or by appointment.

Visit @MaplewoodFlats on Facebook for upcoming events, or email ed@wildbirdtrust.org

Featured photo:
Barred Owl, Diane Heal

2nd Annual Wild Bird Trust of BC Members' Photography Exhibition

SATURDAY NOVEMBER 16, 2019 TO SUNDAY FEBRUARY 2, 2020, MAPLEWOOD FLATS

Photographic Exhibition by John Lowman

Saturday, February 15 to Sunday, April 26, 2020

Viewing hours are 11am-3pm weekends throughout the winter months, and during events.

JOHN LOWMAN: "I get a real reward from creating an indisputable record of the importance of this site. But what I find most pleasing is that my pictures produce an emotional response in people that makes them want to protect these creatures. It's like we're saying, here, this is what conservation looks like."

Lowman has been a passionate observer of avian life ever since he was a child. At 10, he was a member of the U.K.'s Royal Society for the Protection of Birds. Several decades later, he became an enthusiastic supporter of the Wild Bird Trust of B.C. "I was driving by Maplewood Flats one day in 1995 and saw a sign advertising the Osprey Festival, celebrating the return of ospreys to Burrard Inlet. Back then, it was really terra incognita to me, so I went in. It's a mosaic of very different bird habitats built on a former industrial site, and it is a critically important nesting and migration stopover site for many kinds of birds."

From top clockwise: Female Looper Moth, Stellar Blue Jay, Male Looper Moth. Photos by Rob Alexander

Hemlock Looper Moth outbreak at the Flats

BY ROB ALEXANDER

There were two species in this moth outbreak on the North Shore and at the Conservation Area at Maplewood Flats: the Hemlock Looper Moth and less plentiful, the Phantom Hemlock Looper Moth!

The likely reason for the outbreak is that there have been a few hotter than normal summers in a row, along with drought conditions, which stresses trees.

Summer 2019 there was plenty of moisture, which the stressed trees put out much new green growth and that's what the Hemlock Looper Moth caterpillar feeds on.

Hemlock Looper Moth are serious defoliators, so hopefully our forests will be OK.

Another species that population seemed to grow is the Steller's Jay. This summer and autumn I have never seen so many Steller's Jay before!

They were probably feeding on the Hemlock Looper Moth caterpillars, which were plentiful and led to an increase in the population.

At Maplewood Flats, I saw twenty at one time, each flying to a tree in a leap frog fashion, then the next one would fly, and the first one would fly to the closest tree, then the third Steller's Jay would fly to the first tree, jumping from tree to tree to tree!

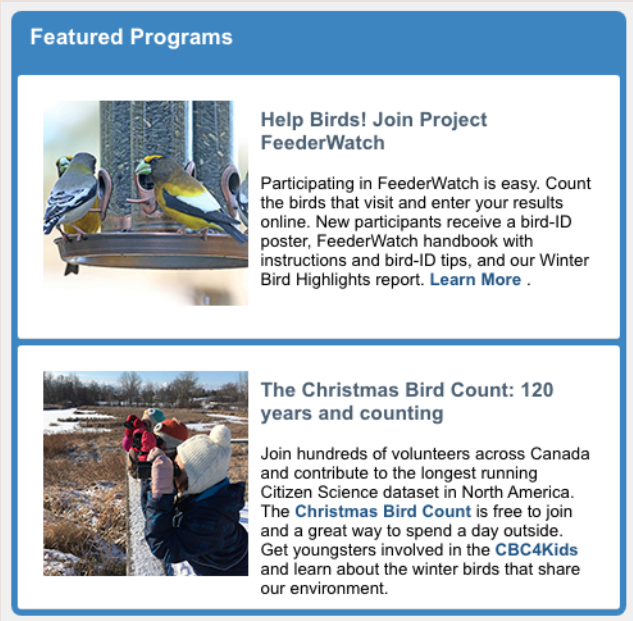
Rob Alexander is a member of WBT and regularly contributes to *Wingspan*.

BIRD SURVEYS AND CITIZEN SCIENCE APPS

Tip #7 from 7 Things We All Can Do To Help Birds on page 11: Watch birds and share what you see. You can enjoy birds while helping science and conservation by joining a bird club or taking part in a bird survey.

BIRD SURVEYS:

If you're interested in helping monitor bird populations in your yard or region, two great options from Bird Studies Canada are Project FeederWatch or the Christmas Bird Count: www.birdscanada.org/index.jsp



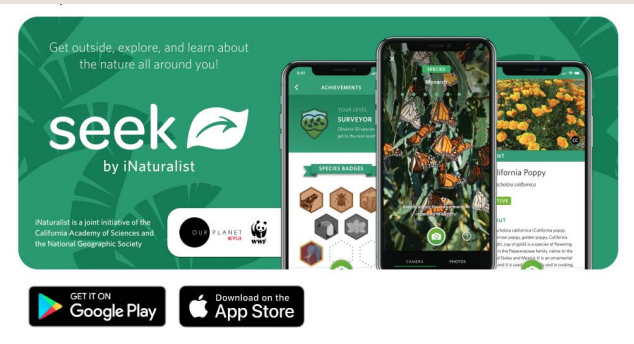
CITIZEN SCIENCE APPS

One great way to contribute to science and learn about nature is to contribute to a Citizen Science project. For birds, you can list your sightings on eBird. There is both an online interface, and a convenient app for your phone: www.ebird.org/canada/home

For more general interest, try iNaturalist or Seek. Both are free smartphone apps.

What's the difference?

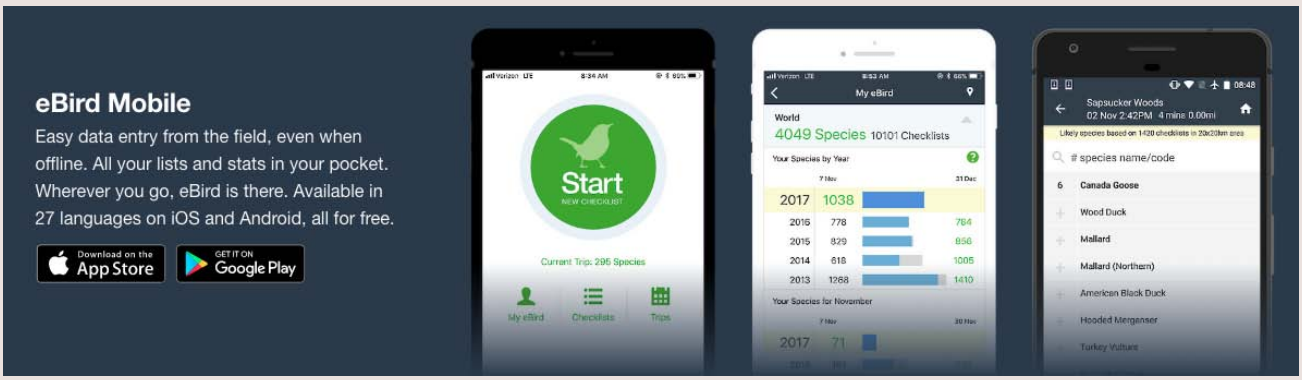
iNaturalist is amazing to help identify random insects, plants or fungi without going to a field guide. You upload a photo, and it lists the top suggestions based on image recognition software, and what has been seen in your area. Often it's spot on, but if not it also has a community of users who can confirm or suggest ID's. It lets you post



observations linked to the location you took the photo, contributing to its database.

Seek uses the image-recognition software developed in iNaturalist, and suggests the likely species for anything you point your phone at. It can connect to iNaturalist account, but does not require you to share your location making it appropriate for younger naturalists.

- Get outside and point the Seek Camera at living things.
- Identify wildlife and plants you see and take pictures to earn badges
- Learn fun facts about the organisms all around you
- To download or for more information, visit iNaturalist's webpage for Seek: www.inaturalist.org/pages/seek_app



Rock Wren by Pierre Cenerelli

Bird and Wildlife Photography

BY PIERRE CENERELLI

This is the first column for *Wingspan*, which will cover nature and wildlife photography, with a particular focus on birds. I will look at this topic from a variety of perspectives, including technique, equipment, ethics, conservation, and reconciliation. And although I will always feature species that can be found at Maplewood Flats, I may use images taken elsewhere.

Today's article will be rather unusual, since it will focus on my own motivations (I usually won't do this)... Many people, including friends and family, often ask me why I am so interested — obsessed is a word that is more frequently used — in birds and wildlife photography. The answer to that simple question contains many parts. I will begin by stating the obvious: Birds fascinate and captivate me. I enjoy seeing them go about their business and (almost never) tire of hearing them sing or call. I also enjoy walking in nature and beautiful landscapes, which is good for both the body and spirit. But I am also interested in all of this for another, hopefully more enduring reason: I sincerely hope that my images can convince the viewer that nature and wildlife must not only be admired, but protected. And more recently, I've been wondering if this activity could be one of the tools that could help foster reconciliation with the Indigenous Peoples of the country we now call Canada. I am far from having fully achieved any of these goals, and some have barely begun, but I do hope to accomplish more as I deepen my understanding of the natural world.

The photo I have chosen for my Fall *Wingspan* 2019 column features a locally rare (highly unusual, in fact) Rock Wren that remained at Maplewood Flats for several weeks in September 2016. I chose it because it illustrates a couple of the points made above: Although this bird became quite famous in our region because of its rarity, I was able to observe it quietly and on my own for about 45 minutes as it foraged the rocks for tasty insects and spiders. It was quite a magical moment, especially since I had never seen this bird before (or since, for that matter). And although it is considered a species of "Least Concern" on IUCN's Red List (more about that designation in a later article), this species' current population is considered to be decreasing. I do hope that seeing this image and hearing these facts might inspire someone to determine why this population decrease is occurring and, in particular, how it may be reversed before it becomes critical.

Tip for *Wingspan* readers: Join 1000+ Fans of our 'Maplewood Flats' Facebook page for regular publishing of photographs by Rob Alexander, and our other WBT member photographers.

Pierre is a lifelong birder who also discovered his passion for photography quite early in life, merging both of these passions upon arriving in Vancouver in 2011. He was awarded top prize for his photo of a Northern Pygmy-Owl taken at Maplewood at the 2018 International Ornithology Congress in Vancouver. He has volunteered for numerous nonprofit organizations, including the Vancouver Bach Choir and Stanley Park Ecology Society. He has also lead or participated in bird counts on the North Shore and Vancouver, including Bird Studies Canada's monthly BC Coastal Waterbird Survey. When he is not enjoying the Lower Mainland's natural spaces, Pierre is the Executive Director of the Graduate Student Society at Simon Fraser University.

Hindsight and 2020 Vision

BY ROB LYSKE

It seems hard to believe that I have been birding the Maplewood Conservation area for twenty years. On the other hand, it is easy to understand why it is my favorite place to enjoy some time in nature. When I started here 2 decades ago, I met some wonderful people, dedicated to conservation by showing us the sometimes unseen beauty right before our eyes.

2019 started at the greeting hut as countless walks had previously begun. A gander at the sightings board for tips of what may be along the trails. Over the past few years we have had the good fortune to host a wintering Northern Goshawk, which draws the attention of birders and photographers to a selected cottonwood overlooking the western salt marsh. A wonderful start to the year.

A reasonably quiet winter birding gave way to a productive spring migration. An uncommon bird migrating through Maplewood like Say's Phoebe or Townsend's Solitaire always seem to bring people together. The excitement is palpable when an unexpected bird is found, and on May's WBT members walk it was a Western Kingbird that highlighted our day.

Also in May, I had the fortune of stumbling across a Dusky Flycatcher, a difficult bird to separate from our more commonly occurring flycatchers but it's helpful call note was enough to be sure, and to get the word out to others. Of course the first person to join me was a long time friend and fellow birder Quentin Brown A few weeks later we were also lucky to find a Vesper Sparrow feeding along the path ahead of us on the eastern loop.

I have found over the years that the way to find birds that are less common is not just about habitat, timing and sharp eyes but frequent visits and luck. It has always been my belief to come early and as often as possible. Through this approach, Maplewood friends and avid birders Mark Stevens and Sue Flecker have found beauties such as

Opposite page from far left: Northern Shrike and Osprey. This page: Semi Palmated Plover and Vesper Sparrow. Photos by Rob Lyske

Eastern Kingbird, Gray Catbird, White Throated Sparrow and Red-Naped Sapsucker.

So on no particular autumn morning, I stand behind my scope on the gravel beach where I have begun so many days of memorable birding and reflect on the highlights of 2019 and the surprises of the past 20 years. A Lapland Longspur calls as it flies overhead, only the 3rd record I've had here.I can only hope with 2020 quickly approaching that the next 20 years could be as enjoyable.

Rob Lyske will lead members walks May and August as he shares his deep knowledge and excitement of the birds that can be sighted at Maplewood Flats.

WildResearch is partnering with Wild Bird Trust of BC to host the intermediate banding workshop! Experienced banders and volunteers will be present to help you with this in-class training.

WHEN? Sunday, November 24, 8am – 1pm
WHERE? Corrigan Nature House, Maplewood Flats Conservation Area, 2649 Dollarton Hwy, North Vancouver / Tsleil-Waututh Nation lands

WHAT? Designed for those with prior banding knowledge and skills, the workshop will focus on molt and plumage analysis for aging and sexing. Experienced bird banders and instructors Catherine Jardine & Julian Heavyside will provide a review of contemporary molt theory. Dozens of specimens will be available to practice on.

Snacks will be provided!

FEE

- $60 for non-students; $45 for students.
- All proceeds will go towards funding the Iona Island Bird Observatory program.
- All attendees must be a WildResearch or WBT member.

NOT A MEMBER YET?
Register here: wildresearch.ca/get-involved/become-a-member/

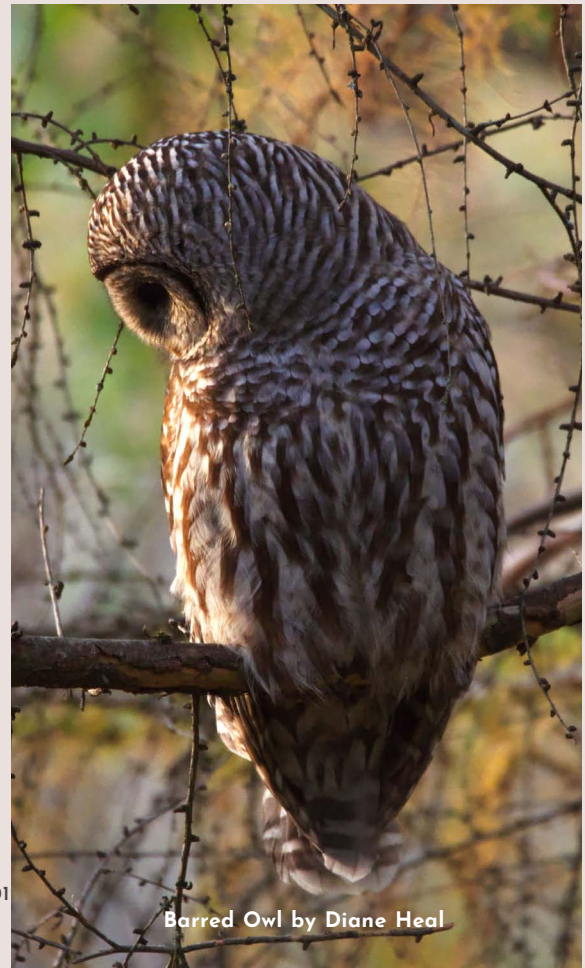
For more info and to RVSP contact Jay Brogan: jbrogan@wildresearch.ca

WILDRESEARCH.CA | WILDBIRDTRUST.ORG

Bird Sightings

Orange-crowned Warbler
by Rob Alexander

Anna's Hummingbird
by Hannah Rowsell



Barred Owl by Diane Heal

Crossbill by Janine Brooke

Common Merganser
by Les Sun Ken

Robin by Janine Brooke

Purple Martins. Photos by Terrance Carr

Delta Naturalists Casual Birders Outing to Maplewood Flats Conservation

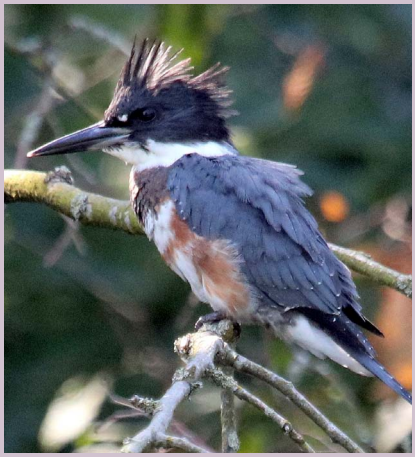
BY TOM BEARSS

Ten of us car-pooled nicely in two vehicles from Petra's at 7:30 am. I was in Roger's "shortcut" van and we drove the "quick" way through downtown Vancouver to avoid the morning rush hour highway traffic. Seventeen DNCBers enjoyed a warm, sunny Wednesday morning wandering the trails of Maplewood Flats Conservation Area in North Vancouver. We saw some neat species, met some neat folk, and had an enjoyable pub lunch.

We all arrived at the Maplewood Flats Greeters Hut by 8:40am. We all bonded for several minutes before Noreen took the Group Photo in front of the Feeder area. Lots of finch, sparrow (including a Fox Sparrow) and woodpecker activity at the feeders. While identifying the American Goldfinches a warbler slipped into view, and it was a gorgeous male Townsend's Warbler, probably my Bird of the Day.

We took the trail to the mudflats where the Purple Martin boxes on the pylons were full of activity. The tide was way out but we also saw Mew and Glaucous-winged Gulls in the distance and a flock of Common Mergansers. Both Pelagic and Double-crested Cormorants were diving. The Osprey nest was empty, but Marylile said that the single young Osprey had successfully fledged. A Spotted Sandpiper was bobbing along the shore and some saw other smaller sandpipers (Peeps?) and Black Oystercatchers. Common Ravens and a Red-tailed Hawk gave us fly-pasts.

We walked the inland trails and I missed seeing the Western Tanagers and the Yellow Warblers because the Blackberries were in perfect bloom and were a delicious breakfast. Fresh Bear scat on the trail showed that a Black Bear was also recently enjoying these blackberries. We regularly saw LBJ (little bird) activity in the tops of the



Left: DNCB group outing participants. Right: Belted Kingfisher. Photos by Terrance Carr

trees but had difficulty with species identification. Interestingly, while looking at Bushtits and Chickadees, Tony showed me a photo and it was a Black-throated Gray Warbler, another of our Target birds. David's eBird list indicates 28 species seen today.

When we got back to the new Nature House at 11:30 am, the Wild Bird Trust of BC had just finished their meeting and we met President Irwin Oostindie, Conservation Area Manager Ernie Kennedy, and our good friend Vice President Jude Grass. We got to tour the building and the Artists For Conservation members exhibit of beautiful Nature Paintings. Then it was lunch time at the nearby Maplewood Taphouse. It was another awesome DNCB outing.

Check out more info on our outings and events, plus other reports and photos on our website at: dncb.wordpress.com.

Tom Bearss, President, Delta Naturalists Society

MEMBERSHIP FORM

JOIN THE WILD BIRD TRUST—PROTECT MAPLEWOOD FLATS!

DEDICATED TO WILD BIRDS AND THEIR HABITATS ON THE PRINCIPLE ALL WILDLIFE MUST BENEFIT.
A CHARITABLE TAX RECEIPT WILL BE ISSUED FOR MEMBERSHIP FEES AND DONATIONS
(UP TO 15% OF ALL DONATIONS MAY BE DESIGNATED FOR WBT ADMINISTRATION).

SINGLE MEMBERSHIP: ❑ $30 PER YEAR ❑ $55 FOR 2 YEARS

FAMILY MEMBERSHIP: ❑ $40 PER YEAR ❑ $75 FOR 2 YEARS

STUDENT/LOW INCOME ❑ $15 PER YEAR

LIFE MEMBERSHIP: ❑ $500

DONATION: ❑ $_____

TOTAL: $_____ NUMBER IN FAMILY: _____

VISA CARD #: _____ EXPIRY DATE: _____ CVV: _____ (OR CALL IT IN)

NAME ON VISA CARD: _____ _____

MEMBER'S NAME:_____ PHONE #: _____

STREET ADDRESS: _____ _____

CITY/POSTAL CODE: _____ EMAIL: _____

PLEASE MAKE CHEQUE PAYABLE TO: WBT WILD BIRD TRUST OF BRITISH COLUMBIA, 2649 DOLLARTON HIGHWAY, NORTH VANCOUVER, BC, V7H 1B1.

OR JOIN ONLINE AT WILDBIRDTRUST.ORG

WOULD YOU LIKE TO VOLUNTEER? — WE TRAIN! ❑ RECEPTION ❑ HABITAT WORK ❑ COMMITTEE WORK

Volunteer Opportunities at Maplewood Flats

So much of what we do relies on people showing up to offer their time, skills, and passion. Maplewood Flats provides a diverse and exciting range of volunteer opportunities. Whether you are a university student looking for real world practical experience, a retiree seeking to share your talents, or a local resident keen to give back to your community. Both the site and our organisation share a progressive approach to hands-on conservation work, public education, birding, ecological restoration, cultural programming, communications and community engagement. We also provide volunteers with specialized training where necessary so that we all learn and grow, and ensure the best possible experience on site.

JOIN ONE OF OUR COMMITTEES (4+ HOURS/ MONTH)

1. **PROGRAMS:** culture (literary events, art exhibits, public art commissions, publications); education (school programs, summer camps, nature walks)
2. **COMMUNICATIONS:** help with our online profile (Instagram, Facebook, Twitter, website) or our written publication- Wingspan, trail signage, and media releases
3. **HABITAT:** Habitat & Cultural-Use Management Plan, restoration projects, site maintenance, birding and ecological research projects
4. **FUNDRAISING:** grant-writing, events, donor appeals, bequeath and bench program

SIGN UP FOR REGULAR VOLUNTEER JOBS (2-4 HOURS/WEEK)

5. **GROUNDS MAINTENANCE/ HABITAT RESTORATION:** Promoting Coast Salish planting, trail maintenance-Tues, Thurs 8:30am.
6. **CORRIGAN NATURE HOUSE HOST:** Support visitors access and engagement with exhibits and educational displays in Nature House, host event guests. Daytime and/or evening commitment.
7. **GREETER HUT:** Welcome visitors as they enter site, hand out and maps, share site rules, receive donations and membership applications, count number of visitors.
8. **TRAIL HOST:** Interact with the public on the trails. Walk the trail in pairs. Respond to questions, share resources about birds and wildlife, engage visitors not adhering to rules. Must be able to walk the trails easily. (See more info BELOW)
9. **SOCIAL MEDIA COMMUNITY MANAGER:** Post scheduled and new content on social media, manage public interactions.
10. **COAST SALISH PLANT NURSERY:** Join others who share a passion and knowledge about native plants. Help with plant sales and education Saturdays 10am to 2pm spring and summer.
11. **GREEN DRINKS CREW:** help out at social events at a local taphouse where the public can enjoy craft beer while listening to guest speakers.

WILD BIRD TRUST TRAIL HOST PROGRAM

The Trail Host Program is a way to increase engagement between representatives of WBT and visitors exploring the trails at the Flats.

After attending a training workshop, new volunteers are paired up with experienced Trail Hosts on their first few shifts. Every Saturday, the Hosts, in teams of two or three, set up stations equipped with a tent, table & chairs, bird books, maps and binoculars. They engage with visitors about birds, history, artwork and wildlife. Hosts also learn how to explain to people why joggers and dogs (even on leash) are not allowed across the Barge Channel bridge (hint: to a nesting bird, they are seen as predators).

If you would like to try volunteering as a Trail Host (or any other volunteer opportunity), email ed@wildbirdtrust.org.

Support and Defend Coast Salish Wild Birds

Wild Bird Trust of BC is a forward-thinking conservation organisation with strong community partnerships, and a growing and diversifying membership. Our mission is to provide wild birds with sanctuary through ecological protection and restoration, and support communities with education, culture, and reconciliation programs.

Our work is made possible with the support of our members, volunteers, social enterprise revenues (nature house rentals and nursery sales), donors and funders - through their time, care, contributions and grants.

Your financial contributions support ongoing projects of great need including:

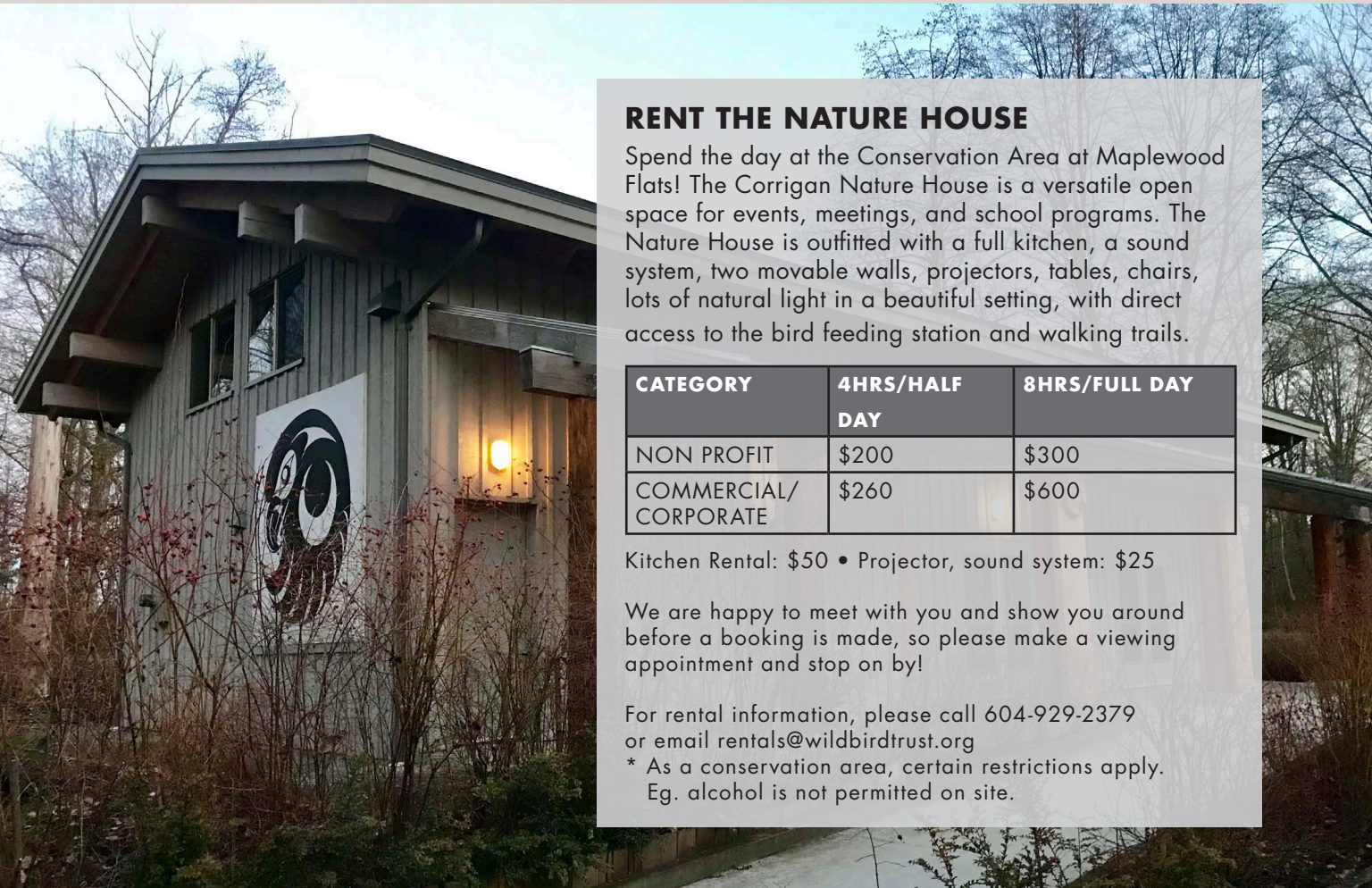
- restoring more previously industrialized areas of Maplewood Flats
- increasing Coast Salish plant vegetation to increase biodiversity
- improve signage and interpretive displays
- programming the Nature House
- planning longterm with a strategic Habitat and Cultural-Use Management Plan
- ensuring public washroom access
- publishing education materials on issues of concern and interest

Indeed, throughout this magazine you'll find examples of the great work we all do, mainly as volunteers, to maintain this beloved space and its birds and wildlife.

Please consider making a tax-deductible donation by emailing donate@wildbirdtrust.org, by phoning (604) 929.2379 or by secure online via Canada Helps at http://bit.ly/WBTdonate

Wild Bird Trust expresses sincere appreciation for the following recent financial contributions from: Farmer Family Foundation, North Shore Unitarians, Lynn Valley Garden Club, and other anonymous individuals. We would also like to thank all the generous donors who responded to our call to help us Fill the Pond!

We would like to acknowledge recent grant funding from: Habitat Conservation Trust Foundation's Public Conservation Assistance Fund.



RENT THE NATURE HOUSE

Spend the day at the Conservation Area at Maplewood Flats! The Corrigan Nature House is a versatile open space for events, meetings, and school programs. The Nature House is outfitted with a full kitchen, a sound system, two movable walls, projectors, tables, chairs, lots of natural light in a beautiful setting, with direct access to the bird feeding station and walking trails.

CATEGORY	4HRS/HALF DAY	8HRS/FULL DAY
NON PROFIT	$200	$300
COMMERCIAL/ CORPORATE	$260	$600

Kitchen Rental: $50 • Projector, sound system: $25

We are happy to meet with you and show you around before a booking is made, so please make a viewing appointment and stop on by!

For rental information, please call 604-929-2379 or email rentals@wildbirdtrust.org

* As a conservation area, certain restrictions apply. Eg. alcohol is not permitted on site.

Annual General Meeting Notice

WBT WILD BIRD TRUST OF BRITISH COLUMBIA

Notice of Annual General Meeting and Guest Speaker and Symposium

Saturday, November 30, 2019, 11am – 3:30pm
Corrigan Nature House
Conservation Area at Maplewood Flats
2649 Dollarton Highway, North Vancouver

The morning will feature Guest Speaker Dr. Evelyn Pinkerton, Marine Anthropologist and Professor at Simon Fraser University, at 11:00am. See page 19 for more details of the Symposium.

The AGM & Lunch will run from 12noon–12:45pm. All members encouraged to attend! Following lunch, there will be a Symposium featuring panelists and discussions speaking on Integrating TEK in Conservation, and Current Topics in Ornithological Research Protocols & Methods.

The AGM includes the Appointment of the Directors:

MOTION:
BE IT RESOLVED that the following members in good standing be appointed to serve as Board of Directors for the following year: (in alphabetical order) Kevin Bell, Taylor Boisjoli, Donna Clark, Christine (Fran) George, Les George, Jude Grass, Steven Hill, Paul Hundal, Irwin Oostindie, John Preissl, Carleen Thomas, and that the remaining Board positions be left vacant for the Board to fill as they see fit.

BE IT FURTHER RESOLVED that the Appointment of Officer positions take place by the Directors immediately following the AGM.

As well as the following Motion directing the 2020 Board to add TEK into our work and integrate it into our research, programs, operations, and education systems:

MOTION:
WHEREAS Traditional Ecological Knowledge (TEK) describes indigenous and other forms of traditional knowledge regarding the sustainability of local resources, and is also called by other names including Indigenous Knowledge or Native Science;

WHEREAS The lands and waters comprising the Conservation Area at Maplewood Flats have been stewarded by scientific and cultural practices of Coast Salish Peoples since time immemorial;

WHEREAS integrating TEK into the public education, programs, and habitat management practices of the Wild Bird Trust of BC will provide improved outcomes;

BE IT RESOLVED THAT WBT members direct the 2020 WBT Board to integrate TEK into the research, operations and public education work of the Wild Bird Trust of BC.

BE IT FURTHER RESOLVED THAT the Board report back to members with regular updates through Wingspan, and at the next AGM, with regards to the progress of TEK integration.

BENCH PROGRAM IN THE CONSERVATION AREA AT MAPLEWOOD FLATS

The Wild Bird Trust of BC provides opportunities to mark major life events in a meaningful way, while supporting our valuable conservation and restoration work. By purchasing a bench, tree or custom art feature sited in a special location at the Flats, residents may honour a dearly departed family member or friend, or celebrate a significant event such as a birth or marriage. A portion of the contribution is tax deductible.

Locations for the bench, tree or art feature are chosen in consultation with the Site Manager from an approved list - final site decisions are made by the Site Manager. Benches and art features are maintained and, if necessary, replaced by the Trust for a period of 10 years.

For an application form, or to request more information, email admin@wildbirdtrust.org or call 604-929-2379.

DEDICATED BENCH – $3,500
Acquisition and installation of the bench and plaque. If desired, a custom bronze plaque (approx 4" x 8"), can be ordered separately by the individual or group requesting the bench.

DEDICATED CUSTOM ART FEATURE – $5,000 TO $10,000
Arrangements can be made to commission an artist to design and fabricate a special memorial feature for placement at the Flats, in consultation with the Executive Director and approval from the Board.

DEDICATED COAST SALISH TREE PLANTING – $1500
Purchase, transport and planting of the tree selected from the Coast Salish Plant Nursery at the Flats, in consultation with the Site Manager.

COAST SALISH PLANT NURSERY

Opening Day
April 4, 2020

Saturday, 11am to 3pm
GARDENERS AND GREEN THUMBS!
MARK YOUR CALENDAR!

The Coast Salish Plant Nursery at Maplewood Flats offers a large selection of native plants rarely available at conventional nurseries.

ACCEPTING SPRING PLANT ORDERS STARTING IN FEBRUARY

SIGN UP FOR EMAIL UPDATES
wildbirdtrust.org/programs/coast-salish-plant-nursery

Photographs by John Lowman

ALL SEASONS SELF-GUIDED TOUR MAP: GUIDELINES FOR TRAIL USE

All visitors to Maplewood Flats must follow the posted rules and regulations, including but not limited to:

- Have fun and remember to tag @MaplewoodFlats in your Instagram, Twitter and Facebook uploads.
- Washrooms are available during volunteer hours at both greeter hut and nature house.
- All visitors must stay on the trails. Failure to do so can cause serious damage to the ecosystems and their inhabitants.
- There are no bikes allowed in Maplewood Flats. There is a bike rack located adjacent to greeter hut near the trail entrance.
- There are no dogs allowed in Maplewood Flats past the bridge. Even on a leash, they disturb sensitive wildlife.
- When taking a photo or making an observation, do not touch or disturb the wildlife which you are observing (this includes no staging photographs).
- Please do not go on the beach or mudflats. These areas are particularly sensitive to disturbance.
- Report any emergencies to the police at 911.
- Keep coming back and consider joining the Wild Bird Trust online at joinwbt.eventbrite.ca

See the next page for detailed descriptions of each numbered location on the map.

1. THE HEDGEROW

Tangles of brambles surrounding small trees and shrubs (alder, cottonwood, and rowan) form thickets and provide habitat for nesting birds and shelter for a wide variety of wildlife in all seasons. Prickly blackberry tangles are also excellent places for birds to seek shelter from danger. Fruit of Himalayan Blackberry (the common species here) is enjoyed by Black Bears in the summer and fall, and in the winter the dried berries provide House Finches, Song Sparrows, Fox Sparrows and Spotted Towhees with a ready source of food.

2. THE TIDAL FLATS

The name "Maplewood Flats" refers to the offshore tidal flats, which provide rich habitats for a myriad of creatures including crabs, shrimp, clams and crustaceans which feed Western Sandpiper, Greater Yellowlegs, Great Blue Heron, Killdeer, Least and Semipalmated Sandpipers. Point your binoculars seaward and observe the wooden pilings or 'dolphins' dotted with nest boxes. These are homes designed by Wild Bird Trust for nesting Purple Martins, a species of swallow. Every year they make a round trip migration of about 22,000 kilometres between Brazil and BC, in about 21 days.

3. OSPREY POINT

From here you can view the realm of the Osprey, a fish-eating bird of prey that spends its winter in warmer climates, returning here to nest in spring. Look for it perched on a dolphin. These birds have amazing eyesight and can spot a fish from high above. They often free fall from a height, swooping upward just in time to scoop their finny prey from the water. Watch to see which way the Osprey carries its fish: head or tail first? In winter watch for Bald Eagles sitting on these dolphins. Look for Northern Harbour Seals and Northern River Otters offshore.

4. RIPARIAN ZONE (BARGE CHANNEL)

Standing on the Westcoast Bridge you are now looking over the Barge Channel. In the 1940s it was used to transport gravel and now it is an important mini-estuary/stream ecosystem. Gaze down into the water.

The term riparian refers to vegetation overhanging the water. The Barge Channel is lined with red alder trees and other shrubs, which provide cooling shade. Cooler water holds more oxygen than warmer water which is of vital importance to fish survival. Watch and listen for the Belted Kingfisher with its rattle-like call. Great Blue Herons perch in the trees overlooking the channel. If you are lucky you might spot its smaller, rarer cousin the Green Heron.

5. DRAGONFLY POND

This tranquil pond is home to over 20 species of Dragonflies and Damselflies. Watch for ducks and ducklings in Spring and Summer. Rest on the bench overlooking the pond and listen to nature's buzz.

6. THE EAST POND

Looking out across the pond you will see a large wooden nest box for the locally scarce Wood Duck, a cavity nester which has suffered from loss of habitat and suitable nesting sites. Wood Ducks have successfully raised young here since the box was installed. Occasionally, this box can be used by other cavity nesters, such as mergansers.

7. POCKET MARSH

Willows and mixed shrubs are the habitat of the Black-throated Gray Warbler, Wilson's Warbler, Warbling Vireo and Yellow-rumped Warblers. This pocket marsh is a beehive of activity, especially in spring when the insects are eagerly consumed by birds. Willows here make good thickets for nesting and resting birds, and support insect larvae, such as sawflies, which are eaten by birds including warblers and chickadees. In Fall and Winter watch for roving flocks of Black-capped Chickadees and Ruby and Golden-crowned Kinglets.

8. OTTER POINT

Do you notice a fishy smell? This is a haul-out for the Northern River Otter, a fish eating member of the weasel family, that is often seen along rocky shorelines. Throughout the seasons watch for Harlequin Ducks, Black Oystercatchers, Killdeer and Spotted Sandpipers.

9. OLD FIELD MEADOW

This habitat consists of a variety of grasses and wild flowers such as lupine and cow parsnip, which are food plants for native butterflies. Think of it as pasture gone wild. It has been home to the Townsend's Vole (a small rodent) an important food in the diet of predatory birds such as owls and hawks. Watch for deer browsing in the meadow or at the forest edge. Check out the west pond (#7) from the viewing platform.

10. THE SALT MARSH AND PARK STREET MARSH

The Salt Marsh and Park Street Marsh are important habitats not only for resident birds, but also for migratory species. Birds lead perilous lives and simply having shelter from nasty weather can be life saving. There are no trails to disturb its sanctuary for the deer that raise their young in the area. This distinct habitat at The Conservation Area at Maplewood Flats owes its life to a combination of marine and freshwater influences. Fed by vegetation filtered waters from the main installed wetlands, it is often full of wintering waterfowl, who feed on the abundant insect life and plant species sustaining them as they travel to distant breeding grounds in the spring.

11. THE WEST POND

The Conservation Area at Maplewood Flats largest pond is visited by a variety of bird species. Bufflehead, Ring-necked Duck, Mallard, American Wigeon, Green-winged Teal and Hooded Merganser are seen mostly in late fall and winter. Can you spot a Northern Shoveler or Blue-winged Teal among them? Five species of swallow feed here in summer. Pacific Tree Frogs breed in the pond as do Rough-skinned Newts. Watch for Red-winged Blackbirds nesting here. Listen for the "witchity, witchity" song of the Common Yellowthroat. In spring, summer and fall listen for the "kiddikiddik, kiddikiddik" call of the rusty coloured Virginia Rail and try to spot it skulking in the reeds.

12. THE FOREST

In spring and summer, warblers, vireos, and tanagers feed on abundant insect life in the upper canopy. The Red-eyed Vireo or "preacher bird" repeats its melodious robin-like song over and over again, thousands of times a day. A flash of colour on high may be a Western Tanager or Black-headed Grosbeak. In winter, watch for Great Horned Owl, Northern Pygmy-Owl, Barred Owl, and Northern Saw-whet Owl roosting in trail-side trees.

BIRDING WALKS & EVENTS

Fall & Winter 2019-2020

At the bench birding
Photo by Madeline Edmonds

MONTHLY GUIDED WALKS

Hosted by Legendary Naturalist Al Grass. Saturdays, 10:00 am to noon

- **NOVEMBER 9 – Woodland Wonders – Maplewood's forests live with the help of beetles, woodpeckers and fungi.**
- **DECEMBER 14 – Home for the Holidays – A winter's day at Maplewood is always full of wonder!**
- **FEBRUARY 8, 2020 – Duck Tales – Dabblers and Divers at their best.**
- **MARCH 14, 2020 – What is for Dinner? – Maplewood's raptors, hawks, owls and eagles.**
- **APRIL 11, 2020 – A Long Journey – the miracle of migration – celebrate the arrival back of our spring birds.**

AFTERNOON HOLIDAY WALKS

Hosted by Kevin Bell. Lifelong Naturalist, ornithologist/ecologist, retired Chief Naturalist/Manager, Lynn Canyon Ecology Centre and D.N.V. Natural Parklands. Mondays, 1:00 pm to 3:00 pm

- December 14, 2019 – Home for the Holidays
- February 17, 2020 – Family Day: Plant a Tree to Help Fight Climate Change
- April 13 – Easter Monday
- May 18 – Victoria Day

BIRD SURVEYS 8AM* - 11AM

*Winter months starting at 8:30am November, December, January, February)

Join us bright and early on the first Saturday of each month to participate in our monthly bird surveys. Participants of all levels are welcome to take part in the survey led by experienced birders.

- December 7, 2019 at 8:30am
- January 4, 2020*,
- February 1, 2020*,
- March 7, 2020, 8am–11am
- April 4, 2020, 8am–11am

ANNUAL GENERAL MEETING

MEMBERS NOTICE (See also page 34)
Saturday November 30
Corrigan Nature House,
11:00am to 12:45pm

- 11am – Guest Speaker Evelyn Pinkerton, SFU Professor, Maritime Anthropologist
- noon – lunch (optional)
- 12:15pm – Annual General Meeting commences

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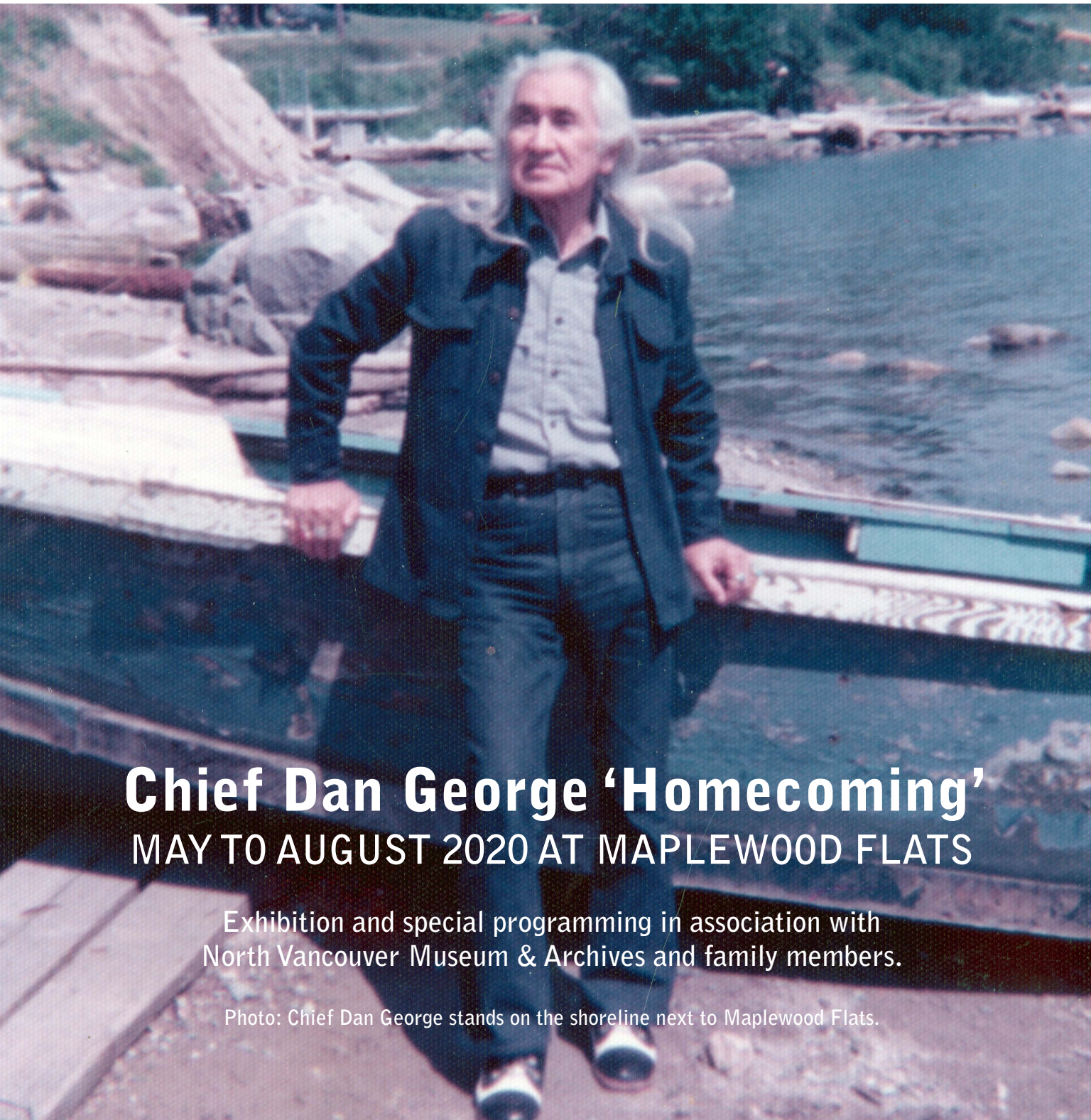

Chief Dan George 'Homecoming'

MAY TO AUGUST 2020 AT MAPLEWOOD FLATS

Exhibition and special programming in association with North Vancouver Museum & Archives and family members.

Photo: Chief Dan George stands on the shoreline next to Maplewood Flats.