A Hopeful Future

Sarh





Letter from the Executive Director



When it comes to media reports about our natural world, headlines today are dominated by tales of doom and gloom. Increasing pollution in our air and waterways, diminishing biodiversity the world over, and the ever-present threat of climate change all conspire to create images of a bleak future that can at times seem inevitable. These are the reports our children have been faced with all their lives – but I have yet to meet even one who responds with despair.

That's because there's an even stronger environmental narrative emerging from Canada's youth today; one of realistic optimism. The next generation is a hopeful generation, and one who is ready to roll up their sleeves and do what it takes to make a better future their reality.

That's why our 2016 Annual Report is all about hope. We see hope every day, not just in the collective actions of our members, but in the individual stories of children who truly believe they can make a difference. And that's what Earth Rangers is all about – encouraging action and helping to create shifts in perspective that we believe will lead to a hopeful future.

Peter Kendel

Peter Kendall Executive Director

Board of Directors

Robert Schad Chairman Emeritus, Earth Rangers; Founder and CEO, Athena Automation

Elizabeth Schad Chair, Earth Rangers

Louise Clements Global Agency Lead, ICF Olson

Stephanie Coyles Corporate Director & Senior Advisor

Steve Levy Chief Operating Officer, Ipsos Canada

David Palmer Vice President, Advancement, University of Toronto

Edward Riley Retired, Head of Distribution, Alliance Atlantis

Cindy Stephenson Christopher Retired, Imperial Oil and Imperial Oil Foundation

Jason Stewart Senior Advisor, Financial Sector Institution

Chantelle Spagnola Associate, Davies Ward Phillips & Vineberg LLP

Advisory Council

Mary Desjardins AVP Philanthropy & Sponsorship, Manulife

Christopher Hakes Greenhouse Gas & Green Technology Consulting

Erin Satterthwaite Senior Director of Communications and Community Investment, Vale

Dean Hughes President, Dean Hughes Consulting

Dr. Justina Ray President & Senior Scientist, Wildlife Conservation Society Canada

Dr. Bridget Stutchbury Professor, York University

Regan P. Watts Leader of Government and Regulatory Affairs, IBM Canada Ltd.

Animal Ambassadors

Earth Rangers Animal Ambassadors travel to every corner of the country, demonstrating their amazing natural behaviours and inspiring children to do their part to help threatened species. These are just a few of the remarkable animals on our team!





2016 by the Numbers







Our School Assembly Program was delivered to

838 schools in 225 communities, reaching 240,000 students.



We gained **26,712 new members,** bringing our total membership to **150,349.**





Our members participated in 44,899 environmental Missions.





Our members raised \$605,323 for Canadian species at risk and their habitats.





Our Public Service Announcements aired on a dozen networks, delivering over **41,000,000 impressions**.



There is hope for generational change when we inspire our children and lead by example.

We know how important it is to give kids positive role models; people who instill optimism and the confidence to take action. That's why we've focused our entire School Assembly — delivered to 838 schools in 2016 — on the message that "We are all Earth Rangers!"

Our School Assembly introduces students to the researchers, volunteers, and other inspiring people who take action to help wildlife across the country. Like Sabine Wilhelm, a seabird biologist from the Canadian Wildlife Service who is working with families on the coast of Newfoundland and Labrador to protect fledgling puffins.

Prime Minister Justin Trudeau also worked to inspire hundreds of thousands of kids across Canada in 2016, as part of an exciting new opening video for the Assembly. Our PM stepped up to talk about everyone's role in protecting Canada's wildlife, the importance of youth engagement in environmental issues, and to encourage young Earth Rangers to take action and make a difference.



Sabine safely releases a puffling back into the wild.



"I don't want you to think of yourselves as leaders of tomorrow; I want you to understand that you are leaders today, right now. What you do matters in the world." – Justin Trudeau, PM of Canada

We're all about giving kids authentic and positive role models who will help to shape their perception of what it is to dream big, to be compassionate, and to take control of their future and the future of the planet.





There is hope to stop climate change when we commit to changing our habits.

We may be feeling the effects of climate change across the country, but our members know that no problem is too big to tackle, and no effort is too small to make a difference! Part of being an Earth Ranger is making the commitment to adopt sustainable habits at home. Through our programs, children not only learn how small changes in their daily life can help the planet – they become ambassadors of change in their household and among their family and friends.

13,322 members participated in Climate Change Missions in 2016!



Carbon Footprint Investigation gives our members the tools to become responsible consumers through a carbon analysis of the products they have at home. They then commit to smart shopping in order to reduce their consumer footprint, like this smart shopper:



Operation Conservation challenges members to tackle energy-wasting culprits around their home, like leaky taps, drafty windows, and plugged-in electronics using phantom power. Those energy-wasting villains don't stand a chance against members like...



Ranger Chloe "We made our own laundry detergents and household cleaners. We used re-usable bags at the grocery store and are becoming more aware of where our clothes are made."



Ranger Bennett "I went all around my house unplugging all the things that I wasn't using and making sure that there was no water running."

Climate Change Education in the Classroom

We also brought climate change learning into the classroom. Our Grade 6 Classroom Visit Program showed students the science behind the Earth's greenhouse effect and how changes in climate affect people and biodiversity. Then, they took part in a hands-on lesson to bring to life how climate change impacts industries like agriculture, and how those same industries may in turn contribute to climate change.





There is hope for species when we support organizations doing innovative work to protect them.

Kids join Earth Rangers because they want to protect animals, and we believe that the best way to do that is by partnering with the experts! There are many organizations doing impactful and innovative projects to protect Species at Risk across the country, and our members worked tirelessly to support them through Bring Back the Wild fundraising initiatives like lemonade stands, arts and crafts events, and bake sales.

THE KIDS

Planse chinsions our ave

in which it wilth un

In 2016 we wrapped up 4 conservation projects that embraced non-traditional partnerships, urban wildlife protection, and conservation research.



Little Brown Bats

The work of Dr. Mark Browning from the Ontario Ministry of Natural Resources and Forestry is helping to prevent the spread of a deadly fungus called white-nose syndrome in Ontario's little brown bats. By identifying hibernation and mating habitats, Mark and his team gained a better understanding of the species' distribution and where to place bat houses so they can safely roost.

12,442 members raised \$224,290 to help little brown bats!





Peregrine Falcons

The Nature Conservancy of Canada led the way in monitoring peregrine falcon nesting and breeding sites at the Alfred-Kelly Nature Reserve in southern Québec, helping to ensure long-term protection of their most important habitat. We also partnered with FLAP Canada in Toronto, to help prevent window collisions in urban areas by promoting bird-friendly building design.

14,733 members raised \$184,300 to help peregrine falcons!





Wolverines



Cold-Water Coral

Dr. Justina Ray of Wildlife Conservation Society Canada worked closely with the Ontario Fur Managers Federation to help prevent the accidental trapping of wolverines in Northern Ontario. 44 motion-activated cameras helped them to understand the movement and behaviours of wolverines so they could join forces to keep critical populations safe.

13,891 members raised \$161,729 to help wolverines!



Earth Rangers commissioned the Inuit-led Arctic Fishery Alliance to study the locations of cold-water coral in Baffin Bay and Eclipse Sound. They used remote underwater cameras to survey the sea floor, providing data for Dr. Susanna Fuller to analyze that will help protect this ancient species and the fish, crustaceans, and mammals that depend on them.

8,392 members raised \$96,279 to help cold-water coral!



The Honourable Carolyn Bennett, Minister of Indigenous and Northern Affairs, congratulates three of the winners of the ATK in Action art contest.

There is hope for reconciliation with Indigenous Peoples when we take time to understand and respect their culture and contributions.

Indigenous youth are the fastest-growing segment of Canada's population. As we continue to expand the reach of our programs into every corner of the country, we recognize the importance of acknowledging the unique perspectives and significant contributions of Indigenous Peoples to Canadian conservation.



In 2016 we collaborated with the Centre for Indigenous Environmental Resources (CIER) on a new Mission called ATK in Action, which encourages members to learn about nature and wildlife from an Elder in their life and express that learning through art. This Mission represents the Indigenous traditions of storytelling and passing down knowledge from one generation to the next. It also introduced our members to the varying symbolism of Indigenous Peoples from across Canada.



Ranger Menka "My family once went to Yellowstone National Park and saw a moose bathing. We realized that water is a precious resource and that we should protect it from degradation and misuse. I chose a moose to represent my story because they represent respect. A moose in Mi'kmaq culture depicts caring for and appreciating nature."



Ranger Mila "My step mom told me the story of Head Smashed In Buffalo Jump, and how the aboriginal people of the prairies used to chase bison off the cliff as part of their traditional hunting practices. I chose the beaver, because it represents wisdom. The native people learned not to chase all the bison off the cliff, or they could starve. This is a good story about how to try to live wisely in harmony with nature, even when hunting for food."



In 2016 we expanded our School Outreach Program to Iqaluit, Nunavut for the first time. We visited every school in the capital, and provided engaging learning opportunities for both Inuit and non-Inuit students, while introducing them to live animals many had never seen up close before.



Earth Month

During Earth Month, Earth Rangers teamed up with TNC Canada to engage our members in supporting their work with B.C. Coastal First Nations to protect grizzly bears living in B.C.'s Great Bear Rainforest. The project resonated with our members, who contributed \$35,000 to it, while gaining an appreciation for how Traditional Knowledge contributes to conservation.





There is hope for a better future because of them.

None of our work would mean anything if we didn't have some of the most impressive and inspiring young people in the world living right here in Canada. What really made 2016 a success for Earth Rangers was our members.

Arts & Graft



Rangers Tryston and Chase collected 476 batteries for the Battery Blitz Mission, and saved them from the landfill by bringing them to a battery recycling station.



Ranger Isabella spent all summer painting pictures, making jewelry, and baking to raise \$560 for her Peregrine Falcon campaign!



Ranger Findley "I really enjoyed building this bird feeder! I am really hoping to see a Chickadee and a Nuthatch."



Ranger Dante "I chose to clean the shoreline because I know that's where the turtles hang out and bask and I didn't want them to be around garbage."



Ranger Logan threw a birthday party and asked for donations to his campaign instead of presents. He raised \$325 for the Woodland Caribou!

2016 Supporters

Our members across Canada work tirelessly to protect animals and the environment, but they can't do it alone. Thank you to the over 17,000 individuals and organizations that have supported us this year.

\$500,000 +

Environment & Climate Change Canada The Schad Foundation

\$100,000 - \$499,999

CRH Canada Group Inc. Honda Canada Foundation Province of Ontario TD Friends of the Environment Foundation TransCanada PipeLines

\$50,000 - \$99,999

Call2Recycle HSBC Bank of Canada The Krembil Foundation Lehigh Hanson Canada Region Ontario Power Generation (OPG) R. Howard Webster Foundation Schneider Electric Canada Shaw Communications Inc. Torys LLP The Trottier Family Foundation Vale Canada Limited The W. Garfield Weston Foundation

\$25,000 - \$49,999

BASF Canada Inc. Canada's Best Store Fixtures CropScience Division of Bayer Davies Ward Phillips & Vineberg LLP Echo Foundation Government of Alberta Great West Life, London Life and Canada Life Imperial Oil Foundation Nature Valley NOVA Chemicals Oceans North Canada RBC Foundation The Rogers Foundation Sitka Foundation The Youssef-Warren Foundation Zzen Group of Companies

\$10,000 - \$24,999

AstraZeneca Canada Inc. The Barrett Family Foundation Bereskin & Parr LLP Canfor Corporation Cement Association of Canada Deloitte. **Edmonton Community Foundation** Firestone Fondation de la Faune du Québec Husky Energy Inc. James and Barbara Stewart The John and Pat McCutcheon Charitable Foundation Lafarge Canada Inc. Menkes Property Management Services Ltd. MTS Allstream New Gold Inc. Praxair Canada Prospera Credit Union The Riley Family Foundation S.C. Johnson Sustainable Forestry Initiative Teck Resources Limited **TELUS Montreal Community Board**

\$1,000 - \$9,999

AltaGas Ltd. The Benevity Community Impact Fund Brampton and Caledon Community Foundation Cindy Stephenson City of Vaughan **David Berner** David Palmer FortisBC GeoSource Energy Inc. Employment and Social Development Canada IBM Canada J.P. Bickell Foundation Kathleen Black The Links Road Animal & Bird Clinic The Maurice Price Foundation Ontario Ministry of Natural Resources & Forestry Mr. and Mrs. S. Mehta Nickle Family Foundation Oakville Community Foundation **Ontario Environmental Industry Association (ONEIA)** Opus Homes Peter and Heather Kendall Pizza Pizza Limited Portlands Energy Centre Pratt & Whitney Canada Inc. Resolute Robert Bosch Inc. **Rogers Wellness Centre** SaskEnergy Sheila Block Terrapure That's Italian Ristorante Vancity

Donor Spotlight: Ontario Power Generation

As the original sponsor of our Bring Back the Wild Program, Ontario Power Generation (OPG) has supported seven conservation projects since 2009. In addition, more than 60,000 of our members have raised almost \$500,000 for Species at Risk in Ontario as a direct result of OPG's support. Significant conservation outcomes — sometimes in concert with OPG's own biodiversity program — for the spotted turtle, American badger, Blanding's turtle, eastern wolf, wolverine, and eastern small-footed bat have resulted from our partnership. Thank you OPG!

Revenue & Expenses

Revenue

Government	\$1,394,054
Corporations	\$1,212,979
Foundations	\$1,379,263
Individuals	\$674,437
Other	\$242,059
Total	\$4,902,793

Expenses

Programs	\$3,866,619
Fundraising & Administration	\$989,398
Total	\$4,856,017

 5%

 14%

 28%

 28%

 25%

 25%

 6

 6

 6

 6

 6

 6

 6

 6

 6

 7

 10

 10

 10

 10

 10

 10

 10

 0

 0

Where funding came from

Where funding went



The Earth Rangers Centre (ERC) continued to be a global leader in energy efficiency and sustainable operations in 2016.



Earth Rangers Centre for Sustainable Technology

As a demonstration site for green building technology and operations, the ERC is committed to education and knowledge-sharing through tours and open access to live monitoring and real-time performance of all our systems.



Industry Leading



Energy Usage

The ERC uses 50% of the energy of the average Canadian office building.



Wastewater Our treated wastewater has E. coli levels 1000% lower than our local watershed.



Renewable Energy

Our solar arrays produce almost 35% of our electricity needs.



Sustainable Site

We have planted 15 acres of tallgrass habitat, a 500m² pollinator garden, and 2,000 + trees.



Waste Diversion

We divert 90% of our waste from landfill, saving about 320 mature trees per year.



Geothermal

Our geothermal system is 5x more efficient than using a traditional chiller.

Innovative Solutions

Earth Tubes

Nine 900mm diameter, 20m long concrete pipes buried 1.5m below ground temper fresh air to the facility.



Allows us to use 100% fresh air throughout the building.

Roof



Thermal Mass

Enough energy is naturally stored to completely offset heating and cooling during occupancy hours.

The ERC is constructed of 4,000m³ of exterior insulated

concrete, which act as a thermal battery.

Data Centre

Our data centre is cooled using in-row cooling from



our geothermal system.

Cooling our data centre uses approximately 1kW of electricity, which is less energy than running a hair dryer.

Building Automation

Over 300 control points for lighting, HVAC, and security ensure operating efficiencies.



Our system monitors when occupants are in the building and only lights and heats space when in use.

Our white roof has an initial Solar Reflectance of 0.79 compared to 0.05 for the standard black roof.



It is 15 times better at reflecting sunlight than a standard black roof.

We are the highest-rated building in Canada designated LEED platinum for Existing Buildings.

Ranger Heidi Participating in the Outdoor Explorer

Mission in Stony Swamp, Kanata, ON



earthrangers.com earthrangers.org