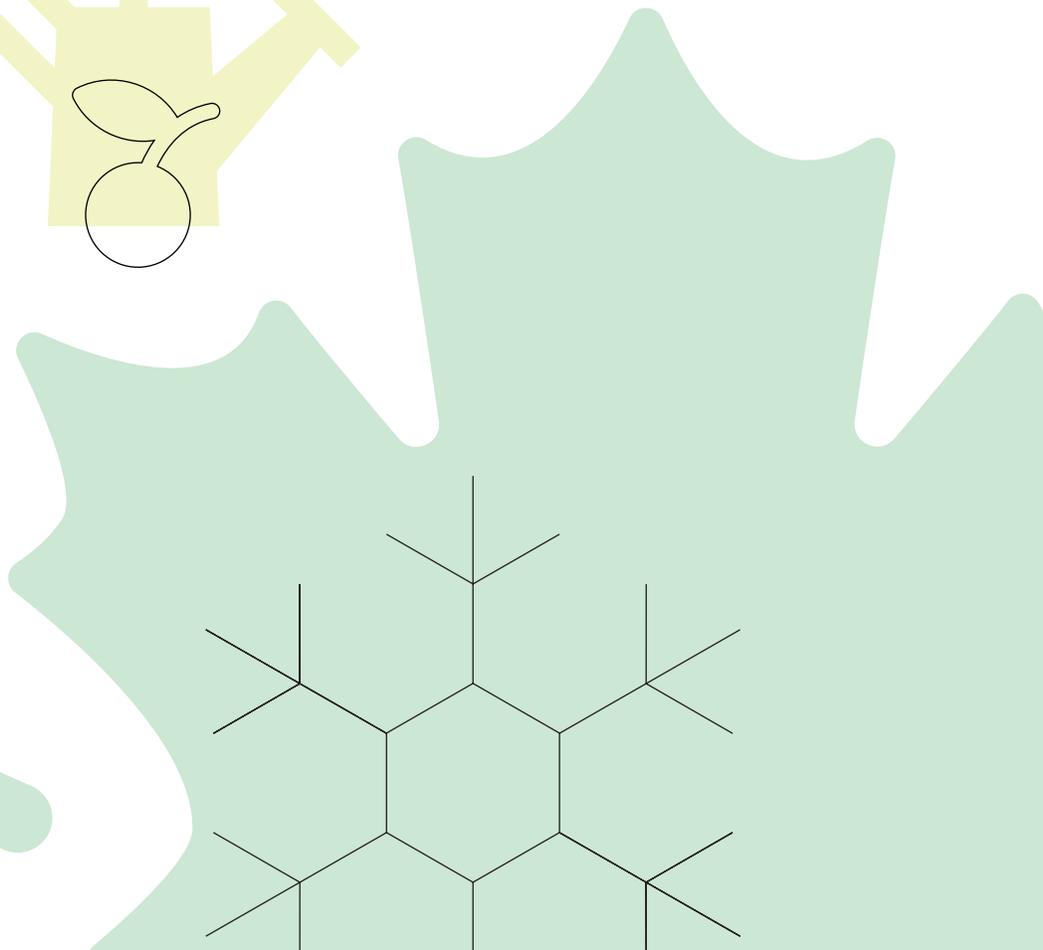
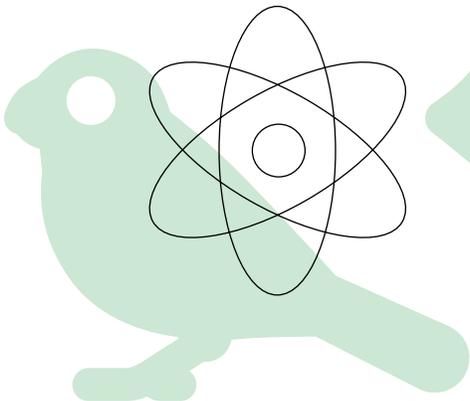
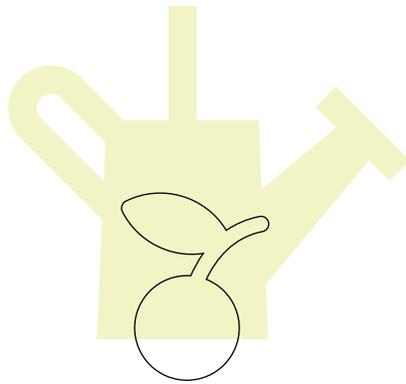
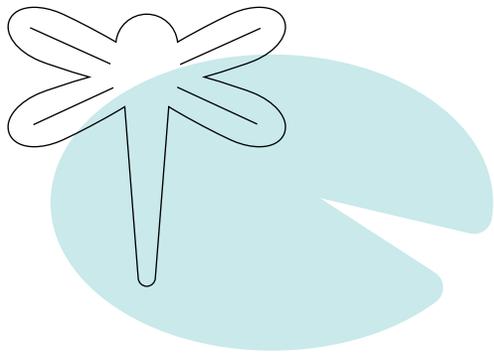
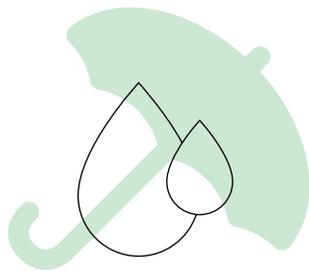
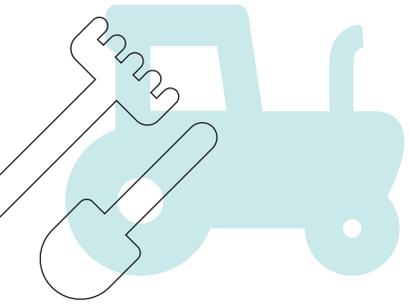




Communicating Biodiversity & Climate Change

A Guide for Crafting Effective Messaging | August 2017



OVERVIEW

Executive Summary

Biodiversity and climate change are inextricably linked: climate change threatens Ontario's biodiversity, while biodiversity improves Ontario's resilience and adaptability to a changing climate. In order to protect and preserve our existing biodiversity while encouraging sustainable production and growth, we need to find ways to encourage meaningful action in varying contexts.

There are, however, significant challenges to communicating these complex and connected topics. These include: varying beliefs about the cause and severity of climate change; the complexity of the topics; perceived social, temporal, or geographical distance from the effects of climate change; and a disconnect between awareness of the issues and driving audiences to actually act on them.

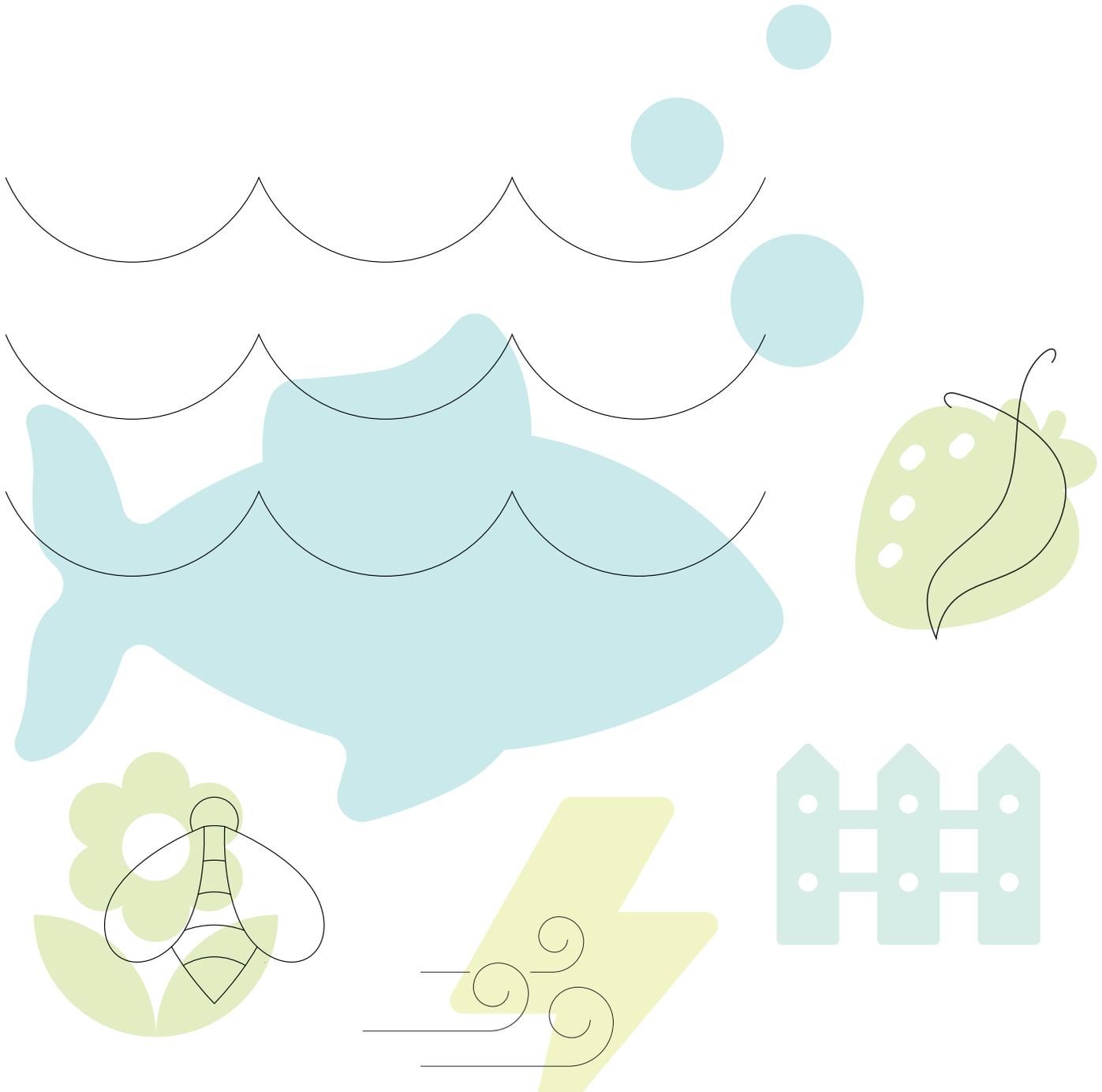
In this report we perform a jurisdictional review of existing communications from a number of sources, across a range of media, and designed for varied audiences, which enables us to map out common approaches to communicating about these issues and identify complementary scales, subjects, values and perspectives.

By analysing these approaches, we propose five key recommendations for more effective communications:

- Speak to those who are at least moderately accepting of the fact that climate change is occurring, regardless of their opinions about cause and severity.
 - Create simple messages about complex topics through the use of metaphors, analogies, and references to existing social or cultural knowledge.
- 

- Fear-based messaging can lead to hopelessness, so it is important to temper fear with hope, and frame losses as avoidable or preventable through positive action.
- Love of nature is valuable, but pride in nature is more valuable as it encourages responsibility and stewardship.
- Use the context of communication to encourage immediate action.

We then apply these recommendations to a selection of example messages, informed by a workshop held in Toronto in early 2017 and incorporating the Ontario Biodiversity Council's Framework for Change.



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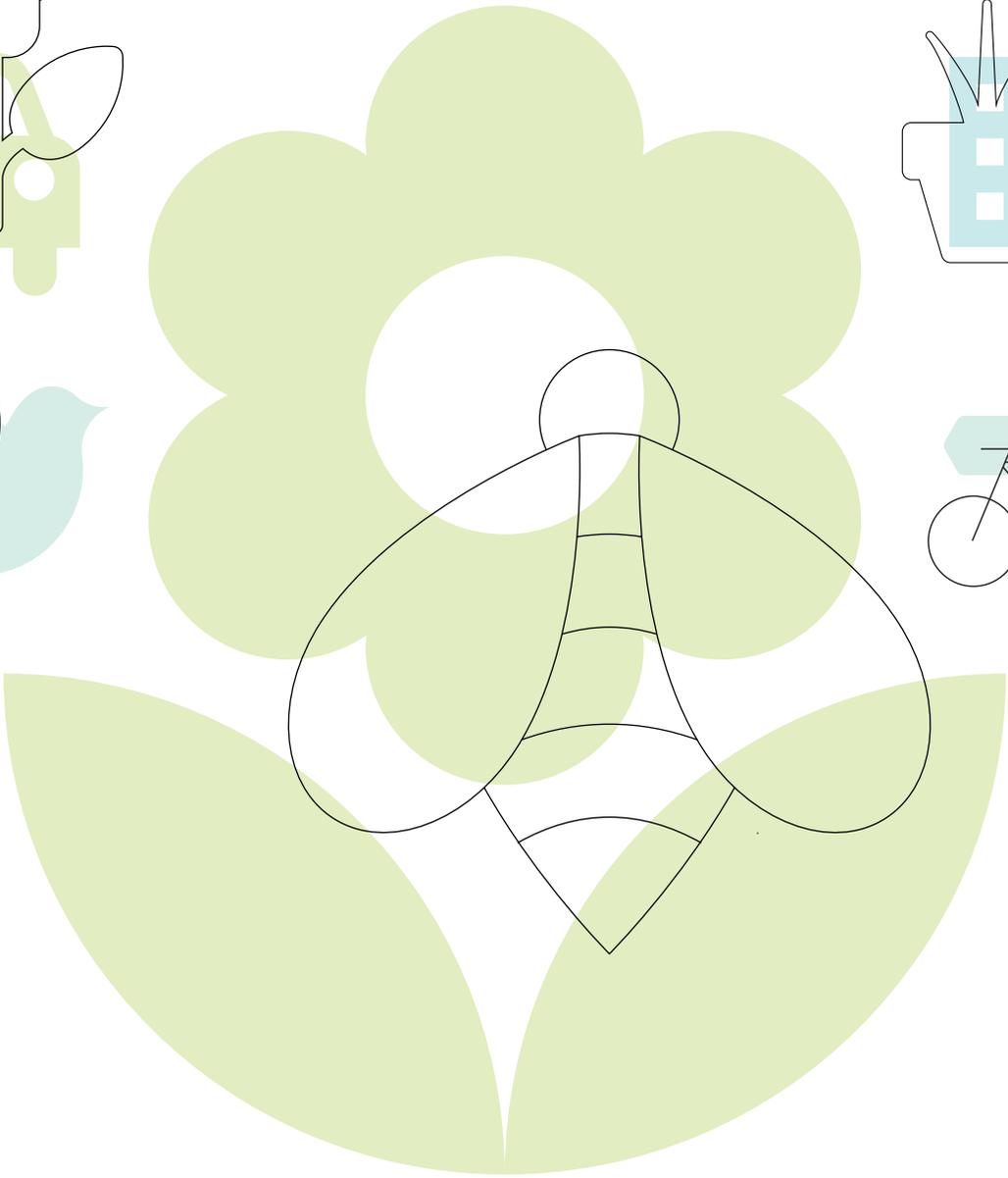
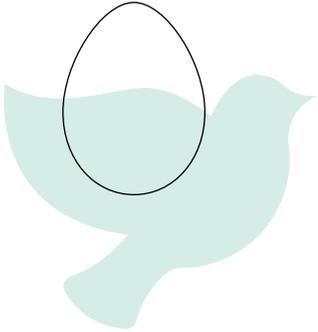
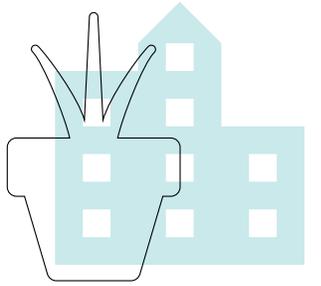
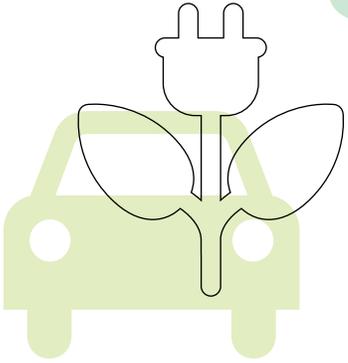
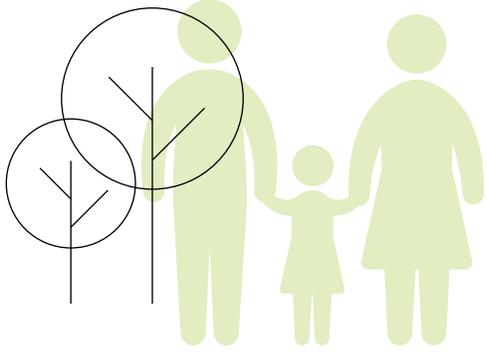
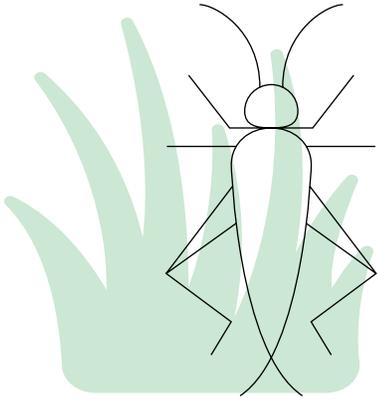
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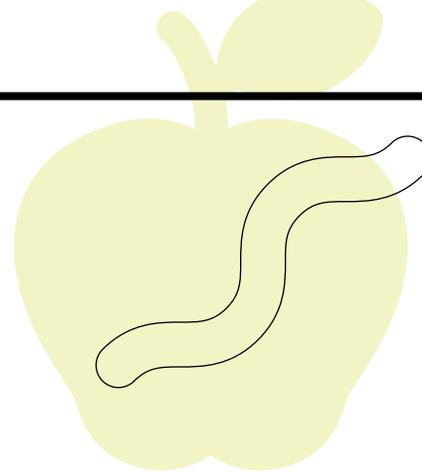
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BRANDING. INTERACTIVE. DESIGN.

PREPARED FOR

 Ontario

 Ontario
Biodiversity
Council





BACKGROUND

Objectives

Since its creation in 2005, the Ontario Biodiversity Council has brought together a diverse group of stakeholders, recognizing that in order to fight the effects of climate change and combat biodiversity loss, large scale action (and collaboration) will be required. Via Ontario’s Biodiversity Strategy, the Council provides guidance to its partners in how to approach biodiversity conservation in Ontario, and has focused its work on four critical components of change:

1

Improve
Knowledge

The goal of this report is to provide a framework for developing effective communications that can tackle the Council’s first two components of change, and ultimately move the needle on educating and engaging the public on biodiversity conservation and its importance with regards to climate change.

This report will identify common approaches to communications around biodiversity loss and climate change, and describe actions that can be taken by individuals, organizations, businesses, and governments.

2

Engage People

3

Reduce Threats

4

Enhance Resilience

Finally, we will review inputs gathered from members of the Ontario Biodiversity Council, members of the Ontario Public Service Biodiversity Network, the Ministry of Natural Resources and Forestry, and other attendees from a January 2017 workshop in order to strengthen and improve those communications and key messages.

BACKGROUND

Definitions

What is Climate Change?

If you were to ask a farmer, a meteorologist, a park ranger, and a high school teacher to define climate change, they'd share a range of definitions of what exactly it is and what's causing it. These groups, though holding varied opinions about how climate change is impacting their lives, would likely have a common understanding of its causes and the overall impacts to the Earth.

Studies like *Climate Change in the American Mind*¹ have found that the general public understanding of climate change is very different from that of climate experts, with only about half (53%) of Americans understanding that global warming is mostly human caused, and over a third of Americans believing that the changes we're seeing are a result of natural changes to the environment.

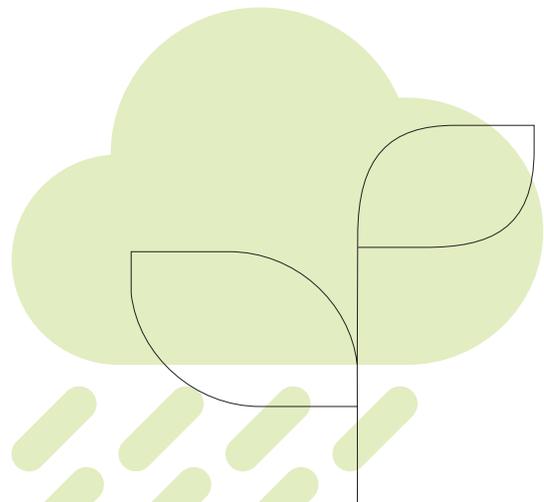
“A change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.”

– *Oxford English Dictionary*, 2017
en.oxforddictionaries.com/definition/climate_change

“...it is the major, overriding environmental issue of our time, and the single greatest challenge facing environmental regulators. It is a growing crisis with economic, health and safety, food production, security, and other dimensions.”

– United Nations Environment Programme,
na.unep.net/geas/climate-change.php

¹ Yale Program on Climate Change and George Mason University Centre for Climate Change Communication, 2016



Many factors are driving climate change at various rates, including human pollution, carbon emissions from crops and cattle farming, burning fossil fuels, medical waste, deforestation, and more. Climate change is big, complex, alarming, and it's happening now.

What is Biodiversity?

Biodiversity is key to maintaining the ecological balance of the Earth. If we look at the dictionary, biodiversity seems quite simple, defined as: “diversity among and within plant and animal species in an environment.”

But biodiversity is anything but simple. The variation in species and ecosystems is the result of billions of years of evolution, with every single organism serving a purpose in the maintenance of the Earth's ecology.

Interestingly, a recent study in Canada² found that politicians associate biodiversity only with a pristine, wilderness-type environment,

² *Communicating climate change and biodiversity to policy makers*, Scienseed SL for the Bern Convention (Council of Europe), Madrid, 2016

a phenomenon which researchers refer to as the “biodiversity bias”. This view overlooks the complex reality of ecosystems. In truth, we see biodiversity everywhere, in the plants that take up residence between cracks in a city sidewalk, or in the salmon swimming upstream in Toronto's Humber River.

Undervaluing these urban examples of biodiversity can have drastic impacts, and we've seen them here in Ontario; while adding a concrete curb around High Park's Grenadier Pond in 1950 may have been an aesthetically pleasing choice, the removal of shoreline vegetation and wetlands resulted in a drastic loss of wildlife habitat, and only after a 2005 naturalization project did pike, bass, and other fish begin to return to the area.³

³ *High Park: Restoring a Jewel of Toronto's Park System*, Joanna Kidd, LURA Consulting, Tove Christensen and Beth McEwen, Forestry, Parks and Recreation Division, City of Toronto, 2000

Why Does Biodiversity Matter?

The Earth's biological diversity is urgently threatened by climate change, while also being our best possible hope for adapting to and evolving with our changing ecology. With climate change comes extreme weather events like droughts, heavy rains that cause flooding, hurricanes, and tornadoes that in turn cause land impacts such as erosion. Strong, diverse ecosystems are more resilient against these stresses and can serve as a buffer against their harmful effects.

At the same time, the rapid changes we're seeing will result in habitat changes, including a shift of ecosystems northward. These changes put northern ecosystems like boreal forests, peat lands, and wetlands—all of which store large quantities of carbon—at risk.

To assist the fight against climate change, we need to find ways to protect and restore those ecosystems. With many of the activities which are accelerating the pace of climate change being human-driven, there's an opportunity to slow and even reverse some of its effects if we can promote the right actions both on a micro and a macro scale, and effective communication is key to this effort.

“All species are interconnected. They depend on one another. Forests provide homes for animals. Animals eat plants. The plants need healthy soil to grow. Fungi help decompose organisms to fertilize the soil. Bees and other insects carry pollen from one plant to another, which enables the plants to reproduce. With less biodiversity, these connections weaken and sometimes break, harming all the species in the ecosystem...”

— *Biodiversity*, National Geographic, 2011

<http://nationalgeographic.org/encyclopedia/biodiversity/>

Effective Communication

Slowing the pace of climate change won't be accomplished in one fell swoop, with one simple action. It will require changes in government policy, new approaches to urban planning, citizen action, and thousands of tiny changes to everyday habits. To make these happen, the Ontario government with the help of the Ontario Biodiversity Council will need to drive behavioural changes by developing effective communications for their audiences that move beyond awareness and education.

“Effective communication doesn’t have to be big or expensive. Getting your message across might simply be a matter of sending a letter or an email, speaking at an event, or making a phone call. You know your audiences best—what are they most likely to respond to?”

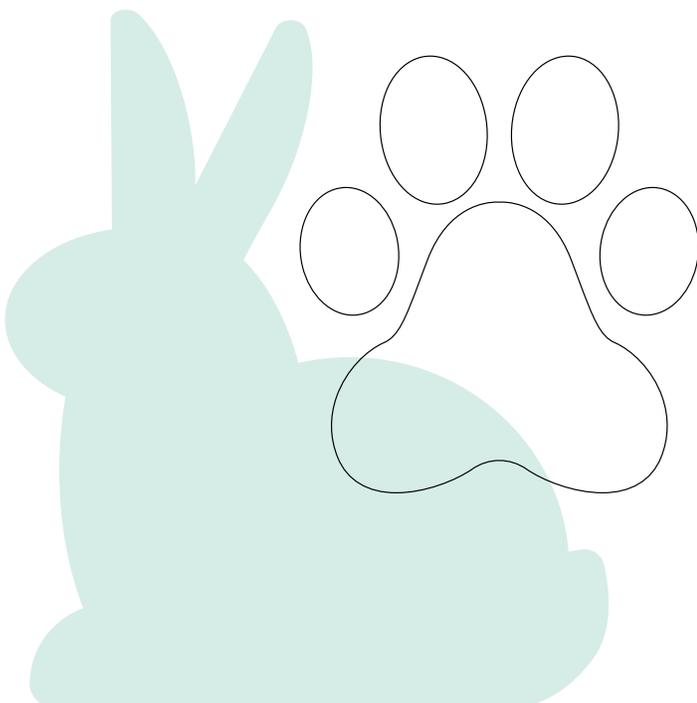
— *Your Guide to Communicating Climate Change*,
UK Department for Environment Food and Rural Affairs, 2005

“Traditional messages on biodiversity from governments and NGOs urging the public and other stakeholders to change their daily practices need to be reviewed. Often these messages use too much jargon, are negative, too didactic, abstract or filled with doom. Instead of turning people on, they risk switching them off.”

— *Communication, Education and Public Awareness (CEPA)*,
Frits Hesselink, Wendy Goldstein, Peter Paul van Kempen,
Tommy Garnett and Jinie Dela

But before developing the message we want to communicate to our audiences, we first need to establish a common understanding of what effective communication should be:

- Relevant to your audience. If a message isn’t in some way relevant to the person who is consuming it, it will be ignored.
- Easy to understand. If your message is overly complex or difficult to parse, it will be ignored.
- Memorable. If your audience can’t recall what your message was hours, days or weeks later, it hasn’t been effective.
- It elicits a response. Your audience can respond to your message in many ways, be it through action, behavioural change, or even echoing your message to others. Regardless, effective communications must elicit some sort of response, otherwise it has no reason to exist.



CHALLENGES

Communication Challenges

While those of us who are deeply engaged with climate change and biodiversity issues feel enthusiastic about the steps needed to combat its negative effects, we cannot assume the general public will feel motivated to listen and take action if we simply present them with the scientific facts around the issue.

In an increasingly connected world, the public are bombarded with messages day in, day out. Brands and media outlets are constantly competing for the attention of these audiences, and have their own sets of challenges in getting their messages to connect with the public. When it comes to communicating about biodiversity and climate change, research has found that there is also a specific set of communication challenges specific to this topic area: the complexity of the message, psychological distance, varying beliefs, and the disconnect between awareness and action.

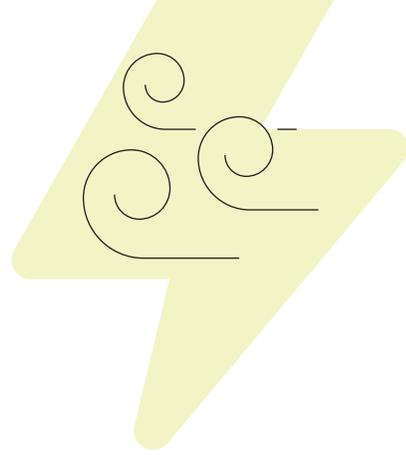
Complexity of the Message

Although the concepts by themselves may be simple, explaining the inter-related nature of biodiversity resilience and climate change can be quite complex.

In developing their UK Communications Strategy on Climate Change, Futerra found that while awareness of climate change was high in the UK, understanding of the topic was low. Without public understanding of the impacts and implications of climate change, it will be difficult to inspire citizens to take action. And who can blame them? It's a complicated issue, and we haven't been making it easy.

Take, for example, this statement about biodiversity: "Conservation, restoration and sustainable management of ecosystems can help reduce vulnerability to climatic hazards such as hurricanes, rising sea levels, floods and droughts. Furthermore, such approaches improve the resilience of ecosystems to climate change so that they can continue to deliver ecosystem services, supporting the provision of alternative livelihood options in the face of climate change."⁴

⁴ *Addressing Climate Change: Why Biodiversity Matters*, UNEP-WCMC, Cambridge, UK, 2014



To someone who isn't knowledgeable about the topic, what does this statement even communicate? A casual reader might take away that conservation is good, without fully understanding why.

Psychological Distance

We are, for the most part, the centre of our own universe. This doesn't make us selfish or self-centred, but we define ourselves and the world around us from within our own sphere of experience. Unfortunately this makes us very, very bad at being able to conceptualize danger and risk when the threat appears far off.

Because of the complexity and global scale of the topics, biodiversity loss and climate change are often misinterpreted by the public as problems for the future, and “perceived as temporally, geographically and socially distant.”⁵ This hinders people from making behaviour changes, since we as humans have a habit of wanting to see the immediate impact of our actions.

With many climate change related campaigns focusing on a global scale and being future-focused, it's often difficult to parse out how one person's action could make a difference. We bucket messages like these as “distant risks”, and they are processed with the brain's analytic system, a system with rarely leads to action.⁵

As communicators, we need to frame our climate change-related messages as immediate risks that are close to our audiences both in space and time. By doing this, our messages will be processed in their experiential system — the system that leads to action. Similarly, in *Communicating Climate Change and Biodiversity to Policy Makers*, the authors suggest bringing “climate change and biodiversity loss to the present, to a local scene and to a similar social setting to that of the stakeholder”.⁵

⁵ *Communicating Climate Change and Biodiversity to Policy Makers*, Scienseed SL for the Bern Convention (Council of Europe), 2016

Varying Beliefs

In a perfect world we'd all be pulling in the same direction on something as urgent as climate change. But unfortunately that's just not the case. Broadly speaking, the world is made up of those who 'believe' in climate change and those who don't.

Looking at each end of the spectrum, the 'believers' are the most concerned by climate change, and the most motivated to do something about it, while the 'deniers' are the least concerned, and the least motivated to do anything. In fact they may be motivated to circumvent or obfuscate our efforts because they perceive action on climate change as a threat.

Between these two extremes, a report from Yale from 2008 identified six distinct groups based on their global warming beliefs, issue involvement, and behaviours. The segments, known as the Six Americas, "span a spectrum of beliefs about global warming, from the

"Alarmed" to the "Dismissive",⁶ and can provide a lens into the spread of communication messages that are required to reach each group.

Even more importantly, it can give us a starting point in identifying who we should be prioritizing in our communications, and who will dismiss our messages, no matter the content.

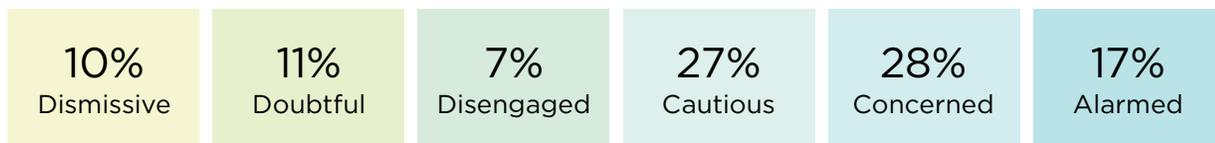
Disconnect Between Awareness and Action

Finally, the biggest challenge is the disconnect between awareness and action. Education and public awareness are important, but if they don't inspire direct action, or promote behavioural change, then issues like biodiversity conservation and climate change will continue to thrive in the future.

Successful interventions to conserve species and natural resources must change human decisions and

⁶ *Nudging toward a Healthy Natural Environment*, Karen Akerlof & Chris Kennedy, George Mason University, 2013

LEAST CONCERNED, LEAST MOTIVATED

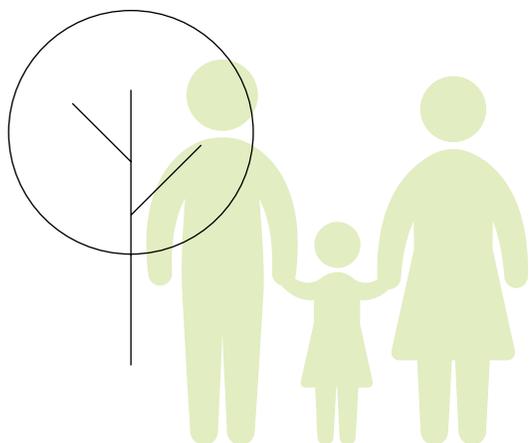


MOST CONCERNED, MOST MOTIVATED

behaviour⁷, but efforts to alter the ways people think and act are often ineffective, and may result in outcomes that are counter intuitive⁸, or even counterproductive to conservation goals.⁹

Given the urgency and importance of climate change and biodiversity, effective communication needs to be about more than education and awareness; it needs to incite action.

Communications should begin with the question: what is the current behaviour and how would we like that behaviour to change? Communications centred around clear behavioural change are more focused and leave the audience with a clearer path to the desired action.



Some Examples:

CURRENT BEHAVIOUR

Purchasing products with indeterminate origins and ecological impacts

DESIRED BEHAVIOUR

Purchase locally grown and harvested products, which are sensitive to, and strengthen biodiversity

CURRENT BEHAVIOUR

Planting non-native or invasive species which harm local species

DESIRED BEHAVIOUR

Planting or encouraging the growth of native species

CURRENT BEHAVIOUR

Pest management methods that harm local ecosystems

DESIRED BEHAVIOUR

Pest management methods that do not harm local ecosystems

⁷ *Conservation Psychology: Understanding and Promoting Human Care For Nature*, S. Clayton & G. Myers, 2009; *Conservation Biology*, C. D. Saunders, A. T. Brook, & O. Eugene Myers, 2006; *Conservation Biology*, P. W. Schultz, 2011

⁸ *Philosophical Transactions of the Royal Society B: Biological Sciences*, E. J. Milner-Gulland, 2012

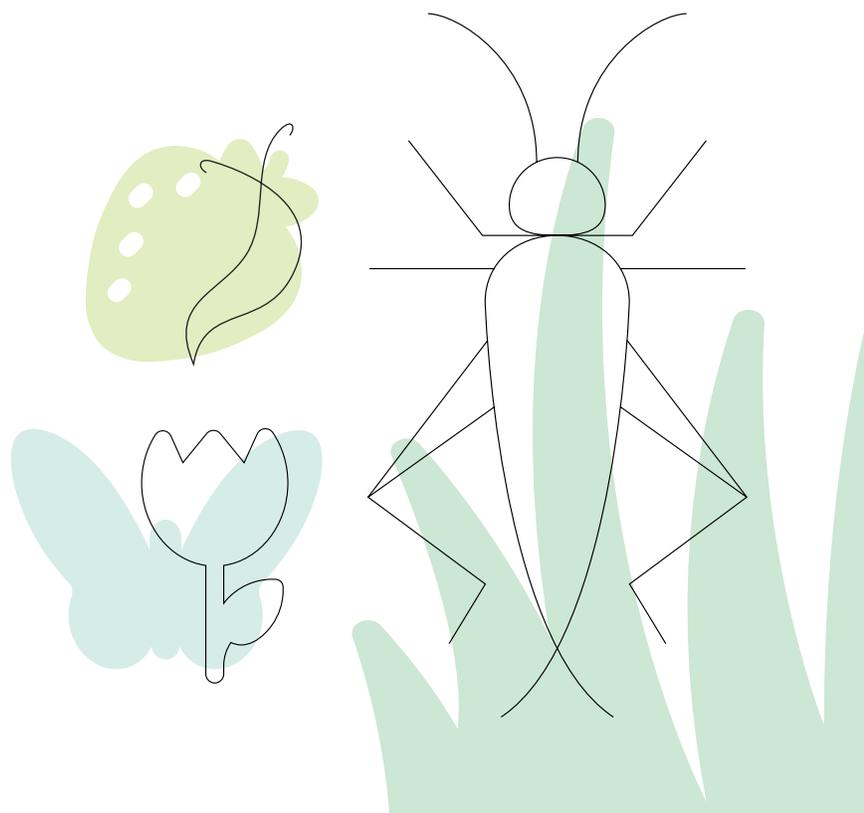
⁹ *Land Economics*, C. B. Barrett & P. Arcese, 1998

The Decision Journey

As discussed earlier, simply presenting the public with information on climate change is unlikely to drive any meaningful behavioural change. As we develop our communication strategies, it's important to be aware of the audience's decision journey, and to build communications that speak to the audience in different ways at different points throughout this journey.

The reality is, if we're clear about our end goal and strategic about how we're getting there, we can break our communications down into many small messages to build towards something larger. From newsletters to emails to bookmarks to Facebook posts, there are dozens if not hundreds of places for you to reach your target audience. Think of these places as channels that can build into each other, and guide your audience to make the right decisions at the right times to affect meaningful change.

The DAGMAR (Defining Advertising Goals for Measured Advertising Results) model is a useful tool for visualizing the various steps within the decision journey. Developed in 1961, the model assumes that audiences are initially unaware of an issue's existence or that if they are aware of it, they are not knowledgeable enough about it to decide whether or not they want to learn more. If our ultimate goal is to get the audience to care and take action, we must guide them through the following steps:



1. AWARENESS

At 'Awareness', your audience is aware an issue exists. They may not fully understand it—in fact they may completely misunderstand it—but they know of the issue in broad strokes.

At this stage, broadly targeted messaging appearing in a variety of contexts will cast the widest net for drawing people further into the decision journey. Contexts include billboards, newspaper ads, or television and radio campaigns.

When designing messages for this phase, those that obliquely reference the issue without focusing on convincing the audience of its existence will be the most palatable to those that might be resistant. For example: position sustainable energy production as primarily being about sound resource management with a secondary benefit of reducing our contribution to a changing climate.

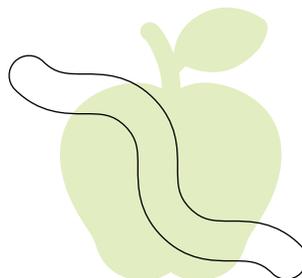
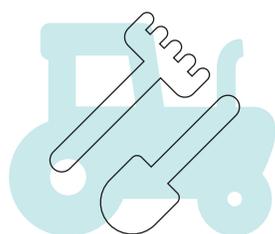
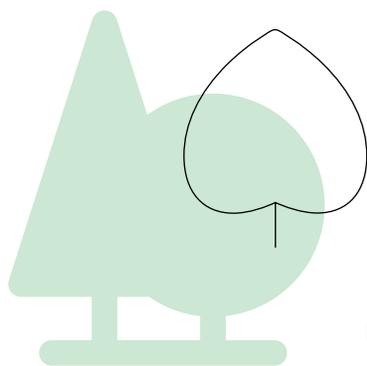
2. COMPREHENSION

At 'Comprehension', the audience knows of the issue, and has a base level understanding of it. They may still need to learn more about the issue, or may need another push into forming an opinion.

You still have an opportunity in this stage, before a person's opinion has fully been formed, to provide knowledge and nudge them towards the desired conclusion.

At this stage, messaging should gain specificity in both content and context. Display and search engine advertising gains value at this point as you can begin targeting your messages to specific demographics or, in the case of search engine advertising, at specific keywords and queries.

Begin linking the actions of the audience to the outcome of the issues to encourage a sense of responsibility, while avoiding messages that may lead to hopelessness or despair. This is the phase at which those that are on the edge of agreement may turn away when faced with issues that seem insurmountable.



3. CONVICTION

At 'Conviction', the audience is aware, understands, and has formed a personal opinion about the issue. There's no guarantee that they've formed the desired opinion, and once an opinion is formed it gets increasingly difficult to change their beliefs. At this point, the person will likely begin to accept only information that affirms or reinforces their existing opinion. This is commonly referred to as 'confirmation bias'.

At this point there are two paths forward:

1. Engage with the segment of the audience that understands and accepts that our climate is changing. Supplement and reinforce their understanding and encourage them to relay the messages themselves by providing shareable messaging in more direct contexts (e.g. targeted social campaigns.)
2. Focus on the specific and measurable benefits to your audience of changing their behaviours without linking the outcomes to climate change or biodiversity. Energy efficiency becomes a financial decision, reductions in consumption are about resource management, etc.

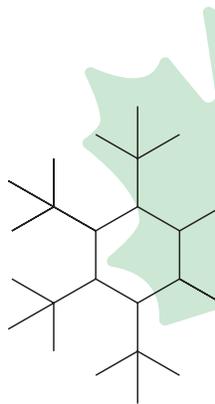
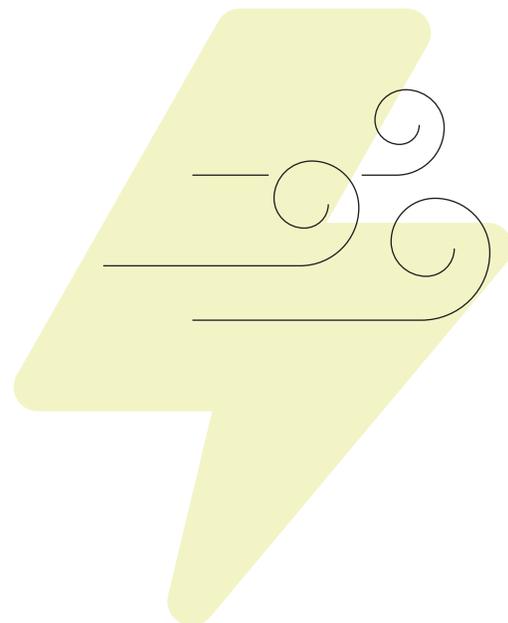
It's rare that an organization is in a position to run multiple orthogonal campaigns, so the decision on your approach will come down to the audiences to which you are speaking, and how the campaign fits within the context of your larger brand communication strategy.

4. ACTION

Finally, once a strong opinion is formed, the audience may be driven to action. This could be a small, perhaps subconscious decision being made at some point in the future, or it could be a significant change to the person's core behaviours.

At this stage, messaging should be focused on immediate action, while the context of your messaging should be as specific to the desired outcome as possible. Examples include messaging about inspecting for invasive species such as zebra mussels at boat launches, encouraging the purchase of native species at garden centres, or promoting the benefits of bottle recycling at LCBO checkout counters.

It can be exceptionally difficult to speak to your audience all the way through the decision journey, especially when dealing with limited budgets, or diverse audiences, and yet it often only takes small nudges at the right point in the journey to significantly affect the outcome.



APPROACHES

Jurisdictional Review

As part of this process, we reviewed a variety of academic research and environmental action campaigns from across the globe, as well as surveyed local stakeholders. The best practices, recommendations, and approaches contained in these materials and the responses to that survey are referenced throughout this report and have informed our overall recommendations and messaging. The following is a list of the core materials reviewed.

CANADA

- *Climate Change and Biodiversity*, Convention on Biological Diversity — Montreal, Canada, 2010

EUROPE

- *Communicating Climate Change and Biodiversity To Policy Makers*, Scienceed SL for the Bern Convention (Council of Europe) — Madrid, Spain, May 2016

UNITED KINGDOM

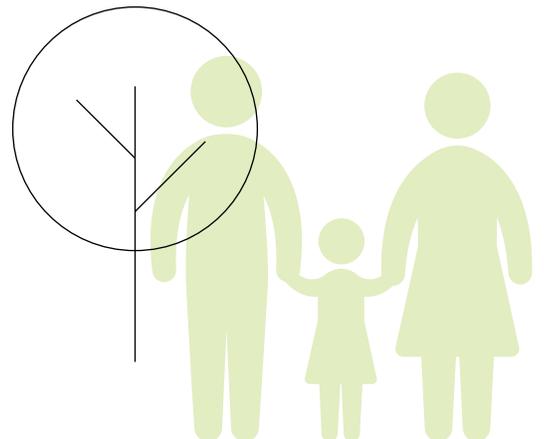
- *Honest Advocacy for Nature: Presenting a Persuasive Narrative for Conservation*, Cambridge University, UK, 2015
- *Taking Stock of the Spectrum of Arguments for Biodiversity*, Centre for Ecology and Hydrology, Wallingford, UK, 2015
- *Branding Biodiversity: The New Nature Message*, Futerra Sustainability Communications, UK, 2010
- *How to Communicate Biodiversity*, Futerra Sustainability Communications, UK, 2009
- *UK Communications Strategy on Climate Change*, Futerra Sustainability Communications, UK, 2005
- *Fear Won't Do It: Promoting Positive Engagement with Climate Change Through Visual and Iconic Representations*, Tyndall Centre for Climate Change Research, University of East Anglia, UK, 2009
- *Together This Generation Will Tackle Climate Change: Your Guide to Communicating Climate Change*, Department for Environment, Food and Rural Affairs, UK, 2005
- *Addressing Climate Change: Why Biodiversity Matters*, United Nations Environment Programme, UK, 2014

USA

- *Audience Segmentation as a Tool for Communicating Climate Change: Understanding the Differences and Bridging the Divides*, National Park Service, USA, 2011
- *Nudging Toward a Healthy Natural Environment How Behavioral Change Research Can Inform Conservation*, George Mason University, USA, 2013
- *Climate Change in the American Mind*, Yale + George Mason University, USA, 2016

Programs & Campaigns

- *The World's Easiest Decision*, The Climate Change Reality Project, 2015
- *ClimateRealityProject.org*, The Climate Change Reality Project, 2011
- *Biodiversity* (TV Episode), Bill Nye the Science Guy, 1993
- *Beeodiversity.com*, Beeodiversity, 2014
- *#ForTheLoveOf*, The Climate Coalition, 2014
- *Wild for Life*, UNEP, UNDP, UNODC, CITES, 2016
- *We Are All Wildlife*, WWF, 2015
- *European Business and Biodiversity Campaign*, Global Nature Fund, 2010
- *UN Decade on Biodiversity 2010-2020*, United Nations, 2010
- *Lynn Cazabon: Uncultivated*, Lynn Cazabon, 2013
- *How Does Climate Change Affect Biodiversity?*, California Academy of Sciences, 2014
- *#NatureForAll*, International Union for Conservation of Nature (IUCN), 2016
- *Love, Not Loss*, IUCN, 2010
- *How Great Leaders Inspire Action* (TED Talk), Simon Sinek, 2010
- *Biodiversity is Us*, World Association of Zoos and Aquarium, 2011
- *BiodiversityCity.fr*, Association BiodiverCity, 2013
- *Conservation is _____*, USAID, 2014
- *Biodiversity BC*, 2007
- *Biodiversity Without Boundaries*, NatureServe, 2010
- *Nature is Speaking*, Conservation International, 2014
- *Linking Biological and Cultural Diversity*, UNESCO & CBD, 2010
- *Protecting What Sustains Us*, Ontario Biodiversity Council, 2011
- *The Community Canoe Project*, The Homegrown National Park Project, 2013



Survey

In 2017, we surveyed Ontario Biodiversity Council members and supporters about their goals and challenges when creating communications about climate change and biodiversity. Below is a sample of the results.

COMMUNICATION CHALLENGES

6%	Limited access to media
18%	Difficulties measuring results
24%	Other
24%	Inconsistency in messaging
35%	Varying beliefs across audiences
35%	Insufficient resources
41%	Audience feels climate change impacts are in the future
41%	Limited budgets
41%	Ability to reach audiences
59%	Audience doesn't feel impacted by climate change
65%	Turning awareness into action/behaviour change
82%	Simplifying messages for a general audience

TARGET AUDIENCES

22%	Provincial Government - Purchasers
22%	Municipal Government - Purchasers
28%	Corporations - Employers/Recruiters
33%	General Public - Donors
33%	Corporations - Purchasers
39%	Farmers/Agriculture
44%	First Nations and Indigenous Communities
61%	Municipal Government - Policymakers
61%	Landowners
61%	General Public - Influencers
67%	Provincial Government - Policymakers
67%	General Public - Voter/Taxpayers
78%	Science and Academic Community
78%	General Public - Consumers

APPROACHES

Common Approaches

In order to derive some meaning from the variety of the programs reviewed, we have identified a few key approaches. These approaches can be classified by scale, subject, value, motivation, and appeal.

Scale



Whether we're talking about backyard beekeeping or global CO₂ levels, programs have scale. Before we can say anything, we need to define a scale or scope at which we're speaking. From the intimate, individualistic micro scale up to the big picture, global experience of the macro scale.

Subject

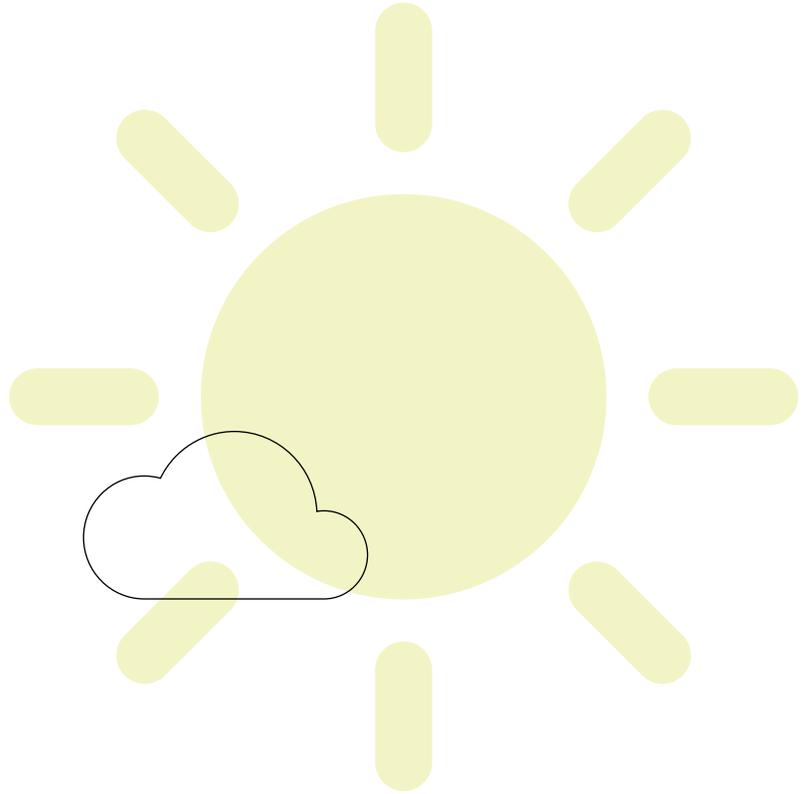


With the scale of our message defined, we now determine the subject. Are we talking about this issue from the human perspective or is nature the focus?

Value



How does the program define the value that nature has? Relative to human need, or having some intrinsic value in and of itself?



Motivation

— LOSS + GAIN

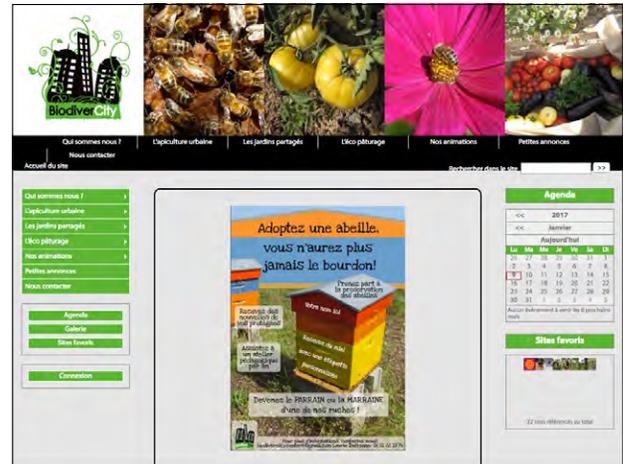
Are we talking about habitat and species loss, or the resilience of diverse ecosystems? Based on this value proposition, what is our motivation?
Are we facing a loss, or trying to guarantee a gain?

Appeal

♥ EMOTIONAL ⚙ LOGICAL

And last but not least, is this an emotional appeal, or a logical appeal?
Are we speaking to the head or the heart?

 Scale: Micro



BiodiverCity

BiodiverCity is a hyper-local program based in France that encourages citizens to spread nature throughout the city. This includes efforts like ‘adopting a bee’ and planting a garden. It’s easy to contribute, and individual activities are supported by a larger community.

KEY MESSAGE

Adopt a bee, plant community gardens, support urban agriculture.

▲ Scale: Macro



We are all Wildlife

We are all Wildlife

Conversely, We Are All Wildlife is a large scale campaign by the WWF that attempts to link humans, animals, plants, and oceans together as one massive, interconnected ecology. This is also one of the rare examples of messaging with humans and nature given equal focus.

KEY MESSAGE

The reality is that we aren't so different. Humans, animals, plants, oceans—we're all in this together.

 Subject: Human



#ForTheLoveOf

#ForTheLoveOf is a human-focused campaign with micro-scale messaging about all of the things we love that are threatened by climate change. The appeal to our unique tastes as individuals, as well as the crowd-sourced social media contributions, support the notion that humans are at the centre of this issue.

KEY MESSAGE

Let's act on climate change to protect our families, our hobbies, our lifestyles, our safety and our wellbeing.

 Subject: Nature



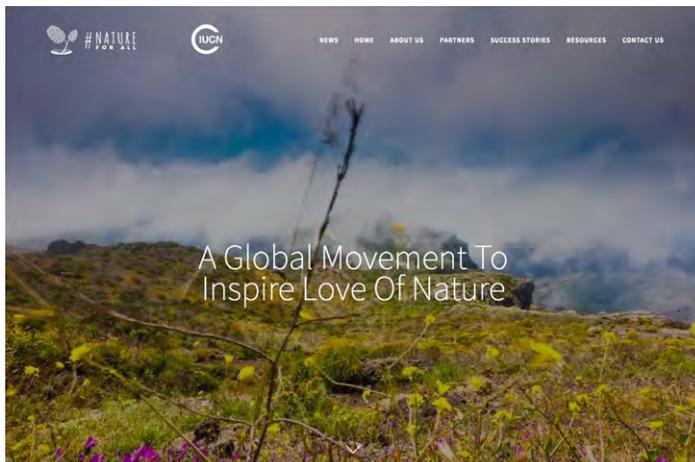
Nature is Speaking

On the opposite end of the spectrum, Nature is Speaking has nature as the central focus, with a tagline of “Nature doesn’t need people, People need nature”. This approach depicts climate change from the environment’s perspective, where humans are merely a footnote.

KEY MESSAGE

Nature doesn’t need us.
We need nature.

Value: Intrinsic



#NATURE
FOR ALL

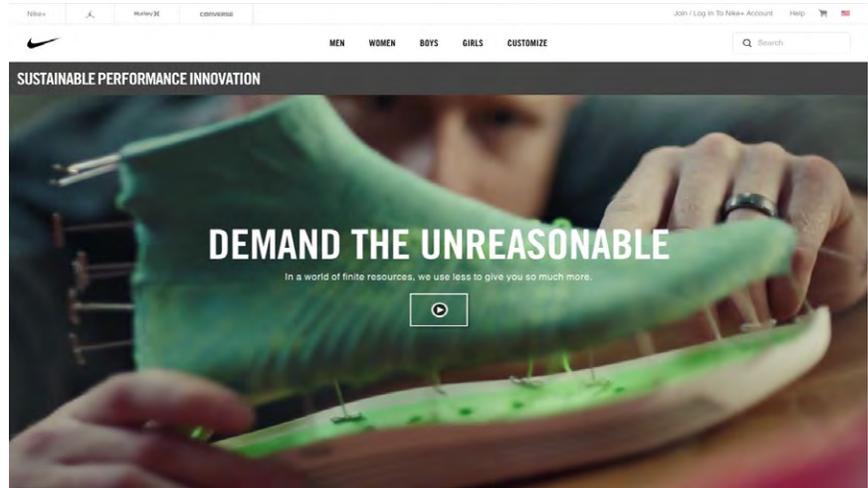
Nature for All

#NatureForAll, a recent campaign from IUCN, is planted firmly on the side of nature having an intrinsic, innate value that we can all see for ourselves just by going outside and experiencing it.

KEY MESSAGE

The more people experience, connect with, and share their love of nature, the more support there will be for its conservation.

\$ Value: Utilitarian



Nike Sustainability

Nike's sustainability campaign defines nature's benefit to us in very utilitarian terms. Not only can sustainable manufacturing processes help protect our environment, but they can also help create a better sneaker for your daily workout.

KEY MESSAGE

In a world of finite resources, we use less to give you so much more.

— Perspective: Loss



Save Paper, Save the Planet

When it comes to Loss based messaging, there's no better example than WWF's Save Paper, Save the Planet campaign. Every single paper towel you pull from the dispenser very clearly depletes the 'greenery' of the South American rainforests.

KEY MESSAGE

The survival of the forest is directly connected to what we consume.

+ Perspective: Gain

The graphic features a central image of a Tide Coldwater detergent bottle. Surrounding the bottle are several text boxes and icons illustrating the benefits of cold water washing:

- IF EVERYONE IN THE UNITED STATES WASHED THEIR LAUNDRY IN COLD WATER ...** (with a US map icon)
- A HOUSEHOLD SWITCHING TO COLD WATER WASHING FOR A YEAR ...** (with a house icon)
- WOULD SAVE ENOUGH ENERGY TO WATCH TV FOR 1,363 HOURS** (with a TV icon)
- THE ENERGY SAVED IN ONE YEAR WOULD EQUAL THE ENERGY PRODUCED AT THE HOOVER DAM FOR 4 YEARS** (with a Hoover Dam icon)
- PLAY XBOX 360 FOR 684 HOURS** (with a game controller icon)
- WHICH IS ENOUGH TO POWER THE EMPIRE STATE BUILDING FOR THE NEXT 444 YEARS** (with the Empire State Building icon)
- CHARGE AN IPHONE 4S 30,861 TIMES** (with an iPhone icon)
- AND COULD REDUCE CO₂ EMISSIONS BY UP TO 11 MILLION METRIC TONS EVERY YEAR.** (with a CO₂ icon)
- OR POWER AN AVERAGE NEW REFRIGERATOR FOR NEARLY 4 MONTHS.** (with a refrigerator icon)

Tide Coldwater

A 'gain' based message can be seen from Tide for their 2005 Coldwater campaign. This advertisement makes a very clear link between the things we'll gain by conserving energy when we switch to cold water.

KEY MESSAGE

Cold water washing can contribute to dramatic energy savings around the US.

♥ Appeal: Emotional



Rare Pride

Rare uses the emotion of pride to encourage communities to embrace and protect the nature around them. Rare's Pride campaigns have been ongoing since the 80's, and began with a campaign to encourage civic pride in a local parrot that faced a shrinking habitat. They created mascots, parades, and they even had school children singing songs about the parrot. Within a decade, the parrot had bounced back, and its habitat was no longer in danger.

KEY MESSAGE

Rare Pride inspires communities to take pride in their natural resources.

 Appeal: Logical



The World's Easiest Decision

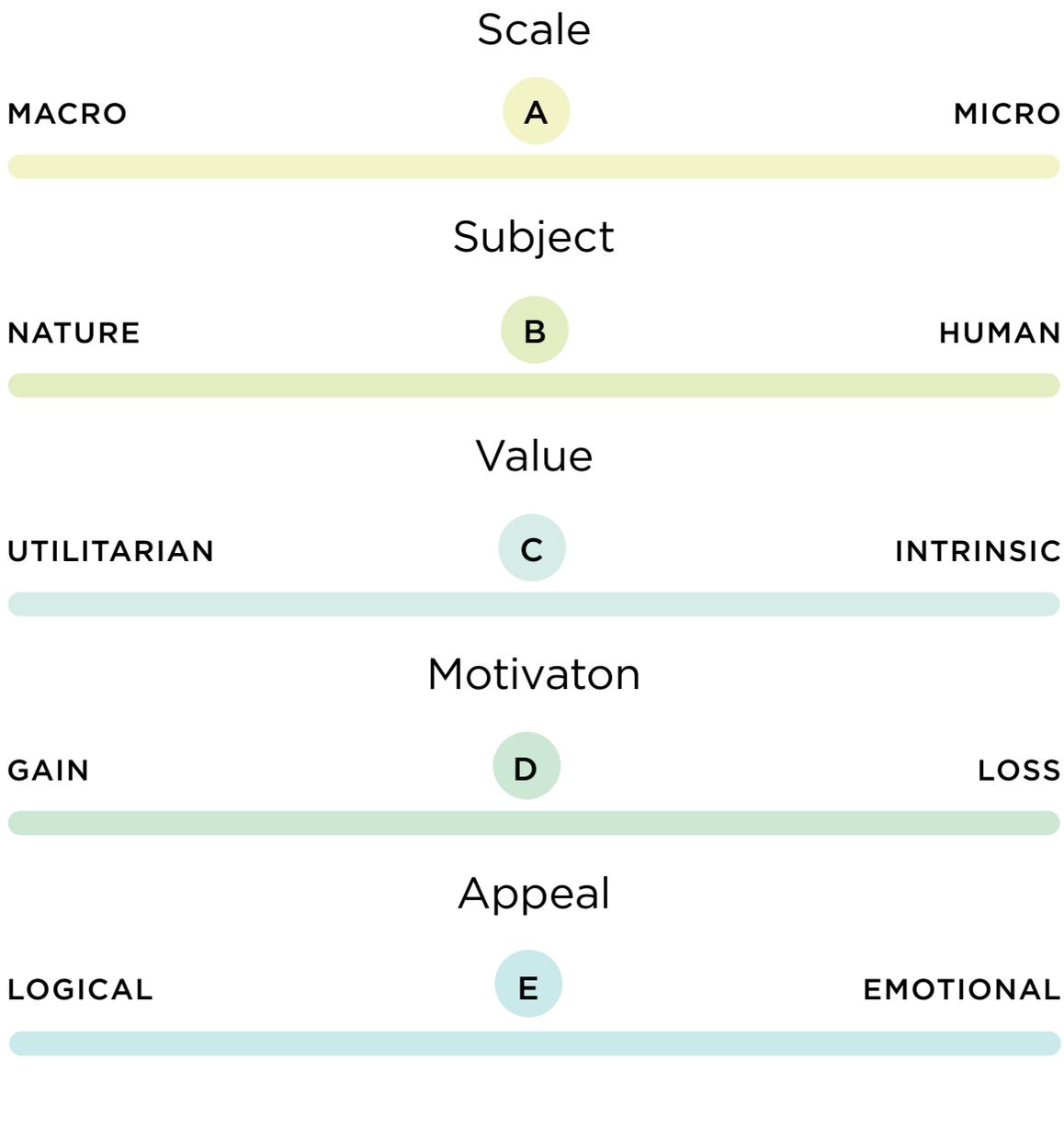
This Climate Change Reality Project campaign uses logical appeal, along with a healthy dose of humour and sarcasm, to help underline the message that the choice to protect our planet is an obvious one. They speak in broad, universal truths and make it clear that this is an issue that effects all of humanity.

KEY MESSAGE

Life is full of tough decisions, but choosing a future that doesn't look like Mad Max is not one of them.

Overview of Approaches

In aggregate, we start to see certain patterns emerging. For example, programs with humans as the subject tend to speak in terms of nature’s utilitarian value. They also tend to be micro in scale of messaging, and more loss-based than gain-based. These also tend to be the more successful campaigns for reasons we’ll cover in the recommendations section. Below you will find graphs depicting the approaches that some of the programs and campaigns we reviewed have taken.



WORLD'S EASIEST DECISION



Scale: **Macro**
Subject: **Human**
Appeal: **Logical**

CLIMATE REALITY PROJECT



Scale: **Macro**
Subject: **Nature**
Value: **Intrinsic**

BIODIVERSITY BEGINS WITH A B



Scale: **Micro**
Subject: **Nature**
Value: **Utilitarian**

TIDE COLDWATER



Value: **Intrinsic**
Motivation: **Gain**
Appeal: **Logical**

#FORTHVELOVEOF



Scale: **Micro**

Motivation: **Loss**

Appeal: **Emotional**

NIKE SUSTAINABILITY



Scale: **Macro**

Subject: **Human**

Motivation: **Loss**

WILD FOR LIFE



Value: **Intrinsic**

Motivation: **Loss**

Appeal: **Emotional**

WE ARE ALL WILDLIFE



Scale: **Macro**

Motivation: **Loss**

Appeal: **Emotional**

UN DECADE ON BIODIVERSITY



Scale: **Macro**
Subject: **Human**
Appeal: **Logical**

UNCULTIVATED



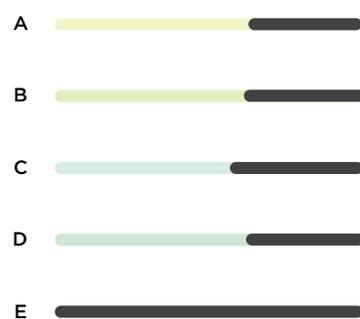
Scale: **Nature**
Value: **Utilitarian**
Motivation: **Gain**

NATURE FOR ALL



Scale: **Macro**
Subject: **Human**
Appeal: **Logical**

SAVE PAPER, SAVE THE PLANET



Subject: **Human**
Value: **Intrinsic**
Appeal: **Emotional & Logical**

LOVE NOT LOSS



Scale: **Macro**
Motivation: **Gain**
Appeal: **Emotional**

BIODIVERSITY IS US



Subject: **Human**
Motivation: **Gain**
Appeal: **Emotional**

BIODIVERCITY (ICLEI)



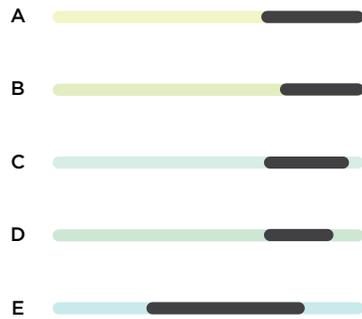
Subject: **Human**
Value: **Intrinsic**
Motivation: **Gain**

BIODIVERCITY® (IBPC)



Scale: **Macro**
Subject: **Human**
Value: **Intrinsic**

BIODIVERCITY (GRASSROOTS)



Scale: **Macro**
Subject: **Human**
Value: **Intrinsic**

BEFORE IT'S TOO LATE



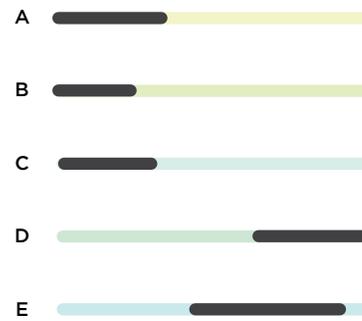
Value: **Intrinsic**
Motivation: **Loss**
Appeal: **Emotional**

CONSERVATION IS _____

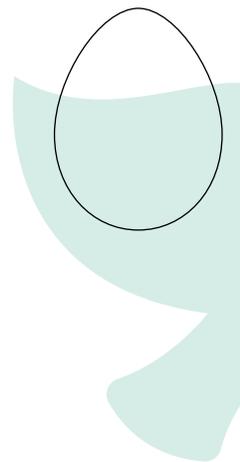


Subject: **Human**
Value: **Intrinsic**
Motivation: **Gain**

NATURE IS SPEAKING



Scale: **Macro**
Subject: **Nature**
Appeal: **Emotional**



LINKING BIOLOGICAL AND CULTURAL DIVERSITY



Subject: **Human**
Value: **Intrinsic**
Appeal: **Logical**

PROTECTING WHAT SUSTAINS US



Scale: **Macro & Micro**
Subject: **Human & Nature**
Value: **Intrinsic & Utilitarian**

RARE PRIDE



Scale: **Macro**
Motivation: **Gain**
Appeal: **Emotional**

FRIENDS OF THE GREENBELT



Scale: **Macro**
Value: **Intrinsic**
Appeal: **Logical**

RECOMMENDATIONS

Recommendations

1. Talk To Those That Will Listen

Climate change is already happening, don't try to convince people who refuse to 'believe' in the facts.

When we speak to those who fall on the "dismissive" or "doubtful" end of the Six Americas study referenced earlier, we need to accept that they are unlikely to be convinced to change their beliefs. Trying to do so isn't a good way to spend your communication budgets.

CHALLENGE

Varying Beliefs

79% of audiences in the Six Americas are disengaged through alarmed.

LEAST CONCERNED, LEAST MOTIVATED



MOST CONCERNED, MOST MOTIVATED

So let's just focus on Disengaged and beyond. The disengaged are the most likely to be nudged towards cautious and then on to concerned. Maybe they don't have enough information, or maybe it hasn't been presented in the right way, but either way, they're not a lost cause.

Taken together, you're still talking to 79% of your total potential audience.

2. Speak Their Language

Frame messages around local knowledge and issues. Reference, reinforce, and build upon existing beliefs where possible.

The world is far too complex for us to require deep and accurate knowledge of how everything works in order for us to function. So instead we create mental models- simplified (occasionally to the point of inaccuracy) notions about how things work, based on our prior experience with similar systems.

When we talk about something as complex as how diverse ecosystems are more resilient and adaptable to our changing climate, we can use allegories and analogues as shortcuts.

Biodiversity is complicated, but we, as Canadians, are raised from a very young age to understand diversity. Our multicultural heritage celebrates and respects the unique cultures and experiences that make our nation strong, and acts as a shortcut to understanding the inherent resilience and value of a complex ecosystem.

3. Balance Fear With Action

It's important to speak to the extreme urgency of the issue without making your audience feel helpless.

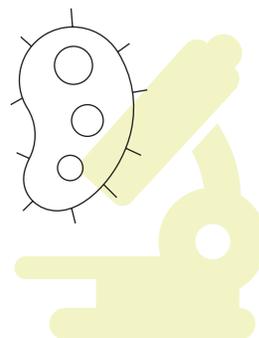
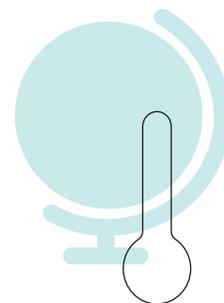
Things are more complicated than they may seem; when we think of 'fear' based messaging around climate change, what do we think of? Threatened species, loss of habitat, collapsing ecosystems. All messages of loss.

CHALLENGE

Complexity of Message,
Psychological Distance

“We all have mental models [...] these patterns highly influence our ability to learn as we tend to accommodate reality to our pre-existing mental model.”

—*Communicating climate change and biodiversity to policy makers*,
Scienseed SL for the Bern
Convention (Council of Europe),
Madrid, 2016



But, in a Nobel prize-winning paper on decision making and risk, it was found that when individuals are presented with a potential gain versus a potential loss, they are much more likely to take decisive and even potentially risky action to prevent a loss than to guarantee a gain. So avoiding fear based messaging doesn't mean avoiding loss-based messaging as well, in fact, quite the opposite: we need to frame loss positively.

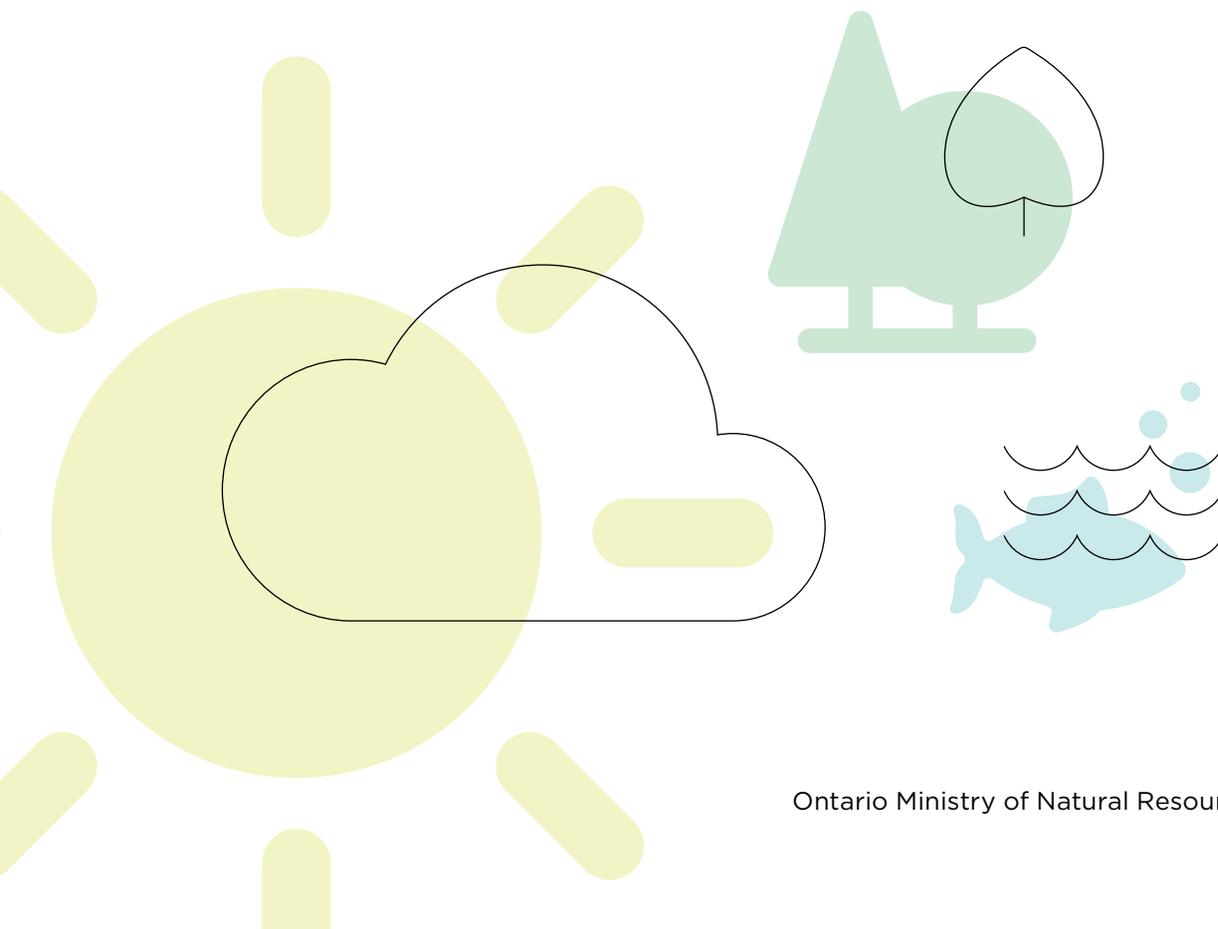
POSITIVE GAINS	NEGATIVE LOSS	POSITIVE LOSS
"If we act now, we will save millions of species from extinction"	"If we don't act now, millions of species will disappear"	"If we act now, we will avoid losing millions of species"

It sounds like a contradiction in terms, because it is. But positively framed messages about loss have a much higher success rate than negatively framed messages of loss, or even positively framed messages of gain.

CHALLENGE

Psychological Distance,
Knowledge to Action

In Fear won't do it: Promoting Positive Engagement With Climate Change, O'Neill and Nicholson-Cole found that the globally focused, large-scale imagery that made research participants have the greatest sense of climate change being important also invoked feelings of helplessness and lack of control.



4. Encourage Love and Pride

It is not enough to simply love the world around us, we have to take pride in it. When we love something, we feel awe, reverence, wonder, and maybe even a bit of fear. But when we take pride in something, we feel a sense of ownership and responsibility for it as well. We want to take care of it.

Love is an incredible thing, it can inspire astonishing, selfless acts. Which is exactly what we need when it comes to climate change. Love can also lead to feelings of awe, and reverence. It's so powerful, it can be almost overwhelming.

However, when we take pride in something, when we feel intimately connected with something because it has become an integral part of our personal and cultural identity, then we take care of it.

5. Use Context To Create Action

Present action focused messaging in the appropriate context to encourage immediate behavioural change.

We spoke earlier about the decision journey, and how once your audience is 'in the funnel' all it takes a small nudge to move them from awareness to comprehension, or comprehension to conviction.

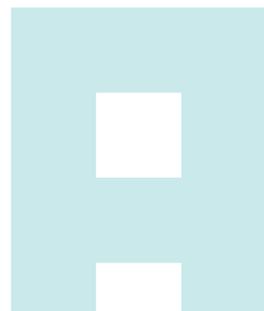
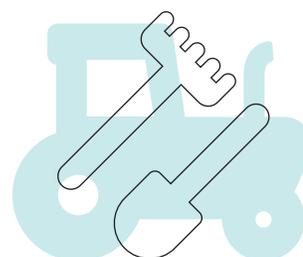
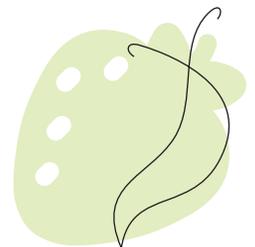
If we want to nudge them that final little step, from conviction to action, we need to catch them at a decision point, and give them the information they need to make the right choice.

CHALLENGE

Psychological Distance,
Varying Beliefs, Knowledge
to Action

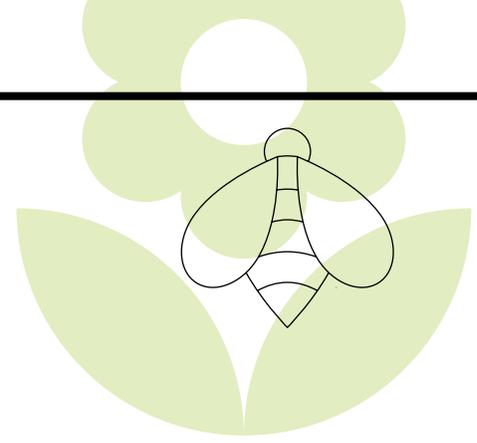
CHALLENGE

Knowledge to Action



RECOMMENDATIONS

Key Messages

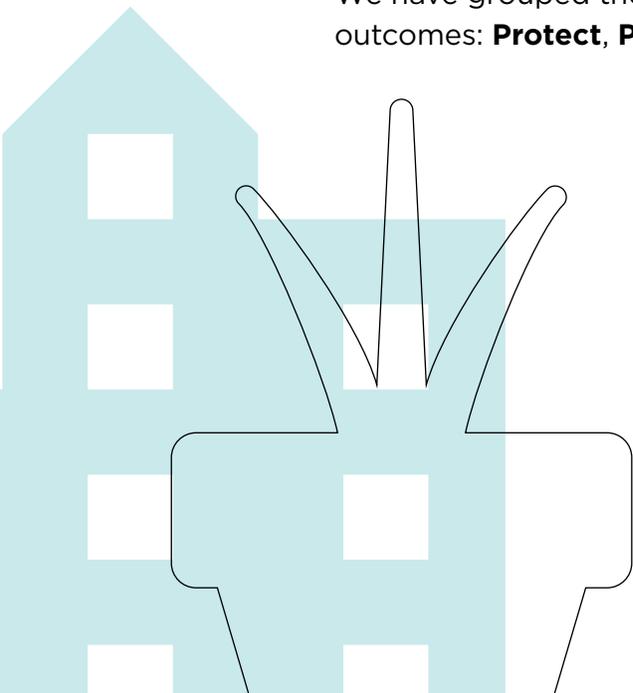


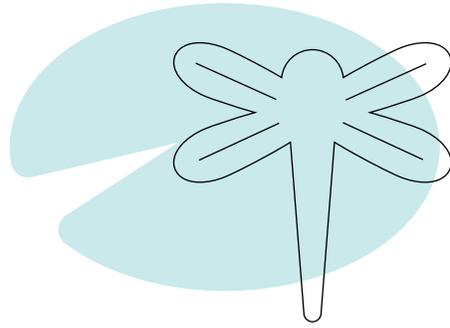
Building on the Ontario Biodiversity Council's Framework for Action and the findings of a workshop held in Toronto in early 2017, we have identified key messages and actions which members of the Council wish to communicate to their target audiences.

Taking into account our communication recommendations, each message follows a similar structure:

- Makes a connection between biodiversity and our changing climate
- Identifies a threat to biodiversity, or an opportunity to improve biodiversity
- Recommends an action or behavioural change which reduces this threat or enables this opportunity
- Where possible, we have included supplementary or intriguing facts and statistics related to the message

We have grouped these key messages around encouraging three broad outcomes: **Protect**, **Produce**, and **Participate**.





Protect

Protect existing biodiversity by reducing threats including invasive species, developmental sprawl, and a changing climate.

EXAMPLE MESSAGING

KEY ACTION

Reduce urban sprawl and encourage growth in areas capable of sustaining it

MESSAGE

The biodiversity that surrounds our cities increases their resilience to a changing climate. By reducing sprawl and encouraging growth in areas capable of sustaining it, we can ensure that our cities continue to thrive.

- Upstream development reduces the ground's ability to absorb rainfall, which leads to downstream flooding.

KEY ACTION

Increase natural cover with respect to ecosystem type and geographic location throughout the province

MESSAGE

Sustainably managed forests and grasslands store carbon. By increasing natural cover, and improving the health of our forests, we can reduce our contributions to greenhouse gas emissions that contribute to climate change.

- Ontario's Green Belt stores more than 145 million tonnes of CO₂e. Which is the equivalent of more than twice the CO₂e released each year in Ontario from transportation.

KEY ACTION

Reduce greenhouse gas emissions and energy consumption by promoting energy conservation, efficiency strategies, and sustainable energy supplies

MESSAGE

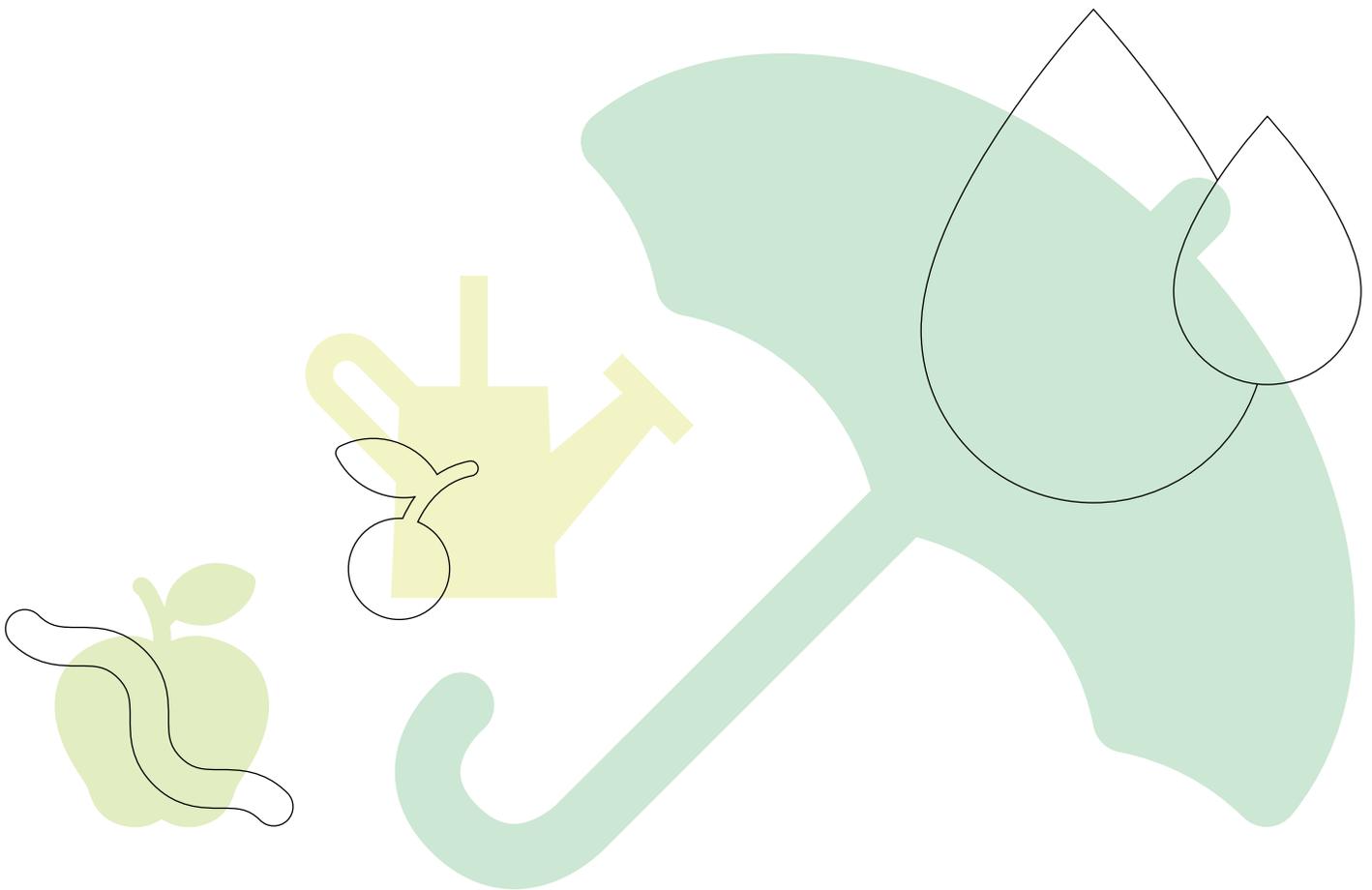
By encouraging energy conservation and fuel efficiency, we'll slow the rise of greenhouse gas emissions and protect our communities against its harmful effects.

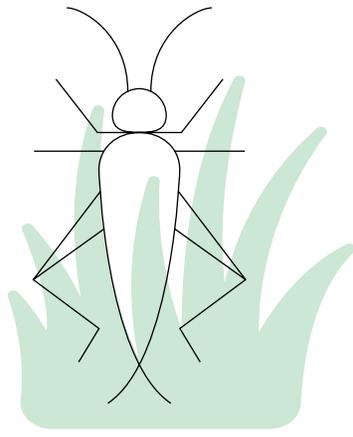
KEY ACTION

Prevention of, early detection of, and rapid response to and effective management of invasive species

MESSAGE

Biodiversity makes ecosystems more resilient and adaptable to our changing climate. The presence of invasive species threatens the delicate balance of these systems. By limiting the presence of invasive species, we can keep our ecosystems strong.





Produce

Encouraging sustainable production and growth that enhances the long term resilience of Ontario's natural capital to our changing climate.

EXAMPLE MESSAGING

KEY ACTION

Develop and implement urban biodiversity and green infrastructure strategies for Ontario's cities and towns

MESSAGE

Green spaces, parks, and trail systems are hidden treasures within our cities. By preserving these, we provide a space for communities, whether they be human, animal, or plant-based.

- The High Line in New York City transformed a derelict space into a community parkland, driving up \$900 million in city tax revenues, and attracting 400 million tourist visits a year.

KEY ACTION

Integrate the economic value of biodiversity and ecosystem services into decision making

MESSAGE

Sustainable farming practices like crop rotation, avoiding pesticides, and planting diverse crops will not only protect the future of our lands, but will also save money in the long term.

- Rotating crops strengthens the root structure of the earth, in turn improving drainage and resilience of your crops in the face of droughts or flooding.
- Crop rotation also protects your crops from being overrun by pests by eliminating their food source before they reach unmanageable levels.

KEY ACTION

Continually improve sustainable management of harvested species

MESSAGE

Trees are one of our most plentiful and sustainable resources. By mixing species from adjacent seed zones, and with vertical and horizontal complexity, we can improve their resilience to our changing climate.

KEY ACTION

Integrate biodiversity values into growth management plans

MESSAGE

Biodiversity sustains our growing population and supports our ability to adapt to our changing climate. As our population grows, so too must our commitment to increase and encourage biodiversity.

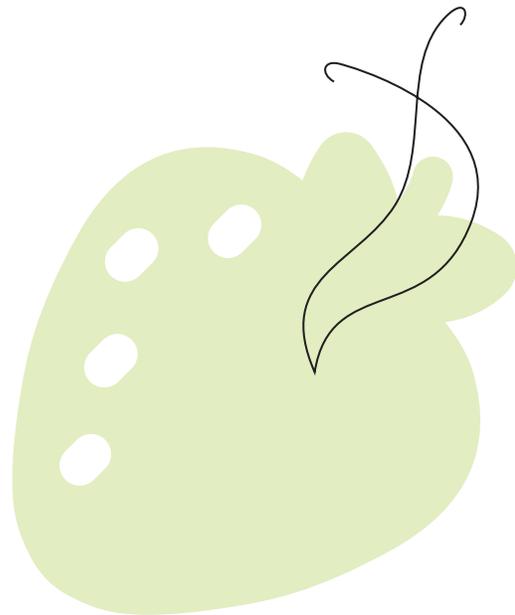
KEY ACTION

Place priority on efficient transportation of people and goods, and encourage growth and redevelopment along selected corridors and centres that are well served by transit.

MESSAGE

Infrastructure to move people efficiently, while also promoting methods of transportation with lower environmental impacts.

- According to the Toronto King Street Study project, drivers take up 64% of the space along King Street, yet only make up 16% of the use of the road.



Participate

Encourage pride in and responsibility for Ontario's biodiversity by communicating the easy, everyday behaviours the general public can change to make a big difference throughout the province.

EXAMPLE MESSAGING

KEY ACTION

Continue and enhance measures for prevention of, early detection of, rapid response to and effective management of invasive species

MESSAGE

Healthy rivers and lakes store carbon. Keep our local rivers and lakes healthy and strong by inspecting boats, trailers, and equipment for invasive species when entering and leaving bodies of water.

KEY ACTION

Develop and implement urban biodiversity and green infrastructure strategies for Ontario's cities and towns

MESSAGE

If you have an unobscured space that's 3 metres by 3 metres, you can participate in increasing your community's tree canopy simply by planting a tree in your yard.

- Studies show that people living on tree-lined streets report increased health and wellbeing relative to their peers.
- Having 10 or more trees on a block has health benefits on par with a \$10,000 salary raise, or being seven years younger.¹⁰

KEY ACTION

Develop and implement policies and programs to reduce greenhouse gas emissions and energy consumption by promoting energy conservation, efficiency strategies and sustainable energy supplies

MESSAGE

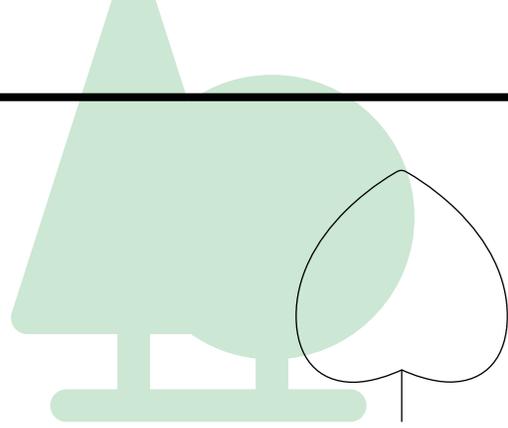
Encouraging your employees to participate in energy-saving practices will help foster a sustainable workplace, contributing to the overall satisfaction of your workforce.

- Using a monitor that is 2 inches smaller can reduce the monitor's energy consumption by as much as 30%.
- Turn off office lighting to reduce electricity consumption and reduce the risk of bird collisions with buildings.

¹⁰ *Neighborhood greenspace and health in a large urban center* Nature.com, 2015, <https://www.nature.com/articles/srep11610>

RECOMMENDATIONS

Conclusion



Climate change and biodiversity loss are the two greatest global issues of our time. One intricately links to the other. Biodiversity can both mitigate the cause of and provide our best chances to adapt to the impacts of climate change, while climate change can have dramatic effects on our biodiversity. By communicating these complex and connected topics to a range of audiences, we can encourage positive change through meaningful action in varying contexts.

There are numerous challenges to communicating effectively with these audiences, including varying beliefs about the cause and severity of climate change; the complexity of the topics; perceived social, temporal, or geographical distance from the effects of climate change, and a disconnect between awareness of the issues and actually acting on them. However, we can overcome these challenges by talking to those that will listen, speaking their language, balancing fear with action, encouraging love and pride, and using context to create action.

There is no perfect message or silver bullet that will cause immediate and lasting change across all audiences and in all contexts. Communication at the scale required to affect meaningful change is no more precise than the ecological processes we wish to protect. Just as a single tree produces thousands of seeds in order for a new tree to grow, a campaign may reach thousands of people before changing somebody's mind. But if we can reduce the obstacles along the way, and create meaningful ways to engage with our audience and change behaviours, we can ensure that Ontario remains biologically diverse, resilient, and adaptable to our changing climate.

APPENDIX A

About the Authors

Office/Bureau is a design-led creative studio, specializing in branding and interactive projects. Our team has collective experience in a wide range of design-related fields including graphic, interactive, product, and environmental design, photography and branding. We bring this unique combination of backgrounds to every project, allowing us to uncover unique insights about how your customers experience and interact with your brand. www.officebureau.ca



John Ryan

John Ryan has been working on brand, design, and interactive projects large and small for more than fifteen years. Much of that work has been focused on celebrating Canada's rich design history, rugged natural beauty, and our diverse identity as a nation. John's work has been featured in Azure, the National Post, The New York Times, and at the Royal Ontario Museum; and has been recognized by The Advertising & Design Club of Canada, as well as Applied Arts Magazine.

JOHN@OFFICEBUREAU.CA
416.841.6789 X.212



Jacob Sharrard

Jacob has over fifteen years of experience crafting brand identities, marketing programs, event visuals, and advertising campaigns for a diverse range of clients including Google, Microsoft, Royal LePage, and Forests Ontario. His passion for helping brands tell their story through clear, effective communications and unforgettable creative drives every project he touches. When not in the city, he can often be found hiking or paddling through Ontario's parks.

JACOB@OFFICEBUREAU.CA
416.841.6789 X.213



Danielle O'Hanley

Danielle has eight years of experience developing communication strategies that drive action in arts/culture, broadcast media, and in the financial services space. Throughout her career, Danielle has built online communities from the ground up, stoked excitement around product launches, and worked in partnership with global brands such as HBO and the NBA. Her work has been recognized at the Canadian Marketing Awards, Media Innovation Awards, and the MAA Worldwide GLOBES.

APPENDIX B

Resources

- **Climate Change and Biodiversity**, Convention on Biological Diversity — Montreal, Canada, 2010
- **Communicating Climate Change and Biodiversity To Policy Makers**, Scienseed SL for the Bern Convention (Council of Europe) — Madrid, Spain, May 2016
- **Honest Advocacy for Nature: Presenting a Persuasive Narrative for Conservation**, Cambridge University — UK, 2015
- **Taking Stock of the Spectrum of Arguments for Biodiversity**, Centre for Ecology and Hydrology, Wallingford — UK, 2015
- **Branding Biodiversity: The New Nature Message**, Futerra Sustainability Communications — UK
- **How to Communicate Biodiversity**, Futerra Sustainability Communications — UK, 2009
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