

# ANNUAL REPORT 2017/18



## OUR MISSION

To be the authoritative, primary source of accessible, current, and reliable information on the distribution and abundance of Canada's natural diversity—especially species and ecosystems of conservation concern.



A Network Connecting Science with Conservation  
Un Réseau pour la Science et la Conservation

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Front cover photos, left to right: Ferruginous Hawk (*Buteo regalis*), Dragomir Vujnovic; Lyall's Mariposa Lily (*Calochortus lyallii*), Rod Gilbert; participants in a 2017 Northwest Territories bioblitz event, Northwest Territories Conservation Data Centre

## From the Chair and Executive Director

NATURESERVE CANADA began the fiscal year by hosting the international NatureServe *Biodiversity Without Boundaries* conference (Ottawa, April 2017) during which we released our *On Guard for Them: Species of Global Conservation Concern in Canada* report. The conference and media attention garnered by the report broadcasted our biodiversity science message and information to a wide audience—an exciting start to a productive year!

*Biodiversity Without Boundaries* kick-started several initiatives that we pursued during 2017-18, including a project to complete and maintain the Canadian National Vegetation Classification. NatureServe Canada is helping to coordinate this project that brings together NGOs and provincial, territorial, and federal governments (see p6 for more information).

Working with our members and partner organizations to achieve positive outcomes for biodiversity is the purpose of the NatureServe Canada Network. There is no better example of a collaborative project than the development and release of the *Wild Species 2015* report by the National General Status Working Group (report tabled in Parliament on June 16, 2017). NatureServe Canada's membership is proud to have played a key role in this immense effort that employed the NatureServe methodology to assess the conservation status of nearly 30,000 species. Please see the *Wild Species 2015* feature in this report (p5) and wish us the best for *Wild Species 2020* (the report will assess approximately 40,000 Canadian species).

A big thank you to our members, partners, and funders for your role in supporting the NatureServe Canada Network!



Bruce Bennett,  
Chair



Patrick Henry,  
Executive Director

## Who We Are

A REGISTERED CANADIAN CHARITY, NatureServe Canada and its network of Canadian Conservation Data Centres (CDCs) work together and with other organizations to develop, manage, and distribute authoritative knowledge regarding Canada's plants, animals, and ecosystems. NatureServe Canada and the Canadian CDCs are members of the international NatureServe Network, spanning over 80 CDCs in the Americas. NatureServe Canada is the Canadian affiliate of NatureServe, based in Arlington, Virginia that provides scientific and technical support to the international network. NatureServe Canada is based in Ottawa, Ontario and is governed by a Board of Directors comprised of representatives of the provincial and territorial CDCs that are its Constituent members.

A CDC is an organization with responsibility for biodiversity knowledge for the jurisdiction(s) it serves. Conservation Data Centres are located in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, Atlantic Canada, Yukon, Northwest Territories, and Nunavut. Each CDC adheres to NatureServe's rigorous scientific methods and standards developed since the 1970s—NatureServe's core natural heritage methodology.



Western Spiderwort (*Tradescantia occidentalis*).  
Photo: Manitoba Conservation Data Centre

## What We Do

### NatureServe Canada and the Canadian CDCs strive to answer four key questions:

- 1 What species and ecosystems exist in each province or territory?
- 2 What is the condition and conservation status of their populations?
- 3 Which species or ecosystems are at risk of extinction (global) or extirpation (from Canada or a province or territory)?
- 4 Where precisely are species at risk and rare ecosystems found?

To answer these questions, we use NatureServe's core natural heritage methodology to:

- List the species and ecosystems (biodiversity elements) present in given jurisdictions, and determine the rarity of and threats to these elements
- Gather information from available sources, including fieldwork, on occurrences of elements of conservation concern; process, map, and manage the collected data; and assess the geographic distribution of species and ecosystems, at multiple geographic scales
- Distribute knowledge in aid of decisions concerning land use, natural resources, and biodiversity conservation, education, and research

NatureServe Canada maintains information on over 44,000 species and 3300 ecological communities. Our Network steadily adds new knowledge about biodiversity—including about species newly documented for Canada or species newly described to science, and where they are found and their conservation status. The Network also helps document the most important places for biodiversity in Canada, to aid in management decisions concerning them.



# Connecting Science with Conservation

CANADA IS HOME to an estimated 140,000 species, only about half of which have been scientifically identified. These plants, animals, lichens, and fungi belong to a vast organic tapestry—the diversity of life at genetic, species, and ecosystem levels. This biodiversity is vital for environmental, economic, and social health.

Extinction is part of nature. However, in the past 200 years the rate of extinction worldwide has greatly accelerated. Species are now being lost at 1000 to 10,000 times the natural background rate. Ninety-nine percent of species at risk are in trouble because of human activity and by the middle of the 21st century some 30% to 50% of all species could disappear. At least 381 species and 188 subspecies or varieties which occur in Canada are at notable risk of extinction, including 128 species and 85 subspecies and varieties found only in Canada.<sup>1</sup>

For biodiversity to endure it is imperative that sound knowledge about it be maintained and made widely available. At NatureServe Canada, our vision is a future where the natural heritage of Canada is documented, where that information is readily available, and where the conservation of biodiversity and resource decision-making in Canada are guided by high quality scientific data and information. Our mission is to be the authoritative, primary source of accessible, current, and reliable information on the distribution and abundance of Canada's natural diversity—especially species and ecosystems of conservation concern.

Government, corporate, and conservation organizations, and consultants, researchers, and private citizens all use knowledge provided by NatureServe Canada and the Canadian CDCs. In 2017-18 NatureServe Canada and the network of CDCs managed hundreds of custom information requests. Tens of thousands of non-sensitive information requests were also fielded via online services.

*In Canada, important scientific information on the status of species and ecosystems is gathered by many different agencies and organizations. NatureServe Canada acts as an essential repository and interpreter of this information, thus immeasurably improving its value to conservation—especially for imperiled species.*

**George Finney, PhD, President Emeritus, Bird Studies Canada**



Short-horned Lizard (*Phrynosoma hernandesi*).  
Photo: Dragomir Vujnovic

<sup>1</sup> Rainer, R., B. Bennett, S. Blaney, A. Enns, P. Henry, E. Lofroth and J. Mackenzie (2017) *On Guard for Them: Species of Global Conservation Concern in Canada*. NatureServe Canada, Ottawa, ON, available at <http://www.natureserve.org/guard-them-species-global-conservation-concern-canada>

# NatureServe Canada Network: In Action

## NatureServe Canada and the Canadian Wildlife Service: Key Partners Behind the *Wild Species* 2015 Report

Every five years, as required by the national *Accord for the Protection of Species at Risk* and the federal *Species at Risk Act*, a report is produced on the status of wild species in Canada. The *Wild Species* reports, prepared by the National General Status Working Group (comprised of representatives of federal, provincial, and territorial departments, NatureServe Canada, and the Canadian CDCs) and coordinated by the Canadian Wildlife Service (CWS), inform the public and decision-makers about the status of Canada's natural heritage. They also help identify species of concern that should undergo a comprehensive assessment by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

The first *Wild Species* report, published in 2001, contained information on 1670 species across eight taxonomic groups. In 2017, the fourth report was released, covering 29,848 species across 34 taxonomic groups—reflecting rapidly increasing knowledge about Canada's biodiversity.

For the first time in the *Wild Species* series, the species assessments for the *Wild Species* 2015 report were undertaken using the NatureServe status ranking methodology. In so doing, the Working Group was able to more efficiently and cost-effectively develop the report and its key findings. In addition, the national and sub-national ranks from all *Wild Species* reports have been entered into the NatureServe Canada and CDC databases. This facilitates the review and integration of this extensive biodiversity knowledge into provincial, territorial, and federal biodiversity decision-making.

In recognition of their extensive and successful collaboration on the *Wild Species* 2015 report, NatureServe Canada and the CWS were honoured in April 2017 with NatureServe's Scientific and Technological Achievement Award. The award was presented at the NatureServe *Biodiversity Without Boundaries* conference in Ottawa, before an audience of biodiversity scientists from across the western hemisphere.

Work is now underway on the *Wild Species* 2020 report which will assess approximately 40,000 species—about half of Canada's known wild species. For more information on the *Wild Species* program and to access Wild Species reports: <https://www.wildspecies.ca>



A species of slime mould: Slime moulds, which contribute to the decomposition of dead vegetation, will be assessed for the *Wild Species* 2020 report. Photo: Jeff Hollett

# Advancing the Canadian National Vegetation Classification: A Tool for Supporting Ecosystem-Based Conservation

**E**COSYSTEMS HAVE A DIVERSE SET of species interacting with each other and their habitat. By classifying and describing ecosystems in a consistent, systematic, and authoritative manner, within and across jurisdictional boundaries, scientists aid the understanding and exchange of ecological information across those boundaries. As well, standardized classification strengthens the regional, national, and international assessment of biodiversity, improves the monitoring of vegetation change in response to climate change, invasive species, and land use, and aids ecosystem-based management and conservation planning.

The Canadian National Vegetation Classification (CNVC) supports such aims. Begun in the late 1990s, the classification concerns all the natural and semi-natural terrestrial and aquatic vegetation in Canada, with consistency with the completed U.S. National Vegetation Classification. The classification hierarchy is based on eight levels of vegetation description. These are, in order from coarsest scale to finest scale: Class, Subclass, Formation, Division, Macrogroup, Group, Alliance, and Association.

The CNVC project has resulted in descriptions of vegetation at the five highest levels (Class, Subclass, Formation, Division, Macrogroup), as well as descriptions for boreal forest at the three lowest levels (Group, Alliance, and Association). Ahead remains completion of descriptions for temperate forest and all non-treed vegetation (e.g., grasslands, wetlands, alpine flora) at the three lower levels.

Progress on the CNVC has been made possible due to multi-year collaboration involving federal, provincial, and territorial governments, the Canadian CDCs, and non-government organizations including NatureServe Canada and NatureServe. Until recently, the Canadian Forest Service has provided core funding and staffing to coordinate the efforts of the CNVC partners. With the sunsetting of this funding, a transition team coordinated by NatureServe Canada developed a business and fundraising plan to complete and maintain the CNVC. Should current fundraising efforts succeed, NatureServe Canada has agreed to serve as the Secretariat for this next phase of the CNVC project.

For more information on the CNVC: <http://www.cnvc-cnvc.ca/>. To discuss CNVC partnership and funding opportunities, contact NatureServe Canada.

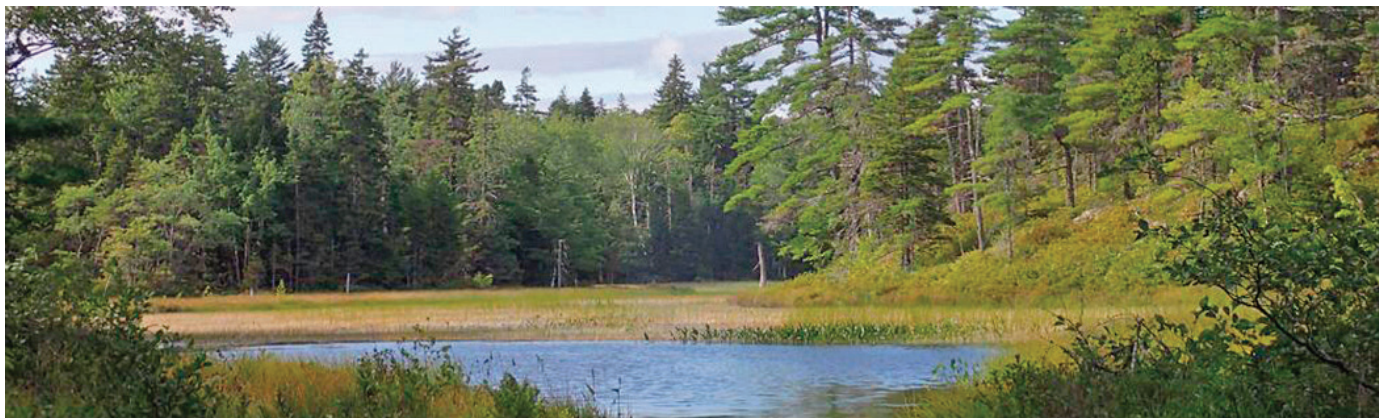


Photo: Government of Nova Scotia



# Discovering Species New to Yukon, Canada, and the World

OVER ONE WEEKEND in June 2017, the Yukon Conservation Data Centre (YTCDC) spearheaded a bioblitz around the southern end of Kluane Lake. The lake is located at the edge of Kluane National Park and Reserve, a massive (22,013 km<sup>2</sup>) protected area that is part of the extensive St. Elias Mountain range (containing the largest non-polar icefields in the world). This area was chosen for a bioblitz because many of Kluane's mountains, like much of the Beringia region stretching from Yukon to eastern Siberia, escaped the last glaciation. As a result, Kluane today hosts a number of species found nowhere else in the world, as well as other species also known from parts of Asia, or from the North American prairie.

Through the Kluane BioBlitz, the YTCDC and partners aimed to record as many species as possible, to make unexpected discoveries adding to knowledge of Yukon's biota, and to raise public and scientific awareness of the biological richness of Kluane. More than 60 amateur and professional biologists and ecologists undertook intensive fieldwork across 13 specific sites, some only readily accessible by helicopter. BioBlitz results are still being documented but, so far, at least 891 species have been recorded (less than two percent of which are exotic to Yukon). Most of these are vascular plants (347, more than a quarter of all vascular plants known from the Territory) and invertebrates (382, principally moths and butterflies, flies, spiders, and beetles).

Among the weekend's notable finds:

- A newly described plant (Hudson's Potentilla, *Potentilla hudsonii*), and a new undescribed species of spider (in the *Poeciloneta* genus)
- A new species of cave spider for Canada (*Porrhomma rosenhaueri*), and a new species of spider for Yukon (Arizona Comb-tailed Spider, *Hahnia arizonica*)
- Three new species of bryophytes for Yukon, and species of moth not previously known from Yukon
- Discovery of two sites of Murray's Locoweed (*Oxytropis arctica* var. *murrayi*), a Yukon endemic previously known from only four other sites. This improved the Global Status ranking of this plant variety from Critically Imperilled to Imperilled (G1G2), to Imperilled to Vulnerable (G2G3).
- Recording of Wood's Sage (*Artemisia woodii*), another Yukon endemic plant known from only thirteen sites in the world and globally ranked Imperilled to Vulnerable (G2G3)
- Location of several sites of the Kluane Bumblebee (*Bombus kluanensis*). This bumble bee, recently discovered, described, and named from a specimen collected in Kluane, is the first bumble bee species to be described in North America in over 90 years.
- Sighting of the Caspian Tern (*Hydroprogne caspia*), until then known only as a casual visitor to Yukon. This was followed within a month of the bioblitz by the first recording in Yukon of a Caspian Tern nest, found on a small island in southern Kluane Lake.



Kluane Bumblebee (*Bombus kluanensis*)  
Photo: Paul Williams \*

\* Williams, P.H., S.G. Cannings, and C.S. Sheffield (2016) *Cryptic subarctic diversity: a new bumblebee species from the Yukon and Alaska (Hymenoptera, Apidae)*. Journal of Natural History, 50, 1-13.

# Collaboration for Biodiversity Knowledge in the Northwest Territories

**E**STABLISHED IN 2013, the Northwest Territories (NWT) Conservation Data Centre (NTCDC) works with many partners including territorial and federal departments, the Wildlife Management Advisory Council (NWT), the Gwich'in Renewable Resources Board, the Sahtu Renewable Resources Board, and the Wek'eezhii Renewable Resources Board. The wildlife co-management boards are set up under land claim settlement agreements and have legislated responsibilities for biodiversity in the NWT. In 2015, the NTCDC adopted Biotics 5 (the NatureServe information management system) and received NatureServe natural heritage methodology training from the British Columbia and Manitoba CDCs. Since then, the NTCDC has been providing partnering organizations with access to their species databases in order to maximize the development and sharing of NWT biodiversity information.

Each NTCDC partner collects and shares data on species at risk. Using this information, from both traditional knowledge and western science, the NTCDC has employed the NatureServe methodology to create hundreds of Element Occurrence (EO) records. An EO is an area of land and/or water in which a species or natural community is, or was, present, and that represents viable habitat for that species or natural community. In 2018, the NTCDC completed its first data exchange with NatureServe, thereby providing access to NWT biodiversity information to an international audience via the online NatureServe Explorer portal and data requests managed by NatureServe and NatureServe Canada.

In the summer of 2017, as part of the Canada 150 celebrations, the NTCDC and partners organized bioblitzes out of Tuktoyaktuk, Inuvik, Norman Wells, Fort Simpson, and Yellowknife. These events generated numerous new species records, added knowledge about species ranges in the NWT, helped share local knowledge about nature, and engaged participants from young children to renowned species experts.



Surveying for mosses in the Northwest Territories.  
Photo: Northwest Territories Conservation Data Centre



Some of the participants in the five NWT bioblitzes held in the summer of 2017. Photos: Northwest Territories Conservation Data Centre



# Building Species Information for National Parks in Saskatchewan

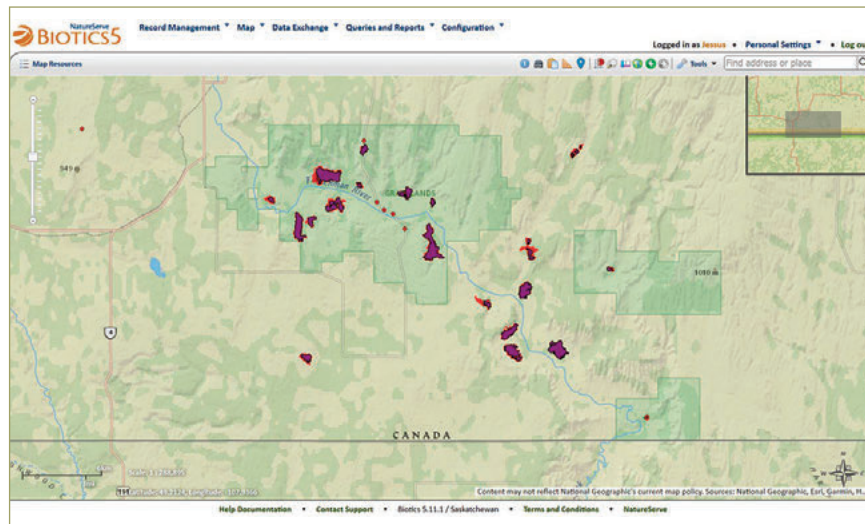
THE PARKS CANADA AGENCY'S MANDATE is "to protect and present nationally significant examples of Canada's natural and cultural heritage, and foster public understanding, appreciation and enjoyment in ways that ensure the ecological and commemorative integrity of these places for present and future generations." In support of this mandate, Parks Canada aims to maintain viable populations of native species within Canada's national parks, national historic sites, and national marine conservation areas.



Bison (*Bos bison*) in Grasslands National Park. Photo: Brett Snyder

Toward this aim, the Saskatchewan Conservation Data Centre (SKCDC) partners with Parks Canada to generate biodiversity information of value to site management and natural heritage interpretation. In 2017/18, the SKCDC undertook several projects to help build species at risk information for Grasslands and Prince Albert national parks. Projects included:

- Training staff at Grasslands National Park in identifying rare plant species and collecting rare plant data from within the park
- Mapping the distribution of invasive species in and near Grasslands National Park, and the control efforts relating to these species
- Adding new Source Feature information for both parks (in NatureServe's methodology, a Source Feature is a mapped representation of one or more on-the-ground observations of a species of interest)



Black-tailed Prairie Dog (*Cynomys ludovicianus*) colonies in and near Grasslands National Park, mapped by the Saskatchewan Conservation Data Centre.

- Mapping Black-tailed Prairie Dog (*Cynomys ludovicianus*) colonies in Grasslands National Park (prairie dogs play an important ecological role in prairie ecosystems, including being prey for several species at risk and helping provide breeding habitat for some other species at risk)
- Assisting the Saskatchewan Ministry of the Environment in collecting pellets of Woodland Caribou (*Rangifer tarandus caribou*) in and around Prince Albert National Park, and arranging for a DNA identification technique to be applied to the pellets as a non-invasive means for deriving a study area population estimate for this iconic species at risk
- Engaging citizen scientists to use iNaturalist for reporting species observations in and near the two national parks (iNaturalist is an online platform for citizen scientists to photograph species, pinpoint their location, and share that information worldwide)

## Pursuing an At-Risk Moth Species in Manitoba

**M**OTHS, RELATED TO BUTTERFLIES in the Lepidoptera order of animals, help pollinate many plant species, some of which are highly dependent on specific moth species for their survival, and/or vice-versa. Moths are also food for many animals including various bird, bat, and parasitic wasp species. Further, the presence or absence of moths in given ecosystems can be a useful indicator of environmental health and habitat quality.

One of Canada's rarest endemic moths is the Verna's Flower Moth (*Schinia verna*). This is a small owlet moth averaging a 2cm wingspan, with light brown coloured forewings and dark black hindwings (both with white patches). This difficult-to-identify day-flying moth, noted for a very rapid buzzing flight, has been found in mixed-grass prairie pasture land containing patches of its nectar and larval host plants in the *Antennaria* genus. It has been found, historically or recently, in just five locations distributed across southern Alberta, Saskatchewan, and Manitoba, and is listed as Threatened in the federal Species at Risk Registry. The associated Recovery Strategy for Verna's Flower Moth has a key objective to verify the moth's presence at two sites where it has recently been observed and, if confirmed, to maintain the moth at those sites as well as at any newly-discovered sites.

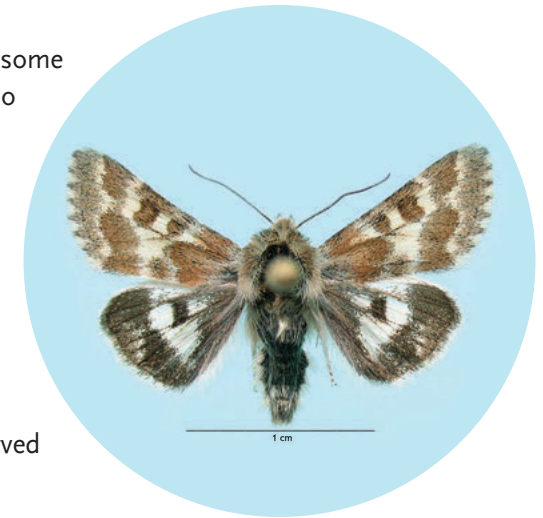
The only Manitoba occurrence was discovered in 1979 in what is now Spruce Woods Provincial Park. Subsequent surveys have not found the moth despite seemingly large areas of suitable habitat including the presence of *Antennaria* species which are common prairie plants. In an attempt to find Verna's Flower Moth, the Manitoba Conservation Data Centre (MBCDC) has sought to augment regular pedestrian net surveys with other techniques. In the last two years the MBCDC, working with Environment and Climate Change Canada, has collected larvae from *Antennaria* flowerheads and submitted them for DNA barcoding. Thus far, the results have been inconclusive due to a lack of previously barcoded specimens and the species' barcode being similar to a closely related moth (collection of adults of both species is required to help better discriminate between the two).



In an effort to help document the occurrence of Verna's Flower Moth, the MBCDC has been deploying ultraviolet (UV) light traps, and experimenting with "moth sugaring" (coating wooden panels, attached to the UV traps, with an attractant mixture of molasses, beer, and rum). It is hoped that the UV traps and sugaring may attract this moth, given that the MBCDC has found moth sugaring to be potent in attracting other day-flying *Schinia* species. The MBCDC will continue collecting moth larvae from *Antennaria* flowers for DNA barcoding, and with setting more UV/sugar traps to allow for surveying more habitat over a longer time frame.

**Chris Friesen and Heather Miltenburg (MBCDC) setting up a UV light trap and brushing wood panels with a sugary attractant.**

**Photo: Colin Murray**



**Verna's Flower Moth (*Schinia verna*).**

**Photo: Gary Anweiler.**





Sand dunes and associated plants at Carter Bay, Manitoulin Island. Photo: Sam Brinker

## Generating Plant Community Knowledge for Conservation in Ontario

**S**HAPED BY SOIL TYPE, topography, climate, and human activity, a plant community is an assemblage of plant species that forms a relatively uniform patch on a landscape, distinguishable from neighbouring patches of other plant communities. As well, plant communities typically have certain animal species associated with them, sometimes uniquely. Some plant communities are naturally rare or have become rarer over time due to human influence (e.g., prairie plant communities in Ontario).

Understanding where plant communities occur and their ecological condition helps to inform effective biodiversity research and land use decision-making. Toward such ends, the Ontario Natural Heritage Information Centre (NHIC) is digitizing plant community occurrences. These are areas where specific plant communities are present, based on one or more plant community observation polygons.

To date, NHIC has digitized 1195 such occurrences across Ontario, comprised of 4115 plant community observations. A NatureServe Element Occurrence Rank (EORank) for a plant community describes the viability of the community based on the condition, size, and landscape context in the associated polygon(s). EO Ranks range from A (excellent viability) to D (poor viability). In cases where not enough information exists to determine an EO Rank, they are assigned a rank of E (verified extant). To date, of the 1195 occurrences, only five have been assigned a rank of E.

In a related endeavor, approximately 29,000 plant records for Ontario, with habitat information, have recently been digitized and spatially verified. Of these, approximately 12,600 occurred within 388 plant community observation polygons, and these were loaded into the Plant Community Observation layer.

All of this plant information enhances the utility and function of the provincial conservation record maintained by the NHIC. The information is now available to the conservation community, including governments, conservation authorities, environmental non-governmental organizations, academia, and municipalities. Plant community data have already been used in a number of projects, including State of the Biodiversity reporting for the province, a landscape-scale assessment of pollinator habitat in southern Ontario, and the identification of potential protected areas to help meet Aichi Biodiversity Targets under the global Convention on Biological Diversity.<sup>2</sup>

<sup>2</sup> For information on the Aichi Targets: <https://www.iucn.org/theme/species/our-work/influencing-policy/convention-biological-diversity-cbd/aichi-targets>





Grey seals (*Halichoerus grypus*) on Sable Island off the coast of Nova Scotia.  
Photo: Shelley Lang, Fisheries and Oceans Canada.

## Increasing Knowledge of Aquatic and Marine Species of Canada: A Collaborative Process

CANADA IS BLESSED with nearly 900,000 square kilometres of freshwater, about 202,000 kilometres of coastline, and almost six million square kilometres of territorial seas. These extensive waters are home to a rich array of aquatic and marine species, many of which are globally significant. Tracking the status of species is essential for understanding changes in ecosystem health and for prioritizing species for conservation. This is all the more necessary considering the various threats to Canada's aquatic and marine heritage, notably habitat destruction, climate change, pollution, and invasive species.

As the federal department responsible for Canada's waters, Fisheries and Oceans Canada (DFO) works to improve knowledge about aquatic and marine ecosystems and species. DFO has been a member of the National General Status Working Group since its inception about 20 years ago. In 2017 it became an Associate Member of NatureServe Canada.

For the first general status of wild species report (*Wild Species 2000*), DFO contributed to the assessment of 52 marine species (mammals and turtles). For the *Wild Species 2015* report, 2264 marine species were assessed including mammals, turtles, fishes, sponges, corals, decapods, sea cucumbers, and sea urchins.

Work is now underway for the *Wild Species 2020* report. Along with the reassessment of the 2264 species covered in the 2015 report, the status of species in five additional taxonomic groups (sea stars, cephalopods, bivalves, horseshoe crabs, marine leeches) will be determined. As the number of aquatic and marine species being assessed continues to climb, the effort is being accomplished with contributions from many biologists in each DFO operational region, in consultation with members of the NatureServe Canada Network.

*Tracking the status of species is essential for understanding changes in ecosystem health and for prioritizing species for conservation.*



Pygmy Whitefish (*Prosopium coulterii*).  
Photo: Gordon Court

# Canada's Alone to Protect: Identifying and Cataloguing Canada's Endemic Species

**P**LANTS AND ANIMALS that are restricted to a particular country are referred to as nationally endemic. In Canada, nationally endemic species include the Peary Caribou (*Rangifer tarandus pearyi*) found in the high Arctic, the Copper Redhorse (*Moxostoma hubbsi*) found only in Québec's St. Lawrence and Richelieu rivers, and the Barrens Willow (*Salix jejuna*), a low shrub found only on the narrow coastal stretch of limestone barrens in the northern area of the island of Newfoundland.

Endemic species, sub-species and plant varieties, particularly those with very restricted natural ranges, are especially vulnerable to extinction. As reported in NatureServe Canada's 2017 report, *On Guard for Them: Species of Global Conservation Concern in Canada*, Canada has already lost several endemics including the Dawson Caribou (*Rangifer tarandus dawsoni*), Banff Longnose Dace (*Rhinichthys cataractae smithi*), and Macoun's Shining Moss (*Neomacounia nitida*).<sup>3</sup>

Nationally endemic plants and animals have a special significance for conservation in Canada—they are ours alone to protect. Despite this, a comprehensive list of Canadian endemics does not exist. To fill this gap, NatureServe Canada and the Nature Conservancy

of Canada have initiated a project to identify and catalogue Canada's endemic species. This list and report will be used to help prioritize species assessments, engage Canadians in learning about these unique lifeforms and the importance of protecting them, and help identify key areas for conservation. Concentrations of endemics can be used to pinpoint biodiversity hotspots—areas critical for Canadian and global conservation efforts.

The current list of Canadian endemics (approximately 300 species) is being peer reviewed and refined. Pending a successful fundraising effort underway, a report and launch of the list of Canada's endemic species and their conservation needs will be released in 2019.

**Northern Saw-whet Owl *brooksi* subspecies (*Aegolius acadicus brooksi*) is a small owl endemic to Haida Gwaii in British Columbia. Photo: anonymous**



**Dwarf Western Trillium (*Trillium ovatum* var. *hibbersonii*) occurs only in British Columbia. Photo: Tab Tannery**

<sup>3</sup> Rainer, R., B. Bennett, S. Blaney, A. Enns, P. Henry, E. Lofroth and J. Mackenzie (2017) *On Guard for Them: Species of Global Conservation Concern in Canada*. NatureServe Canada, Ottawa, ON, available at <http://www.natureserve.org/guard-them-species-global-conservation-concern-canada>

# Summary Financial Data

The summary data below is from NatureServe Canada's audited financial statements for 2017-18. For the full statements, visit [www.natureserve.ca](http://www.natureserve.ca).

STATEMENT OF FINANCIAL POSITION Year ending March 31		
	2018	2017
<b>ASSETS</b>		
CURRENT ASSETS		
Cash	173,164	240,953
Accounts receivable	191,354	185,964
Prepaid expense	672	3,761
Sub-total Current Assets	365,190	430,678
CAPITAL ASSETS	—	763
<b>TOTAL ASSETS</b>	<b>365,190</b>	<b>431,441</b>
<b>LIABILITIES AND NET ASSETS</b>		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	223,117	296,365
Deferred revenue	40,859	42,125
<b>TOTAL CURRENT LIABILITIES</b>	<b>263,976</b>	<b>338,490</b>
<b>NET ASSETS</b>	<b>101,214</b>	<b>92,950</b>
<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>365,190</b>	<b>431,440</b>

STATEMENT OF OPERATIONS Year ending March 31		
	2018	2017
<b>REVENUE</b>		
Government funding	1,012,709	952,124
Charitable organization/foundation funding	97,141	45,000
Dues	15,000	13,500
Other	3,079	5,242
<b>TOTAL REVENUE</b>	<b>1,127,929</b>	<b>1,015,866</b>
<b>EXPENDITURES</b>		
Contracts	1,052,877	996,353
Travel, annual meeting, workshops	13,989	14,843
Office costs	10,165	12,875
Professional fees	16,449	15,969
Sponsorship	23,054	13,000
Other	3,131	3,463
<b>TOTAL EXPENDITURES</b>	<b>1,119,665</b>	<b>1,056,503</b>
<b>EXCESS (DEFICIENCY) REVENUE OVER EXPENDITURES</b>	<b>8,264</b>	<b>-40,637</b>



Habitat in Manitoba for the threatened Verna's Flower-Moth (*Schinia verna*).  
Photo: Colin Murray



# An Invitation to Contribute to Conservation Science

**T**HE STRENGTH OF CONSERVATION SCIENCE depends on a sufficient number of highly qualified biologists, ecologists, and information managers having the resources they need for their work. A financial investment in conservation science is an investment in knowledge about nature, upon which depends the health of the environment, the economy, and our society.

NatureServe Canada is a registered Canadian charity (#862330529RR0001). We welcome financial gifts in support of our business—biodiversity science.

Associate membership in NatureServe Canada is available to organizations that support our mission and which manage data of conservation value and/or are engaged in science-based conservation.

To learn more, to donate in support of our work, or to inquire about Associate membership, please contact us:

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Above: Participants in the 2017 Kluane BioBlitz.  
Photo: Chris Schmidt



Left: Future biologist taking part in the Northwest Territories Bioblitz 2017.  
Photo: T. Macintosh, GNWT

# In Gratitude to Our Members in 2017–18

NatureServe Canada is deeply grateful for the contribution and collaboration of our Constituent and Associate members—Thank You!

## CONSTITUENT MEMBERS

Alberta Conservation Information Management System  
Atlantic Canada Conservation Data Centre  
British Columbia Conservation Data Centre  
Manitoba Conservation Data Centre

Northwest Territories Conservation Data Centre  
Nunavut Conservation Data Centre  
Ontario Natural Heritage Information Centre  
Saskatchewan Conservation Data Centre  
Yukon Conservation Data Centre

## ASSOCIATE MEMBERS

Environment and Climate Change Canada – Canadian Wildlife Service  
Fisheries and Oceans Canada

Nature Conservancy of Canada  
NatureServe  
Parks Canada Agency



Environment and Climate Change Canada

Environnement et Changement climatique Canada



Parks Canada

Parcs Canada



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