

# CANADA'S CONSERVED AREAS

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS



**Suggested citation for this document:** Environment and Climate Change Canada (2023) Canadian Environmental Sustainability Indicators: Canada's conserved areas. Consulted on *Month day, year*. Available at: <a href="https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/conserved-areas.html">www.canada.ca/en/environment-climate-change/services/environmental-indicators/conserved-areas.html</a>.

Cat. No.: En4-144/11-2023E-PDF

ISBN: 978-0-660-48739-7 Project code: EC23015

Unless otherwise specified, you may not reproduce materials in this publication, in whole or in part, for the purposes of commercial redistribution without prior written permission from Environment and Climate Change Canada's copyright administrator. To obtain permission to reproduce Government of Canada materials for commercial purposes, apply for Crown Copyright Clearance by contacting:

Environment and Climate Change Canada Public Inquiries Centre 12th Floor Fontaine Building 200 Sacré-Coeur Blvd Gatineau QC K1A 0H3

Telephone: 1-800-668-6767 (in Canada only) or 819-938-3860

Email: enviroinfo@ec.gc.ca

Photos: © Environment and Climate Change Canada

© His Majesty the King in Right of Canada, represented by the Minister of Environment and Climate Change, 2023

Aussi disponible en français

# CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS CANADA'S CONSERVED AREAS

# **June 2023**

### **Table of contents**

Canada's conserved areas	
National conserved areas	!
Key results	!
Conserved areas, by ecological area	
Conserved areas, by ecozone	
Conserved areas, by ecoregion	(
Terrestrial conserved areas, within each province and territory	10
About the indicators	1
What the indicators measure	1
Why these indicators are important	1
Related initiatives	
Related indicators	12
Data sources and methods	13
Data sources	13
Methods	14
Recent changes	18
Caveats and limitations	18
Resources	19
References	19
Related information	19
Anney	2.

Annex A. Data tables for the figures presented in this document	
List of Figures	
Figure 1. Proportion of area conserved, Canada, 1990 to 2022	5
Figure 2. Conserved areas, Canada, 2022	7
Figure 3. Proportion of area conserved, by ecozone, Canada, 2022	
Figure 4. Proportion of area conserved, by ecoregion, Canada, 2022	9
Figure 5. Proportion of terrestrial area conserved, by province and territory, Canada, 2022	
List of Tables	
Table 1. Terrestrial area conserved, by reporting jurisdiction, Canada, 2022	15
Table 2. Marine area conserved, by reporting jurisdiction, Canada, 2022	17
Table A.1. Data for Figure 1. Proportion of area conserved, Canada, 1990 to 2022	
Table A.2. Data for Figure 3. Proportion of area conserved, by ecozone, Canada, 2022	
Table A.3. Data for Figure 4. Proportion of area conserved, by ecoregion, Canada, 2022	
Table A.4. Data for Figure 5. Proportion of terrestrial area conserved, by province and territory, Canada,	

#### Canada's conserved areas

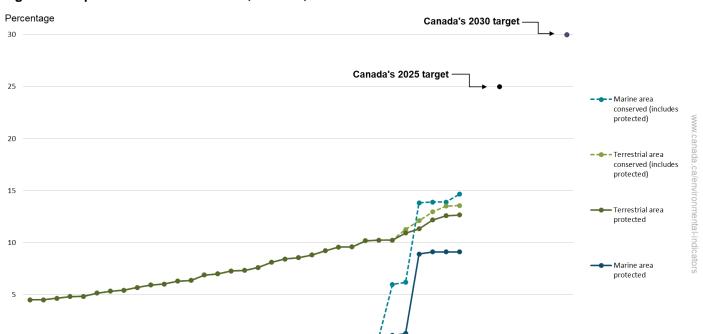
Conserved areas safeguard biodiversity for present and future generations by reducing stresses from human activities. They also provide opportunities for people to connect with nature. Conserved areas include protected areas and other effective area-based conservation measures (OECMs). Protected areas include national/provincial/territorial parks, Indigenous protected areas, national wildlife areas, migratory bird sanctuaries and marine protected areas. OECMs are areas that do not meet the formal definition of protected area but are managed in a way that conserves biodiversity over the long term. Examples of OECMs can include: Indigenous territories, watersheds or resource management areas, and areas with restricted access, such as those used by the military. These indicators track the amount and proportion of area recognized as conserved in Canada.

Many countries use protected areas as the core of their programs to preserve biodiversity, ecosystems and ecosystem services. Canada has set a target to conserve 25% of its lands and 25% of its oceans by 2025, and 30% of each by 2030. In December 2022, parties to the <u>Convention on Biological Diversity</u>, including Canada, set an aspirational target to conserve at least 30% of terrestrial areas and inland waters, and 30% of marine areas, by 2030. This is one of 23 targets collectively known as the <u>Kunming-Montreal Global Biodiversity Framework</u>.

#### **National conserved areas**

#### **Key results**

- At the end of 2022. Canada had conserved
  - o 13.6% of its terrestrial area (land and freshwater), including 12.7% in protected areas
  - 14.7% of its marine territory, including 9.1% in protected areas
- Terrestrial area conserved has increased by almost 113% in the last 20 years and by 32% in the last 5 years
- Marine area conserved has increased by more than 3 500% in the last 20 years and by almost 145% in the last 5 years



2015

2020

2025

2030

2010

Figure 1. Proportion of area conserved, Canada, 1990 to 2022

Data for Figure 1

**Note:** Terrestrial area includes both land and freshwater. Area conserved includes area protected as well as other effective area-based conservation measures (OECMs). In Canada, marine and terrestrial OECMs were formally recognized in 2017 and 2018, respectively. Trends are estimated based on the date a site was reported and recognized as a protected area or OECM in the <u>Canadian Protected and Conserved Areas Database</u>. This is a change from previous versions of the indicator where the date a site was established was used, as such the totals for previous years may have changed. For more information on the recent changes and the definition of protected areas and OECMs, please refer to the <u>Data sources and methods</u>. Canada's terrestrial territory is 9 984 670 square kilometres (km²) and its marine territory is approximately 5 750 000 km². Overlaps among protected areas and among OECMs were accounted for. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

In 2019, Canada added 319 000 km<sup>2</sup> of marine protected area with the addition of the Tuvaijuittuq Marine Protected Area conserving 13.8% of its marine territory. Then in 2022, the Eastern Canyons Conservation Area was added, contributing an additional 44 000 km<sup>2</sup> of marine area conserved.

The distribution and size of conserved areas in Canada can vary. Larger terrestrial conserved areas tend to be located in northern Canada, where there is less intensive use of land for agriculture, settlements, and road networks. Larger marine conserved areas tend to be located in offshore areas or in northern Canada, where human uses are often less intensive. In landscapes and seascapes with competing uses, conserved areas tend to be smaller but more numerous.

In Canada, over 65% of all terrestrial areas conserved are managed by provincial and territorial jurisdictions. The remaining terrestrial areas are primarily managed by Parks Canada (26%) and Environment and Climate Change Canada (9%) (see <u>Table 1</u>). Canada's marine conserved areas are managed almost entirely by 3 federal departments: Fisheries and Oceans Canada (79%), Parks Canada (14%) and Environment and Climate Change Canada (almost 4%). About 3% of the areas are managed provincially (see <u>Table 2</u>).

Canada's conserved areas

<sup>&</sup>lt;sup>1</sup> About 0.05% of terrestrial areas conserved are managed by the National Capital Commission, the Capital Regional District of British Columbia, Natural Resources Canada, the National Research Council and the Canadian Border Services Agency.

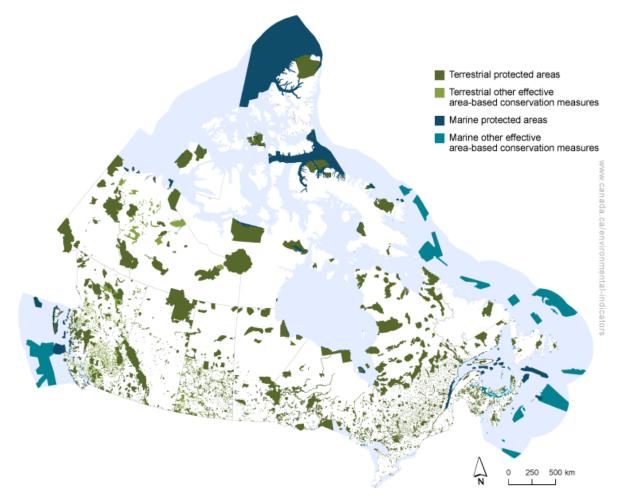


Figure 2. Conserved areas, Canada, 2022

Navigate data using the interactive map

Note: Terrestrial area includes land and freshwater. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

# Conserved areas, by ecological area

Canada's territory can be divided into 31 terrestrial and marine ecozones. Terrestrial ecozones are further divided into 215 terrestrial ecoregions. A representative conserved areas network should conserve biodiversity across all of Canada's ecological areas.

#### Conserved areas, by ecozone

An ecozone is a broad area of the Earth's surface that has a distinct climate and biodiversity.

#### **Key results**

- All of Canada's ecozones have some level of protection, ranging from less than 1% to almost 40% of the ecozone being conserved
- Six (6) terrestrial ecozones, the Tundra Cordillera, the Taiga Cordillera, the Pacific Maritime, the Montane Cordillera, the Arctic Cordillera and the Southern Arctic, have more than 20% of their area conserved
- Three (3) marine ecozones, the Arctic Basin, the Offshore Pacific and the Eastern Arctic, have more than 20% of their area conserved
- 13.4% of the Canadian area of the Great Lakes is conserved

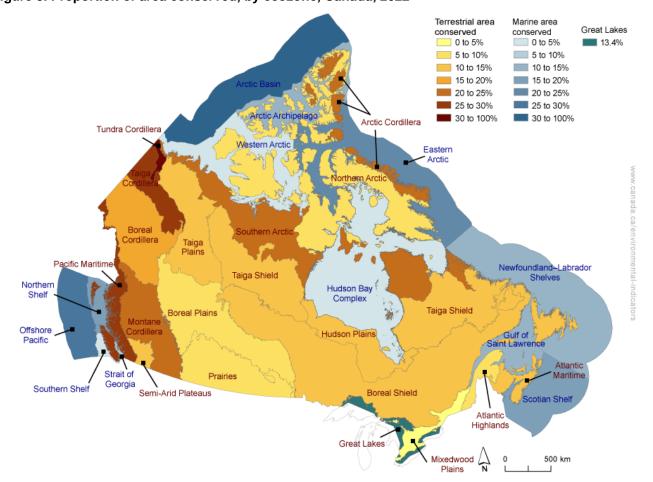


Figure 3. Proportion of area conserved, by ecozone, Canada, 2022

Data for Figure 3

**Note:** Area conserved includes area protected as well as area conserved with other measures. Data are current as of December 31, 2022. **Source:** Environment and Climate Change Canada (2022) <u>Canadian Protected and Conserved Areas Database</u>.

Terrestrial ecozones with high levels of urbanization and development or widespread agriculture tend to have small proportions of conserved area. For example, the Mixedwood Plains (in southern Ontario and along the St. Lawrence River) has only 2.5% of its area conserved and the Prairies has 6%. On the other hand, terrestrial ecozones with a high proportion of conserved area tend to be remote or have high recreation value. For example, ecozones in the western mountain ranges have 19% or more of their area conserved.

Recent efforts have rapidly increased the amount of area conserved in some marine ecozones. <u>Tuvaijuittuq Marine Protected Area</u> in the Arctic Basin is the largest marine protected area in Canada, increasing the proportion of the ecozone protected from less than 1% to 37.8%. Marine refuges<sup>2</sup> in the Offshore Pacific, Newfoundland-Labrador Shelves and Gulf of St. Lawrence have helped to conserve more than 10% of each of these ecozones. However, the Hudson Bay Complex, Western Arctic and Southern Shelf ecozones have less than 5% of their area conserved.

Each ecozone is unique, and conservation involves the inclusion of areas that are representative of different parts of the ecozone and sites of special value. Challenges to establishing conserved areas include competition from other uses, such as agriculture, industry or urban development, and limitations on the extent of ecologically intact areas available within the ecozone.

<sup>&</sup>lt;sup>2</sup> Marine refuges are long-term fisheries area closures that have been assessed as meeting Canada's criteria for marine OECMs.

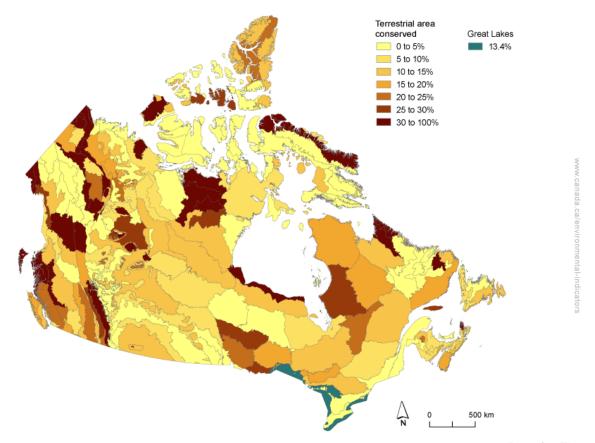
#### Conserved areas, by ecoregion

Ecoregions are subdivisions of ecozones characterized by distinctive regional attributes. These include climate, landforms, vegetation, soil, flora and fauna.

#### **Key results**

- 94% of Canada's ecoregions have some level of protection, ranging from less than 1% to 100% of the
  ecoregion being conserved
- Of the 216 ecoregions in Canada,
  - o 71% (153 ecoregions) have less than 17% of their area conserved
  - o 13% (28 ecoregions) have between 17% and 30% of their area conserved
  - o 16% (35 ecoregions) have more than 30% of their area conserved

Figure 4. Proportion of area conserved, by ecoregion, Canada, 2022



Data for Figure 4

**Note:** Area conserved includes area protected as well as area conserved with other measures. Data are current as of December 31, 2022. **Source:** Environment and Climate Change Canada (2022) <u>Canadian Protected and Conserved Areas Database</u>.

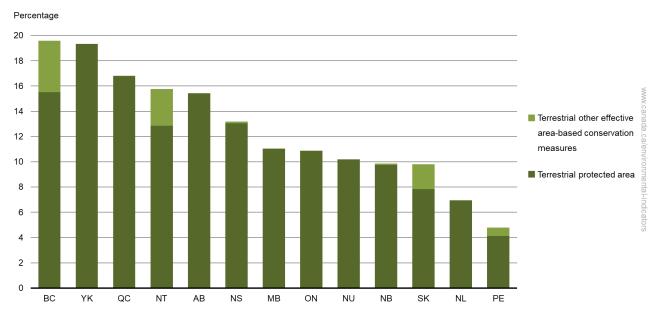
The area conserved varies greatly among ecoregions. Ecoregions that have the highest proportion of area conserved are associated with large protected areas. For example, the Peace-Athabasca Delta ecoregion has 94.4% of its area conserved (Wood Buffalo National Park) and the Mount Logan ecoregion has 100% of its area conserved (Kluane National Park and Reserve). On the other hand, ecoregions in urban or agricultural landscapes have the lowest proportion of area conserved. The Lake Simcoe and Lake Erie – Lake Ontario ecoregions each have less than 3% of their area conserved.

#### Terrestrial conserved areas, within each province and territory

#### **Key results**

- The proportion of terrestrial area (land and freshwater) conserved varies by province and territory. It ranges from 4.8% in Prince Edward Island to 19.6% in British Columbia
- Additions in 2022 include:
  - 270 new protected or conserved areas and over 200 expansions of existing areas in New Brunswick, with over 3 000 km² reported
  - 87 new protected areas and some expansions of existing areas in Ontario, with over 1 500 km<sup>2</sup> reported

Figure 5. Proportion of terrestrial area conserved, by province and territory, Canada, 2022



Data for Figure 5

**Note:** Terrestrial area includes land and freshwater. Data are current as of December 31,2022. **Source:** Environment and Climate Change Canada (2022) <u>Canadian Protected and Conserved Areas Database.</u>

Each province and territory has set aside areas for conservation. Compared to the previous year, the following provinces increased terrestrial areas conserved:

- New Brunswick, from 4.9% to 9.9%
- Nova Scotia, from 12.8% to 13.2%
- Prince Edward Island, from 4.5% to 4.8%
- Yukon, from 19.1% to 19.3%
- Quebec, from 16.7% to 16.8%
- Nunavut, from 10.1% to 10.2%

An increasing number of Indigenous protected areas and other effective area-based conservation measures (OECMs) are being established. Examples include:

- Central Purcell Mountains Indigenous Protected and Conserved Area in British Columbia
- <u>Tłycho Lands Indigenous Conserved Area</u> and <u>Edéhzhíe Indigenous Protected Area</u> in the Northwest Territories
- Thaidene Nëné Wildlife Conservation Area, <u>Thaidene Nene National Park Reserve</u> and <u>Thaidene Nëné</u> <u>Territorial Protected Area</u> in the Northwest Territories
- Kitaskino Nuwenëné Wildland Provincial Park in Alberta

These areas are managed cooperatively between jurisdictions and Indigenous people, or by Indigenous people.

#### About the indicators

#### What the indicators measure

These indicators report the amount and proportion of Canada's terrestrial (land and freshwater) and marine area that is recognized as conserved. Conserved areas are lands and waters which are managed in ways that achieve positive long-term outcomes for the conservation of biodiversity. They include protected areas as well as other effective area-based conservation measures (OECMs). Canada recognizes the international definitions of protected areas and OECMs (One with Nature 2018 [PDF; 2.12 MB] and Marine Protected Areas Protection Standard). Land and/or water access and use within protected areas are controlled primarily for the purpose of conserving nature (for example, a park, a conservation area or a wildlife reserve). OECMs are also managed over the long term in ways that result in the effective conservation of biodiversity. However, OECMs might have been established for other purposes. In some cases, certain commercial activities and harvesting of biological resources may be allowed so long as there is no major negative impact to the biodiversity outcomes of the area.

#### Why these indicators are important

Well-managed conserved areas are one way to protect wild species and their habitats for present and future generations. Habitat conservation is a measure of human response to the loss of biodiversity and natural habitat. As the area conserved in Canada increases, more lands and waters are withdrawn from direct human development stresses, thereby contributing to biodiversity conservation and improving the health of ecosystems. In turn, healthy ecosystems provide benefits such as clean water, mitigation of climate change, pollination and improved human health.

#### Related initiatives

These indicators support the measurement of progress towards the following <u>2022 to 2026 Federal Sustainable</u> <u>Development Strategy</u> supporting the targets:

- Conserve 25% of marine and coastal areas by 2025, and 30% by 2030, in support of the commitment to
  work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050.
  The most recent data available shows that, as of the end of 2022, 14.7% of Canada's coastal and marine
  areas was recognized as conserved through a network of marine protected areas and other effective
  area-based conservation measures, including 9.1% in protected areas.
- Conserve 25% of Canada's land and inland waters by 2025, working toward 30% by 2030, from 12.5% recognized as conserved as of the end of 2020, in support of the commitment to work to halt and reverse nature loss by 2030 in Canada, and achieve a full recovery for nature by 2050. The most recent data available shows that, as of the end of 2022, 13.6% of Canada's terrestrial areas and inland water was recognized as conserved through a network of protected areas and other effective area-based conservation measures, including 12.7% in protected areas.

In addition, the indicators contribute to the <u>Sustainable Development Goals of the 2030 Agenda for Sustainable Development</u>. They are linked to Goal 14, Life Below Water and Target 14.5, "By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information." They are also linked to Goal 15, Life on Land and Target 15.1, "By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements."

The indicators also contribute to the Kunming-Montreal Global Biodiversity Framework. They are linked to Target 3: "Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities including over their traditional territories."

#### **Related indicators**

The <u>Ecological integrity of national parks</u> indicator reports on the condition of ecosystems within national parks, an important element of Canada's conserved area network.

The Global trends in conserved areas indicator compares Canada's conserved area to a peer group of countries.

#### Data sources and methods

#### **Data sources**

Data are taken from the <u>Canadian Protected and Conserved Areas Database</u> (the database). Data from federal, provincial and territorial jurisdictions, the authoritative data sources, are compiled by Environment and Climate Change Canada.

#### More information

#### Protected areas and other effective area-based conservation measures

Protected areas together with other effective area-based conservation measures are referred to as conserved areas. Protected areas are areas recognized as meeting the <u>international definition</u> for a protected area. The International Union for Conservation of Nature defines a protected area as "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values."

Other effective area-based conservation measures (OECMs) must meet the Convention on Biodiversity definition to be recognized. The Convention on Biodiversity defines an "other effective area-based conservation measure" as "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity." Canada implements the Convention on Biodiversity's OECM definition in a manner that reflects national circumstances. Guidance for assessing sites as Protected Areas or OECMs in Canada is provided through the Pathway to Canada Target 1 Decision Support Tool. Guidance for assessing federal marine OECMs is provided through the Marine OECM guidance.

In Canada, Fisheries and Oceans Canada, Parks Canada and Environment and Climate Change Canada each have specific but complementary mandates for establishing marine protected areas:

- Oceans Act marine protected areas (Fisheries and Oceans Canada) are established to maintain
  ecological integrity and to conserve marine species and their habitats. This includes species that
  are fished, endangered or threatened marine species, as well as unique habitats and areas of
  high biological productivity or biodiversity
- <u>National marine conservation areas</u> (Parks Canada) are established to conserve representative examples of Canada's natural and cultural marine heritage and to provide opportunities for public education and enjoyment
- <u>National wildlife areas</u> and <u>migratory bird sanctuaries</u> (Environment and Climate Change Canada) are established to conserve habitat for a variety of wildlife including migratory birds and endangered species

The areas established by these departments, along with provincially established areas, contribute to the <u>conservation network</u>. The primary goal of this network is to provide long-term conservation of marine biodiversity, ecosystem function and special natural features.

The different jurisdictions conserve areas for different purposes,<sup>5</sup> and control the amount of human activity (such as transportation, fishing or recreation) that is allowed. Marine conservation efforts include a wide range of management and stewardship activities. Examples include support for the recovery of species at risk, prevention and mitigation of the impact of aquatic invasive species, and strengthening of Canada's response to ship-source marine pollution.

<sup>&</sup>lt;sup>3</sup> Convention on Biological Diversity (2018) Conference of the Parties to the Convention on Biological Diversity Decision 14/8.

<sup>&</sup>lt;sup>4</sup> Pathway to Canada Target 1 Initiative (2018) One with Nature. A Renewed Approach to Land and Freshwater Conservation in Canada. Appendix 2 Pan-Canadian Definition for Recognizing and Reporting on Other Effective Area-Based Conservation Measures (PDF; 2.12 MB).

<sup>&</sup>lt;sup>5</sup> The Role of the Canadian Government in the Oceans Sector (PDF; 460 kB) and The Role of the Provincial and Territorial Governments in the Oceans Sector (PDF; 934 kB).

#### **Data description**

The database contains data consolidated from all jurisdictions with responsibilities for conserved areas in Canada. Data are current as of December 31, 2022.

At least once each year, federal, provincial and territorial departments and agencies submit geospatial and ancillary data for conserved areas under their administrative control. Data on areas controlled by Indigenous or non-governmental organizations, such as the Nature Conservancy of Canada and Ducks Unlimited Canada, are included where a jurisdiction has recognized and reported those areas.

The data include the name of the area, its geospatial location, boundaries, official area, biome (terrestrial/marine), International Union for Conservation of Nature management category, managing jurisdiction, and protection date,<sup>6</sup> among other information.

In cases where the same attribute information does not apply to the entire conserved area, the area is divided into zones for reporting. For example, a single protected area that crosses a provincial border is divided into zones corresponding to the different provinces. Similarly, a protected area that is later expanded is treated as several zones, each with its own protection date. Terrestrial and marine sections are treated as separate zones; freshwater is included in the terrestrial zone. Ancillary data are maintained independently for each zone. Conserved areas that are undivided are treated as a single zone.

Work is ongoing to capture and incorporate data on additional privately held protected areas and on areas being conserved through means other than formal <u>protection</u>.

#### Jurisdictional area

- For Canada and for all provinces and territories except Quebec: Natural Resources Canada (2005) Canada Centre for Remote Sensing, Land and freshwater area, by province and territory
- For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques
- Canada's marine territory: Fisheries and Oceans Canada (2013) departmental analysis based on National Resources Canada (2009) Atlas of Canada 1:1,000,000 National Frameworks Data, Administrative Boundaries

#### **National boundaries**

Natural Resources Canada (2019) CanVec Series 1:1,000,000 Geopolitical Region, Administrative Boundaries.

#### **Ecozones and ecoregions**

Environment and Climate Change Canada (2019) Canadian Terrestrial Ecological Framework. Marine ecozones are based on Fisheries and Oceans Canada (2016) Federal Marine Bioregions (Canadian Science Advisory Secretariat, Science Advisory Report 2009/056).

#### **Methods**

The area conserved is estimated by means of a geographical analysis based on reported boundaries, accounting for overlaps. Separate estimates are made for protected areas and other effective area-based conservation measures (OECMs).

#### More information

#### Calculating Canada's conserved area

The <u>Canadian Protected and Conserved Areas Database</u> (the database) contains information on the protection (or conservation) date for each zone. For zones that have been delisted, the records are transferred to the Delisted database.

To estimate the terrestrial protected area trend over time:

<sup>&</sup>lt;sup>6</sup> Protected Areas and OECMs are accounted for in the year they were recognized and not in the year they were established. Please refer to the <u>Recent changes</u> for more information on the protection date.

- All polygons representing terrestrial protected areas that were protected in 1990 or earlier were selected from the database
- 2. The selected polygons were dissolved into a single polygon (removing overlaps), and the resulting area calculated using Albers Equal Area Conic projection
- 3. The process was repeated for each subsequent year (delisted areas were removed from the analysis starting in the year they were delisted)
- Estimates were divided by the total terrestrial area of Canada to determine the proportion protected

To estimate the marine protected area, a similar process was followed, selecting protected marine polygons at each step. The process was repeated for OECMs, for both terrestrial and marine. Total area conserved was calculated by summing area protected and OECM area.

Within the database, 3% of sites have an unknown conservation date. If a polygon with an unknown conservation date was described as "interim," it was assigned a conservation date based on the year it was first reported to the database (1% of total sites); otherwise it was treated as having been conserved prior to 1990.

#### Terrestrial conserved areas within each province and territory

The database contains information on the province or territory in which a conserved area is located. The polygons for each terrestrial protected area within a province or territory were combined into a single polygon and the area calculated. The analysis was repeated for terrestrial OECMs. In places where protected areas and OECMs overlapped, only the protected area was included in the total. Only overlaps within a province or territory are removed. Overlaps between provinces and territories can occur, due to unavoidable uncertainties in spatial data. They are not accounted for in the table, Proportion of terrestrial area conserved, by province and territory.

#### Terrestrial and marine conserved areas by reporting jurisdiction

The database also contains information on the jurisdiction responsible for each terrestrial (<u>Table 1</u>) and marine (<u>Table 2</u>) conserved area. The total area for each jurisdiction is calculated by combining protected areas polygons into a single polygon. Additional analysis is then conducted to estimate the area for OECMs.

Table 1. Terrestrial area conserved, by reporting jurisdiction, Canada, 2022

Jurisdiction	Area protected (square kilometres)	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)
Provincial and territorial subtotal	802 620	91 115	893 735
Quebec	252 675	0	252 675
British Columbia	140 357	38 474	178 832
Ontario	103 426	43	103 469
Northwest Territories	43 110	39 181	82 291
Saskatchewan	44 727	13 125	57 852
Manitoba	57 585	231	57 816
Yukon	57 125	0	57 125

Jurisdiction	Area protected (square kilometres)	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)
Alberta	46 593	0	46 593
Nunavut	39 044	0	39 044
New Brunswick	6 636	0	6 636
Nova Scotia	5 800	24	5 824
Newfoundland and Labrador	5 335	0	5 335
Prince Edward Island	206	38	244
Parks Canada	353 083	60	353 143
Environment and Climate Change Canada	119 961	2	119 963
National Capital Commission	463	5	467
Capital Regional District of British Columbia	133	0	133
Natural Resources Canada	0	86	86
National Research Council	0	1	1
Canadian Border Services Agency	0	O[y]	0
Correction for overlaps among jurisdictions	-12 184	-316	-12 500
Grand total	1 264 076	90 953	1 355 029

**Note:** <sup>[A]</sup> 0.08 rounds down to 0. Terrestrial area includes land and freshwater. Area conserved includes area protected area as well as other effective area-based conservation measures. Data are current as of December 31, 2022. **Source:** Environment and Climate Change Canada (2022) <u>Canadian Protected and Conserved Areas Database</u>.

Table 2. Marine area conserved, by reporting jurisdiction, Canada, 2022

Jurisdiction	Area protected (square kilometres)	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)
Provincial subtotal	23 721	0	23 721
Quebec	18 833	0	18 833
British Columbia	4 635	0	4 635
Atlantic provinces	173	0	173
Manitoba	80	0	80
Fisheries and Oceans Canada	351 517	326 728	678 245
Parks Canada	122 089	0	122 089
Environment and Climate Change Canada	31 072	0	31 072
Correction for overlaps among jurisdictions	-4 088	-8 211	-12 299
Grand total	524 311	318 517	842 828

**Note:** Area conserved includes area protected as well as other effective area-based conservation measures. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

#### Conserved areas, by ecological area

The database does not contain information on ecological areas. To generate an estimate of conserved area within each ecozone and ecoregion, a geospatial analysis was conducted. However, national ecozone and ecoregion boundaries are more generalized than local conserved areas boundaries, and this has the potential to affect estimates in coastal areas. To avoid this problem, marine conserved area polygons that mapped outside a marine ecozone were assigned to the nearest marine ecozone. Similarly, terrestrial conserved areas that mapped outside a terrestrial ecozone were assigned to the nearest terrestrial ecozone. The steps followed were:

- 1. A working layer containing generalized ecozone boundaries was developed
  - Marine ecozone boundaries were copied from the national ecozone coverage, and marine ecozone polygons were extended outward and inland to include adjacent terrestrial regions
- 2. The marine protected area polygons were selected from the database
- The working layer and the marine protected area polygons were combined into a single layer
  - i. Marine protected areas that crossed ecozone boundaries were divided at the boundary
- 4. Protected area polygons were selected from the combined layer, and the overlap-corrected area was calculated for each generalized ecozone, resulting in marine areas being assigned to the correct ecozone
- 5. The process was repeated for marine OECMs
- 6. The process was repeated for terrestrial protected areas and terrestrial OECMs

To be consistent with the projection used in the database, the ecozone layer was re-projected to Albers Equal Area Conic. The total area of each ecozone was then calculated from its geospatial boundaries. The Newfoundland-Labrador Shelves ecozone area was corrected for the territorial area of St Pierre and Miquelon. The total area conserved per ecozone was divided by the total area of the ecozone in order to generate a percentage.

For the terrestrial ecoregion analysis, a geospatial analysis calculated the overlap-adjusted protected area and OECM area within each ecoregion. Terrestrial conserved areas falling outside the ecoregion boundaries were assigned to the nearest ecoregion.

#### **Recent changes**

In 2021, the Canadian Protected and Conserved Areas Database modified the manner in which the date assigned to protected areas and OECMs are accounted and recognized in the database. Protected Areas and OECMs are now accounted in the year they were recognized and not in the year they were established, as was previously the case..

#### **Caveats and limitations**

In 2018, the Conservation Areas Reporting and Tracking System was converted to the <u>Canadian Protected and</u> Conserved Areas Database and brought formally within Environment and Climate Change Canada.

Data are regularly reviewed and updated. The completeness of the database is continuously being improved as existing conserved areas are reviewed and added to the database if appropriate. Information on the protection date for sites with previously unreported dates may influence trend calculations.

Trends are estimated based on the date a site qualified as a protected area or OECM. The totals for a previous year may change as data are updated.

Comparisons with previous reports should be made with caution, as data quality and completeness continue to improve. Privately protected land and OECMs contribute to achievement of Canada's targets, but many are not yet captured within the database.

#### More information

The area protected or conserved calculated using polygon boundaries may differ from the "official area" reported in the Canadian Protected and Conserved Areas Database.

Responsibility for source data accuracy and completeness lies with the jurisdictions. Jurisdictional work is guided by the federal, provincial and territorial report <a href="One with Nature">One with Nature</a> (PDF; 2.12 MB). Guidance material and <a href="decision support tools">decision support tools</a> were adapted from, and in collaboration with, the <a href="Canadian Council on Ecological Areas">Canadian Council on Ecological Areas</a>. Nonetheless, some differences in the approach jurisdictions take in recognizing protected areas and OECMs can be expected.

Areas that are no longer recognized as protected or conserved ("decommissioned" or "delisted") are not captured comprehensively and may be missing from the database. Decommissioned or delisted areas are counted from their establishment date until their delisting date.

Complex boundaries, such as coastlines and ecological areas, must be generalized for mapping purposes. In nature, ecozones or ecoregions do not have sharp boundaries. Due to the uncertainty of such boundaries, results should be seen as estimates rather than precise measurements. The mismatch in scale between conserved areas, mapped with fine detail, and national-scale geographic frameworks, mapped at a broad scale, may lead to minor differences across the various summaries because of the measurement uncertainty inherent in this type of analysis. Differences in the delineation of coastlines may result in a small amount of overlap between marine and terrestrial conserved area polygon boundaries; these overlaps have not been addressed.

Ecozones and ecoregions are ecologically based frameworks and should not be considered an expression of sovereignty. The 2019 updates to the ecozone and ecoregion frameworks have been completed for the purpose of reporting on ecological representation for the Pathway to Canada Target 1 initiative, and do not represent an official update of the 1995 National Ecological Framework. While the 2019 framework contains the most up-to-date information from jurisdictions, it should be noted that a different methodology was used by each data provider to determine the boundaries of the ecozones and ecoregions and that this national layer may differ from the provincial and territorial layers.

Protection is a designation, and the indicators do not provide information on the effectiveness of protection, the degree to which the ecological functioning of the area is intact, or the degree to which pressures outside a conserved area might affect the biodiversity within it.

#### Resources

#### References

Canadian Council on Ecological Areas Secretariat (2008) Canadian Guidebook for the Application of International Union for Conservation of Nature Protected Area Categories 2008. CCEA Occasional Paper No. 18. Canadian Council on Ecological Areas, Ottawa, ON. 66 pp.

Fisheries and Oceans Canada (2009) <u>Development of a Framework and Principles for the Biogeographic Classification of Canadian Marine Areas</u>. Canadian Science Advisory Secretariat, Science Advisory Report 2009/056. Retrieved on March 28, 2023.

Fisheries and Oceans Canada (2017) Operational Guidance for Identifying "Other Effective Area-Based Conservation Measures" in Canada's Marine Environment. Retrieved on March 28, 2023.

Fisheries and Oceans Canada (2022) <u>Guidance for recognizing marine Other Effective Area-Based Conservation</u> Measures 2022. Retrieved on March 28, 2023.

Pathway to Canada Target 1 Initiative (2018) <u>One with Nature. A Renewed Approach to Land and Freshwater Conservation in Canada</u> (PDF; 2.12 MB). Retrieved on March 28, 2023.

Stolton S, Shadie P and Dudley N (2013) <u>Guidelines for applying protected area management categories including IUCN WCPA best practice guidance on recognising protected areas and assigning management categories and governance types</u> (combined volume). Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, section 2. Retrieved on March 28, 2023.

#### Related information

2020 Biodiversity Goals and Targets for Canada Canadian Council on Ecological Areas Convention on Biological Diversity

Interactive map of Quebec's protected areas (French only)

Kunming-Montreal Global Biodiversity Framework

Pathway to Canada Target 1

ProtectedPlanet.net

## **Annex**

# Annex A. Data tables for the figures presented in this document

Table A.1. Data for Figure 1. Proportion of area conserved, Canada, 1990 to

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Terrestrial area conserved (square kilometres)	Percentage of terrestrial area conserved	Marine area protected (square kilometres)	Percentage of marine area protected	Marine area conserved (square kilometres)	Percentage of marine area conserved
1990	449 507	4.5	449 507	4.5	17 252	0.3	17 252	0.3
1991	449 981	4.5	449 981	4.5	17 271	0.3	17 271	0.3
1992	465 274	4.7	465 274	4.7	17 696	0.3	17 696	0.3
1993	480 175	4.8	480 175	4.8	17 942	0.3	17 942	0.3
1994	483 693	4.8	483 693	4.8	17 946	0.3	17 946	0.3
1995	514 891	5.2	514 891	5.2	19 714	0.3	19 714	0.3
1996	533 040	5.3	533 040	5.3	20 575	0.4	20 575	0.4
1997	541 668	5.4	541 668	5.4	20 597	0.4	20 597	0.4
1998	568 695	5.7	568 695	5.7	22 579	0.4	22 579	0.4
1999	591 877	5.9	591 877	5.9	22 812	0.4	22 812	0.4
2000	601 315	6.0	601 315	6.0	22 910	0.4	22 910	0.4
2001	629 401	6.3	629 401	6.3	22 943	0.4	22 943	0.4
2002	636 748	6.4	636 748	6.4	23 147	0.4	23 147	0.4
2003	688 079	6.9	688 079	6.9	26 347	0.5	26 347	0.5
2004	699 457	7.0	699 457	7.0	28 746	0.5	28 746	0.5
2005	726 109	7.3	726 109	7.3	30 167	0.5	30 167	0.5
2006	732 969	7.3	732 969	7.3	30 518	0.5	30 518	0.5
2007	759 088	7.6	759 088	7.6	30 712	0.5	30 712	0.5
2008	810 508	8.1	810 508	8.1	39 591	0.7	39 591	0.7
2009	841 987	8.4	841 987	8.4	40 146	0.7	40 146	0.7
2010	853 520	8.5	853 520	8.5	49 334	0.9	49 334	0.9
2011	879 504	8.8	879 504	8.8	49 420	0.9	49 420	0.9

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Terrestrial area conserved (square kilometres)	Percentage of terrestrial area conserved	Marine area protected (square kilometres)	Percentage of marine area protected	Marine area conserved (square kilometres)	Percentage of marine area conserved
2012	921 234	9.2	921 234	9.2	49 421	0.9	49 421	0.9
2013	955 194	9.6	955 194	9.6	50 069	0.9	50 069	0.9
2014	957 149	9.6	957 149	9.6	50 069	0.9	50 069	0.9
2015	1 017 570	10.2	1 017 570	10.2	52 619	0.9	52 619	0.9
2016	1 021 781	10.2	1 021 781	10.2	54 977	1.0	54 977	1.0
2017	1 022 749	10.2	1 022 749	10.2	61 751	1.1	344 454	6.0
2018	1 090 091	10.9	1 126 212	11.3	73 209	1.3	355 910	6.2
2019	1 131 466	11.3	1 209 430	12.1	511 860	8.9	794 564	13.8
2020	1 215 832	12.2	1 293 802	13.0	524 311	9.1	798 866	13.9
2021	1 257 606	12.6	1 348 395	13.5	524 311	9.1	798 866	13.9
2022	1 264 076	12.7	1 355 029	13.6	524 311	9.1	842 828	14.7

**Note:** Terrestrial area includes both land and freshwater. Area conserved includes area protected as well as other effective area-based conservation measures. In Canada, marine and terrestrial other effective area-based conservation measures were formally recognized in 2017 and 2018, respectively. Trends are estimated based on the year the site was added into the Canadian Protected and Conserved Areas Database (See QUALYEAR in the database). For more information on the definition of protected areas and other effective area-based conservation measures, please refer to the <u>Data sources and methods</u>. Canada's terrestrial territory is 9 984 670 square kilometres (km²) and its marine territory is approximately 5 750 000 km². Overlaps among protected areas and among other effective area-based conservation measures were accounted for. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

Table A.2. Data for Figure 3. Proportion of area conserved, by ecozone, Canada,

Ecozone name	Ecozone code	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Arctic Cordillera	CL01	229 513	51 891	22.6	0	51 891	22.6
Northern Arctic	CL02	1 479 561	105 970	7.2	0	105 970	7.2
Southern Arctic	CL03	958 299	186 164	19.4	6 772	192 936	20.1
Taiga Plains	CL04	553 374	61 138	11.0	18 199	79 337	14.3
Taiga Shield	CL05	1 322 962	170 296	12.9	1 032	171 329	13.0
Boreal Shield	CL06	1 902 001	219 210	11.5	39	219 249	11.5
Atlantic Maritime	CL07	110 590	11 989	10.8	207	12 196	11.0
Mixedwood Plains	CL08	115 395	2 885	2.5	45	2 930	2.5
Boreal Plains	CL09	780 010	66 166	8.5	5 022	71 188	9.1
Prairies	CL10	464 422	18 368	4.0	9 669	28 037	6.0
Montane Cordillera	CL11	436 791	82 538	18.9	17 069	99 606	22.8
Pacific Maritime	CL12	217 022	52 599	24.2	7 439	60 038	27.7
Boreal Cordillera	CL13	557 860	96 630	17.3	9 675	106 305	19.1
Taiga Cordillera	CL14	231 266	56 369	24.4	10 505	66 874	28.9
Hudson Plains	CL15	348 406	50 785	14.6	0	50 785	14.6
Tundra Cordillera	CL16	28 887	8 140	28.2	3 197	11 336	39.2
Atlantic Highlands	CL17	93 012	5 608	6.0	0	5 608	6.0
Semi-Arid Plateaus	CL18	56 464	5 399	9.6	2 083	7 482	13.3
Strait of Georgia	CW19	8 969	426	4.8	32	458	5.1
Southern Shelf	CW20	28 158	785	2.8	0	785	2.8
Offshore Pacific	CW21	315 724	10 547	3.3	82 431	92 977	29.4
Northern Shelf	CW22	101 663	16 651	16.4	0	16 651	16.4
Arctic Basin	CW23	752 053	284 091	37.8	0	284 091	37.8
Western Arctic	CW24	539 807	12 060	2.2	0	12 060	2.2
Arctic Archipelago	CW25	268 792	38 923	14.5	0	38 923	14.5

Ecozone name	Ecozone code	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Eastern Arctic	CW26	782 636	115 296	14.7	58 725	174 021	22.2
Hudson Bay Complex	CW27	1 244 670	8 684	0.7	0	8 684	0.7
Newfoundland- Labrador Shelves	CW28	1 041 588	12 577	1.2	110 960	123 537	11.9
Scotian Shelf	CW29	416 296	6 000	1.4	58 651	64 651	15.5
Gulf of Saint Lawrence	CW30	246 648	18 270	7.4	7 718	25 988	10.5
Great Lakes	CW31	89 236	11 932	13.4	0	11 932	13.4

**Note:** Area conserved includes area protected as well as other effective area-based conservation measures. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

**Table A.3. Data for Figure 4. Proportion of area conserved, by ecoregion, Canada,** Error! Reference source not found.

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Ellesmere and Devon Island Ice Caps	CL01R01	113 244	14 119	12.5	0	14 119	12.5
Baffin Mountains	CL01R02	87 928	27 592	31.4	0	27 592	31.4
Baffin Islands Coastal Lowlands	CL01R03	9 159	476	5.2	0	476	5.2
Torngat Mountains	CL01R04	19 182	9 764	50.9	0	9 764	50.9
Ellesmere Mountains	CL02R01	53 112	6 198	11.7	0	6 198	11.7
Eureka Hills	CL02R02	75 769	15 492	20.4	0	15 492	20.4
Polar Islands	CL02R03	21 353	0	0	0	0	0
Sverdrup Islands Lowland	CL02R04	28 971	0	0	0	0	0
Lancaster Plateau	CL02R05	102 430	78	0.1	0	78	0.1

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
High Arctic	CL02R06	25 939	3 684	14.2	0	3 684	14.2
Central Melville Upland	CL02R07	15 210	0	0	0	0	0
Parry Islands Plateau	CL02R08	43 593	12 266	28.1	0	12 266	28.1
Mid Arctic West	CL02R09	42 701	26 588	62.3	0	26 588	62.3
Mid Arctic East	CL02R10	91 488	362	0.4	0	362	0.4
Low Arctic North	CL02R11	9 859	859	8.7	0	859	8.7
Shaler Mountains	CL02R12	26 327	0	0	0	0	0
Amundsen Gulf Lowlands	CL02R13	49 141	22	0	0	22	0
Victoria Islands Lowland	CL02R14	123 129	0	0	0	0	0
Prince of Wales Island Lowland	CL02R15	17 150	0	0	0	0	0
Boothia Peninsula Plateau	CL02R16	35 701	0	0	0	0	0
Gulf of Boothia Plain	CL02R17	24 426	13	0.1	0	13	0.1
Borden Peninsula Plateau	CL02R18	31 473	11 822	37.6	0	11 822	37.6
Melville Peninsula Plateau	CL02R19	111 290	11	0	0	11	0
Baffin Island Uplands	CL02R20	79 703	1 597	2.0	0	1 597	2.0
Wager Bay Plateau	CL02R21	250 876	18 440	7.4	0	18 440	7.4
Foxe Basin Plain	CL02R22	56 549	6 914	12.2	0	6 914	12.2
Meta Incognita Peninsula	CL02R23	77 447	1 223	1.6	0	1 223	1.6
Pangnirtung Upland	CL02R24	34 271	40	0.1	0	40	0.1

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Hall Peninsula Upland	CL02R25	35 389	0	0	0	0	0
Baffin Upland	CL02R26	16 265	302	1.9	0	302	1.9
Yukon Coastal Plain	CL03R01	4 652	2 478	53.3	0	2 478	53.3
West Lowlands	CL03R02	24 729	1 177	4.8	0	1 177	4.8
Central Lowlands	CL03R03	14 847	337	2.3	0	337	2.3
East Lowlands	CL03R04	5 112	101	2.0	0	101	2.0
East Highlands	CL03R05	22 546	16 696	74.1	0	16 696	74.1
Bathurst Hills	CL03R07	8 986	1	0	0	1	0
Queen Maud Gulf Lowland	CL03R09	66 172	43 449	65.7	0	43 449	65.7
Chantrey Inlet Lowland	CL03R10	21 959	2 163	9.9	0	2 163	9.9
Back River Plain	CL03R12	33 117	14 989	45.3	0	14 989	45.3
Dubawnt Lake Plain and Upland	CL03R13	54 322	14 869	27.4	0	14 869	27.4
Maguse River Upland	CL03R14	78 598	257	0.3	0	257	0.3
Southampton Island Plain	CL03R15	37 903	1 463	3.9	0	1 463	3.9
Ottawa Islands	CL03R16	410	0	0	0	0	0
Belcher Islands	CL03R17	3 214	13	0.4	0	13	0.4
Ungava Peninsula	CL03R18	240 236	39 313	16.4	0	39 313	16.4
Northern Labrador Highlands	CL03R19	38 496	16 202	42.1	0	16 202	42.1
West-central Uplands	CL04R09	10 647	683	6.4	0	683	6.4
Mackenzie Plain	CL04R10	18 388	1 439	7.8	0	1 439	7.8
Bulmer Plain	CL04R11	17 255	1 370	7.9	0	1 370	7.9

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Horn Plateau	CL04R12	9 404	6 946	73.9	0	6 946	73.9
Great Slave Plain	CL04R13	15 877	116	0.7	0	116	0.7
Southern Uplands	CL04R15	15 675	0	0	0	0	0
Northern Mixedwood	CL04R16	92 264	24 663	26.7	0	24 663	26.7
Lower Boreal Highlands North	CL04R17	11 745	1 926	16.4	0	1 926	16.4
Boreal Subarctic	CL04R18	14 006	5 844	41.7	0	5 844	41.7
Slave Lowlands	CL04R19	11 667	1 583	13.6	0	1 583	13.6
High Boreal	CL05R03	111 755	15 043	13.5	0	15 043	13.5
Slave Plain	CL05R04	7 579	11	0.1	0	11	0.1
Selwyn Lake Upland	CL05R05	196 275	22 463	11.4	0	22 463	11.4
Kazan River Upland	CL05R06	183 946	24 006	13.1	0	24 006	13.1
La Grande Hills	CL05R07	171 951	48 667	28.3	0	48 667	28.3
Nord-du-Québec Central Plateau	CL05R08	177 618	28 818	16.2	0	28 818	16.2
McPhayden Plateau	CL05R09	9 461	7	0.1	0	7	0.1
Ungava Bay Basin	CL05R10	109 785	13 361	12.2	0	13 361	12.2
Kingurutik-Fraser	CL05R11	52 915	11	0	0	11	0
Coastal Barrens	CL05R12	13 520	856	6.3	0	856	6.3
Michikamau- Smallwood	CL05R13	86 549	1 531	1.8	0	1 531	1.8
Nipishish-Goose	CL05R14	23 259	0	0	0	0	0
Mecatina River	CL05R15	41 289	2	0	0	2	0
Eagle Plateau – Mealy Mountains	CL05R16	17 599	7 496	42.6	0	7 496	42.6
Athabasca Plain	CL06R01	87 467	6 466	7.4	0	6 466	7.4

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Hayes River Upland	CL06R03	131 805	4 697	3.6	0	4 697	3.6
Big Trout Lake	CL06R04	146 897	5 611	3.8	0	5 611	3.8
Lake St. Joseph	CL06R05	91 057	25 600	28.1	0	25 600	28.1
Lake Wabigoon	CL06R06	75 331	15 681	20.8	0	15 681	20.8
Lake of the Woods	CL06R07	16 390	761	4.6	0	761	4.6
Lake Nipigon	CL06R08	89 192	14 773	16.6	0	14 773	16.6
Pigeon River	CL06R09	20 468	5 175	25.3	0	5 175	25.3
Abitibi Lowlands	CL06R10	211 625	22 553	10.7	0	22 553	10.7
Lake Temagami	CL06R11	41 758	6 264	15.0	0	6 264	15.0
Georgian Bay	CL06R12	74 501	7 927	10.6	0	7 928	10.6
Mistassini Highlands	CL06R13	97 165	22 529	23.2	0	22 529	23.2
Central Laurentides Highlands	CL06R15	205 129	27 087	13.2	0	27 087	13.2
Lake Melville	CL06R16	17 668	461	2.6	0	461	2.6
Paradise River	CL06R17	17 160	1 901	11.1	0	1 901	11.1
Middle and Lower Côte-Nord Plateau	CL06R18	104 282	17 070	16.4	0	17 070	16.4
Anticosti Island	CL06R19	7 937	2 253	28.4	0	2 253	28.4
Strait of Belle Isle Barrens	CL06R20	1 783	42	2.3	0	42	2.3
Northern Peninsula Forest	CL06R21	8 508	503	5.9	0	503	5.9
Long Range Barrens	CL06R22	16 589	1 599	9.6	0	1 599	9.6
Western Newfoundland Forest	CL06R23	9 874	561	5.7	0	561	5.7

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Central Newfoundland Forest	CL06R24	28 731	537	1.9	0	537	1.9
North Shore Forest	CL06R25	5 483	133	2.4	0	133	2.4
Maritime Barrens	CL06R26	37 734	4 038	10.7	0	4 038	10.7
Avalon Forest	CL06R27	555	18	3.3	0	18	3.3
Eastern Hyper- Oceanic Barrens	CL06R28	1 545	44	2.9	0	44	2.9
Valley Lowlands	CL07R01	20 310	1 643	8.1	0	1 643	8.1
Central Uplands East	CL07R04	1 408	251	17.8	0	251	17.8
Îles-de-la- Madeleine	CL07R07	232	27	11.7	0	27	11.7
Triassic Lowlands	CL07R09	1 367	2	0.1	0	2	0.1
Western Meguma Interior	CL07R10	17 129	2 915	17.0	0	2 915	17.0
Eastern Meguma Interior	CL07R11	6 136	797	13.0	0	797	13.0
Cape Breton Highlands	CL07R12	2 460	1 289	52.4	0	1 289	52.4
Cape Breton Taiga	CL07R13	302	227	75.2	0	227	75.2
Lake Erie - Lake Ontario	CL08R03	21 865	248	1.1	0	248	1.1
Upper Boreal Highlands	CL09R04	11 894	2 929	24.6	0	2 929	24.6
Peace River Parkland	CL09R06	3 122	20	0.6	0	20	0.6
Peace-Athabasca Delta	CL09R09	5 539	5 227	94.4	0	5 227	94.4
Foothills Parkland	CL10R02	3 928	243	6.2	0	243	6.2
Foothills Fescue	CL10R03	13 642	44	0.3	0	44	0.3

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Mixedgrass	CL10R05	17 599	180	1.0	0	180	1.0
Cypress Hills Montane	CL10R08	309	200	64.8	0	200	64.8
Southwest Manitoba Uplands	CL10R09	2 188	178	8.1	0	178	8.1
Lake Manitoba Plain	CL10R10	32 768	388	1.2	0	388	1.2
Mount Logan	CL12R01	12 925	12 923	100.0	0	12 923	100.0
Chugach Mountains and Icefields	CL12R02	2 338	2 338	100.0	0	2 338	100.0
St. Elias Mountains	CL13R01	18 708	15 693	83.9	0	15 693	83.9
Wellesley Lake	CL13R02	3 983	0	0	0	0	0
Ruby-Nisling Ranges	CL13R03	18 885	10	0.1	0	10	0.1
Klondike Plateau	CL13R04	36 520	0	0	0	0	0
Yukon Plateau- Central	CL13R05	24 030	110	0.5	0	110	0.5
McQuesten Highlands	CL13R06	23 592	771	3.3	0	771	3.3
Yukon Plateau- North	CL13R07	49 503	1 770	3.6	0	1 770	3.6
Selwyn Mountains	CL13R08	35 697	1	0	0	1	0
High Boreal Highlands	CL13R10	23 759	18 135	76.3	0	18 135	76.3
High Boreal Lowlands	CL13R11	9 561	1 042	10.9	0	1 042	10.9
Yukon-Stikine Highlands	CL13R12	23 468	6 654	28.4	0	6 654	28.4
Yukon Southern Lakes	CL13R13	50 133	5 846	11.7	0	5 846	11.7
Pelly Mountains	CL13R14	46 960	140	0.3	0	140	0.3

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Liard Basin	CL13R16	28 926	620	2.1	0	620	2.1
Hyland Highland	CL13R17	19 609	378	1.9	0	378	1.9
Davidson Mountains	CL14R01	5 191	3 301	63.6	0	3 301	63.6
Old Crow Basin	CL14R02	14 923	5 795	38.8	0	5 795	38.8
North Ogilvie Mountains	CL14R03	40 613	7 112	17.5	0	7 112	17.5
Eagle Plains	CL14R04	21 985	1 619	7.4	0	1 619	7.4
Mackenzie Mountains	CL14R05	31 568	19 309	61.2	0	19 309	61.2
Coastal Hudson Bay Lowland	CL15R01	57 236	26 573	46.4	0	26 573	46.4
Hudson Bay Lowland	CL15R02	138 825	14 052	10.1	0	14 052	10.1
James Bay Lowlands	CL15R03	152 345	10 199	6.7	0	10 199	6.7
Appalachian Mountains	CL17R01	69 073	3 267	4.7	0	3 267	4.7
Central Uplands West	CL17R02	12 393	584	4.7	0	584	4.7
Northern New Brunswick Uplands	CL17R03	8 724	1 167	13.4	0	1 167	13.4
New Brunswick Highlands	CL17R04	2 822	589	20.9	0	589	20.9
Coronation Hills	CL03R06	77 972	2 085	2.7	3 652	5 737	7.4
Takijua Lake Upland	CL03R08	126 102	1 543	1.2	915	2 457	1.9
Garry Lake Lowland	CL03R11	98 928	29 029	29.3	2 206	31 235	31.6
Mackenzie Delta	CL04R01	9 373	0	0	130	130	1.4
Low Subarctic Northern Plains	CL04R02	55 550	8 751	15.8	2 216	10 967	19.7

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Northern Uplands	CL04R03	54 532	808	1.5	6 920	7 728	14.2
High Subarctic Northern Plains	CL04R04	82 597	666	0.8	2 020	2 685	3.3
Central Highlands	CL04R05	38 262	3 307	8.6	2 699	6 006	15.7
Central Uplands	CL04R06	17 973	109	0.6	16	125	0.7
Central Plains	CL04R07	20 851	1 128	5.4	3 149	4 277	20.5
Lac Grandin Plain	CL04R08	26 097	1 317	5.0	523	1 840	7.1
Northern Alberta Upland	CL04R14	31 212	481	1.5	527	1 008	3.2
High Subarctic West	CL05R01	60 726	3 155	5.2	950	4 105	6.8
Low Subarctic North	CL05R02	58 734	4 831	8.2	82	4 913	8.4
Churchill River Upland	CL06R02	196 603	11 598	5.9	36	11 634	5.9
Southern Laurentides Highlands	CL06R14	158 761	13 329	8.4	2	13 331	8.4
Eastern Lowlands	CL07R02	39 021	2 953	7.6	36	2 989	7.7
Grand Lake Lowlands	CL07R03	3 780	263	7.0	61	324	8.6
Fundy Coast	CL07R05	3 633	388	10.7	1	389	10.7
Prince Edward Island	CL07R06	5 932	233	3.9	38	271	4.6
Avalon Uplands	CL07R08	4 793	457	9.5	13	470	9.8
Atlantic Coast	CL07R14	4 088	542	13.3	59	601	14.7
St. Lawrence Lowlands	CL08R01	44 124	1 552	3.5	3	1 555	3.5
Lake Simcoe	CL08R02	49 405	1 085	2.2	42	1 128	2.3
Muskwa Plateau	CL09R01	26 169	857	3.3	1	858	3.3

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Mid Boreal Uplands	CL09R02	307 570	40 130	13.0	2 142	42 272	13.7
Lower Boreal Highlands South	CL09R03	69 089	3 746	5.4	559	4 305	6.2
Dry Mixedwood	CL09R05	58 592	887	1.5	180	1 067	1.8
Lower Foothills	CL09R07	51 105	418	0.8	191	609	1.2
Upper Foothills	CL09R08	22 460	587	2.6	30	618	2.8
Boreal Transition	CL09R10	91 799	3 385	3.7	1 631	5 016	5.5
Mid Boreal Lowland	CL09R11	92 890	6 408	6.9	284	6 692	7.2
Interlake Plain	CL09R12	39 782	1 571	3.9	5	1 575	4.0
Aspen Parkland	CL10R01	170 223	4 431	2.6	2 083	6 514	3.8
Moist Mixed Grassland	CL10R04	82 833	3 814	4.6	1 102	4 916	5.9
Dry Mixedgrass	CL10R06	133 416	8 638	6.5	5 647	14 285	10.7
Cypress Mixedgrass	CL10R07	7 517	252	3.4	837	1 089	14.5
Skeena Mountains	CL11R01	24 427	882	3.6	525	1 407	5.8
Omineca Mountains	CL11R02	34 083	2 957	8.7	1 111	4 068	11.9
Fraser Basin	CL11R03	43 017	1 532	3.6	403	1 935	4.5
Central Canadian Rocky Mountains	CL11R04	37 273	4 032	10.8	2 487	6 519	17.5
Eastern Hazelton Mountains	CL11R05	13 535	5 993	44.3	1 098	7 091	52.4
Chilcotin Ranges	CL11R06	15 784	6 476	41.0	363	6 839	43.3
Fraser Plateau	CL11R07	82 038	5 182	6.3	6 010	11 192	13.6
Columbia Highlands	CL11R08	29 572	3 218	10.9	2 371	5 589	18.9
Selkirk-Bitterroot Foothills	CL11R09	7 646	882	11.5	55	937	12.3

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Northern Columbia Mountains	CL11R10	53 493	12 046	22.5	1 142	13 187	24.7
Southern Rocky Mountain Trench	CL11R11	8 498	616	7.3	152	768	9.0
Purcell Transitional Ranges	CL11R12	8 108	1 197	14.8	4	1 201	14.8
Western Continental Ranges	CL11R13	23 382	6 501	27.8	113	6 614	28.3
Northern Continental Divide	CL11R14	5 916	437	7.4	880	1 317	22.3
Eastern Continental Ranges	CL11R15	50 020	30 586	61.1	356	30 942	61.9
Boundary Ranges	CL12R03	21 426	1 318	6.2	10	1 328	6.2
Nass Ranges	CL12R04	27 323	1 293	4.7	1 447	2 739	10
Gwaii Haanas	CL12R05	10 049	4 822	48.0	8	4 830	48.1
Coastal Gap	CL12R06	45 187	16 915	37.4	631	17 546	38.8
Western Vancouver Island	CL12R07	20 165	2 815	14.0	794	3 609	17.9
Eastern Vancouver Island	CL12R08	12 333	1 617	13.1	210	1 826	14.8
Georgia-Puget Basin	CL12R09	1 668	223	13.3	3	226	13.5
Lower Mainland	CL12R10	4 290	219	5.1	49	269	6.3
Pacific Ranges	CL12R11	59 317	8 117	13.7	4 287	12 403	20.9
Mid-Boreal Highlands	CL13R09	24 120	12 638	52.4	2	12 640	52.4
Boreal Mountains and Plateaus	CL13R15	79 123	20 759	26.2	4 322	25 081	31.7
Northern Canadian Rocky Mountains	CL13R18	41 282	12 062	29.2	5 352	17 414	42.2

Ecoregion name	Ecoregion code	Ecoregion area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of region conserved
Low Subarctic Lowlands	CL14R06	43 421	15 933	36.7	1 833	17 766	40.9
High Subarctic Highlands	CL14R07	24 526	154	0.6	1 652	1 806	7.4
Low Subarctic Highlands	CL14R08	49 040	3 145	6.4	7 020	10 165	20.7
British-Richardson Mountains	CL16R01	28 887	8 140	28.2	3 197	11 336	39.2
Interior Transition Ranges	CL18R01	14 026	2 239	16.0	1 217	3 456	24.6
Northern Cascade Ranges	CL18R02	9 479	1 657	17.5	194	1 851	19.5
Thompson- Okanagan Plateau	CL18R03	31 596	1 303	4.1	656	1 959	6.2
Okanagan Highland	CL18R04	1 363	200	14.7	15	216	15.8
Great Lakes	CW31	89 236	11 932	13.4	0	11 932	13.4

**Note:** Area conserved includes area protected as well as other effective area-based conservation measures. Data are current as of December 31, 2022.

**Source:** Environment and Climate Change Canada (2022) <u>Canadian Protected and Conserved Areas Database</u>.

Table A.4. Data for Figure 5. Proportion of terrestrial area conserved, by province and territory, Canada,

Province or territory	Provincial or territorial area (square kilometres)	Area protected (square kilometres)	Percentage of province or territory protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of province or territory conserved
British Columbia	944 735	146 590	15.5	38 476	185 066	19.6
Yukon	482 443	93 320	19.3	0	93 320	19.3
Quebec	1 512 418	254 002	16.8	5	254 007	16.8
Northwest Territories	1 346 106	173 140	12.9	39 181	212 321	15.8
Alberta	661 848	102 107	15.4	0	102 107	15.4
Nova Scotia	55 284	7 211	13.0	84	7 294	13.2

Province or territory	Provincial or territorial area (square kilometres)	Area protected (square kilometres)	Percentage of province or territory protected	Other effective area-based conservation measures (square kilometres)	Area conserved (square kilometres)	Percentage of province or territory conserved
Manitoba	647 797	71 326	11.0	231	71 557	11.0
Ontario	1 076 395	116 853	10.9	43	116 896	10.9
Nunavut	2 093 190	213 052	10.2	0	213 052	10.2
New Brunswick	72 908	7 109	9.8	85	7 194	9.9
Saskatchewan	651 036	51 031	7.8	12 812	63 843	9.8
Newfoundland and Labrador	405 212	28 143	6.9	0	28 143	6.9
Prince Edward Island	5 660	233	4.1	38	271	4.8
Correction for overlaps among Provinces and Territories	n/a	-41	n/a	-2	-43	n/a
Grand total	n/a	1 264 077	12.7	90 953	1 355 029	13.6

**Note:** n/a = not applicable. Terrestrial area includes land and freshwater. Area conserved includes area protected as well as other effective area-based conservation measures. Data are current as of December 31, 2022.

Source: Environment and Climate Change Canada (2022) Canadian Protected and Conserved Areas Database.

Additional information can be obtained at:

Environment and Climate Change Canada Public Inquiries Centre 12th Floor Fontaine Building 200 Sacré-Coeur Blvd Gatineau QC K1A 0H3

Telephone: 1-800-668-6767 (in Canada only) or 819-938-3860

Email: enviroinfo@ec.gc.ca