



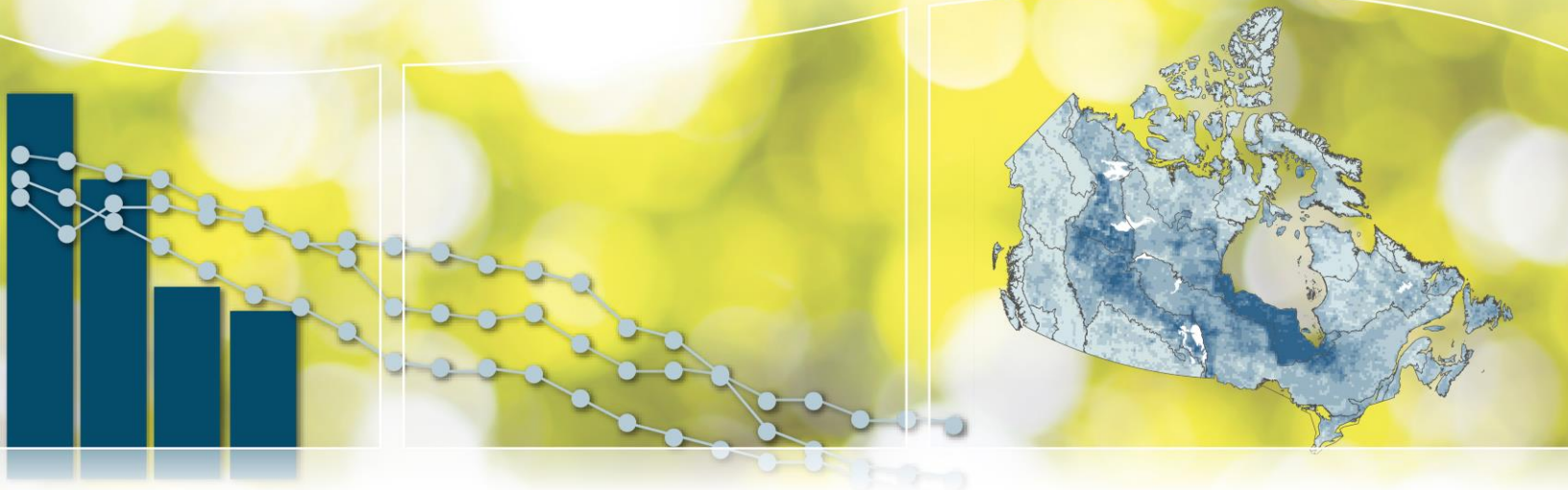
Environment and
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Canadian Environmental Sustainability Indicators

Canada's Protected Areas



Suggested citation for this document: Environment and Climate Change Canada (2016) Canadian Environmental Sustainability Indicators: Canada's Protected Areas. Consulted on *day Month, year*.
Available at: www.ec.gc.ca/indicateurs-indicators/default.asp?lang=en&n=478A1D3D-1.

Cat. No.: En4-144/11-2015E-PDF
ISBN: 978-0-660-02883-5

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Canadian Environmental Sustainability Indicators

Canada's Protected Areas

February 2016

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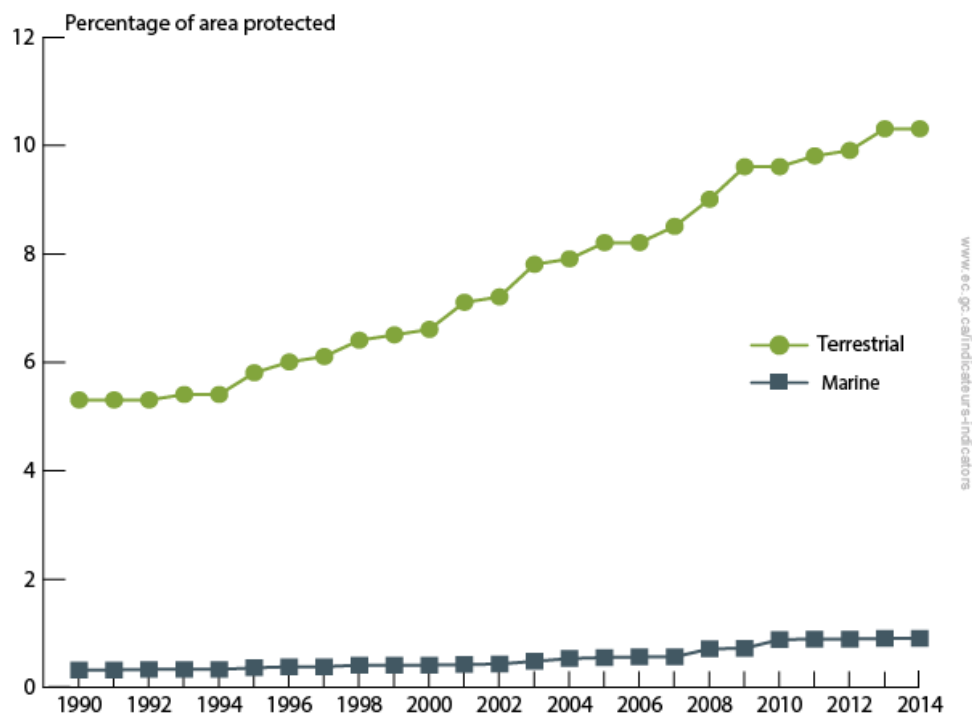
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Part 1. Canada's Protected Areas Indicators

The number of protected areas and the total area protected in Canada continue to grow. As of the end of 2014, 10.3% (1 026 682 km²) of Canada's terrestrial area (land and freshwater), and 0.9% (51 572 km²) of its marine territory have been recognized as protected. In the past 20 years, the total area protected has increased by 92%, and in the last five years it has increased by 8%. In 2014, [federal jurisdictions](#) protected a total area of 511 075 km².¹

Protected areas are lands and waters where development and use is restricted by legal or other means for the conservation of nature. Protection does not isolate areas from use and controlled amounts of development: industrial activity and harvest of biological resources do occur in some cases.

Figure 1. Trends in proportion of area protected, Canada, 1990 to 2014



[Data for Figure 1](#)

Note: Terrestrial areas include both land and freshwater. Areas with an unknown creation date are assumed to have been protected before 1990. Only areas recognized as protected under international standards are included.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

Laws or agreements limit the amount and type of human activity in protected lands or waters in order to conserve these natural environments for the benefit of present and future generations of Canadians. Protected areas may be chosen to represent parts of the Canadian

¹ An area of 9102 km² of land previously protected by Agriculture and Agri-Food Canada under the Community Pastures Program is being returned to provincial management and will no longer be protected by the federal government.

landscape or seascape, such as the boreal forest or an ocean shelf, or they may be created to conserve endangered wildlife species, wildlife habitats, and unique or ecologically sensitive areas.

Federal, provincial and territorial protected areas are included in this report, as well as some areas protected by non-governmental environmental organizations, and Aboriginal and local communities. Examples of protected areas include national and provincial parks, national marine conservation areas, migratory bird sanctuaries and wildlife reserves. Only partial information exists for privately held conservation lands, such as those owned by land trusts, or lands still in private ownership but conserved through easements or similar agreements.

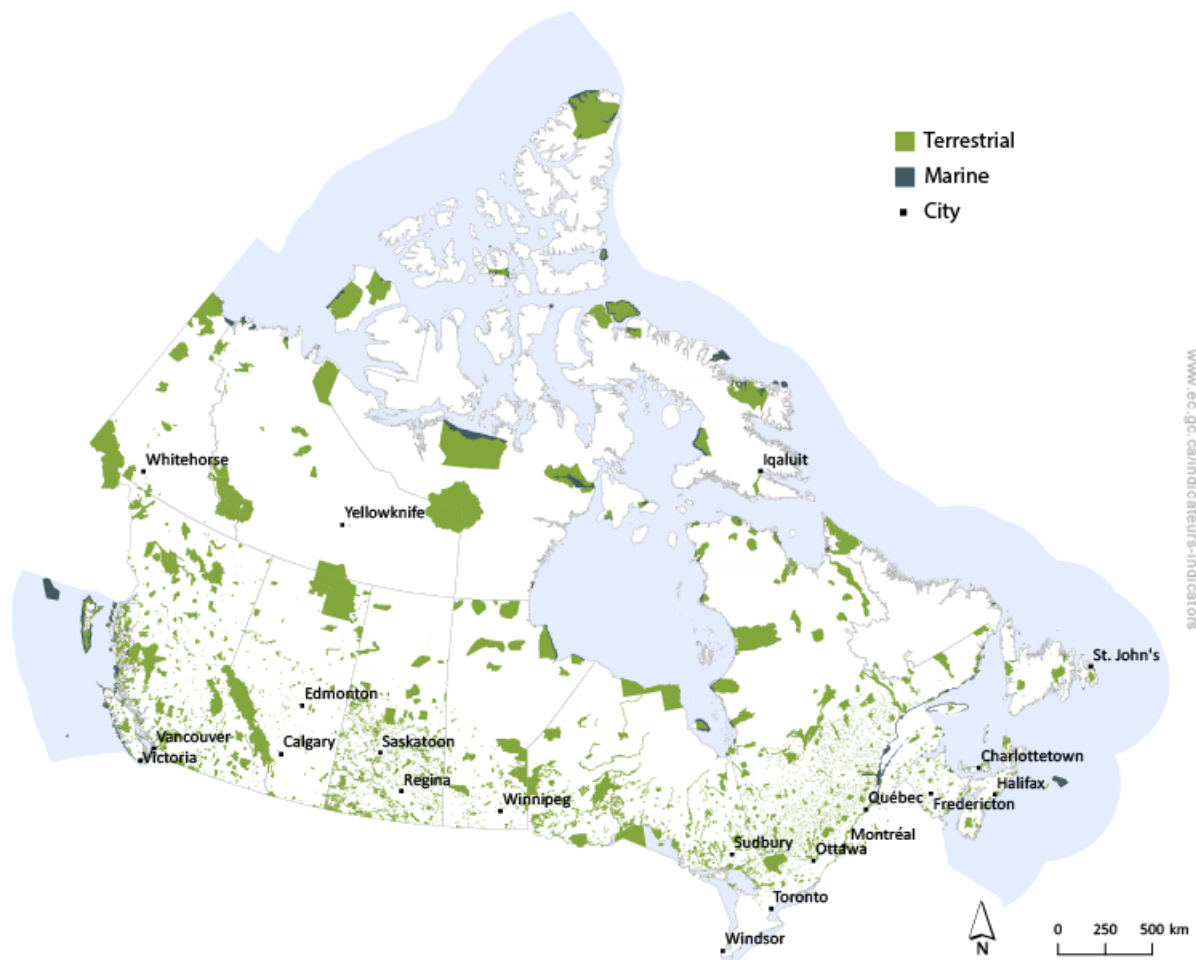
The parties to the Convention on Biological Diversity (CBD) established a [set of aspirational targets](#) in October 2010. Target 11 under the CBD is "By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures,² and integrated into the wider landscapes and seascapes." Canada, as a signatory to the Convention, has developed the [2020 Biodiversity Goals and Targets for Canada](#), which include "Target 1: By 2020, at least 17 percent of terrestrial areas and inland water, and 10 percent of coastal and marine areas, are conserved through networks of protected areas and other effective area-based conservation measures."

² An internationally agreed definition of "other effective area-based conservation measures" has not yet been established.

Protected areas in Canada

Although the distribution and size of individual protected areas is highly variable, the total represents an area close to the size of Ontario. Larger protected areas tend to be located in northern Canada where there are fewer conflicting land uses.

Figure 2. Protected area, Canada, 2014



Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

Table 1. Area protected by federal jurisdictions, Canada, 2014

Jurisdiction	Terrestrial area protected (km²)	Marine area protected (km²)	Total (km²)
Parks Canada	317 632	12 751	330 383
Environment and Climate Change Canada, Canadian Wildlife Service	104 826	19 617	124 444
Aboriginal Affairs and Northern Development Canada	56 224	0	56 224
Fisheries and Oceans Canada	0	10 392	10 392
National Capital Commission	457	0	457
Grand total	468 322	42 753	511 075

Note: Areas were overlap-corrected and include only those areas recognized under the international definition of a protected area. Areas under shared federal-provincial jurisdiction are included in these totals. Data for areas in Quebec under the jurisdiction of the National Capital Commission use data as supplied by the province of Quebec. The grand total is less than the sum of jurisdictions due to corrections for overlaps. 9102 km² previously protected by Agriculture and Agri-Food Canada are not included here.

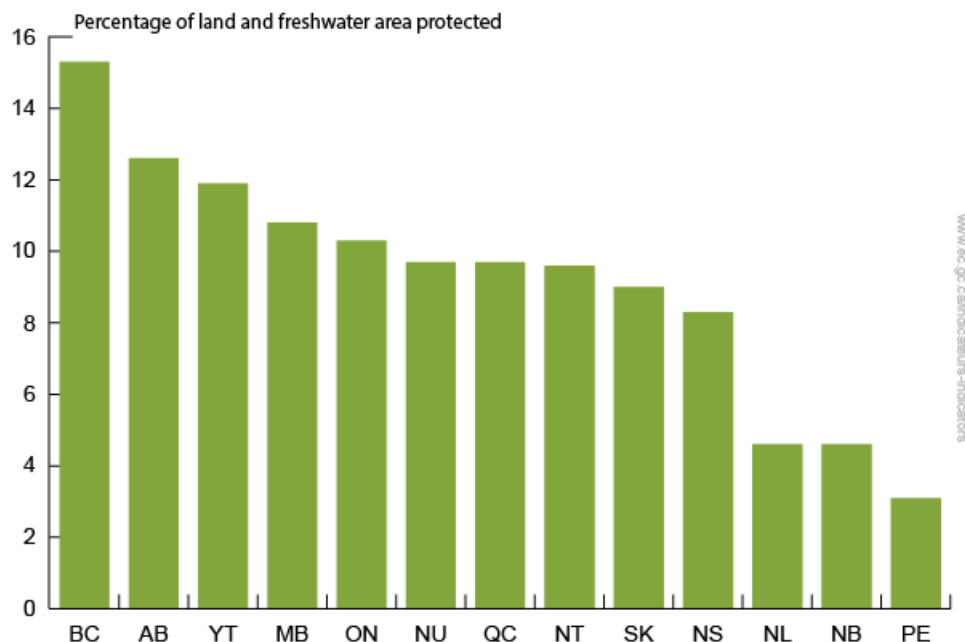


This indicator is used to measure progress toward [Target 4.3: Terrestrial Ecosystems and Habitat Stewardship – Contribute to the proposed national target that by 2020, at least 17% of terrestrial areas and inland water are conserved through networks of protected areas and other effective area-based conservation measures](#) and [Target 4.5 By 2020, 10% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures](#) of the [Federal Sustainable Development Strategy 2013–2016](#).

Protected Areas, by Province and Territory

The proportion of terrestrial area protected varies by province and territory, ranging from 3.1% to 15.3%. Differences in geography and historical land use influence the degree of protection. For example, Prince Edward Island is highly agricultural, while recreational use of mountainous British Columbian landscapes is more compatible with protection.

Figure 3. Total percentage of terrestrial area protected by province and territory, Canada, 2014



[Data for Figure 3](#)

Note: Areas include land and freshwater but not marine areas. Not all provinces and territories report on protected areas that are privately owned.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

British Columbia, Alberta, Yukon, Manitoba and Ontario have the greatest proportion of territory under some level of protection (more than 10% for terrestrial areas).

Quebec, the Northwest Territories, Nunavut, Nova Scotia, and Saskatchewan have 8 to 10% of their territories under protection.

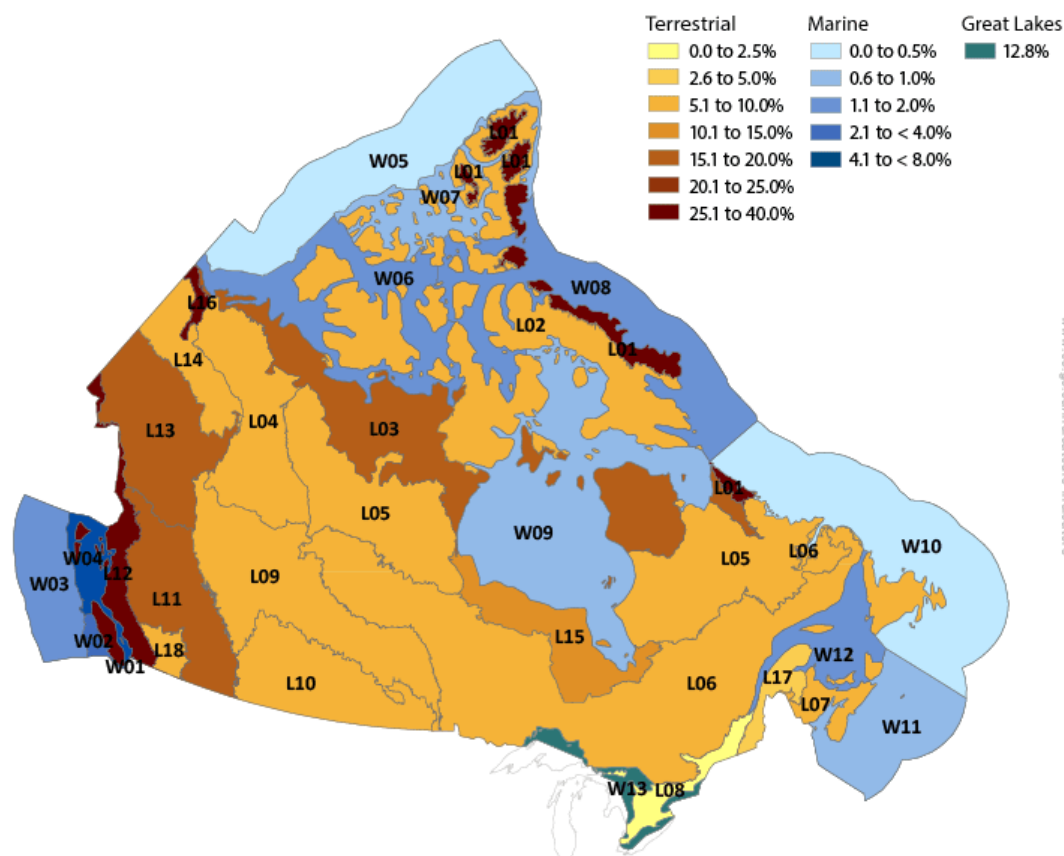
Newfoundland and Labrador, New Brunswick and Prince Edward Island have less than 5% of their territories under protection.

Protected Areas, by Ecological Region

Ecozones³ are regions with characteristic ecological features, such as climate and vegetation. The highest percentage of protected areas is found in the Tundra Cordillera ecozone (38%), while five ecozones have less than 1% of their area protected.

Terrestrial ecozones with a high proportion of their area protected tend to be remote or prized for recreation. This is in contrast to regions with high levels of urbanization and development. For example, ecozones in the western mountain ranges have 17% or more of their area protected, but the Mixedwood Plain in southern Ontario and along the St. Lawrence River has only 1.8% of its area protected. Marine areas have not benefited from as long a tradition of protection, and smaller proportions are protected, ranging from 0.02% to 6.9%. Almost 13% of the area of the Great Lakes that is within Canada is protected.

Figure 4. Percentage of ecozones protected, Canada, 2014



Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015). [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014. For Ecozones, Canadian Council on Ecological Areas (2014) Canada Ecozones V5b.

Each ecozone is unique and varied, meaning that protection needs to be carefully planned to include areas representative of different parts of the ecozone and to capture sites of special value.

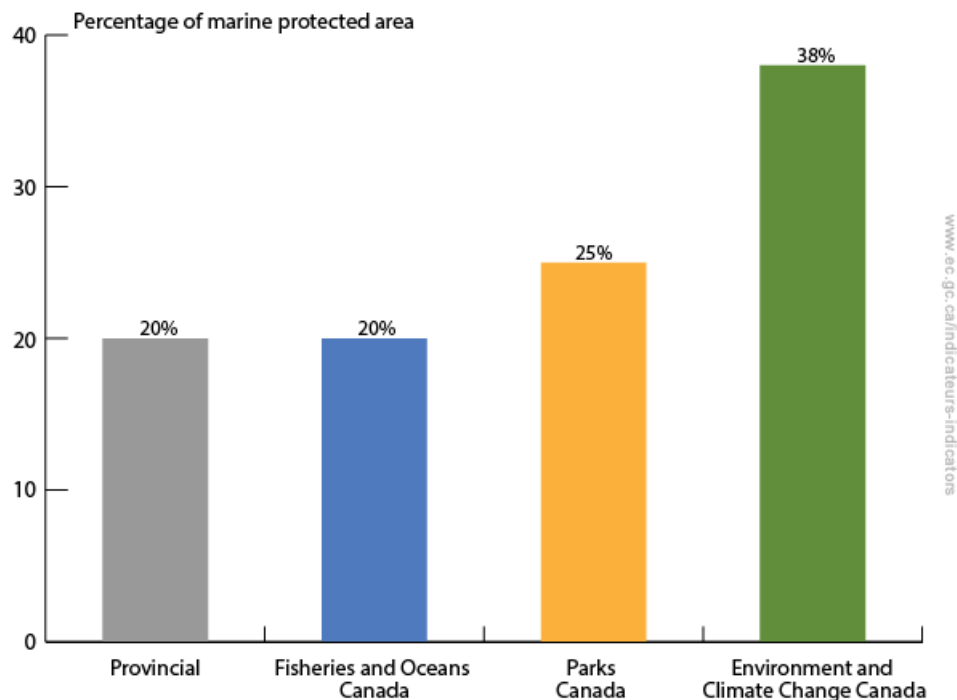
It is much more challenging to establish protected areas in places that are already used for other purposes, such as agriculture, fishing, industry or living space. There are fewer ecologically intact areas remaining and the existing areas have often been fragmented into many small parcels.

Marine Protected Areas

Marine protected areas (MPA) are a key management tool that contributes to the improved health, integrity and productivity of our marine ecosystems. The governance of Canada's coasts and oceans is complex.⁴ Canada is establishing a national network of MPAs, with the primary goal of protecting marine biodiversity, ecosystem function and special natural features.

MPAs have been protected by provinces and federal agencies and departments. Many MPAs allow controlled amounts of transportation, fishing and recreational activities.

Figure 5. Marine area protected by jurisdiction, Canada, 2014



[Data for Figure 5](#)

Note: Totals are corrected for overlaps within jurisdictions. The sum of percentages is larger than 100 due to overlap between jurisdictions.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

What an MPA protects depends on its legislative and policy framework and its specific conservation objectives. An MPA may be established to protect sensitive areas, special or unique marine features, areas of high productivity, or representative examples of marine habitats. Some are coastal zones adjacent to terrestrial protected areas, safeguarding coastal ecological processes.

Three federal authorities have mandates to establish and manage marine protected areas in Canada's oceans. Fisheries and Oceans Canada is responsible for leading the development

⁴ [The Role of the Canadian Government in the Oceans Sector](#); [The Role of the Provincial and Territorial Governments in the Oceans Sector](#).

and implementation of a national network of MPAs⁵ and has a mandate to establish individual Marine Protected Areas. Parks Canada is responsible for National Marine Conservation Areas, which are MPAs designed to protect and conserve representative examples of Canada's natural and cultural marine heritage, and to provide opportunities for public education and enjoyment. Environment and Climate Change Canada is responsible for protecting habitat for a variety of wildlife, including migratory birds and species at risk.

As a signatory to the United Nations Convention on Biological Diversity, Canada agreed to an international target⁶ of conserving 10% of marine areas by 2020 through networks of protected areas and other effective area-based conservation measures.⁷ A network of marine protected areas is a collection of individual marine protected areas that works together to fulfill ecological aims more effectively and comprehensively than individual sites could do alone. Our ocean ecosystems are highly inter-connected, through ocean currents, species movements, and ecological functions. Many marine animals move to different habitats for different life stages, creating important ecological and physical links. Whales, for example, may calve in preferred areas, and move to feeding areas where and when food is most available. Some fish may spend most of their lives far out at sea, but return to coastal areas to spawn. A network better protects separate but linked habitats.

Marine conservation includes other types of conservation measures and a wide range of management and stewardship activities. Examples include fisheries closures to protect vulnerable ecosystems, support for the recovery of species at risk, prevention and mitigation of the impact of aquatic invasive species, and strengthening Canada's response to ship-source marine pollution.

⁵ Federal, provincial and territorial governments collaborated on the development of the 2011 [National Framework for Canada's Network of Marine Protected Areas](#). In Quebec, work on marine protected areas is coordinated by the Bilateral Group on Marine Protected Areas (BGMPPA) and within the St. Lawrence Action Plan.

⁶ The international target (Aichi target 11) reads in full "By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes." Canada, as a signatory to the Convention, has developed a set of domestic biodiversity goals and targets, which includes Target 1: "By 2020, at least 17 percent of terrestrial areas and inland water, and 10 percent of coastal and marine areas, are conserved through networks of protected areas and other effective area-based conservation measures."

⁷ An internationally agreed definition of "other effective area-based conservation measures" has not yet been established.

Part 2. Data Sources and Methods for the Protected Areas Indicators

Introduction

The [Protected Areas](#) indicators are part of the [Canadian Environmental Sustainability Indicators](#) (CESI) program, which provides data and information to track Canada's performance on key environmental sustainability issues. [Canada's Protected Areas](#) indicator is used to measure progress towards the goals and targets of the [Federal Sustainable Development Strategy](#) and the [2020 Biodiversity Goals and Targets for Canada](#).

Description and rationale of the Protected Areas indicators

Description

The Protected Areas indicators report the amount and proportion of Canada's terrestrial and marine area that is recognized under the international definition of 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."⁸ Land and/or water access, use, and activities within the protected area are restricted, in whole or in part, permanently or temporarily, primarily for the purpose of conserving biodiversity and ecosystem function, regardless of proprietary designation (for example, park, conservation area, or wildlife reserve).

A national summary is provided by the [Canada's Protected Areas](#) indicator. Further information on coastal and marine areas is included in [Marine Protected Areas](#). Geographic breakdowns are provided in [Protected Areas, by Province and Territory](#) and [Protected Areas, by Ecological Region](#).

Rationale

The extent of the area of protected land and water is a measure of human response to the loss of biodiversity and natural habitat. As the amount of protected area in Canada increases, more natural lands and waters are withdrawn from direct human development stresses, thereby helping to preserve ecosystem services and contributing to biodiversity conservation. The results do not provide information on the degree to which the areas are ecologically intact and sheltered from the impact of human activities. For information on the health of ecosystems in national parks, please refer to [Ecological Integrity of National Parks](#).

Many countries use protected areas as the core of their programs to preserve biodiversity, ecosystems and ecological services. The Parties to the [Convention on Biological Diversity](#), among them Canada, set an aspirational target to conserve at least 17% of terrestrial areas⁹ and inland waters, and 10% of marine areas, by 2020.¹⁰ This is one of 20 targets collectively

⁸ Dudley N (editor) (2008) [Guidelines for applying protected area management categories](#) with Stolton, S., P. Shadie and N. Dudley (2013) [IUCN WCPA best practice guidance on recognising protected areas and assigning management categories and governance types](#). Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, section 2. Retrieved on 16 February, 2015.

⁹ "Terrestrial" as used here includes both land and freshwater areas.

¹⁰ Aichi Target 11 is, in full: "By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected

known as the Aichi Targets established in October 2010. The protected area target supersedes the previous Convention target, set in 2004, of having 10% of each ecological region conserved by 2010.

Recent changes to the indicator

The analytical method used to estimate the area protected has been improved for this report. The new method uses information on the boundaries of protected areas and accounts for overlaps between areas. Previously, areas that were protected under more than one jurisdiction (for example, an area that may be both a National Wildlife Area and a National Park) were counted more than once. This correction has become more important as the quality and completeness of protected areas data have improved over time. Current estimates are the best available and should not be compared with those reported in previous years.

Management of areas previously under the Community Pastures Program (Agriculture and Agri-Food Canada) is being transferred to provinces or other jurisdictions. Saskatchewan has stated that it plans to continue to protect these areas and they have been retained in the analysis. Areas in Manitoba and Alberta have not been retained, as the expected management regime for these areas is not certain.

In the 2014 reporting year, marine reporting was aligned to the limit of Canada's Exclusive Economic Zone (EEZ). Also in 2014, the ecozone breakdown for the first time used an updated ecozone framework, seamlessly incorporating marine ecozones. The updated framework, completed by the Canadian Council on Ecological Areas (CCEA) in 2014, has been approved by all provinces and territories, and incorporates new information obtained since the 1996 version. It replaced the Ecozones⁺ provisional framework used by the Ecosystem Status and Trends Report in 2010.

Data

Data source

Protected areas

For Canada except Quebec: Canadian Council on Ecological Areas (CCEA) [Conservation Areas Reporting and Tracking System](#) (CARTS). Data current as of 31 December, 2014.

For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC) [Registre des aires protégées au Québec](#) (RAPQ). Data current as of 31 December, 2014.

Jurisdictional areas

For Canada, except Quebec: Natural Resources Canada (2009) Canada Centre for Remote Sensing. Areas are estimated using the [Atlas of Canada 1,000,000 National Frameworks Data, Administrative Boundaries](#).

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 Atlas of Canada 1,000,000 National Frameworks Data, Administrative Boundaries.

systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape".

Ecozones

Canadian Council on Ecological Areas (2014) [Canada Ecozones](#) V5b.

National boundaries

Natural Resources Canada (2009) [Atlas of Canada 1,000,000 National Frameworks Data, Administrative Boundaries](#).

Spatial coverage

Coverage is national.

Temporal coverage

Both the CCEA (CARTS) and MDDELCC (RAPQ) datasets are current to 31 December, 2014. Temporal coverage is 1876 to 2014.

A few protected areas do not currently have a recorded date of protection. Sites with an unknown protection date are treated as pre-1990 when reporting total areas. Protection dates continue to be incorporated into the database.

Data completeness

The data include all areas under the direct administrative control of each jurisdiction and recognized as protected with an International Union for Conservation of Nature (IUCN) designation.

Data on non-governmental areas are included when jurisdictions have assumed the responsibility of recognizing those areas and providing data to the CCEA. This means private lands, areas preserved by environmental non-governmental organizations or Aboriginal communities, and other conservation areas are included only if they have been recognized as protected. Quebec includes information on privately-owned protected lands in the RAPQ database.

Data on areas set aside using other effective area-based conservation measures are not currently included in the indicators.

Methods

Federal, provincial and territorial departments and agencies have submitted geospatial and ancillary data for protected areas under their administrative control to the Canadian Council on Ecological Areas (CCEA). These data contributors will be referred to here as jurisdictions. Data on areas controlled by non-governmental organizations, such as the Nature Conservancy of Canada and Ducks Unlimited Canada, are included in cases where a jurisdiction has recognized and categorized those areas. Work is ongoing to capture and incorporate data on additional privately held protected areas and on areas being conserved through means other than formal protection.

Protected areas data are housed in the Conservation Areas Reporting and Tracking System (CARTS) for all of Canada except Quebec. Data for Quebec are taken from the Registry of Protected Areas (RAPQ)¹¹ database at the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC) and were acquired directly from the Ministry for this analysis. CARTS and RAPQ databases were combined and used to compile the protected areas indicators in all sub-analyses. Some recent records for areas in Quebec owned by the National Capital Commission (NCC) were

¹¹ Quebec's [Natural Heritage Conservation Act](#) (R.S.Q., c. C-61.01), articles 5 and 6, governs the registry.

removed from the analysis: these were present in CARTS but had not yet been added by NCC to RAPQ and recognized as protected areas.

Data submitted include the name of the protected area, its geospatial location, boundaries, official area in hectares (ha), biome (terrestrial/marine), International Union for Conservation of Nature (IUCN) category, managing jurisdiction, and protection date, among other information.

In cases where the same attribute information does not apply to the entire protected area, the protected 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. Protected areas that are undivided are treated as a single zone.

Canada's Protected Areas

The protected areas database (CARTS and RAPQ combined) contains information on the protection date of each zone. To estimate the terrestrial protected area trend over time:

1. 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.
3. The process was repeated for each year from 1991 to 2014.
4. 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 marine polygons at each step.

Polygons with an unknown protection date comprise less than 1% of the total protected area and were treated as having been protected prior to 1990.

The areas protected under each federal jurisdiction were calculated by selecting either terrestrial or marine polygons protected by a given jurisdiction, merging the polygons and estimating the area. The total area protected by federal jurisdictions was calculated by combining terrestrial or marine polygons for all federal jurisdictions and calculating the area.

Rates of change were calculated by dividing the difference in area (i.e., given year minus previous year) by the total area protected in the previous year.

Protected Areas, by Province and Territory

The protected areas database contains information on the province or territory in which a protected area is located. Following methodology similar to that used for reporting trends in the national indicator, for each province and territory, terrestrial polygons were combined into a single polygon and the area calculated.

Quebec generates official statistics on area protected (particularly with reference to legal areas or those calculated by the Surveyor General of jurisdiction in relation to areas calculated by the Geographic Information System (GIS) and these are used in preference to estimates derived from the database.

Marine Protected Areas

The protected areas database contains information on the jurisdiction responsible for each protected area. Following methodology similar to that used for reporting trends in the national indicator, for each jurisdiction, marine polygons were combined into a single polygon and the area was calculated.

Protected Areas, by Ecological Region

The protected areas database does not contain information on ecological regions. To generate an estimate of protected area within each ecozone, a geospatial analysis with the ecozone framework was made in the following manner:

1. Protected area polygons were intersected with ecozone boundaries. As a result, a polygon that crosses an ecozone boundary is divided into parts.
2. The results of step 1 are assigned the ecozone into which they fall.
3. Because ecozone boundaries are more generalized than protected area boundaries, a correction must be made for marine polygons that are mapped into terrestrial ecozones. These polygons are assigned to the nearest marine ecozone.
4. Similarly, terrestrial polygons that map into marine ecozones are assigned to the nearest terrestrial ecozone.
5. For each ecozone, all polygons assigned to that ecozone were dissolved into a single polygon (removing overlaps), and the resulting area calculated.

The total area of each ecozone was calculated from its geospatial boundaries. The total area protected per ecozone was divided by the total area of the ecozone to generate a percentage protected.

Caveats and limitations

The area calculated using polygon boundaries may differ from the legally protected area.

Responsibility for source data accuracy and completeness lies with the jurisdictions. The Canadian Council on Ecological Areas (CCEA) provides data standards and guidance, including a procedures manual.

Data quality and completeness continue to improve as additional information is collected, mapping is updated, and additional protected areas are recognized and captured in the databases. The indicator represents the best estimate available at the time of production of the indicator.

Areas that are no longer recognized as protected ("decommissioned") were not captured in the trend analysis, as these areas were completely removed from the database.

Complex boundaries such as coastlines and ecological regions must be generalized for mapping purposes. In nature, ecozones do not have sharp boundaries. Due to the uncertainty of such boundaries, results should be seen as estimates rather than precise measurements.

Ecozones are an ecologically based framework, and should not be considered an expression of sovereignty. In particular, the marine territory of St. Pierre and Miquelon (France) is included in the ecozones. This is one of several differences between the ecozone framework and the marine bioregion framework used for Marine Protected Area network development.

The CCEA reports [a summary from Conservation Areas Reporting and Tracking System \(CARTS\)](#), which differs slightly from the results reported here. The CCEA uses the sum of the official areas of individual protected areas and does not account for overlaps, with the exception of the national total. The CCEA uses baseline areas from multiple sources; Canadian Environmental Sustainability Indicators (CESI) use official territorial extent from the Atlas of Canada (with the exception of Quebec) and a Geographic Information System (GIS) estimate of marine territory. If comparing these websites, care should be taken to note any differences in the date-stamp of the underlying data and the methods of analysis.

Part 3. Annexes

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

Table A.1. Data for Figure 1. Trends in proportion of area protected, Canada, 1990 to 2014

Year	Terrestrial area protected (km ²)	Percentage of terrestrial area protected	Marine area protected (km ²)	Percentage of marine area protected
1990	526 214	5.3	18 347	0.32
1991	526 718	5.3	18 366	0.32
1992	529 556	5.3	18 728	0.33
1993	539 778	5.4	18 971	0.33
1994	543 284	5.4	18 978	0.33
1995	583 035	5.8	20 746	0.36
1996	602 024	6.0	21 607	0.38
1997	613 771	6.1	21 623	0.38
1998	639 592	6.4	23 595	0.41
1999	650 970	6.5	23 596	0.41
2000	662 731	6.6	23 689	0.41
2001	709 387	7.1	24 238	0.42
2002	717 505	7.2	24 442	0.43
2003	776 365	7.8	27 791	0.48
2004	786 097	7.9	30 190	0.53
2005	814 210	8.2	31 625	0.55
2006	820 778	8.2	31 985	0.56
2007	847 060	8.5	32 178	0.56
2008	900 461	9.0	41 073	0.71

Year	Terrestrial area protected (km ²)	Percentage of terrestrial area protected	Marine area protected (km ²)	Percentage of marine area protected
2009	953 920	9.6	41 624	0.72
2010	961 453	9.6	50 839	0.88
2011	977 778	9.8	50 925	0.89
2012	989 101	9.9	50 925	0.89
2013	1 024 770	10.3	51 572	0.90
2014	1 026 682	10.3	51 572	0.90

Note: The terrestrial area of Canada is 9 984 670 km² and its marine territory is approximately 5.75 million km². Overlaps between protected areas were corrected for.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

Table A.2. Data for Figure 3. Total percentage of terrestrial area protected by province and territory, Canada, 2014

Province or territory	Protected area (km ²)	Provincial or territorial area (km ²)	Percentage of province or territory protected
British Columbia	144 704	944 735	15.3
Alberta	83 218	661 848	12.6
Yukon Territory	57 274	482 443	11.9
Manitoba	69 868	647 797	10.8
Ontario	110 580	1 076 395	10.3
Quebec ^[A]	147 282	1 512 418	9.7
Northwest Territories	130 759	1 346 106	9.7
Nunavut	201 141	2 093 190	9.6
Nova Scotia	4998	55 284	9.0
Saskatchewan	54 219	651 036	8.3
New Brunswick	3376	72 908	4.6

Province or territory	Protected area (km ²)	Provincial or territorial area (km ²)	Percentage of province or territory protected
Newfoundland and Labrador	18 501	405 212	4.6
Prince Edward Island	176	5660	3.1
Canada	1 026 682	9 984 670	10.3

Note: 1702 km² of terrestrial area in Manitoba are being transferred from management by Agriculture and Agri-Food Canada to the province of Manitoba. These lands are not included in the total for Manitoba as their protected status is unclear.

^[A] Quebec values are official provincial statistics provided by the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques. They are derived using a similar but not identical analytical process.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

Table A.3. Data for Figure 4. Percentage of ecozones protected, Canada, 2014

Map label	Ecozone name	Ecozone area (km ²)	Area protected (km ²)	Percentage of region protected
L01	Arctic Cordillera	239 093	53 561	22.4
L02	Northern Arctic	1 438 050	95 605	6.6
L03	Southern Arctic	895 797	150 759	16.8
L04	Taiga Plains	522 168	40 821	7.8
L05	Taiga Shield	1 261 989	96 540	7.6
L06	Boreal Shield	1 868 510	172 323	9.2
L07	Atlantic Maritime	115 234	7348	6.4
L08	Mixedwood Plains	120 398	2119	1.8
L09	Boreal Plains	750 577	58 063	7.7
L10	Prairies	459 598	26 071	5.7
L11	Montane Cordillera	426 252	79 995	18.8
L12	Pacific Maritime	207 298	52 349	25.3
L13	Boreal Cordillera	526 803	97 286	18.5

Map label	Ecozone name	Ecozone area (km ²)	Area protected (km ²)	Percentage of region protected
L14	Taiga Cordillera	217 462	19 237	8.8
L15	Hudson Plains	339 208	43 762	12.9
L16	Tundra Cordillera	27 373	10 336	37.8
L17	Atlantic Highlands	94 521	3579	3.8
L18	Semi-Arid Plateaux	55 927	5262	9.4
W01	Strait of Georgia	9928	451	4.5
W02	Southern Shelf	28 035	781	2.8
W03	Offshore Pacific	312 709	6200	2.0
W04	Northern Shelf	102 977	7138	6.9
W05	Arctic Basin	788 317	173	0.02
W06	Western Arctic	522 234	9722	1.9
W07	Arctic Archipelago	260 554	2273	0.87
W08	Eastern Arctic	744 346	8631	1.2
W09	Hudson Bay Complex	1 183 389	8856	0.75
W10	Newfoundland-Labrador Shelves	1 045 494	230	0.02
W11	Scotian Shelf	436 012	2399	0.55
W12	Gulf of Saint Lawrence	247 270	4718	1.9
W13	Great Lakes	90 800	11 666	12.8

Note: Ecozones are elements of a framework delineating broad areas with distinctive biophysical characteristics and similar sets of species. For map labels, ecozones are numbered and coded with an "L" for terrestrial regions and "W" for aquatic regions.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015). [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014. For Ecozones, Canadian Council on Ecological Areas (2014) Canada Ecozones V5b.

Table A.4. Data for Figure 5. Marine area protected by jurisdiction, Canada, 2014

Jurisdiction	Marine protected area (km²)	Percentage of total protected
Provincial	10 127	20
Fisheries and Oceans Canada	10 392	20
Parks Canada	12 751	25
Environment and Climate Change Canada	19 617	38

Note: Totals are corrected for overlaps within jurisdictions. The sum of percentages is larger than 100 due to overlap between jurisdictions.

Source: For Canada, except Quebec: Canadian Council on Ecological Areas (CCEA) (2015) [Conservation Areas Reporting and Tracking System](#) (CARTS). For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (2015) [Registre des aires protégées au Québec](#). Data are current as of 31 December, 2014.

Annex B. References and additional information

References and further reading

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

Dudley N (editor) (2008) [Guidelines for applying protected area management categories](#) with Stolton S, Shadie P and Dudley N (2013) [IUCN WCPA best practice guidance on recognising protected areas and assigning management categories and governance types](#). Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, section 2. Retrieved on 16 February, 2015.

[Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques](#) (MDDELCC), Quebec–Protected Areas (some pages in French only).

Related information

[2020 Biodiversity Goals and Targets for Canada](#)

[Canadian Council on Ecological Areas](#)

[Convention on Biological Diversity](#)

[Global Trends in Protected Areas](#)

[National Conservation Plan](#)

[Registre des aires protégées](#)

[World Database on Protected Areas – ProtectedPlanet.net](#)

www.ec.gc.ca

Additional information can be obtained at:

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Public Inquiries Centre
7th Floor, Fontaine Building
200 Sacré-Coeur boul.
Gatineau, QC K1A 0H3
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Fax: 819-994-1412
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