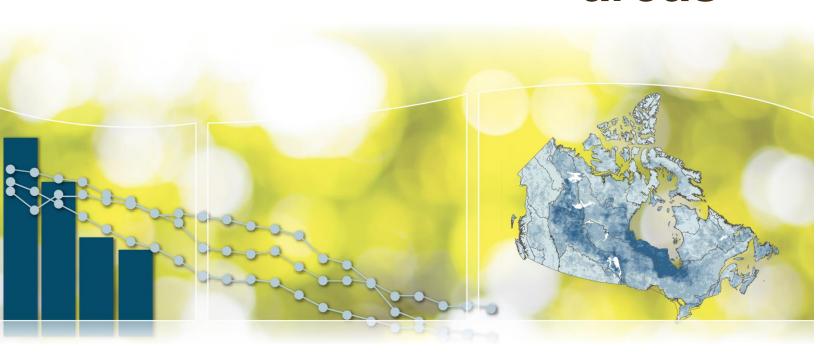




Canadian Environmental Sustainability Indicators Canada's protected areas





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Canadian Environmental Sustainability Indicators Canada's protected areas

August 2017

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Canada's protected areas indicator

Protected areas are lands and waters where use is limited for the purpose of conserving nature.
Protection does not always isolate areas from use, including industrial activity and the harvest of biological resources. Nature conservation, however, must be the primary purpose.

Key results

- As of the end of 2016,
 - 10.5% (1.05 million square kilometres [km²]) of Canada's terrestrial area (land and freshwater), and 0.96% (55 000 km²) of its marine territory are protected
 - 514 000 km² are protected by the <u>federal government</u>, a slight decrease from 5 years earlier, reflecting the transfer of lands to provincial and territorial jurisdiction²
- In the past 20 years, the total area protected has increased by almost 70%. Over the last 5 years, it has increased by 8%.

Figure 1. Trends in proportion of area protected, Canada, 1990 to 2016

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.

¹ Protection is not the only way to conserve habitat. Some fisheries area closures have been identified as <u>other effective area-based conservation measures</u>.

² An area of 9102 km² of land previously protected by Agriculture and Agri-Food Canada under the Community Pastures Program has been returned to provincial management. The portion of Thelon Wildlife Sanctuary that is in the Northwest Territories (21 270 km²) and was previously protected by Indigenous and Northern Affairs Canada has been transferred to territorial jurisdiction. Although new areas have also been protected, the transfer of lands led to a net decline of 1366 km² in federally protected area between 2011 and 2016.

Source: Canadian Council on Ecological Areas (2017) <u>Conservation Areas Reporting and Tracking System</u> (CARTS), with Quebec data used by permission. Data are current as of December 31, 2016.

Although the distribution and size of individual protected areas is highly variable across Canada, the total represents an area close to the size of Ontario. Larger protected areas tend to be located in northern Canada where the extent of agriculture, settlement, road networks and other land uses is less.

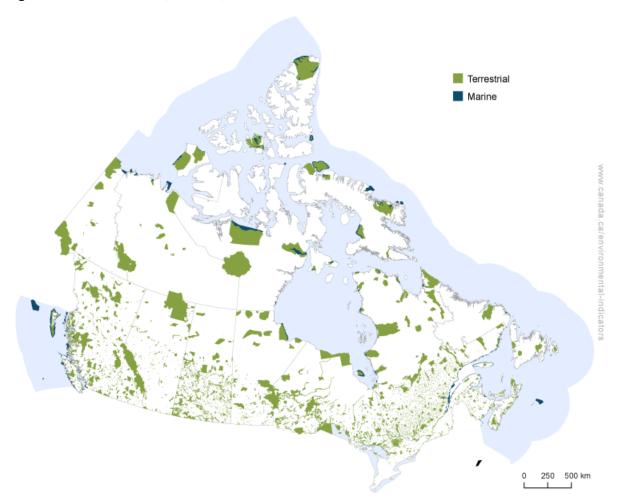


Figure 2. Protected areas, Canada, 2016

Navigate data using the Interactive Map

Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS). Data are current as of December 31, 2016.

Well-managed protected areas are one way to conserve wild species and their habitats for present and future generations. Internationally, countries have agreed to a target of conserving at least 17% of land area and 10% of marine area by 2020. Canada has pledged to work towards this target.

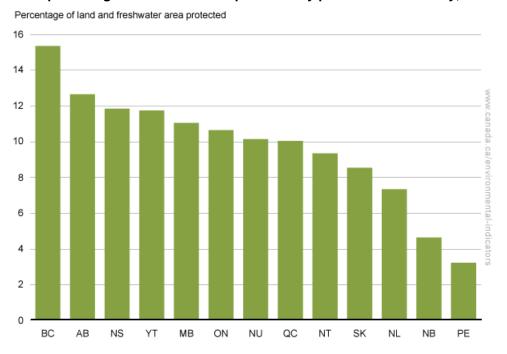
Laws or agreements limit the amount and type of human activity in protected lands and waters. Protected areas may be chosen to represent parts of the Canadian landscape or seascape, such as the boreal forest or an ocean shelf, or they may be created to conserve endangered wildlife species, wildlife habitats, and unique or ecologically sensitive areas.

Terrestrial protected areas, by province and territory

Key results

 The proportion of terrestrial area (land and freshwater) protected varies by province and territory, ranging from 3.2% in Prince Edward Island to 15.3% in British Columbia

Figure 3. Total percentage of terrestrial area protected by province and territory, Canada, 2016



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: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS). Data are current as of December 31, 2016.

British Columbia has protected 15.3% of its terrestrial area and Alberta protects 12.6% of its territory. Newfoundland and Labrador, New Brunswick and Prince Edward Island have less than 8% protected. The remaining provinces and territories have between 9% and 12% of their territory protected.

Each province has set aside areas for protection and progress towards conservation protection targets varies by jurisdiction. The area protected by Nova Scotia has increased rapidly in recent years as a result of the province's efforts in meeting the goal of protecting 12% of the province by 2015.

Marine protected areas, by jurisdiction

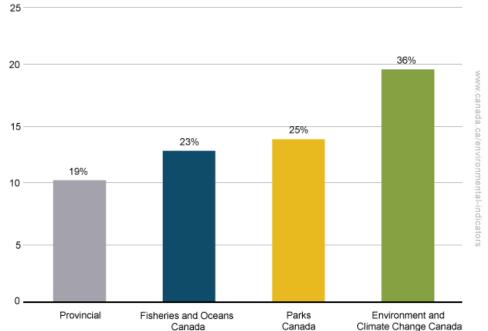
Marine protected areas are a key management tool that contributes to the improved health, integrity and productivity of our marine ecosystems.

Key results

- Environment and Climate Change Canada manages two types of protected areas: <u>National Wildlife Areas</u> and <u>Migratory Bird Sanctuaries</u>. In 2016, it protected the greatest proportion of Canada's protected marine territory.
 - the Queen Maud Gulf Migratory Bird Sanctuary, with more than 6500 square kilometres (km²) of marine habitat, is the largest single marine area protected in Canada as of December 2016.
- Marine protected area increased by more than 2300 km² in 2016: protection of <u>Anguniaqvia</u> niqiqyuam in 2016 by Fisheries and Oceans Canada in collaboration with the Inuvialuit contributed most of this increase.

Thousands of square kilometres protected
25

Figure 4. Marine area protected by jurisdiction, Canada, 2016



Data for Figure 4

Note: The percentages on top of each bar represent the share of geographic area protected by each jurisdiction. Percentages add up to more than 100 due to overlap between jurisdictions.

Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS). Data are current as of December 31, 2016.

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
protect and conserve marine species and their habitats, including for species that are fished,
endangered or threatened marine species, unique habitats and areas of high biological
productivity or biodiversity

- <u>National Marine Conservation Areas</u> (Parks Canada) are established to protect and conserve representative examples of Canada's natural and cultural marine heritage and provide opportunities for public education and enjoyment
- Marine National Wildlife Areas (Environment and Climate Change Canada) are established to protect and conserve habitat for a variety of wildlife including migratory birds and endangered species

These departments contribute to the <u>Marine Protected Area (MPA) network</u>, which has a goal of providing long-term protection of marine biodiversity, ecosystem function and special natural features.

The different jurisdictions³ protect areas for different purposes, 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 fisheries areas 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 of Canada's response to ship-source marine pollution.

³ <u>The Role of the Canadian Government in the Oceans Sector</u>; <u>The Role of the Provincial and Territorial Governments in the</u> Oceans Sector.

Protected Areas, by Ecological Region

Ecozones are regions with distinct or characteristic ecological features, such as climate and vegetation.

Key results

- Three ecozones, the Tundra Cordillera, the Pacific Maritime and the Arctic Cordillera, have more than 20% of their terrestrial area protected
- The Northern Shelf, in the Pacific Ocean, is the marine ecozone⁴ with the largest protected proportion (7%)
- 13% of the Canadian area of the Great Lakes is protected

Terrestrial Marine Great Lakes 0.0 to 4.0% 0.0 to 0.5% 13.2% 4.1 to 8.0% 0.6 to 1.0% 8.1 to 12.0% 1.1 to 2.0% 12.1 to 16.0% 2.1 to 4.0% Arctic Basin 16.1 to 20.0% 4.1 to 8.0% 20.1 to 25.0% Arctic Archipelago Arctic Cordillera Tundra Cordillera Southern Arctic Taiga Pacific Maritime Newfoundland-Labrador Taiga Shield Hudson Bay Shelves Northern Complex Shelf Boreal Plains Taiga Shield Offshore Gulf of Atlantic Maritime Strait of Georgia Southern Shelf Semi-Arid Plateaux Boreal Shield Scotian Shelf Atlantic Highlands Mixedwood 500 km

Figure 5. Percentage of ecozones protected, Canada, 2016

Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS). Data are current as of December 31, 2016. For Ecozones, Canadian Council on Ecological Areas (2014) Canada Ecozones V5b.

Data for Figure 5

Plains

⁴ Marine ecozones are derived from marine bioregions, which were delineated following a national science advisory process that considered oceanographic and bathymetric similarities. For more information, see Fisheries and Oceans Canada (2009) Canadian Science Advisory Secretariat - Science Advisory Report 2009/056 and Government of Canada (2011) National Framework for Canada's Network of Marine Protected Areas. Ecozones differ slightly from bioregions.

Terrestrial ecozones with high levels of urbanization and development or widespread agriculture tend to have small proportions of protected area. For example, the Mixedwood Plains (southern Ontario and along the St. Lawrence River) has only 1.8% of its area protected and the Prairies has 6%.

On the other hand, terrestrial ecozones with a high proportion of protected area tend to be remote or have high recreation value. For example, ecozones in the western mountain ranges have 17% or more of their area protected.

Marine areas have not benefited from as long a tradition of protection. Except for the Northern Shelf off the coast of British Columbia proportion of marine ecozones protected ranges 0.02% to 4.8%.

Each ecozone is unique, and protection involves the inclusion of areas that are representative of different parts of the ecozone and sites of special value. Challenges to establishing protected areas include competition from other uses, such as agriculture, industry or living space, and may be limited by the extent of ecologically intact areas within the ecozone.

About the indicators

What do the indicators measure

The Canada's protected areas indicators report the amount and proportion of Canada's terrestrial (land and freshwater) 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." Land and/or water access, use and activities within the protected area are controlled, primarily for the purpose of conserving biodiversity, regardless of proprietary designation (for example, park, conservation area or wildlife reserve).

Why are these indicators important

The amount of area protected is a measure of human response to the loss of biodiversity and natural habitat. As protected area 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 and disease, and improved human health.

Many countries use protected areas as the core of their programs to preserve biodiversity, ecosystems and ecosystem services. The parties to the <u>Convention on Biological Diversity</u>, among them Canada, have set an aspirational target to conserve at least 17% of terrestrial areas and inland waters, and 10% of marine areas, by 2020. This is one of 20 targets collectively known as the Aichi Targets established in October 2010.

Protected areas also contribute to 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" 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,

⁵ Dudley N (editor) (2008) <u>Guidelines for applying protected area management categories</u>. 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 (combined volume). Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, Section 2, Retrieved on February 18, 2016.</u>

⁶ Aichi Target 11 reads: "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 systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape."

mountains and drylands, in line with obligations under international agreements" of the <u>Sustainable Development Goals of the 2030 Agenda for Sustainable Development</u>.

The main indicator supports the measurement of progress towards two targets of the 2016–2019 Federal Sustainable Development Strategy:

- 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
- By 2020, 10% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures

It also contributes towards reporting on Target 1 of the <u>2020 Biodiversity target for Canada</u>: "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."

The Government of Canada has also set an interim target to conserve 5% of marine and coastal areas by 2017.

What are the related indicators

<u>Ecological integrity of national parks</u> reports on the condition of national parks, an important element of Canada's protected areas.

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



Healthy coasts and oceans

This indicator supports the measurement of progress towards the following <u>2016–2019 Federal</u> <u>Sustainable Development Strategy</u> long-term goals: coasts and oceans support healthy, resilient and productive ecosystems.



Sustainably managed lands and forests

This indicator supports the measurement of progress towards the following <u>2016–2019 Federal Sustainable Development Strategy</u> long-term goals: lands and forests support biodiversity and provide a variety of ecosystem services for generations to come.

Data sources and methods

What are the data sources

Protected areas data are taken from the <u>Conservation Areas Reporting and Tracking System</u>, collaboratively produced by the <u>Canadian Council on Ecological Areas</u> and Environment and Climate Change Canada. Data are collated from federal, provincial and territorial jurisdictions, which are the authoritative data sources.

More information

Data sources

Protected areas

Canadian Council on Ecological Areas's Conservation Areas Reporting and Tracking System contains data consolidated from all jurisdictions with responsibilities for protected areas in Canada. Data current as of December 31, 2016.

Jurisdictional area

- For Canada 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 Atlas of Canada 1,000,000 National Frameworks Data (2009), Administrative Boundaries

National boundaries

Natural Resources Canada (2009) <u>Atlas of Canada 1,000,000 National Frameworks Data,</u> Administrative Boundaries.

Ecozones

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

Data description

Protected areas data are housed in the Conservation Areas Reporting and Tracking System (CARTS). Each year, federal, provincial and territorial departments and agencies submit geospatial and ancillary data for protected 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 in cases where a jurisdiction has recognized and categorized those areas.

National and provincial parks, national marine conservation areas, migratory bird sanctuaries and wildlife reserves are all examples of protected areas. Federal, provincial and territorial protected areas are included in the indicators, as well as some areas protected by non-governmental environmental organizations, and Indigenous and local communities. 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.

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. A formal definition of the "other effective area-based conservation measures" included in protected area targets has not been established, and they are not included in the indicators.

The data include the following information on each protected area:

- name of the protected area
- geospatial location
- boundaries
- official area in hectares
- biome (terrestrial/marine)
- International Union for Conservation of Nature category
- managing jurisdiction
- protection date

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.

How are these indicators calculated

The area protected is estimated through a geographical analysis based on the boundaries of protected areas. A correction is made for overlaps.

More information

Canada's protected areas

The protected areas database (Conservation Areas Reporting and Tracking System) contains information on the protection date of each zone. For some zones, it also contains a delisting date. 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 subsequent year (delisted zones were removed from the analysis beginning in the year they were delisted)
- 4. estimates were divided by the total terrestrial area of Canada to determine the proportion protected

To estimate the marine protected area trend, a similar process was followed, with marine polygons selected 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 (a given year minus the 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 was calculated.

Marine protected areas, by jurisdiction

The protected areas database contains information on the jurisdiction responsible for each protected area. As with 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 was conducted. National ecozone boundaries are more generalized than local protected areas boundaries, however, and this could affect estimates in coastal areas. To avoid this problem, marine and terrestrial protected areas were processed separately.

Marine protected area polygons that mapped outside a marine ecozone were assigned to the nearest marine ecozone. Similarly, terrestrial protected areas that mapped outside a terrestrial ecozone were assigned to the nearest terrestrial ecozone:

- 1. A working layer containing generalized ecozone boundaries was developed. Marine ecozone boundaries were copied from the national ecozone coverage, and polygons were extended to include adjacent terrestrial regions.
- 2. The marine protected area polygons were selected from the protected areas layer.
- 3. The working layer and the marine protected area polygons were combined into a single layer (marine protected area that cross ecozone boundaries are divided at the boundary).
- 4. Protected area polygons were selected from the combined layer, and the overlapcorrected area was calculated for each generalized ecozone.
- 5. The process was repeated for terrestrial protected areas.
- 6. The process resulted in more than one multi-part polygon for some terrestrial ecozones: the areas of these were combined in a final step to estimate the protected area within each terrestrial ecozone.

The total area of each ecozone was calculated from its geospatial boundaries, as reprojected to Albers Equal Area Conic to be consistent with the projection used in the Conservation Areas Reporting and Tracking System. The area for Newfoundland and Labrador Shelves ecozone was corrected for the territorial area of St. Pierre and Miquelon. The total area protected by ecozone was divided by the total area of the ecozone to generate a protected percentage.

What has recently changed

Data are regularly reviewed and updated. In 2015, changes to the database made it possible to capture information on delisting and transfer between jurisdictions for the first time. This information is not yet fully captured in the database.

Management of areas previously under the Community Pastures Program (Agriculture and Agri-Food Canada) has been transferred to provinces or other jurisdictions. Similarly, the portion of Thelon Wildlife Sanctuary that is located in the Northwest Territories has been transferred to territorial jurisdiction.

What are the caveats and limitations

Comparisons with previous reports should be made with caution, as data quality and completeness continue to improve. Areas may be conserved using instruments other than formal protection. Other effective area-based conservation measures contribute to Canada's targets, but are not yet captured as part of the indicators.

More information

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

Responsibility for source data accuracy and completeness lies with jurisdictions. The Canadian Council on Ecological Areas provides data standards and guidance, including a procedures manual. Nonetheless, some differences among jurisdictions can be expected.

Areas that are no longer recognized as protected ("decommissioned" or "delisted") are not captured comprehensively and may be missing 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. The mismatch in scale between protected areas, mapped with fine detail, and national-scale geographic frameworks, mapped at broad scale, may lead to minor differences across the different 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 protected area polygon boundaries; these have not been corrected for.

Ecozones are an ecologically based framework, and should not be considered an expression of sovereignty.

The Canadian Council Ecological Areas provides a <u>summary</u> that differs slightly from the results reported here. It uses the sum of the official areas of individual protected areas and does not account for overlaps, with the exception of the national total. It also uses baseline areas from multiple sources; the Canada's protected areas indicators reported here use the official territorial extent from the Atlas of Canada (with the exception of Quebec) and a geographic information system estimate of marine territory. In comparing these results, care should be taken to note any differences in the date stamp of the underlying data and the methods of analysis.

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 protected area might affect the biodiversity within it.

Resources

References

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.

Fisheries and Oceans Canada (2009) <u>Development of a Framework and Principles for the Biogeographic Classification of Canadian Marine Areas</u>. DFO Canadian Science Advisory Secretariat Science Advisory Report 2009/056. Retrieved on February 27, 2017.

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 (combined volume)</u>. Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, Section 2. Retrieved on February 27, 2017.

Related information

2020 Biodiversity Goals and Targets for Canada Canadian Council on Ecological Areas
Convention on Biological Diversity
Ecological integrity of national parks
Global trends in protected areas

Navigate data using the Interactive Map

ProtectedPlanet.net

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 2016

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Marine area protected (square kilometres)	Percentage of marine area protected
1990	547 905	5.5	19 743	0.34
1991	548 408	5.5	19 762	0.34
1992	563 734	5.6	20 186	0.35
1993	578 384	5.8	20 427	0.36
1994	581 889	5.8	20 432	0.36
1995	613 544	6.1	22 199	0.39
1996	631 155	6.3	23 061	0.40
1997	643 115	6.4	23 082	0.40
1998	673 511	6.7	23 825	0.41
1999	696 351	7.0	24 058	0.42
2000	706 109	7.1	24 158	0.42
2001	728 809	7.3	24 189	0.42
2002	736 932	7.4	24 392	0.42
2003	793 448	7.9	27 593	0.48
2004	803 141	8.0	29 991	0.52
2005	829 759	8.3	31 410	0.55
2006	836 440	8.4	31 770	0.55
2007	862 792	8.6	31 963	0.56
2008	914 282	9.2	40 841	0.71
2009	942 670	9.4	41 396	0.72
2010	950 203	9.5	50 583	0.88
2011	974 631	9.8	50 671	0.88

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Marine area protected (square kilometres)	Percentage of marine area protected
2012	991 169	9.9	50 673	0.88
2013	1 024 930	10.3	51 321	0.89
2014	1 026 906	10.3	51 321	0.89
2015	1 049 942	10.5	52 667	0.92
2016	1 052 642	10.5	55 025	0.96

Note: The terrestrial territory of Canada is 9 984 670 km² and its marine territory is approximately 5 750 000 km². Overlaps between protected areas were corrected for.

Table A.2. Data for Figure 3. Total percentage of terrestrial area protected by province and territory, Canada, 2016

Province or territory	Provincial or territorial area (square kilometres)	Area protected (square kilometres)	Percentage of province or territory protected
British Columbia	944 735	144 858	15.3
Alberta	661 848	83 140	12.6
Nova Scotia	55 284	6513	11.8
Yukon	482 443	56 334	11.7
Manitoba	647 797	71 139	11.0
Ontario	1 076 395	114 470	10.6
Nunavut	2 093 190	211 299	10.1
Quebec	1 512 418	150 588	10.0
Northwest Territories	1 346 106	125 657	9.3
Saskatchewan	651 036	55 654	8.5
Newfoundland and Labrador	405 212	29 472	7.3
New Brunswick	72 908	3378	4.6
Prince Edward Island	5660	180	3.2

Note: Terrestrial areas include both land and freshwater.

Table A.3. Data for Figure 4. Marine area protected by jurisdiction, Canada, 2016

Jurisdiction	Marine protected area (square kilometres)	Percentage of total protected
Provincial subtotal	10 277	18.7
Quebec	5377	_
British Columbia	4650	_
Atlantic provinces	170	-
Manitoba	80	_
Fisheries and Oceans Canada	12 751	23.2
Parks Canada	13 723	24.9
Environment and Climate Change Canada	19 616	35.6
Correction for overlaps between jurisdictions	-1342	_
Grand total	55 025	_

Table A.4. Data for Figure 5. Percentage of ecozones protected, Canada, 2016

Map label	Ecozone name	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected
L01	Arctic Cordillera	233 618	53 698	23.0
L02	Northern Arctic	1 481 480	105 596	7.1
L03	Southern Arctic	957 139	152 829	16.0
L04	Taiga Plains	554 014	38 160	6.9
L05	Taiga Shield	1 322 786	105 916	8.0
L06	Boreal Shield	1 897 362	179 379	9.5
L07	Atlantic Maritime	110 590	8868	8.0
L08	Mixedwood Plains	116 206	2102	1.8
L09	Boreal Plains	779 471	59 004	7.6
L10	Prairies	465 990	27 394	5.9

Map label	Ecozone name	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected
L11	Montane Cordillera	437 761	80 125	18.3
L12	Pacific Maritime	216 942	52 371	24.1
L13	Boreal Cordillera	557 937	96 582	17.3
L14	Taiga Cordillera	231 161	19 034	8.2
L15	Hudson Plains	350 693	43 758	12.5
L16	Tundra Cordillera	28 980	7134	24.6
L17	Atlantic Highlands	93 017	3689	4.0
L18	Semi-Arid Plateaux	56 434	5266	9.3
W01	Strait of Georgia	8969	426	4.8
W02	Southern Shelf	28 158	785	2.8
W03	Offshore Pacific	315 724	6200	2.0
W04	Northern Shelf	101 663	7141	7.0
W05	Arctic Basin	752 053	165	0.02
W06	Western Arctic	539 807	12 060	2.2
W07	Arctic Archipelago	268 792	3445	1.3
W08	Eastern Arctic	782 636	8629	1.1
W09	Hudson Bay Complex	1 244 670	8700	0.7
W10	Newfoundland and Labrador Shelves	1 041 588	215	0.02
W11	Scotian Shelf	416 296	2399	0.58
W12	Gulf of Saint Lawrence	246 648	4854	2.0
W13	Great Lakes	88 250	11 672	13.2

Note: Ecozones are numbered and coded with an "L" for terrestrial regions and "W" for aquatic regions.

Annex B. Data tables for the link presented in this document

Table B.1. Data for the Area protected by federal jurisdiction, Canada, 2016

Jurisdiction	Terrestrial area protected (square kilometres)	Marine area protected (square kilometres)	Total (square kilometres)
Parks Canada	338 964	13 723	352 687
Environment and Climate Change Canada, Canadian Wildlife Service	104 854	19 616	124 469
Indigenous and Northern Affairs Canada	34 945	0	34 945
Fisheries and Oceans Canada	0	12 751	12 751
National Capital Commission	462	0	462
Correction for overlap among jurisdictions	-10 868	-42	-10 910
Grand total	468 357	46 047	514 404

Note: Terrestrial areas include both land and freshwater. Entries represent the total area protected by each federal jurisdiction, accounting for any overlaps that may exist. This correction is made to avoid double-counting areas that benefit from more than one protection mechanism. No correction has been made for overlap between terrestrial and marine polygons resulting from variable definitions of coastlines or mapping artefacts. Areas under shared federal-provincial jurisdiction are included. Prairie Farm Rehabilitation Administration lands (Community Pastures) are being returned to provincial control and are no longer considered protected by a federal department.

Source: Canadian Council on Ecological Areas (2017) <u>Conservation Areas Reporting and Tracking System</u> (CARTS). Data are current as of December 31, 2016.

www.ec.gc.ca

Additional information can be obtained at:

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