ECOLOGICAL INTEGRITY OF NATIONAL PARKS

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS



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CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS

ECOLOGICAL INTEGRITY OF NATIONAL PARKS

September 2024

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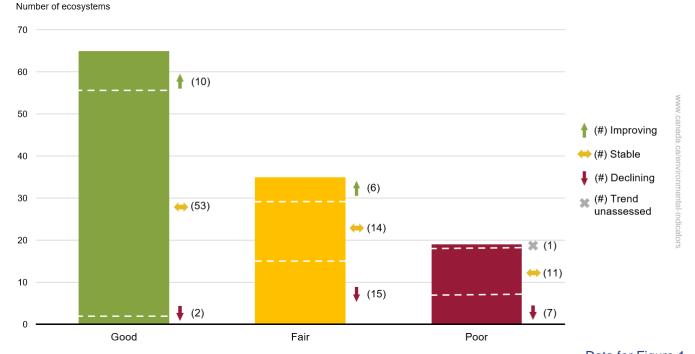
Ecological integrity of national parks

Ecosystems have ecological integrity when their components, such as native species, biological communities, natural landscapes, and ecological functions, are intact and are likely to persist. Annually, Parks Canada summarizes the condition (good, fair, poor) and the trend (improving, stable, declining) of ecosystems' ecological integrity in national parks (including 35 national parks, 7 national park reserves, and 1 national urban park) using a series of monitoring measures to track changes in biodiversity and natural processes.

Key results

- In 2023, 119 ecosystems in 43 national parks were assessed. Of those,
 - 65 (55%) were in good condition, 35 (29%) were in fair condition and 19 (16%) were in poor condition
 - o 78 (66%) were stable, 16 (14%) were improving and 24 (20%) were declining
- Overall, the ecological integrity of 80% of site ecosystems was stable or improving in 2023, marking a 10% decrease from 90% recorded in 2016

Figure 1. Ecological integrity conditions and trends of ecosystems in 43 national parks, Canada, 2023



Data for Figure 1

Note: Monitored ecosystems include coastal/marine, forests, freshwater, glaciers, grasslands, shrublands, tundra, and wetlands, depending on what is present in each site. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'jhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem scored Poor in 2023 but did not report trend data. **Source:** Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

The conditions and trends of ecosystems within national parks are evaluated regularly using a series of monitoring measures that are designed to track changes in biodiversity and natural processes (for example, plant and animal populations and soil properties) or stressors (for example, presence of invasive alien species) within

¹ The <u>Canada National Parks Act</u> (Government of Canada 2000) defines "ecological integrity" as "with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes."

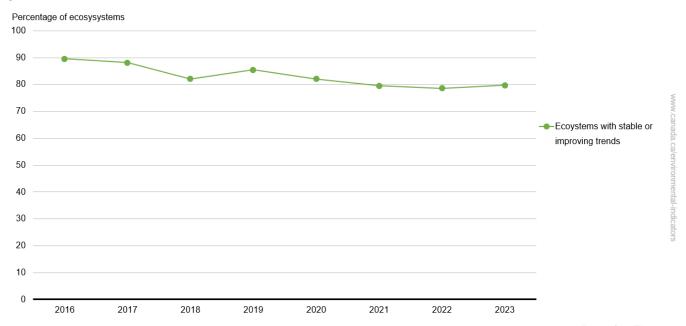
those ecosystems. The condition of an ecosystem is determined by comparing these measures to threshold values and assigning a score to each measure. The scores are then averaged together to rate the condition of the ecosystem (good, fair, or poor). The trend of an ecosystem (improving, stable, declining) reflects a change in condition measures over a 5-year period (from 2018 to 2023). As measures may change over the 5-year period without crossing threshold values it is possible to have an improving or declining trend without a change in ecosystem condition.

Condition and trend must always be interpreted with caution. Because the condition represents an average of several monitoring measures, the condition may show no change over time, even if individual measures are improving or declining.

An ecosystem that is rated as good and stable is secure and likely to persist, and no major management actions like ecosystem restoration are required. Ecosystems whose condition is fair or has a declining trend indicates that the ecosystem is vulnerable, and management actions may be required. Poor ecological integrity indicates that the ecosystem is impaired, and significant management actions may be required. Improving ecological integrity results may indicate that restoration actions are working.

Since 2016, the percentage of ecosystems with stable or improving ecological integrity has declined from 89.6% to 79.7%, with the lowest being 78.6% in 2022. However, this percentage has remained relatively stable since 2020.

Figure 2. Percentage of ecosystems with stable or improving trends in ecological integrity in 43 national parks, Canada, 2016 to 2023



Data for Figure 2

Note: Monitored ecosystems include forests, freshwater, wetlands, grasslands, shrublands, tundra, coastal/marine and glaciers, depending on what is present in each park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'jhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park, and Qausittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023.

Source: Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

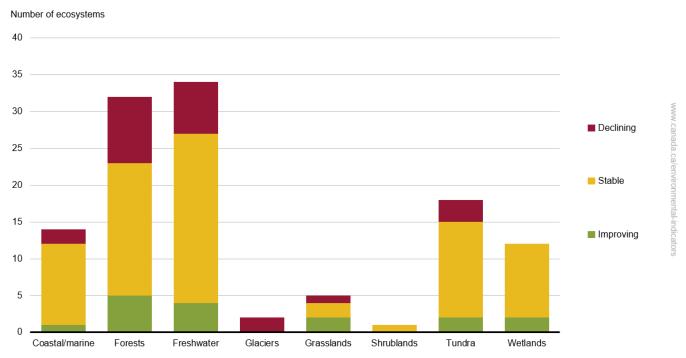
Ecological integrity of national parks, by ecosystem type

Key results

In 2023.

- The ecological integrity of all ecosystem types, except for glaciers, was stable or improving (72-100%)
- The ecosystem types with the most declining conditions included glaciers (100%), forests (28%) and freshwater (21%)
- The ecological integrity of wetlands and shrublands was stable or improving in all parks

Figure 3. Ecological integrity trends of ecosystems in 43 national parks, Canada, 2023



Data for Figure 3

Note: Monitored ecosystems include coastal/marine, forests, freshwater, glaciers, grasslands, shrublands, tundra, and wetlands, depending on what is present in each park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park, and Qausuittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023. **Source:** Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

Declining ecological integrity in ecosystems may be due to stressors within the site or within the surrounding ecosystems. Some of the stressors affecting ecosystems in Canada's national parks include

- habitat loss and degradation
- reduction of landscape connectivity (for example, building of roads and trails)
- climate change impacts (for example, increasing temperatures) and climate-mediated ecological changes and cumulative effects (for example, diseases and natural disturbances)
- loss of keystone species (for example, wolves or bison)
- pollution and contaminants
- invasive species

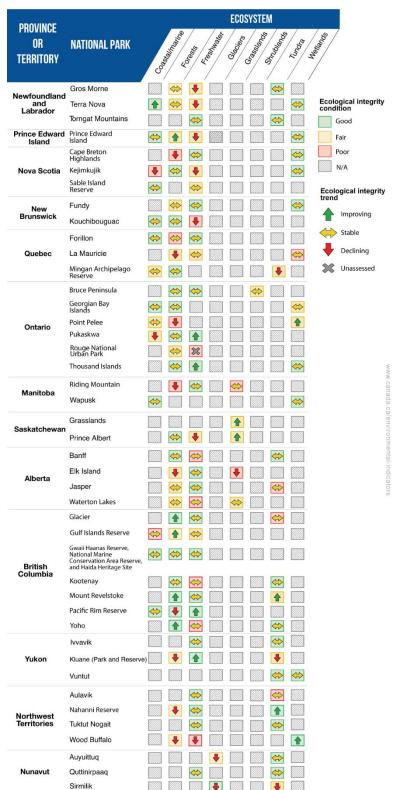
Parks Canada implements management actions to conserve and restore species at risk and to improve ecological integrity when issues are identified. Each ecosystem responds differently to stressors and to management actions. It may take many years to make measurable improvements to ecological integrity and to demonstrate the ecological benefits of management actions.

In 2023-2024, the <u>Conservation and Restoration Fund</u> invested in 56 projects striving to improve the ecological conditions in 28 national parks. In Prince Edward Island National Park, the strategic removal of overabundant white spruce and the planting of over 29 000 native Wabanaki-Acadian trees and shrubs enhanced the site's ecological integrity and forest diversity. A <u>University of New Brunswick study</u> (PDF; 1.7 kB) that modelled the effects of climate change on forests in Prince Edward Island National Park will guide future forest management. This management will implement two-eyed seeing approaches² to forest stewardship, and will be supported by the <u>2</u> Billion Trees program.

² As described by Mi'kmaw Elder Dr. Albert Marshall, two-eyed seeing is an approach in which one "see[s] from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of mainstream knowledges and ways of knowing, and to use both these eyes together, for the benefit of all." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing." <a href="Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowle

Data for individual parks

Figure 4. Ecological integrity conditions and trends of ecosystems in 43 national parks by province and territory, Canada, 2023



Note: Results presented above for Wood Buffalo National Park may differ from other ecosystem reporting as the park is undertaking a review and update of its monitoring program. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023. **Source:** Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

About the indicator

What the indicator measures

The Ecological integrity of national parks indicator summarizes the condition (good, fair, poor) and trend (improving, stable, declining) of ecosystems within 35 national parks, 7 national park reserves and 1 national urban park.

Why this indicator is important

This indicator provides a measure of the condition of Canada's national parks, national park reserves and a national urban park. These parks help to protect biodiversity, preserve ecosystem services, connect landscapes, and provide a natural solution for climate change by capturing and storing carbon. They also help to build knowledge and understanding of ecosystems and connect Canadians with nature.

Parks Canada regularly monitors and assesses the condition of the main ecosystems in national parks (for example, forests, tundra, wetlands, or freshwater). Ecosystems are managed to improve or maintain ecological integrity. Management plans systematically address opportunities for improving the ecological integrity of these ecosystems.

Related initiatives

This indicator supports the measurement of progress towards Goal 15 of the <u>2022 to 2026 Federal Sustainable</u> Development Strategy: Life on land – Protect and recover species, conserve Canadian biodiversity.

In addition, the indicator contributes to the <u>Sustainable Development Goals of the 2030 Agenda for Sustainable Development</u>. It is linked to Goal 15: Life on land.

It also is used for reporting on Target 3 of <u>Canada's 2030 Nature Strategy</u>: "Protected and conserved areas (30x30)." This target is related to the <u>Kunming-Montreal Global Biodiversity Framework</u> Target 3: " Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and of marine and coastal 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

<u>Canada's conserved areas</u> indicators report the amount and proportion of Canada's terrestrial and marine area that is conserved.

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

Data sources and methods

Data sources

The indicator summarizes the condition and trend of ecosystems in the majority of national parks. Parks Canada regularly monitors the condition of ecosystems using a set of representative measures. Selected measures in each major park ecosystem are combined and the ecosystem is scored as good, fair, or poor. Parks Canada monitoring for ecological integrity formally began in 2008 and is ongoing.

More information

Ecological integrity is reported for major ecosystems in 43 of Canada's national parks, national park reserves and a national urban park. Data are not available for Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Qausuittuq National Park and Ukkusiksalik National Park. Data may be unavailable if a site was recently established and has a very new monitoring program, or if the data have not yet been validated with partners.

Between 1 and 4 ecosystems are assessed in each park. Examples of ecosystems include forests, wetlands and glaciers. The selected ecosystems form most of the area of a park and are important to its biological functioning. For each ecosystem, a scientifically sound set of environmental measures is developed, based on appropriateness, representativeness, monitoring needs and cost-effectiveness. Some examples of ecological integrity measures include wildlife population size, estimates of plant productivity, water quality and extent of invasive species. Data for these measures are gathered from a variety of sources, including on-the-ground field sampling, satellite imagery, academic and government partners, and Indigenous knowledge. Measured values are compared to thresholds, such as whether a wildlife population is near desirable size or whether water quality meets a standard threshold. When such thresholds are not available, interim thresholds based on available information of historical variability are used. The frequency of monitoring varies from annually to once a decade, depending on the specific measures.

For this report, data were collected in 2023-2024, then collated and stored in Parks Canada's Information Centre for Ecosystems database to support management and reporting by the end of May 2024.

Data sets for individual measures are published in the **Government of Canada Open Data Portal**.

Methods

Ecological integrity monitoring is adapted to the ecology of each park. Information is gathered for each selected ecosystem, and a determination is made as to whether the ecosystem is in good, fair, or poor condition and whether that condition is improving, declining, or stable. Complete methods information is available in Parks Canada's 2011 Consolidated Guidelines for Ecological Integrity Monitoring in Canada's National Parks, available from Park Canada's Protected Areas Establishment and Conservation Directorate.

More information

Ecosystem condition is determined from the monitoring results as follows: each measure is assigned a score based on its condition compared to its threshold (good = 2, fair = 1, poor = 0). If one-third or more of the measures are scored poor, the ecosystem-level indicator is also scored poor. If less than one-third of the measures are scored poor, the average score of the measures (weighted equally) determines the ecosystem score.

The assessment of the overall trend for each ecosystem is based on a change in its overall condition over 5 years, or in the trend of monitoring measures. If the condition of the ecosystem has not changed, it is considered stable unless a strong majority of the monitoring measures shows the same trend.

The national indicator (the percentage of ecosystems maintained or improved) is an overall assessment of the trend of ecological integrity across national parks. It is generated by dividing the number of ecosystems that are stable or improving by the total number of ecosystems monitored that have an assessed trend.

High quality ecological monitoring provides information that helps prioritize funding for ecological restoration projects to the ecosystems where it is needed most. In 2023-2024, 56 conservation and restoration projects are striving to maintain and improve ecological integrity in national parks.

Recent changes

Rouge National Urban Park, which currently includes forest and freshwater ecosystems, was added to the indicator.

The monitoring program was enhanced in 2023-2024 by adding and improving ecological integrity measures. In total, 523 measures were assessed in 2023 as opposed to 513 in 2022. Two (2) new measures assessed functional connectivity using a relatively novel approach with circuit theory to determine whether there is enough well-connected habitat to maintain a population of pine marten. In some cases, improved monitoring provided information that changed our understanding of the condition and trend of an ecosystem. For example, in Mount Revelstoke and Glacier National Parks, 2 additional measures were assessed in the forest ecosystem that changed the condition of the ecosystem from fair to good in 2023.

Caveats and limitations

The monitoring measures used to determine the condition and trend of ecosystems are chosen to represent the most important elements of the ecosystem and thus provide an indication, rather than a complete assessment, of ecological integrity. Monitoring takes place against a background of natural variability, and because many locations are remote and some measurements are time-consuming or expensive to conduct, the frequency of monitoring may be low. This leads to unavoidable uncertainty in assigning conditions and trends to ecosystems.

Ecosystems are not of equal area or of equal importance in national parks; comparisons between systems or between parks must be made with caution.

Some parks have not yet reported results, while others are basing their reporting on incomplete suites of measures that reflect current data availability. Monitoring methods are selected using objective techniques to provide credible overall assessments. Where information is incomplete, expert opinion, literature review, preliminary data and statistical principles are used to support the definition of thresholds.

The equal weighting of measures may not always reflect their relative ecological importance.

The data do not include provincial parks, other parks or other types of protected areas.

Resources

References

Bartlett C, Marshall M and Marshall A (2012 <u>Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing</u>. Journal of Environmental Studies and Sciences 2: 331 to 340.

Government of Canada (2000) Canada National Parks Act.

Parks Canada (2011) <u>Consolidated Guidelines for Ecological Integrity Monitoring in Canada's National Parks</u> (PDF; 2.0 kB). Protected Areas Establishment and Conservation Branch.

Parks Canada (2021) State of Canada's Natural and Cultural Heritage Places 2021.

Wills S (2022) <u>Projecting forest outcomes for Prince Edward Island National Park under climate change using a process-based forest landscape model</u>. MSc. Thesis. University of New Brunswick.

Related information

Parks Canada

Annex

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

Table A.1. Data for Figure 1. Ecological integrity conditions and trends of ecosystems in 43 national parks, Canada, 2023

Ecological integrity condition	Improving (number of ecosystems)	Stable (number of ecosystems)	Declining (number of ecosystems)	Unassessed (number of ecosystems)	Total (number of ecosystems)
Good	10	53	2	0	65
Fair	6	14	15	0	35
Poor	0	11	7	1	19
Total	16	78	24	1	119

Ecological integrity condition	Improving (percentage of ecosystems)	Stable (percentage of ecosystems)	Declining (percentage of ecosystems)	Unassessed (percentage of ecosystems)	Total (percentage of ecosystems)
Good	8.4	44.5	1.7	0.0	54.6
Fair	5.0	11.8	12.6	0.0	29.4
Poor	0.0	9.2	5.9	0.8	16.0
Total	13.2	65.5	20.2	0.8	100.0

Note: Monitored ecosystems include coastal/marine, forests, freshwater, glaciers, grasslands, shrublands, tundra, and wetlands, depending on what is present in each park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park, and Qausuittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem scored Poor in 2023 but did not report trend data. **Source:** Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

Table A.2. Data for Figure 2. Percentage of ecosystems with stable or improving trends in ecological integrity in 43 national parks, Canada, 2016 to 2023

Year	Improving (number of ecosystems)	Stable (number of ecosystems)	Declining (number of ecosystems)	Unassessed (number of ecosystems)	Stable/improving (percentage of ecosystems)
2016	14	89	12	0	89.6
2017	23	81	14	0	88.1
2018	26	70	21	0	82.1
2019	27	73	17	0	85.5
2020	17	79	21	0	82.1
2021	23	70	24	0	79.5
2022	13	79	25	0	78.6
2023	16	78	24	1	79.7

Note: Monitored ecosystems include forests, freshwater, wetlands, grasslands, shrublands, tundra, coastal/marine and glaciers, depending on what is present in each park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park, and Qausuittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023.

Source: Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

Table A.3. Data for Figure 3. Ecological integrity trends of ecosystems in 43 national parks, Canada, 2023

Ecosystem	Improving (number of ecosystems)	Stable (number of ecosystems)	Declining (number of ecosystems)	Total (number of ecosystems)
Coastal/marine	1	11	2	14
Forests	5	18	9	32
Freshwater	4	23	7	34
Glaciers	0	0	2	2
Grasslands	2	2	1	5
Shrublands	0	1	0	1
Tundra	2	13	3	18
Wetlands	2	10	0	12

Ecosystem	Improving (percentage of ecosystems)	Stable (percentage of ecosystems)	Declining (percentage of ecosystems)
Coastal/marine	7.1	78.6	14.3
Forests	15.6	56.3	28.1
Freshwater	11.8	67.6	20.6
Glaciers	0.0	0.0	100.0
Grassland	40.0	40.0	20.0
Shrublands	0.0	100.0	0.0
Tundra	11.1	72.2	16.7
Wetlands	16.7	83.3	0.0

Note: Monitored ecosystems include coastal/marine, forests, freshwater, glaciers, grasslands, shrublands, tundra, and wetlands, depending on what is present in each park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Ukkusiksalik National Park, and Qausuittuq National Park did not report on ecological integrity in 2023. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023. **Source:** Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

Table A.4. Data for Figure 4. Ecological integrity conditions and trends of ecosystems in 43 national parks by province and territory, Canada, 2023

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Newfoundland and Labrador	Gros Morne	Forests	Fair	Stable
Newfoundland and Labrador	Gros Morne	Freshwater	Fair	Declining
Newfoundland and Labrador	Gros Morne	Tundra	Good	Stable
Newfoundland and Labrador	Terra Nova	Coastal/marine	Good	Improving
Newfoundland and Labrador	Terra Nova	Forests	Fair	Stable
Newfoundland and Labrador	Terra Nova	Freshwater	Fair	Declining

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Newfoundland and Labrador	Terra Nova	Wetlands	Good	Stable
Newfoundland and Labrador	Torngat Mountains	Freshwater	Good	Stable
Newfoundland and Labrador	Torngat Mountains	Tundra	Good	Stable
Prince Edward Island	Prince Edward Island	Coastal/marine	Good	Stable
Prince Edward Island	Prince Edward Island	Forests	Fair	Improving
Prince Edward Island	Prince Edward Island	Freshwater	Fair	Declining
Prince Edward Island	Prince Edward Island	Wetlands	Good	Stable
Nova Scotia	Cape Breton Highlands	Forests	Poor	Declining
Nova Scotia	Cape Breton Highlands	Freshwater	Good	Stable
Nova Scotia	Cape Breton Highlands	Wetlands	Good	Stable
Nova Scotia	Kejimkujik	Coastal/marine	Poor	Declining
Nova Scotia	Kejimkujik	Forests	Good	Stable
Nova Scotia	Kejimkujik	Freshwater	Fair	Declining
Nova Scotia	Kejimkujik	Wetlands	Good	Stable
Nova Scotia	Sable Island Reserve	Coastal/Marine	Good	Stable
Nova Scotia	Sable Island Reserve	Freshwater	Fair	Stable
New Brunswick	Fundy	Forests	Fair	Stable
New Brunswick	Fundy	Freshwater	Good	Stable
New Brunswick	Fundy	Wetlands	Good	Stable
New Brunswick	Kouchibouguac	Coastal/marine	Good	Stable
New Brunswick	Kouchibouguac	Forests	Good	Stable
New Brunswick	Kouchibouguac	Freshwater	Poor	Declining
Quebec	Forillon	Coastal/marine	Good	Stable
Quebec	Forillon	Forests	Poor	Stable
Quebec	Forillon	Freshwater	Good	Stable
Quebec	La Mauricie	Forests	Fair	Declining
Quebec	La Mauricie	Freshwater	Fair	Stable
Quebec	La Mauricie	Wetlands	Poor	Stable
Quebec	Mingan Archipelago Reserve	Coastal/marine	Fair	Stable
Quebec	Mingan Archipelago Reserve	Forests	Good	Stable
Quebec	Mingan Archipelago Reserve	Tundra	Fair	Declining
Ontario	Bruce Peninsula	Forests	Good	Stable
Ontario	Bruce Peninsula	Freshwater	Good	Stable
Ontario	Bruce Peninsula	Shrublands	Fair	Stable
Ontario	Georgian Bay Islands	Coastal/marine	Good	Stable
Ontario	Georgian Bay Islands	Forests	Good	Stable

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Ontario	Georgian Bay Islands	Wetlands	Fair	Stable
Ontario	Point Pelee	Coastal/marine	Fair	Stable
Ontario	Point Pelee	Forests	Poor	Declining
Ontario	Point Pelee	Wetlands	Fair	Improving
Ontario	Pukaskwa	Coastal/marine	Fair	Declining
Ontario	Pukaskwa	Forests	Good	Stable
Ontario	Pukaskwa	Freshwater	Good	Improving
Ontario	Rouge National Urban Park	Forests	Fair	Stable
Ontario	Rouge National Urban Park	Freshwater	Poor	n/a
Ontario	Thousand Islands	Forests	Good	Stable
Ontario	Thousand Islands	Freshwater	Good	Improving
Ontario	Thousand Islands	Wetlands	Good	Stable
Manitoba	Riding Mountain	Forests	Poor	Declining
Manitoba	Riding Mountain	Freshwater	Good	Stable
Manitoba	Riding Mountain	Grasslands	Poor	Stable
Manitoba	Wapusk	Coastal/marine	Good	Stable
Manitoba	Wapusk	Wetlands	Good	Stable
Saskatchewan	Grasslands	Grasslands	Fair	Improving
Saskatchewan	Prince Albert	Forests	Good	Stable
Saskatchewan	Prince Albert	Freshwater	Fair	Declining
Saskatchewan	Prince Albert	Grasslands	Fair	Improving
Alberta	Banff	Forests	Good	Stable
Alberta	Banff	Freshwater	Poor	Stable
Alberta	Banff	Tundra	Good	Stable
Alberta	Elk Island	Forests	Fair	Declining
Alberta	Elk Island	Freshwater	Good	Stable
Alberta	Elk Island	Grasslands	Poor	Declining
Alberta	Jasper	Forests	Fair	Stable
Alberta	Jasper	Freshwater	Good	Stable
Alberta	Jasper	Tundra	Poor	Stable
Alberta	Waterton Lakes	Forests	Fair	Stable
Alberta	Waterton Lakes	Freshwater	Poor	Stable
Alberta	Waterton Lakes	Grasslands	Fair	Stable
British Columbia	Glacier	Forests	Good	Improving
British Columbia	Glacier	Freshwater	Good	Stable
British Columbia	Glacier	Tundra	Poor	Stable
British Columbia	Gulf Islands Reserve	Coastal/marine	Poor	Stable
British Columbia	Gulf Islands Reserve	Forests	Fair	Improving
British Columbia	Gulf Islands Reserve	Freshwater	Fair	Stable
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area	Coastal/marine	Good	Stable

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
	Reserve, and Haida Heritage Site			
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site	Forests	Good	Stable
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site	Freshwater	Good	Stable
British Columbia	Kootenay	Forests	Good	Stable
British Columbia	Kootenay	Freshwater	Poor	Stable
British Columbia	Kootenay	Tundra	Good	Stable
British Columbia	Mount Revelstoke	Forests	Good	Improving
British Columbia	Mount Revelstoke	Freshwater	Good	Stable
British Columbia	Mount Revelstoke	Tundra	Fair	Improving
British Columbia	Pacific Rim Reserve	Coastal/marine	Good	Stable
British Columbia	Pacific Rim Reserve	Forests	Good	Declining
British Columbia	Pacific Rim Reserve	Freshwater	Good	Improving
British Columbia	Yoho	Forests	Good	Improving
British Columbia	Yoho	Freshwater	Poor	Stable
British Columbia	Yoho	Tundra	Good	Stable
Yukon	Ivvavik	Freshwater	Good	Stable
Yukon	Ivvavik	Tundra	Good	Stable
Yukon	Kluane Reserve	Forests	Fair	Declining
Yukon	Kluane Reserve	Freshwater	Good	Improving
Yukon	Kluane Reserve	Tundra	Fair	Declining
Yukon	Vuntut	Tundra	Good	Stable
Yukon	Vuntut	Wetlands	Good	Stable
Northwest Territories	Aulavik	Freshwater	Good	Stable
Northwest Territories	Aulavik	Tundra	Poor	Stable
Northwest Territories	Nahanni Reserve	Forests	Fair	Declining
Northwest Territories	Nahanni Reserve	Freshwater	Good	Stable
Northwest Territories	Nahanni Reserve	Tundra	Good	Improving
Northwest Territories	Tuktut Nogait	Freshwater	Good	Stable
Northwest Territories	Tuktut Nogait	Tundra	Good	Stable

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Northwest Territories	Wood Buffalo	Forests	Fair	Declining
Northwest Territories	Wood Buffalo	Freshwater	Poor	Declining
Northwest Territories	Wood Buffalo	Wetlands	Good	Improving
Nunavut	Auyuittuq	Glaciers	Fair	Declining
Nunavut	Auyuittuq	Tundra	Good	Stable
Nunavut	Quttinirpaaq	Freshwater	Good	Stable
Nunavut	Quttinirpaaq	Tundra	Good	Stable
Nunavut	Sirmilik	Glaciers	Good	Declining
Nunavut	Sirmilik	Tundra	Fair	Declining

Note: Results presented above for Wood Buffalo National Park may differ from other ecosystem reporting as the Park is undertaking a review and update of its monitoring program. n/a = not available. Rouge National Urban Park freshwater ecosystem was not assessed for trends in 2023.

Source: Parks Canada (2024) Protected Areas Establishment and Conservation Directorate.

Additional information can be obtained at:

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