ECOLOGICAL INTEGRITY OF NATIONAL PARKS

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS



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CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS

ECOLOGICAL INTEGRITY OF NATIONAL PARKS

August 2023

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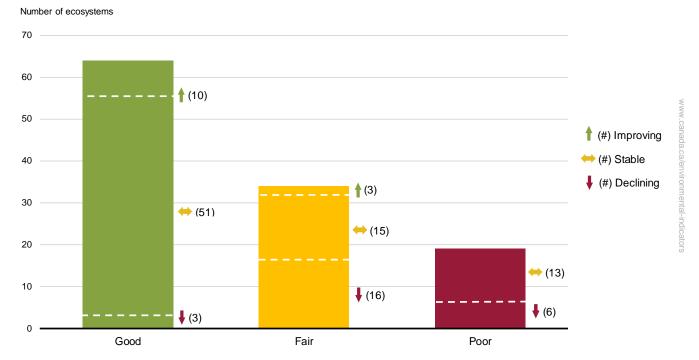
Ecological integrity of national parks

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 using a series of monitoring measures to track changes in biodiversity and natural processes.

Key results

- 117 ecosystems in 42 national parks were assessed in 2022. Of those,
 - o 55% were in good condition, 29% were in fair condition and 16% were in poor condition
 - o 68% were stable, 11% were improving and 21% were declining
- Overall, the ecological integrity of 79% of park ecosystems was stable or improving in 2022. This
 represents an 11% decrease from 2016

Figure 1. Ecological integrity conditions and trends of ecosystems in 42 national parks, Canada, 2022



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 park. Akami-Uapishk^U-KakKasuak-Mealy Mountains National Park Reserve, Nááts'ihch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) 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

¹ The Canada National Parks Act (Government of Canada 2023), 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. Government of Canada (2023) <u>Canada National Parks Act</u>. Retrieved on July 6, 2023.

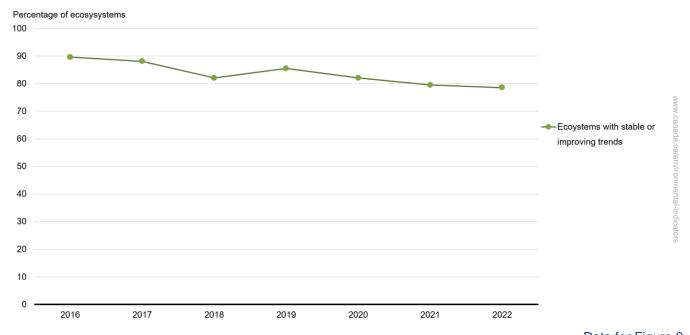
and animal populations and soil properties) or stressors (for example, presence of invasive alien species) within those ecosystems. The condition of an ecosystem is determined by comparing these measures to threshold values and assigning a score to each measure. The scores are then averaged together to rate the condition of the ecosystem (good, fair or poor). The trend of an ecosystem (improving, stable, declining) reflects a change in condition over a 5-year period (2017-2022).

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. Fair or declining ecological integrity 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 2017, the percentage of ecosystems with stable or improving ecological integrity of national parks has declined from 88% to 79%. However, this percentage has not changed significantly between 2021 and 2022.

Figure 2. Percentage of ecosystems with stable or improving trends in ecological integrity in 42 national parks, Canada, 2016 to 2022



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'įhch'oh National Park Reserve, Thaidene Nëné National Park Reserve, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) Protected Areas Establishment and Conservation Directorate.

Ecological integrity of national parks, by ecosystem type

Key results

- In 2022,
 - o 86% of coastal/marine, 78% of tundra and 75% of wetland ecosystems were stable
 - 100% of glacier, 29% of forest and 21% of freshwater ecosystems were declining
 - 17% of wetlands, 15% of freshwater and 13% of forest ecosystems were improving

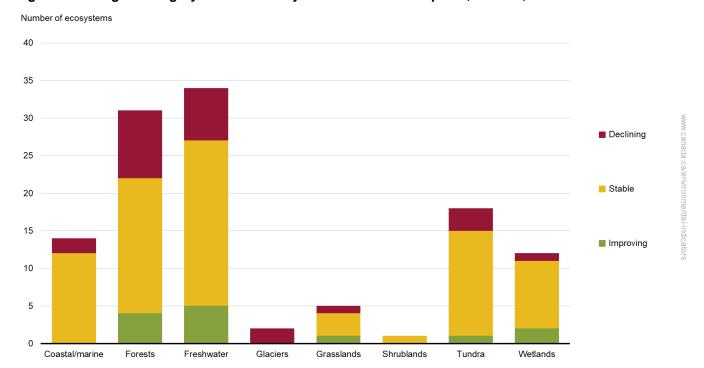


Figure 3. Ecological integrity trends of ecosystems in 42 national parks, Canada, 2022

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, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) Protected Areas Establishment and Conservation Directorate.

National parks are interlinked with their surrounding ecosystems and are affected by many of the same pressures on the environment. Declining ecological integrity in ecosystems may be due to stressors. 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. Monitoring results demonstrate measurable progress as a result of 5 conservation projects that are underway in 2022-2023: 4 projects may have contributed to halting declines or maintaining stable conditions, and 1 project to improving ecological integrity. For example, ecological integrity improved in Pacific Rim National Park Reserve where spawning habitat for salmon was enhanced through the Cheewaht Restoration project.

Data for individual parks

Figure 4. Ecological integrity conditions and trends of ecosystems in 42 national parks by province and territory, Canada, 2022

						ECO:	SYSTE	M		
PROVINCE OR Territory	NATIONAL PARK	, in the second	orino ino	Orests The standard	cshundter Cshundter	ocies /	Sh	Souppon	e pount	Sough
Nourfoundland	Gros Morne		•	•				<i>′</i>		Foological integrity
Newfoundland and Labrador	Terra Nova	(*)	4	4					\(\sigma\)	Ecological integrity condition
Prince Edward	Torngat Mountains Prince Edward									Good
Island	Island Cape Breton	**	⇔	4					4	Poor
Nova Scotia	Highlands Kejimkujik	⇔	(\$)	⇔					*	N/A
	Sable Island Reserve	\Leftrightarrow		⇔						Ecological integrity trend
New	Fundy		-	\Leftrightarrow					\Leftrightarrow	1mproving
Brunswick	Kouchibouguac	•	⇔	-						Stable
	Forillon La Mauricie	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	⇔	*						Declining
Quebec	Mingan Archipelago Reserve	<i>∕</i>	*					4		
	Bruce Peninsula		\Leftrightarrow	\Leftrightarrow			⇔			
	Georgian Bay Islands	\Leftrightarrow	\Leftrightarrow						\Leftrightarrow	
Ontario	Point Pelee Pukaskwa	⇔	*							
	Thousand Islands		♦						<i>──</i>	
	Riding Mountain		⇔	⇔		\Leftrightarrow				WWW
Manitoba	Wapusk	\Leftrightarrow							\Leftrightarrow	canad
Saskatchewan	Grasslands					\Leftrightarrow				www.canada.ca/environmental-indicators
	Prince Albert		⇔	4						nvironi
	Banff Elk Island		⇔	(1		\(\frac{\frac{1}{2}}{2}\)		menta
Alberta	Jasper		*	⇔				4		Indica
	Waterton Lakes		\Leftrightarrow	\Leftrightarrow		\Leftrightarrow				ators
	Glacier		\(\(\)	⇔				\(\Rightarrow\)		
	Gulf Islands Reserve Gwaii Haanas Reserve,	\Leftrightarrow	\Leftrightarrow							
British	National Marine Conservation Area Reserve, and Haida Heritage Site	\Leftrightarrow		\Leftrightarrow						
Columbia	Kootenay			⇔				\Leftrightarrow		
	Mount Revelstoke Pacific Rim Reserve		⇔					⇔		
	Yoho	\\\\		★				<i>⟨</i> ////////////////////////////////////		
	Ivvavik			\Leftrightarrow				⇔		
Yukon	Kluane		-					\(\(\)		
	Vuntut							\Leftrightarrow	\Leftrightarrow	
	Aulavik			*				⇔		
Northwest Territories	Nahanni Reserve Tuktut Nogait			\Leftrightarrow						
	Wood Buffalo		#	•					1	
	Auyuittuq				-			\Leftrightarrow		
Nunavut	Quttinirpaaq			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				\(\Rightarrow\)		
	Sirmilik							•		

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.

Source: Parks Canada (2023) 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 42 national parks.

Why this indicator is important

This indicator provides a measure of the condition of Canada's national parks. National parks help to protect biodiversity, preserve ecosystem services, connect landscapes, and provide a natural solution for climate change by capturing and storing carbon. National parks 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 park ecosystems.

Related initiatives

This indicator supports the measurement of progress towards the following <u>2022 to 2026 Federal Sustainable</u> Development Strategy Goal 15: 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.

The indicator also contributes towards the Pathway to Canada Target 1 initiative. It is linked to Priority 3: Maximize conservation outcomes. Canada Target 1 was one of the 2020 Biodiversity Goals and Targets for Canada.

It also contributes to the <u>Kunming-Montreal Global Biodiversity Framework</u>. It is linked to 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 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 42 of Canada's national parks. 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, Ukkusiksalik National Park and Rouge National Urban Park.

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 2022-2023, then collated and stored in Parks Canada's Information Centre for Ecosystems database to support management and reporting by the end of March 2023.

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 the 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 (% 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.

High quality ecological monitoring provides information that helps prioritize funding for ecological restoration projects to the ecosystems where it was needed most. In 2022-2023, 65 conservation and restoration projects are striving to maintain and improve ecological integrity in Parks Canada administered places.

Recent changes

The monitoring program was enhanced in 2022-2023 by adding and improving ecological integrity measures, particularly measures employing remote sensing. In total, 513 measures were assessed in 2022 as opposed to 505 in 2021. Of the newly assessed measures, five employed remote sensing or aerial imagery. An additional 2 remote sensing-based measures were improved. In some cases, improved monitoring provided information that changed our understanding of the condition and trend of an ecosystem. For example, in Mingan Archipelago

National Park, 2 additional measures were assessed in the coastal/marine ecosystem that changed the condition of the ecosystem from good to fair in 2022.

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 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 or other parks or other types of protected areas.

Resources

References

Government of Canada (2023) Canada National Parks Act. Retrieved on July 6, 2023.

Parks Canada (2011) Consolidated Guidelines for Ecological Integrity Monitoring in Canada's National Parks. Protected Areas Establishment and Conservation Branch.

Parks Canada (2021) State of Canada's Natural and Cultural Heritage Places 2021. Retrieved on July 6, 2023

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 42 national parks, Canada, 2022

Ecological integrity condition	Improving (number of ecosystems)	Stable (number of ecosystems)	Declining (number of ecosystems)	Total (number of ecosystems)
Good	10	51	3	64
Fair	3	15	16	34
Poor	0	13	6	19
Total	13	79	25	117

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, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) 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 42 national parks, Canada, 2016 to 2022

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

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, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) Protected Areas Establishment and Conservation Directorate.

Table A.3. Data for Figure 3. Ecological integrity trends of ecosystems in 42 national parks, Canada, 2022

Ecosystem	Improving (number of ecosystems)	Stable (number of ecosystems)	Declining (number of ecosystems)	Total (number of ecosystems)
Coastal/marine	0	12	2	14
Forests	4	18	9	31
Freshwater	5	22	7	34
Glaciers	0	0	2	2
Grasslands	1	3	1	5
Shrublands	0	1	0	1
Tundra	1	14	3	18
Wetlands	2	9	1	12

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, Rouge National Urban Park, Ukkusiksalik National Park and Qausuittuq National Park did not report on ecological integrity in 2022.

Source: Parks Canada (2023) Protected Areas Establishment and Conservation Directorate.

Table A.4. Data for Figure 4. Ecological integrity conditions and trends of ecosystems in 42 national parks by province and territory, Canada, 2022

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Newfoundland and Labrador	Gros Morne	Forests	Fair	Improving
Newfoundland and Labrador	Gros Morne	Freshwater	Fair	Declining
Newfoundland and Labrador	Gros Morne	Tundra	Good	Stable
Newfoundland and Labrador	Terra Nova	Coastal/marine	Good	Stable
Newfoundland and Labrador	Terra Nova	Forests	Fair	Declining
Newfoundland and Labrador	Terra Nova	Freshwater	Poor	Declining
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	Poor	Stable
Prince Edward Island	Prince Edward Island	Freshwater	Fair	Declining
Prince Edward Island	Prince Edward Island	Wetlands	Fair	Declining
Nova Scotia	Cape Breton Highlands	Forests	Poor	Stable
Nova Scotia	Cape Breton Highlands	Freshwater	Good	Stable
Nova Scotia	Cape Breton Highlands	Wetlands	Good	Stable
Nova Scotia	Kejimkujik	Coastal/marine	Fair	Stable
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	Declining
New Brunswick	Fundy	Freshwater	Good	Stable
New Brunswick	Fundy	Wetlands	Good	Stable

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
New Brunswick	Kouchibouguac	Coastal/marine	Fair	Declining
New Brunswick	Kouchibouguac	Forests	Good	Stable
New Brunswick	Kouchibouguac	Freshwater	Good	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
Ontario	Georgian Bay Islands	Wetlands	Fair	Stable
Ontario	Point Pelee	Coastal/marine	Fair	Stable
Ontario	Point Pelee	Forests	Poor	Declining
Ontario	Point Pelee	Wetlands	Good	Improving
Ontario	Pukaskwa	Coastal/marine	Fair	Declining
Ontario	Pukaskwa	Forests	Good	Stable
Ontario	Pukaskwa	Freshwater	Good	Improving
Ontario	Thousand Islands	Forests	Good	Stable
Ontario	Thousand Islands	Freshwater	Good	Improving
Ontario	Thousand Islands	Wetlands	Good	Stable
Manitoba	Riding Mountain	Forests	Poor	Stable
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	Stable
Saskatchewan	Prince Albert	Forests	Good	Stable
Saskatchewan	Prince Albert	Freshwater	Poor	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

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
Alberta	Elk Island	Grasslands	Poor	Declining
Alberta	Jasper	Forests	Fair	Stable
Alberta	Jasper	Freshwater	Good	Stable
Alberta	Jasper	Tundra	Poor	Declining
Alberta	Waterton Lakes	Forests	Fair	Stable
Alberta	Waterton Lakes	Freshwater	Poor	Stable
Alberta	Waterton Lakes	Grasslands	Fair	Stable
British Columbia	Glacier	Forests	Fair	Stable
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	Stable
British Columbia	Gulf Islands Reserve	Freshwater	Fair	Improving
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site	Coastal/marine	Good	Stable
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site	Forests	Good	Improving
British Columbia	Gwaii Haanas Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site	Freshwater	Good	Stable
British Columbia	Kootenay	Forests	Good	Improving
British Columbia	Kootenay	Freshwater	Poor	Stable
British Columbia	Kootenay	Tundra	Good	Stable
British Columbia	Mount Revelstoke	Forests	Fair	Stable
British Columbia	Mount Revelstoke	Freshwater	Good	Stable
British Columbia	Mount Revelstoke	Tundra	Fair	Stable
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	Forests	Fair	Declining
Yukon	Kluane	Freshwater	Good	Improving
Yukon	Kluane	Tundra	Good	Stable
Yukon	Vuntut	Tundra	Good	Stable
Yukon	Vuntut	Wetlands	Good	Stable

Province or territory	National park	Ecosystem type	Ecological integrity condition	Ecological integrity trend
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
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. **Source:** Parks Canada (2023) Protected Areas Establishment and Conservation Directorate.

Additional information can be obtained at:

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