

EELGRASS IN CANADA

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS



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Eelgrass in Canada Page 2 of 19

CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS EELGRASS IN CANADA

December 2020

Table of contents

Eelgrass in Canada	4
Key results	4
About the indicator	5
What the indicator measures	5
Why this indicator is important	5
Related indicators	6
Data sources and methods	6
Data sources	6
Methods	6
Caveats and limitations	7
Resources	7
References	7
Related information	7
Annex	8
Annex A. Data tables for the figures presented in this document	8
List of Figures	
Figure 1. Eelgrass sites in Canada, 2020	4
List of Tables	
Table 1. Status of eelgrass sites	
Table A.1. Data for Figure 1. Eelgrass sites in Canada, 2020	8

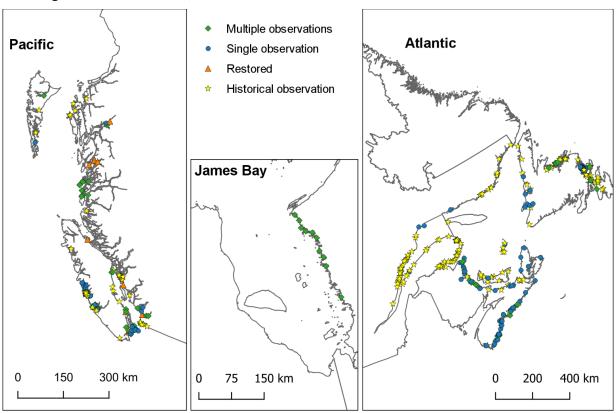
Eelgrass in Canada

Eelgrass (*Zostera marina*) is a common seagrass species that plays an important role in coastal and estuarine ecosystems. Eelgrass beds provide a variety of ecosystem services, including stabilizing sediments and reducing the force of waves, and they are habitats for various types of animals including fish and invertebrates. They also form a substrate for other plants, are food for various marine organisms and are an efficient carbon sink. The maps below show compiled information on the distribution of eelgrass sites in Canada, including historical observations. They provide a snapshot of where eelgrass has been studied in Canada.

Key results

- Eelgrass is widespread on the Pacific, Atlantic and Arctic (Hudson Bay) coasts of Canada
- Most of the mapped eelgrass sites in James Bay (Hudson Bay) are in recovery following major declines
- For the information included, the majority of eelgrass sites in Canada are single observations or sites for which the most recent observations are more than 10 years old (historical)¹

Figure 1. Eelgrass sites in Canada, 2020



Data for Figure 1

Note: The eelgrass distribution maps presented here should not be considered complete, as eelgrass is known to occur in other locations. The maps are a reflection of collected and published material on eelgrass, as of March 2020. Various data sources, with different data collection dates, have been combined. Eelgrass site categories include historical sites (data more than 10 years old), single observations and multiple observations within the last ten years, and sites where restoration efforts have occurred. In addition, site designations may represent individual eelgrass beds or larger areas with multiple eelgrass beds. See <u>Table 1. Status of eelgrass sites</u> for more information. Additional details are available in the <u>detailed data table</u> (Excel/CSV; 136 KB).

Source: Environment and Climate Change Canada (2020).

Eelgrass in Canada Page 4 of 19

¹ Information compiled to date is derived from independent research studies differing in their objectives, methodologies and spatial scope.

The importance of eelgrass to ecosystems was shown after a widespread <u>wasting disease outbreak</u> along the Atlantic coast of North America in the 1930s resulted in a 90% loss of eelgrass. It is estimated that populations of migratory Brant geese along the Atlantic coast, which rely heavily on eelgrass outside the breeding season, declined by as much as 90%.² Declines of clams, lobsters, crabs, scallops, cod and flounder were also reported following the loss of eelgrass.³

Eelgrass beds are highly productive and several studies have indicated that eelgrass beds contribute to the sequestration of "blue carbon" in marine sediments, providing a valuable ecosystem service in coastal areas.^{4,5}

Eelgrass decreases can be associated with a number of environmental stressors that can work together to cause cumulative effects. Examples of environmental stressors include, physical disturbances from human activities or storm events and increased water temperature due to climate change. Other stressors, such as excessive nutrients causing an increase in algae and sedimentation can smother eelgrass or reduce light penetration. Invasive species, like European green crab, can also negatively affect eelgrass distribution.

Canada does not have a national scientific monitoring program with standardized methodologies for assessing eelgrass sites. Eelgrass data collection is ongoing, with data collected from many different sources using various methods. Data trends are difficult to detect as there is high natural variability in eelgrass beds over time and the interpretation of observed changes may not be consistent between measured variables. For example, a common stress response of eelgrass plants is to flower, thereby dispersing their seeds. This response may lead to an increase in eelgrass distribution that could mask the detection of the initial stress.

For the majority of documented eelgrass sites in Canada, there is only a single observation indicating the species' presence at a specific location. Some sites have monitoring data that include information about measures such as extent, shoot density, biomass and leaf length over multiple years.

About the indicator

What the indicator measures

The indicator shows compiled information on the distribution of eelgrass sites in Canada, including historical observations. It provides a snapshot of the locations where eelgrass has been studied in Canada.

Why this indicator is important

Eelgrass is a common seagrass species in Canadian coastal waters and has been described as an ecosystem engineer, because it physically changes its environment creating habitat and resources for other species. Eelgrass health is well-correlated with the success of many commercially harvested fish species, as eelgrass beds serve as nursery areas for juveniles. Changes in eelgrass growth and distribution can have significant effects on coastal marine and estuarine (where fresh water meets sea water) ecosystems. Given the many ecosystem services provided including carbon sequestration, eelgrass has been designated an ecologically significant species in Canada. However, despite the environmental and economic benefits of seagrasses in general, their populations are declining globally.

² Ganter B (2000) <u>Seagrass (Zostera spp.)</u> as food for brent geese (<u>Branta bernicla</u>): an overview. Helgoland Marine Research 54: 63–70. Retrieved on October 5, 2020.

³ Muehlstein LK (1989) <u>Perspectives on the wasting disease of eelgrass *Zostera marina*.</u> Diseases of Aquatic Organisms 7:211-221. Retrieved on October 5, 2020.

⁴ Postlethwaite VR et al. (2018) <u>Low blue carbon storage in eelgrass (Zostera marina) meadows on the Pacific Coast of Canada</u>. PLOS ONE 13(6): e0198348. Retrieved on October 5, 2020.

⁵ Greiner JT et al. (2013) <u>Seagrass Restoration Enhances "Blue Carbon" Sequestration in Coastal Waters</u>. PLOS ONE 8(8): e72469. Retrieved on October 5, 2020.

⁶ Unsworth RKF, Nordlund LM, Cullen-Unsworth LC (2018) <u>Seagrass meadows support global fisheries production</u>. Conservation Letters 12: e12566. Retrieved on September 10, 2018.

⁷ Smithsonian Institution (2018) <u>Seagrass and Seagrass Beds</u>. Retrieved on September 10, 2018.

Healthy coasts and oceans

This indicator supports the measurement of progress towards the following 2019 to 2022 Federal Sustainable Development Strategy long-term goal: Coasts and oceans support healthy, resilient and productive ecosystems.

Related indicators

The <u>Canadian species index</u> indicator tracks average population trends for vertebrate species in Canada (including marine vertebrates) and is a good proxy measure of overall biodiversity trends.

The <u>Status of major fish stocks</u> and the <u>Sustainable fish harvest</u> indicators address the condition and management of wild fish stocks.

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

Data sources and methods

Data sources

Eelgrass data used in this indicator were gathered and provided to Environment and Climate Change Canada by academic, government and community sources and were combined into a single inventory.

More information

There is no national monitoring program for eelgrass. Scientists, managers and local communities collect data in different ways for different purposes. The presence of eelgrass can be detected using satellite images and aerial photos, however, for the information compiled to date most of the observations were obtained from field studies.

All Canadian eelgrass sites reported by data holders or found in the scientific literature were included in this indicator. When more than one series of observations existed for the same site, the most recent assessments were used. Site observations may be single observations or include information on multiple observations over time. Eelgrass sites are studied using different methods for different purposes.

The indicator reflects the state of knowledge as of March 2020.

Methods

Eelgrass sites were mapped using location and site history information.

More information

Reported data may include measured variables such as shoot density, extent or biomass. When information for a site was available from more than one source, the site was considered to have multiple observations. Table 1 provides information on how the eelgrass beds were classified.

Table 1. Status of eelgrass sites

Status	Description
Multiple observations	Eelgrass presence at the site has been confirmed in multiple years within the last ten years.
Restored	Site has been subject to restoration efforts.
Single observation	Only 1 observation is available for the site.
Historical observation	The latest observation at the site was made more than 10 years ago.

Eelgrass in Canada Page 6 of 19

Caveats and limitations

The indicator contains information on eelgrass sites for which data has been provided. Other eelgrass sites exist.

Seasonal and annual variation in eelgrass beds is large. Furthermore, changes may not be consistent between measured variables: as an example, below-ground biomass can decrease while above-ground biomass is increasing. Structural differences in eelgrass beds occur along environmental gradients. Trends are, therefore, difficult to determine, and require several years of data. Note that an increase in leaf length or canopy height is a common response to light limitation and is a sign of stress, although such an increase can also occur in plants growing at the furthest extent of their potential depth range.

Data are collected from many different sources, each potentially using different methodologies. As such, considerable care must be taken when comparing and interpreting data from eelgrass sites.

Data quality and the geographical precision of mapping varies between data providers.

Resources

References

Department of Fisheries and Oceans (2009) <u>Does Eelgrass (*Zostera marina*) meet the criteria as an ecologically significant species?</u> Canadian Science Advisory Secretariat Science Advisory Report 2009/018. Retrieved on September 10, 2018.

Ganter B (2000) <u>Seagrass (*Zostera* spp.)</u> as food for brent geese (*Branta bernicla*): an overview. Helgoland Marine Research 54: 63–70. Retrieved on October 5, 2020.

Greiner JT, McGlathery KJ, Gunnell J, McKee BA (2013) <u>Seagrass Restoration Enhances "Blue Carbon"</u> <u>Sequestration in Coastal Waters</u>. PLOS ONE 8(8): e72469. Retrieved on October 5, 2020.

Hitchcock JK, Courtenay SC, Coffin MRS, Pater CC and van den Heuvel MR (2017) <u>Eelgrass bed structure, leaf nutrient and leaf isotope responses to natural and anthropogenic gradients in estuaries of the Southern Gulf of St Lawrence, Canada</u>. Estuaries and Coasts 40: 1653. Retrieved on September 10, 2018.

Muehlstein LK (1989) <u>Perspectives on the wasting disease of eelgrass *Zostera marina*</u>. Diseases of Aquatic Organisms 7: 211-221. Retrieved on October 5, 2020.

Poppe Katrina L, Rybczyk John M (2017) <u>Carbon sequestration in a Pacific Northwest eelgrass (*Zostera marina*) meadow. Northwest Science 92(2): 80-91. Retrieved on October 5, 2020.</u>

Postlethwaite VR, McGowan AE, Kohfeld KE, Robinson CLK, Pellatt MG (2018) <u>Low blue carbon storage in eelgrass (Zostera marina) meadows on the Pacific Coast of Canada</u>. PLOS ONE 13(6): e0198348. Retrieved on October 5, 2020.

Rhode Island Coastal Resources Management Council (2018) Rhode Island's Coastal Habitats. Retrieved on October 5, 2018.

Smithsonian Institution (2018) Seagrass and Seagrass Beds. Retrieved on September 10, 2018.

Unsworth RKF, Nordlund LM, Cullen-Unsworth LC (2018) <u>Seagrass meadows support global fisheries production</u>. Conservation Letters 12: e12566. Retrieved on September 10, 2018.

Related information

North American Blue Carbon, 2017

SeagrassNet, Global Seagrass Monitoring Network

Annex

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

Table A.1. Data for Figure 1. Eelgrass sites in Canada, 2020

Site	Province	Latitude	Longitude	Status
Agamemnon Channel	BC	49.649	-124.071	Historical observation
Ahousaht	ВС	49.274	-126.065	Single observation
Alert Bay	ВС	50.599	-126.932	Restored
Ahousaht	ВС	49.278	-126.054	Restored
Arakun	ВС	49.170	-125.889	Multiple observations
Atleo	ВС	49.373	-126.062	Single observation
Auseth	ВС	49.119	-125.786	Multiple observations
Bag Harbour (Gwaii Haanas National Park Reserve and Haida Heritage Site)	вс	52.359	-131.348	Single observation
Baikie Slough	ВС	50.038	-125.265	Multiple observations
Banks Island, inlet of outer coast on northwest end of island	BC	53.607	-130.535	Historical observation
Banks Island, Rawlinson Anchorage, outer coast, northwest end of island; south side of Anchorage	вС	53.576	-130.543	Historical observation
Bawden Bay	ВС	49.288	-126.006	Single observation
Beaumont	ВС	48.754	-123.240	Single observation
Beck	ВС	49.160	-125.904	Multiple observations
Bedwell Bay	ВС	49.316	-122.915	Multiple observations
Bella Bella	ВС	52.138	-128.144	Multiple observations
Bish Cove, Kitimat	ВС	53.921	-128.750	Single observation
Boundary Bay	BC	49.030	-122.960	Historical observation
Boundary Bay	BC	49.005	-123.034	Historical observation
Broken Group Islands	BC	48.900	-125.310	Multiple observations
Cabbage Island	BC	48.798	-123.089	Single observation
Calmus	ВС	49.209	-125.960	Multiple observations
Campbell River; White Rock, mouth of river	BC	49.017	-122.783	Historical observation
Cannery Bay	BC	49.142	-125.670	Single observation
Choked Pass	BC	51.675	-128.119	Multiple observations
Clarke	BC	48.888	-125.380	Multiple observations
Columbia Beach	BC	49.355	-124.378	Historical observation
Comox	BC	49.661	-124.941	Historical observation
Condos	BC	49.153	-125.898	Historical observation
Coode Island	ВС	50.027	-124.744	Historical observation
Cortes Island	BC	50.058	-124.893	Historical observation
Cove west of Beulah Island	ВС	50.057	-124.800	Historical observation
Cowichan Bay	ВС	48.745	-123.624	Multiple observations
Denman Island; Denman Point, offshore, north of Denman Point	ВС	49.567	-124.833	Historical observation

Eelgrass in Canada Page 8 of 19

Site	Province	Latitude	Longitude	Status
Ducking	BC	49.139	-125.865	Multiple observations
Duthie Bay	ВС	52.780	-128.215	Restored
East Okeover	ВС	49.978	-124.685	Historical observation
East Trevenen Bay	ВС	50.020	-124.737	Historical observation
Effingham	ВС	48.876	-125.304	Multiple observations
Effingham south	BC	48.874	-125.309	Single observation
Elbow Bank	BC	49.195	-125.943	Multiple observations
Feather Bay	BC	50.063	-124.822	Historical observation
Felice	BC	49.156	-125.921	Multiple observations
Float dock	BC	49.155	-125.909	Historical observation
Gibsons Harbour	BC	49.399	-123.503	Multiple observations
Goat Cove	BC	52.781	-128.397	Restored
Gobeil Bay	BC	53.876	-128.670	Multiple observations
Goose southeast	BC	51.925	-128.454	Multiple observations
Goose southwest	BC	51.923	-128.465	Multiple observations
Haines	BC	48.834	-125.196	Historical observation
Hammond Bay	BC	49.230	-123.960	Multiple observations
Hand Island	BC	48.951	-125.313	Multiple observations
Hand Island, north	BC	48.953	-125.319	Single observation
Head of Bamfield Inlet	BC	49.105	-125.749	Historical observation
Head of Okeover Inlet	BC	49.969	-124.683	Historical observation
Head of Penrose Bay	BC	50.010	-124.730	Historical observation
Hootlakootla	BC	49.363	-126.229	Single observation
Hotsprings	BC	49.377	-126.269	Single observation
Howe Sound mainland	BC	49.487	-123.297	Single observation
Hyacinthe Bay	BC	50.118	-125.226	Historical observation
Indian	BC	49.112	-125.775	Multiple observations
Irish Bay	BC	48.820	-123.208	Single observation
James Bay	BC	48.843	-123.400	Single observation
Jamie's Whaling Station	BC	49.152	-125.897	Historical observation
Jaques-Jarvis Lagoon	BC	48.921	-125.276	Multiple observations
Joe's Bay	BC	48.913	-125.318	Multiple observations
Kennedy Cove	BC	49.139	-125.675	Single observation
Kitkatla	BC	53.795	-130.438	Historical observation
Kitsilano Beach	BC	49.274	-123.189	Restored
Koeye Estuary	BC	51.780	-127.871	Multiple observations
Kootowis	BC	49.105	-125.749	Multiple observations
Larsen Island, northwest of Banks Island	ВС	53.608	-130.575	Historical observation
Larson Bay	ВС	49.362	-123.283	Single observation
Lyall Harbour	ВС	48.797	-123.185	Single observation
Malksope River, estuary	ВС	50.133	-127.417	Historical observation
Mayne Bay	ВС	48.974	-125.311	Multiple observations

Site	Province	Latitude	Longitude	Status
McMullin North	ВС	52.062	-128.412	Multiple observations
McMullin South	ВС	52.052	-128.403	Multiple observations
Mikes	ВС	49.133	-125.866	Historical observation
Minette Bay	ВС	54.019	-128.632	Restored
Monas	ВС	49.184	-125.885	Historical observation
Moresby East	ВС	48.719	-123.300	Single observation
Morse Basin	BC	54.269	-130.236	Historical observation
Mouth of Theodosia	ВС	50.067	-124.702	Historical observation
Mud Bay	ВС	49.185	-125.956	Multiple observations
North of Lucy Rock	BC	49.977	-124.691	Historical observation
North of Public Dock	BC	49.994	-124.715	Historical observation
Nanaimo	BC	49.180	-123.943	Historical observation
Nanaimo	BC	49.158	-123.910	Multiple observations
Nanaimo Estuary	BC	49.153	-123.926	Restored
Nettle	BC	48.935	-125.248	Multiple observations
North Vancouver	BC	49.297	-123.001	Multiple observations
Olive Point/Boswell Inlet	BC	51.336	-127.586	Historical observation
Opitisaht	BC	49.172	-125.910	Restored
Parks dock	BC	48.827	-125.137	Historical observation
Pat Bay	BC	48.660	-123.451	Historical observation
Pinkerton	BC	48.963	-125.279	Multiple observations
Pooley Island	BC	52.785	-128.220	Historical observation
Porcher Island, east side of isthmus between Serpentine Inlet and outer coast	ВС	53.946	-130.682	Historical observation
Port Clements	ВС	53.697	-132.173	Multiple observations
Powell River	ВС	49.850	-124.529	Restored
Pruth Bay	ВС	51.645	-128.119	Multiple observations
Quadra	ВС	50.060	-125.224	Multiple observations
Queen Charlotte City, Skidegate, 2 kilometers south of Skidegate mission at the Haida museum, 0.5 kilometers north of Image Point	вс	53.250	-132.000	Historical observation
Rassier Point	BC	49.184	-125.939	Historical observation
Reynard Point	BC	48.730	-123.331	Single observation
Robber Passage	ВС	48.893	-125.119	Single observation
Roberts Bank	ВС	49.030	-123.130	Historical observation
Roberts Bank	ВС	49.019	-123.106	Multiple observations
Roberts Point	ВС	49.217	-125.931	Multiple observations
Roquefeuil Bay	ВС	48.863	-125.106	Single observation
South of Myrmidon Point	ВС	50.060	-124.804	Historical observation
Salt Spring	ВС	48.775	-123.370	Historical observation
Saturna Beach	ВС	48.783	-123.203	Single observation
Sedgwick Bay, Lyell Island	ВС	52.633	-131.567	Historical observation
Selby Cove	ВС	48.833	-123.397	Single observation

Eelgrass in Canada Page 10 of 19

Site	Province	Latitude	Longitude	Status
Sharp	ВС	49.193	-125.862	Multiple observations
Sidney	ВС	48.653	-123.396	Multiple observations
Sidney	ВС	48.649	-123.393	Restored
Sidney Island	ВС	48.618	-123.302	Multiple observations
Sidney Island North	ВС	48.642	-123.338	Historical observation
Sidney Spit	ВС	48.630	-123.331	Single observation
Sooke	ВС	48.378	-123.691	Historical observation
South Bay	ВС	49.126	-125.811	Historical observation
Southern Clayoquot Sound	ВС	49.139	-125.867	Multiple observations
Steamer Cove	ВС	49.375	-126.193	Single observation
Stubbs	ВС	49.160	-125.925	Historical observation
Sushi bar	ВС	49.155	-125.906	Historical observation
Tsawwassen	ВС	49.056	-123.123	Historical observation
Taylor Bay	ВС	48.887	-123.327	Restored
Thors Cove	ВС	50.058	-124.707	Historical observation
Tip of Coode Pen	ВС	50.006	-124.723	Historical observation
Tofino	ВС	49.154	-125.912	Historical observation
Tofino	ВС	49.154	-125.911	Restored
Tofino, Frank Island, Cox Bay	ВС	49.108	-125.900	Historical observation
Triquet Bay	ВС	51.809	-128.236	Multiple observations
Triquet North	ВС	51.809	-128.247	Multiple observations
Trout Bay	ВС	52.591	-128.523	Restored
Tumbo East	ВС	48.794	-123.057	Single observation
Turret	ВС	48.899	-125.343	Multiple observations
West of Beulah Island	ВС	50.057	-124.796	Historical observation
West Trevenen Bay	ВС	50.016	-124.737	Historical observation
West government dock	ВС	48.829	-125.140	Historical observation
Whaler Bay	BC	48.885	-123.327	Multiple observations
Wizard	BC	48.864	-125.361	Historical observation
Wouwer	ВС	48.861	-125.359	Multiple observations
Aldouane	NB	46.710	-64.897	Multiple observations
Baie de Bouctouche	NB	46.500	-64.677	Multiple observations
Baie de Lamèque	NB	47.796	-64.675	Multiple observations
Baie Sainte-Anne	NB	47.054	-64.956	Historical observation
Baie St. Simon Sud (Saint-Simon)	NB	47.786	-64.778	Multiple observations
Baie Verte	NB	46.019	-64.060	Historical observation
Bedec	NB	46.682	-64.774	Multiple observations
Bouctouche	NB	46.500	-64.650	Single observation
Bras d'Or	NB	46.064	-60.891	Single observation
Caraquet Harbour	NB	47.804	-64.966	Single observation
Charlo Estuary	NB	47.986	-66.278	Historical observation
Cocagne Harbour	NB	46.339	-64.574	Multiple observations

Site	Province	Latitude	Longitude	Status
Jaquet River	NB	47.922	-66.024	Historical observation
Kouchibouguac Bay	NB	46.842	-64.938	Multiple observations
Kouchibouguac National Park	NB	46.751	-64.865	Single observation
Kouchibouguacis Estuary	NB	46.779	-64.895	Historical observation
Miscou	NB	47.900	-64.550	Single observation
Neguac	NB	47.250	-65.030	Single observation
Richibucto	NB	46.700	-64.800	Single observation
Shediac	NB	46.259	-64.552	Single observation
Shediac Bay	NB	46.269	-64.528	Single observation
Shippagan	NB	47.741	-64.840	Single observation
Tabusintac	NB	47.319	-64.944	Single observation
Tabusintac Bay	NB	47.370	-64.940	Multiple observations
Tracadie North	NB	47.550	-64.890	Single observation
Tracadie South	NB	47.469	-64.888	Single observation
Beach Cove	NL	48.651	-53.918	Single observation
Bellevue	NL	47.637	-53.744	Historical observation
Big Brook	NL	48.551	-53.965	Multiple observations
Big Cold East	NL	48.571	-53.832	Single observation
Bread Cove	NL	48.480	-53.923	Single observation
Bridgeport	NL	49.555	-54.828	Historical observation
Broad Cove	NL	48.651	-53.896	Single observation
Broad Lake-Bellevue	NL	47.631	-53.759	Historical observation
Buckley Cove	NL	48.590	-53.915	Multiple observations
Cannings Cove	NL	48.570	-53.922	Multiple observations
Cannings Cove/Long Tom Cove	NL	48.445	-53.847	Historical observation
Champney's Cove	NL	48.390	-53.298	Historical observation
Clarenville	NL	48.186	-53.973	Historical observation
Clay Cove	NL	48.586	-53.783	Single observation
Davidsville, Notre Dame Bay	NL	49.350	-54.430	Historical observation
Deep Bight	NL	48.098	-53.944	Historical observation
Deer Harbour	NL	47.904	-53.814	Historical observation
Dockside	NL	48.559	-53.964	Multiple observations
Dumpling Cove	NL	48.484	-53.903	Single observation
Flat Bay	NL	48.408	-58.579	Historical observation
Fortune Harbour (Fox Cove 2)	NL	49.522	-55.275	Multiple observations
Fortune Harbour (northwest bottom)	NL	49.528	-55.283	Historical observation
Fortune Harbour (southeast bottom)	NL	49.500	-55.217	Multiple observations
Fortune Harbour (southwest bottom)	NL	49.508	-55.267	Historical observation
Fox Island	NL	49.405	-54.478	Historical observation
Glenburnie	NL	49.439	-57.887	Historical observation
Goose Arm	NL	49.172	-57.860	Historical observation
Goose Bay	NL	48.373	-53.852	Single observation

Eelgrass in Canada Page 12 of 19

Site	Province	Latitude	Longitude	Status
Goose Cove	NL	48.368	-53.475	Historical observation
Grassy Island	NL	49.402	-54.413	Historical observation
Green's Harbour	NL	47.640	-53.508	Historical observation
Half Island	NL	47.185	-53.532	Historical observation
Hawks Bay	NL	50.611	-57.171	Historical observation
Hefferns Cove	NL	48.563	-53.891	Multiple observations
Hurloc Head Cove	NL	48.563	-53.729	Single observation
Indian Bay	NL	49.013	-53.777	Historical observation
Julies Harbour	NL	49.447	-55.710	Historical observation
Lark Harbour	NL	49.100	-58.382	Single observation
Little Cold East	NL	48.573	-53.818	Single observation
Little Heart's Ease	NL	48.019	-53.683	Historical observation
Little Mosquito	NL	47.841	-53.899	Historical observation
Little Mosquito Cove	NL	47.842	-53.898	Multiple observations
Little Port Harmon	NL	48.514	-58.537	Single observation
Little South Broad Cove	NL	48.571	-53.871	Single observation
Lockston's Arm	NL	48.392	-53.372	Multiple observations
Lower Wolfe Cove	NL	49.492	-56.065	Historical observation
Luke's Arm	NL	49.522	-54.815	Historical observation
Man Point	NL	48.428	-53.850	Historical observation
Manual's	NL	49.126	-57.928	Single observation
Mill Cove	NL	48.657	-53.932	Single observation
Milton	NL	48.224	-53.958	Historical observation
Minchin Cove	NL	48.564	-53.878	Multiple observations
Mistaken Cove	NL	48.587	-53.918	Multiple observations
Mount Stamford	NL	48.571	-53.910	Multiple observations
Musgravetown, Bonavista Bay	NL	48.400	-53.880	Historical observation
Near Hillview	NL	48.202	-53.923	Historical observation
Near Trinity	NL	48.379	-53.380	Historical observation
New Bridge Cove	NL	48.582	-53.929	Multiple observations
New Harbour	NL	47.586	-53.543	Historical observation
North Harbour (bottom)	NL	47.160	-53.648	Historical observation
Old Shop	NL	47.525	-53.573	Historical observation
Overs Islands	NL	48.529	-53.752	Single observation
Park Harbour	NL	48.534	-53.802	Single observation
Parson's Pond	NL	50.026	-57.708	Historical observation
Piccadilly	NL	48.577	-58.904	Single observation
Placentia Bay	NL	47.343	-53.934	Multiple observations
Platter Island	NL	48.454	-53.947	Single observation
Plum Point/St. Genevieve	NL	51.235	-56.871	Historical observation
Port Au Port	NL	48.564	-58.893	Historical observation
Seal Island	NL	49.433	-54.468	Historical observation

Site	Province	Latitude	Longitude	Status
Ship Cove	NL	48.570	-53.802	Single observation
Shoal Harbour	NL	48.202	-53.959	Historical observation
Simmonds Cove	NL	48.601	-53.763	Single observation
South Broad Cove	NL	48.558	-53.857	Multiple observations
Southwest Arm	NL	48.624	-53.964	Single observation
Southwest Brook	NL	48.508	-58.288	Single observation
Spread Eagle Bay	NL	47.536	-53.596	Historical observation
St. Andrew's	NL	47.758	-59.302	Historical observation
St. Chads	NL	48.661	-53.757	Single observation
St. Paul's inner gut	NL	49.857	-57.797	Single observation
St. Paul's outer gut	NL	49.857	-57.804	Single observation
Sunnyside	NL	47.864	-53.937	Historical observation
Sunnyside, Trinity Bay	NL	47.850	-53.900	Historical observation
Sweet Bay	NL	48.436	-53.655	Single observation
Terra Nova Visitor Center	NL	48.580	-53.946	Single observation
Trepassey	NL	47.752	-53.365	Historical observation
Trinity	NL	48.396	-53.373	Historical observation
Two Guts Pond	NL	48.645	-58.655	Single observation
White Rock	NL	48.565	-53.960	Multiple observations
Woodford Arm (bottom)/Miles Cove #3	NL	49.492	-55.065	Multiple observations
Woodford Arm (outcrops)/Miles Cove #1	NL	49.520	-55.853	Multiple observations
Antigonish Harbour	NS	45.716	-61.898	Historical observation
Aspy Bay	NS	46.921	-60.481	Single observation
Benoit Cove, Tracadie Harbour	NS	45.632	-61.628	Historical observation
Boat Harbour	NS	45.685	-62.668	Single observation
Cable Island	NS	44.747	-62.793	Single observation
Canso	NS	45.315	-60.981	Single observation
Cape LaHave Island	NS	44.222	-64.381	Single observation
Captain's Island	NS	45.686	-61.899	Historical observation
Caribou	NS	45.769	-62.728	Historical observation
Carters Beach – Port Mouton Bay	NS	43.908	-64.819	Single observation
Cheticamp	NS	46.626	-61.018	Single observation
Chezzetcook Inlet	NS	44.703	-63.241	Single observation
Clam Harbour	NS	44.719	-62.884	Single observation
Cole Harbour	NS	44.657	-63.433	Single observation
Cow Bay	NS	44.607	-63.434	Single observation
Crescent Beach	NS	44.238	-64.406	Multiple observations
Croucher Island	NS	44.642	-63.957	Single observation
East Petpeswick	NS	44.712	-63.166	Single observation
False Passage	NS	44.744	-62.797	Multiple observations
Franks George	NS	44.593	-63.944	Multiple observations
Gegogan Harbour	NS	45.050	-61.950	Single observation

Eelgrass in Canada Page 14 of 19

Site	Province	Latitude	Longitude	Status
Gooseberrry Island, Antigonish	NS	44.760	-62.660	Historical observation
Halifax (Inner Harbour)	NS	44.627	-63.529	Historical observation
Inner Sambro Island	NS	44.455	-63.588	Multiple observations
Jackies Island – Port Mouton Bay	NS	43.901	-64.781	Single observation
Jordan Bay – Green Bay	NS	43.718	-65.166	Single observation
Kejimkujik National Park Seaside, Little Port Joli	NS	43.872	-64.823	Multiple observations
Lawrencetown	NS	44.667	-63.410	Single observation
Little Harbour	NS	45.654	-62.539	Single observation
Lobster Bay	NS	43.688	-65.879	Single observation
Lobster Bay, Yarmouth County	NS	43.680	-65.820	Historical observation
Lockeport	NS	43.700	-65.055	Single observation
Lower Three Fathom Harbour	NS	44.635	-63.294	Multiple observations
Mabou	NS	46.082	-61.460	Single observation
Mahone Bay	NS	44.450	-64.379	Single observation
Mason's Island	NS	44.391	-64.279	Single observation
Merigomish	NS	45.632	-62.448	Historical observation
Merigomish	NS	45.644	-62.414	Single observation
Miramichi	NS	47.061	-65.428	Single observation
Morien Bay	NS	46.134	-59.852	Single observation
Musquodoboit Harbour	NS	44.705	-63.092	Historical observation
Negro Harbour	NS	43.562	-65.427	Single observation
Old Wharf – Port Mouton Bay	NS	43.927	-64.846	Single observation
Petpeswick	NS	44.690	-63.138	Historical observation
Pomquet	NS	45.639	-61.833	Historical observation
Port Joli muddy	NS	43.876	-64.901	Multiple observations
Port Joli sandy	NS	43.872	-64.895	Single observation
Port l'Hebert	NS	43.868	-64.963	Multiple observations
Port Mouton – Carters Beach	NS	43.909	-64.823	Single observation
Port Mouton Island – Port Mouton Bay	NS	43.908	-64.779	Single observation
Pugwash/River Phillip	NS	45.838	-63.683	Single observation
Ragged Harbour	NS	44.096	-64.557	Single observation
Round Bay	NS	43.594	-65.349	Single observation
Sacrifice Island	NS	44.397	-64.236	Single observation
Second Peninsula	NS	44.402	-64.281	Multiple observations
Spectacle Island – Port Mouton Bay	NS	43.915	-64.807	Single observation
St. Catherine's River Estuary	NS	43.848	-64.830	Multiple observations
Strawberry Island	NS	44.648	-63.952	Single observation
Tatamagouche	NS	45.719	-63.296	Historical observation
Taylor's Head	NS	44.820	-62.572	Single observation
Bedeque Bay	PEI	46.368	-63.868	Historical observation
Cascumpec	PEI	46.753	-64.076	Historical observation
Freeland River Estuary	PEI	46.685	-63.938	Historical observation

Site	Province	Latitude	Longitude	Status
Hillsborough Bay	PEI	46.160	-63.121	Historical observation
Kildare River Estuary	PEI	46.831	-64.048	Historical observation
Malpeque Bay	PEI	46.524	-63.697	Single observation
Midgell River Estuary	PEI	46.420	-62.649	Historical observation
Mill River Estuary	PEI	46.768	-64.082	Historical observation
Rustico	PEI	46.454	-63.295	Historical observation
Southwest River Estuary	PEI	46.480	-63.500	Historical observation
St. Mary's	PEI	46.337	-62.273	Historical observation
Stanley-Trout River Estuary	PEI	46.470	-63.460	Historical observation
Anse à la Cave	QC	48.290	-69.450	Historical observation
Anse au Homard	QC	48.830	-64.460	Historical observation
Anse aux Gascons	QC	48.190	-64.850	Historical observation
Anse du Chafaud aux Basques	QC	48.020	-69.770	Historical observation
Anse du Petit Mitis	QC	48.680	-68.030	Historical observation
Anse-aux-Cousins	QC	48.850	-64.510	Historical observation
Aylmer Sound Bay	QC	50.600	-59.440	Historical observation
Baie aux Outardes	QC	49.030	-68.560	Historical observation
Baie d'Escuminac, Pointe-à-la-Garde	QC	48.070	-66.540	Historical observation
Baie de Bon-Désir	QC	48.270	-69.480	Historical observation
Baie de Cascapédia	QC	48.180	-65.940	Historical observation
Baie de Mille-Vaches, Petits-Escoumins	QC	48.430	-69.300	Historical observation
Baie de Mille-Vaches, Pointe-à-Emile	QC	48.570	-69.200	Historical observation
Baie des Belles Amours west to Blanc-Sablon	QC	51.480	-57.260	Historical observation
Baie des Grandes Bergeronnes	QC	48.230	-69.550	Historical observation
Baie des Homards	QC	49.830	-67.090	Historical observation
Baie des Petites Bergeronnes	QC	48.220	-69.580	Historical observation
Baie des Plongeurs	QC	48.770	-68.990	Historical observation
Baie des Sept Îles	QC	50.230	-66.510	Single observation
Baie Didier	QC	48.770	-69.010	Historical observation
Baie Ellis, Anticosti Island	QC	49.820	-64.380	Historical observation
Baie Laval	QC	48.760	-69.050	Historical observation
Baie of Many Islands (Baie James)	QC	54.136	-79.151	Multiple observations
Baie Plate, Tête à la Baleine sector	QC	50.690	-59.310	Historical observation
Baie St-Ludger	QC	49.087	-68.320	Historical observation
Baie Tees (Baie James)	QC	53.731	-79.069	Multiple observations
Barre de Sandy Beach	QC	48.840	-64.410	Historical observation
Barre Portneuf, Ste Anne de Portneuf	QC	48.620	-69.090	Historical observation
Bassin aux Huîtres	QC	47.551	-61.517	Single observation
Bassin de la Rivière Nouvelle	QC	48.100	-66.280	Historical observation
Bassin de Sud-Ouest, Havre du Gaspé	QC	48.810	-64.490	Historical observation
Batture aux Outardes	QC	49.040	-68.480	Historical observation
Bonaventure Barachois	QC	48.040	-65.530	Historical observation

Eelgrass in Canada Page 16 of 19

Site	Province	Latitude	Longitude	Status
Cacouna (Cacouna-Sud)	QC	47. 95	-69.480	Single observation
Cap-aux-Os	QC	48.840	-64.350	Historical observation
Cap-Chat	QC	49.110	-66.650	Historical observation
Carleton Barachois	QC	48.100	-66.110	Historical observation
Champlain beach	QC	49.205	-68.141	Historical observation
Cloridorme	QC	49.180	-64.830	Historical observation
Coves at Newport	QC	48.265	-64.742	Historical observation
Dead Duck II (Baie James)	QC	53.583	-78.982	Multiple observations
Fleurant	QC	48.110	-66.400	Historical observation
Gaspé, Pointe Jacques Cartier	QC	48.840	-64.480	Historical observation
Barachois du Grand Pabos	QC	48.330	-64.720	Historical observation
Gros-Morne	QC	49.250	-65.550	Historical observation
Havre Bluff	QC	50.220	-60.520	Historical observation
Hopetown	QC	48.060	-65.140	Historical observation
Île Crescent	QC	50.640	-59.390	Historical observation
Îles de Mai, west of Sept-Îles	QC	49.920	-66.970	Historical observation
Iles-de-la-Madeleine, Anse du Bassin	QC	47.240	-61.830	Historical observation
Iles-de-la-Madeleine, Baie du Havre aux Basques	QC	47.270	-61.950	Historical observation
Iles-de-la-Madeleine, Havre-aux-Maisons	QC	47.440	-61.770	Historical observation
Iles-de-la-Madeleine, Lagune de la Grande Entrée	QC	47.600	-61.500	Historical observation
Îlets Boisés	QC	48.413	-69.314	Historical observation
Îlets Jérémis	QC	48.890	-68.780	Historical observation
Inner barachois at Port-Daniel	QC	48.190	-64.970	Historical observation
Kégaska sector, Anse aux Huîtres	QC	50.190	-61.280	Historical observation
Kégaska sector, Baie aux Huîtres	QC	50.190	-61.297	Historical observation
Kégaska sector, Baie Pepihtnahu	QC	50.200	-61.100	Historical observation
Kégaska sector, Baie St-Augustin	QC	51.210	-58.610	Historical observation
Kégaska sector, Baie Tertiary Shell	QC	50.240	-60.280	Historical observation
Kégaska sector, Coacoachou,	QC	50.250	-60.290	Historical observation
Kégaska sector, Rivière Mistassini	QC	50.195	-61.169	Historical observation
L'Anse-Pleureuse	QC	49.250	-65.660	Historical observation
L'Isle-Verte	QC	48.040	-69.340	Historical observation
La Grande Anse	QC	48.160	-69.650	Historical observation
L'Anse-McInnes	QC	48.180	-64.940	Historical observation
Les Escoumins	QC	48.350	-69.390	Historical observation
Les Prairies	QC	47.350	-70.520	Historical observation
Malbaie Barachois	QC	48.610	-64.290	Historical observation
Mouth of Rivière Mitis	QC	48.640	-69.140	Historical observation
New-Carlisle	QC	48.000	-65.400	Historical observation
Parc des Pionniers	QC	49.222	-68.140	Historical observation
Paspébiac	QC	48.020	-65.250	Historical observation
Patte de Lièvre	QC	48.710	-69.080	Historical observation

Site	Province	Latitude	Longitude	Status
Paul Bay to Baie des Oies (Baie James)	QC	54.010	-79.050	Multiple observations
Penouille	QC	48.850	-64.420	Single observation
Petit-Pabos	QC	48.370	-64.590	Historical observation
Petits-Capucins	QC	49.060	-66.790	Historical observation
Pointe à Émile	QC	48.596	-69.106	Historical observation
Pointe Attikuan	QC	54.290	-79.500	Multiple observations
Pointe de Miguasha	QC	48.070	-66.300	Historical observation
Pointe des Oblats à la rivière Conn	QC	52.685	-78.753	Multiple observations
Pointe Kakassituq	QC	54.196	-79.363	Multiple observations
Pointe Shave to Rivière au Phoque	QC	54.586	-79.605	Multiple observations
Pointe-au-Père	QC	48.510	-68.480	Historical observation
Pointe-aux-Outardes	QC	49.060	-68.364	Historical observation
Pointe-Manicouagan	QC	49.118	-68.176	Historical observation
Rimouski Bay	QC	48.451	-68.555	Single observation
Rivière au Castor	QC	53.386	-78.975	Multiple observations
Rivière Blanche Estuary	QC	48.820	-68.928	Historical observation
Rivière du Sud-Ouest in Bic	QC	48.370	-68.740	Historical observation
Rivière Roggan	QC	54.449	-79.490	Multiple observations
Rivière Romaine	QC	50.280	-63.770	Single observation
Rivière Saint-Jean	QC	48.780	-64.400	Historical observation
Rivière-Caplan	QC	48.100	-65.680	Historical observation
Rose-Bridge	QC	48.860	-64.480	Historical observation
Saint-Fabien Bay	QC	48.323	-68.866	Historical observation
Saint-Nicolas Bay	QC	49.300	-67.760	Historical observation
Saint-Siméon	QC	48.060	-65.530	Historical observation
Sandy Beach	QC	48.820	-64.430	Historical observation
Sept-Îles Bay	QC	50.170	-66.105	Single observation
Southwestern sector of the Manicouagan Peninsula	QC	49.030	-68.430	Historical observation
Trois-Pistoles	QC	48.110	-69.220	Historical observation

Note: The eelgrass sites listed here should not be considered complete, as eelgrass is known to occur in other locations. The list is a reflection of collected and published material on eelgrass, as of March 2020. Various data sources, with different data collection dates, have been combined. Eelgrass site categories include historical sites (data more than 10 years old), single observations and multiple observations within the last ten years, and sites where restoration efforts have occurred. In addition, site designations may represent individual eelgrass beds or larger areas with multiple eelgrass beds. See Table 1. Status of eelgrass sites for more information. Additional details are available in the detailed data table (Excel/CSV; 136 KB).

Source: Environment and Climate Change Canada (2020).

Eelgrass in Canada Page 18 of 19

Additional information can be obtained at:

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