

**A REVIEW OF WILD AND COUNTRY FOODS IN NEWFOUNDLAND AND  
LABRADOR, CANADA: THE IMPORTANCE OF KEY FOOD SOURCES  
DESPITE A DECREASE IN CONSUMPTION OVER TIME**

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**A report submitted to the School of Graduate Studies  
in partial fulfillment of the requirements for the degree of**

**Masters in Environmental Science  
Department of Environmental Science  
Memorial University of Newfoundland**

**December 2020**

**St. John's, Newfoundland and Labrador**

## Abstract

Information about the consumption of wild and country foods of Newfoundland and Labrador is plentiful but scattered in published literature. To organize this information, a database was created about who eats what, where and how in the province. An analysis of how wild and country foods have changed over time from prehistoric periods of 8,000 years ago to the year 2011 was conducted based on the number of citations of different species and groups. The results of this analysis indicate that seals and caribou have been the most important species overall and over time, along with marine mammals in general. At the same time, consumption of seal and caribou has declined over time and comparatively few of these species have been consumed after the cod collapse in 1992. Fish, especially Atlantic cod, have been historically associated with the province and this analysis shows a similar decline in consumption after the cod collapse even as they remain an important defining species in the province's identity. This report not only points to the foods that are important in the province, but how they change over time and how there can be gaps between social narratives of important foods and those that are most commonly consumed. This project also includes a publicly available dataset for future research.

## Acknowledgements

During this writing, I am currently a member of the Civic Laboratory for Environmental Action Research (CLEAR) which is a marine science laboratory that specializes in monitoring plastic pollution in food webs based on the values of humility, equity and justice. I wish to thank the members of CLEAR for their ongoing support and their contribution to the wild and country foods database. In particular, I wish to express my appreciation to my advisor, Dr. Max Liboiron, who provided guidance through this entire project and my graduate program. I also wish to thank Natasha Healey, Nadia Duman and Marissa Van Harmelen who contributed to the construction of the database.

Also, I wish to thank the individuals who contributed to the public engagement aspect of the project. I am grateful to the members of the Everybody Eats Community Food Self-Sufficiency action group and the rest of the Food First NL staff. In particular, I wish to thank Ethan Doney, Chad Pelley and Sarah Ferber for their contributions as my contacts with Food First NL. I would also like to thank the staff at the Office of Public Engagement at Memorial University. They helped fund the public engagement aspect of the project through the Public Engagement Accelerator Fund. Last, I am also grateful to Tracey O'Neil for her contributions of the infographics and social media card designs for this project.

Being an international graduate student at Memorial University, I wish to thank the support of my family, especially my parents. Born and raised in North Carolina, U.S.A., I am a descendent of ancestors who settled in the eastern United States and

Québec, Canada originally from the British Isles, France, the Netherlands and additional northwestern European countries many generations ago. Of the known ancestors, they had various professions including reportedly as American shad fisher, farmer, midwife, brewer, miller, brick mason, retail and general merchant, and magistrate. I appreciate the opportunity to live on the Newfoundland island and visit Labrador during my graduate studies at Memorial University. In addition to the opportunity to meet the local people and the local landscape, I also appreciated the opportunity to eat wild and country foods on occasion while being there. I respectfully acknowledge the territory in which I completed this project and wrote this report in St. John's, Newfoundland as the ancestral homelands of the Beothuk, and the island of Newfoundland as the ancestral homelands of the Mi'kmaq and Beothuk. I would also like to recognize the Inuit of Nunatsiavut and NunatuKavut and the Innu of Nitassinan, and their ancestors, as the original people of Labrador. I also completed some of the work while in Greenville, North Carolina, U.S.A., which I acknowledge includes the ancestral homelands of the Tuscarora people.

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## Introduction

In the Canadian province of Newfoundland and Labrador, many groups of people have historically hunted, trapped, fished and foraged foods from the land and continue to do so today. This includes the ancestors and today's descendants of the Beothuk and Mi'kmaq of Newfoundland, the Innu of Nitassinan and the Inuit of Nunatsiavut, the NunatuKavut of Labrador, and settlers. In ancient times, the ancestors who historically lived in Labrador included the pre-Dorset, Dorset and Thule are the ancestors of the northern Inuit, and NunatuKavut and Innu peoples since at least 1300 BC as indicated by the archaeological record (Finner, 2015; Martin, 2009). Each group has its own history, culture and traditional food systems, and this research shows that those food systems often overlap and influence one another.

From a nutrition perspective, northern Indigenous peoples have a diet traditionally containing a high percentage of animal protein. These animals are hunted and fished locally from the land that relates to their historical traditions, culture and spiritual connection to the land. In coastal areas near and in the arctic, Indigenous groups consume many sea-based animals, especially predatory aquatic animals (Freeman, 1996). Later, other than a brief settling by Vikings in 1000 AD on the island of Newfoundland, European explorers began visiting the area in the 1400s. They started harvesting wild and country foods and formal European fishing industries were established in the 1500s leading to the cod industry (Hamilton et al., 2004). Newfoundland and Labrador later joined the Canadian Confederation in 1949. Atlantic cod then became an important part

of the local economy until the Atlantic cod population collapse in 1992, a result of a variety of factors including industrial overfishing (Hamilton et al., 2004).

Today, wild and country foods are still important for Newfoundland and Labrador as the number of people who harvest wild and country foods in the province are the highest of any province in Canada. The number of individuals participating in fishing in 2016 is 44.2%, which is 21.9% above the national average (StatisticsCanada, 2020). In 2016, 39.3% of people in the province reported they foraged, which is 22.9% above the national average (StatisticsCanada, 2020). In addition, the number of people participating in hunting and trapping is 20.2%, which is 14.3% above the national average (StatisticsCanada, 2020).

Traditional wild and country foods have many health benefits. They contain essential macro- and micronutrients that are important for human health (Centre for Indigenous Peoples' Nutrition and Environment, 2005). Yet physical health is only one aspect of health associated with harvesting and consuming wild and country foods. Just as important is the cultural and spiritual health relating hunting, foraging and consumption of traditional foods to peoples' identity, their communities, the past and the land (Pufall et al., 2011).

Current access to country foods and the ability to have food autonomy relates to the food security and food sovereignty of the province. Food security has been described as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (Food and Agriculture Organization of



the United Nations, 2020; Wittman et al., 2010). Food sovereignty is different and has been described as “the right of nations and peoples to control their own food systems, including their own markets, production modes, food cultures and environments” (Wittman et al., 2010). Lack of or limited Indigenous food sovereignty has been an ongoing issue that can appear in multiple forms. For example, Winona LaDuke and Deborah Cowen describe the initiatives that denied buffalo to the Indigenous peoples dependent on it through the mass slaughter of buffalos to build railroads in North America (LaDuke & Cowen, 2020). The construction of pipelines through key tribal berry patches is another example (LaDuke & Cowen, 2020). A third example includes the construction of dams that can lead to flooding of tribal land and food harvesting areas (LaDuke & Cowen, 2020) in addition to important concerns about increased methylmercury from construction, as have been voiced during the construction of the Muskrat Falls in Lake Melville in Labrador (Nunatsiavut Government, 2016). In Newfoundland and Labrador, these food security and sovereignty issues are advocated by the provincial non-profit organization Food First NL, which works to improve access to, and knowledge about, wild and country foods. Part of this report was produced in partnership with them and is featured as a publicly accessible resource on Food First NL’s website (<https://www.foodfirstnl.ca/wild-food>).

The consumption of wild and country foods in Newfoundland and Labrador has been described in the literature in a variety of forms. However, there has not been an effort to bring these sources of information together. Thus, a database was created to help organize existing published information about who eats what, where and how in

Newfoundland and Labrador. Using this compiled information, information about how the consumption of wild and country foods has changed over time was analyzed with a focus on the prevalence of certain foods.

## **Methods**

### **Data Collection**

Published peer reviewed and grey literature, such as memoirs, government reports and field guides, was obtained to create a corpus of published records on wild and country foods in Newfoundland and Labrador. The following search engines and catalogues were searched: Scopus, Web of Science, Google Scholar, Google search engine, Memorial University's Library Database and Memorial University theses and dissertation archives. The search strings that were used to query these locations are: 1.) Newfoundland and/or Labrador and 2.) wild, or country, or foods, or hunting, or fishing, or trapping, or gathering, or foraging. Memorial University librarians in the Centre for Newfoundland Studies were contacted to locate additional resources. An initial abstract of this report was circulated to key stakeholders, including Food First NL employees, key academic researchers and professors at Memorial University, provincial Indigenous governments, and Memorial University's Aboriginal Resource Office. Their feedback, which included leads for additional grey literature, was used to secure additional sources. All sources were then reviewed, and relevant data was incorporated into the database in terms of who eats what, where, when and how in the province.

### **Methods of Analysis**

A total of 65 sources were analyzed to create 1,636 separate entries about provincial wild and country foods in a database. Sources were queried for the type of

food mentioned, which was then categorized according to both common names used in the literature and biological taxa (more below). For most entries, the following information was recorded in addition to the type of food: location (town), provincial location (Newfoundland and/or Labrador), latitude and longitude, and the date (year) of data collection. When available, other information that was entered in the dataset but was not used in this analysis include: peoples (cultural or Indigenous group), season, the part of the animal or plant that was used (e.g., fat), harvesting technique, the main consumer (e.g., women, children), the stated importance (e.g., its role in the economy or in obtaining vitamin C), the amount or quantity consumed, the citation of the source the information came from, and any additional notes. This type of information was mentioned unevenly in sources and in very different ways. As such, information that was more standardized and ubiquitous was chosen for analysis in this report (food type, date, etc., see below).

To determine the “importance” of a species, the prevalence or number of times a food item (species or larger group of animals, plants or other category) was mentioned in the database was counted and ranked. This count was independent of whether a source mentioned one food item or several food items. This was used as an indirect method to determine importance with the likelihood that something being more important from a cultural or dietary perspective would be mentioned as a food item more often across sources than something that is less important and therefore was mentioned less often across sources. These results focused on the number of times a food item was mentioned in the database rather than qualitative descriptors of importance that may have been in the

literature such as “important” or “very important”. Counts were also chosen, rather than other forms of quantitative analysis, because of the relatively small sample size of source documents for some time periods or regions, and the high variability of forms of documentation within them prevented analysis through other statistical and quantitative methods.

As some sources, especially plant field guides, do not distinguish between something that is consumed often versus something that is simply edible, no distinction was made between edible versus consumed and all entries were counted with the same weight (one citation or one entry). Also, almost all entries were focused on human foods but a few entries included or focused exclusively on food that was primarily or also given to dogs. Due to limited numbers of those entries and for the purposes of this report these differences were not distinguished.

Many sources, such as memoirs, used common lay terms for food group names, such as “seals” or “birds”, rather than a more specific species. This introduces some unevenness in the database. These sources and additional sources were analyzed further for contextualization of the results in the discussion. When possible, kingdom and other taxonomic categories were added. For example, if a source mentioned “seals”, the database entry also included the clade (Pinnipedia), order (Carnivora), class (Mammalia), phylum (Chordata), and kingdom (Animalia). This allowed greater comparison across different sources. Most food items fit well in this taxonomic system. However, seaweeds, in particular, fit into the multiple kingdoms of Plantae, Chromista, Protista and Bacteria depending on the species. As the species was not named in the database and for the sake

of simplicity, “seaweed” is considered as part of the Plantae kingdom. To ensure that all related common names were incorporated into the same count for the same species or subgroup, their scientific taxonomy names were used instead of their common names for some of the analysis. However, due to the fact that most of the sources were non-academic, the common names used in sources and thus recorded in the database are the main categories analyzed for the purposes of this report, rather than species names or scientific names, in order to keep within the spirit of producers and users of this information. When several different common names existed for the same food item, these names were combined when counting importance. For example, recorded entries for “Bearded seal” and “Squareflipper seal” were counted together for *Erignathus barbatus*.

Major historical eras and temporally defining events in the province were used to categorize and analyze the results from the database. Dates were grouped as: prehistoric period associated with most of ancient history from 6,000 BCE-850 BCE (including entries with dates from 8,000 years ago and 4000 BCE to 850 BCE for the pre-Dorset and paleo-Inuit peoples), historic period mostly associated with the post-classical history from 500 BCE to 1499 CE (including entries with dates from 500 BCE and for the Dorset and Thule peoples), after colonization associated with the early modern period into the early contemporary period from 1500 to 1948 (labeled in the dataset as “recent history” including entries with dates from 1806 to 1948), the period after confederation when Newfoundland and Labrador joined the Canada Confederation in 1948 until the cod collapse (labeled in the dataset as 1949-1992), and after the cod collapse in 1992 (labeled in the dataset as 1993-2011).

Pivot tables were used to group and rank the information from the database relating to the change in taxonomic orders of food items across time (with columns: time period; rows: kingdom, phylum, order, etc.; values: counts within rows). Food items were counted and these counts were compared to one another. First, they were ranked. Then, numerical differences between the top-ranking food item was compared to (how many times greater than) the next top-ranking food items. This was calculated using the number of entries for the top-ranking food item divided by the entries for the next top-ranking food item. Some comparisons focused on more complete data, such as biological taxa at the scale of kingdom, phylum, order, etc., while most comparative work focused on the common or lay names usually used by sources and anticipated users of the data, such as “seals” and “fish”.

### **Food First NL Public Engagement**

In an effort to choose an impactful research question and to ensure the database contained practical information to potential users, this research was conducted through a partnership with Food First NL. Discussions were held about determining the best way for the public to be engaged with and have access to information compiled in the database. Together, two main research questions were generated: (1) What are the types of wild and country foods consumed in the province overall? (2) What are the berries and fruits that are harvested for food in the province? Temporal trends were not a focus of these research sub-questions.

An infographic showcasing key information of the types of food and general overview for the audience of Food First NL is included in this project report (Appendix

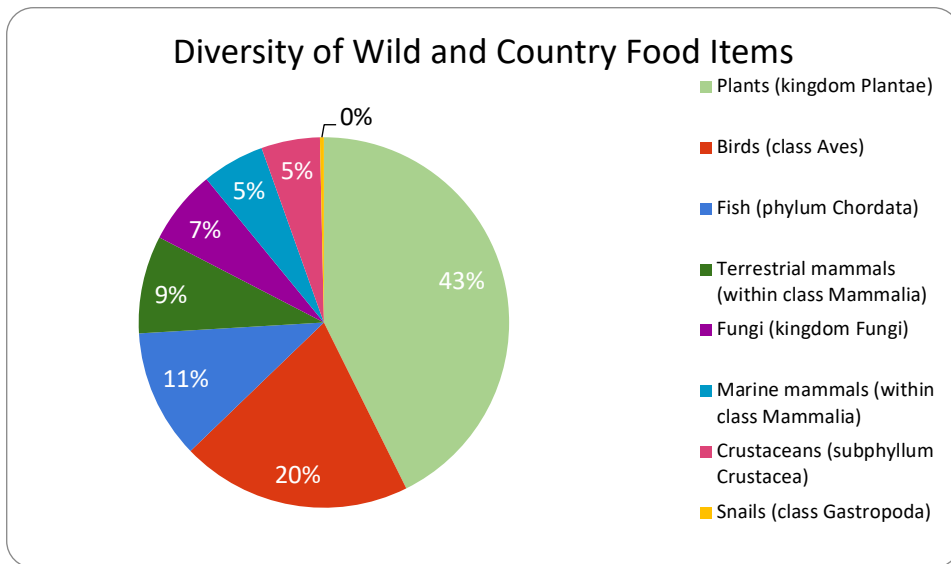
11). It was prepared using everyday language appropriate for the provincial public, which is the target audience for Food First NL. This overview infographic and another infographic about the berries and fruits that are harvested in the province were adapted into social media cards to be shared through social media platforms. These social media cards and posts were linked to a webpage (<https://www.foodfirstnl.ca/wild-food>) on the Food First NL website, explaining the project and including the two infographics and a link to the database. This partnership project was funded by Memorial University's Public Engagement Accelerator Fund, which paid for the cost of featured infographic and social media card designs.

## **Results**

### **What Wild Food Items People Eat**

#### ***Diversity of Wild Food Items***

Documented edible food items show that together the kingdoms of plants (43%, n=125), birds (20%, n=59) and fish (11%, n=33) account for almost three-quarters of the 293 species having been eaten/edible in the province (Figure 1). As shown in Appendix 2, plants, as a group, were the most prevalent, followed by fish, birds, aquatic mammals and land mammals respectively. A full list of species and subgroups appears in Appendix 19.



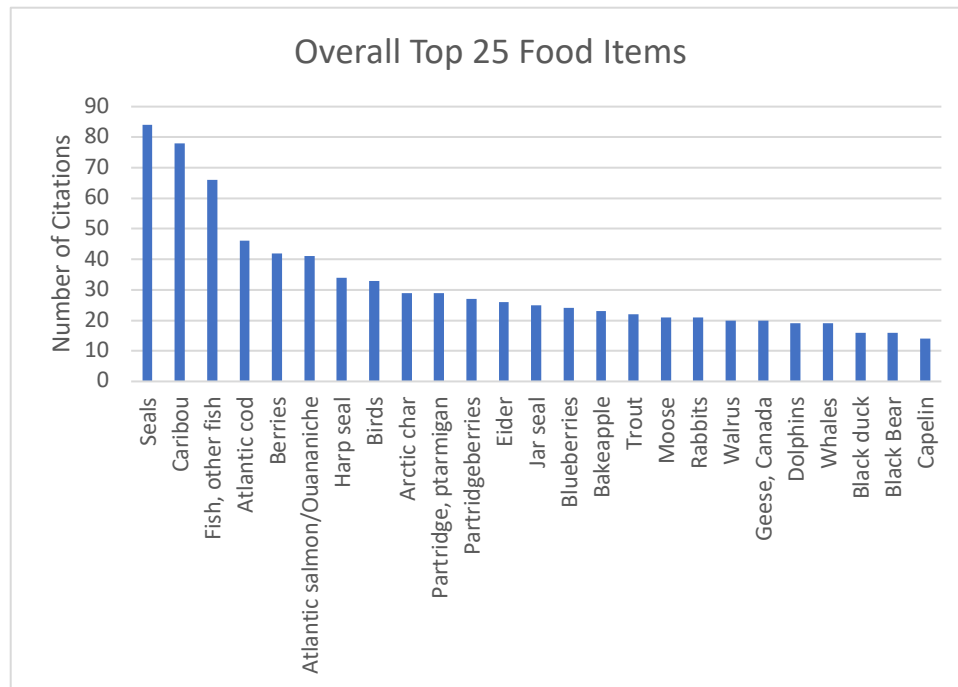
**Figure 1** Diversity of the Wild and Country Food Items in the Province. Categories are based on commonly used food item groupings from entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. Most sources do not use scientific naming conventions, though those are added in parentheses for reference. A similar infographic was developed with Food First NL on what information would be valuable for their audience. See Appendix 11 for more.

### **The Foods Most Prevalent as an Indicator of Importance**

#### ***Most Prevalent Food Items Overall***

As shown in Figure 2 and in Appendix 1, seal (5.7% of all food items, n=84) and caribou (5.3% of all food items, n=78) were the food items most prevalent overall, followed by fish (4.5% of all species, n=66) and berries (2.8% of all species, n=42). Of the more prevalent food items named at the species level, Harp seal was the most mentioned seal species (2.3% of all species, n=34), both Atlantic cod and Atlantic salmon were the most mentioned fish species (3.1% and 2.8% of all species, n=46 and 41, respectively), and the most mentioned berries included partridgeberries (1.8% of all species, n=27), blueberries (1.6% of all species, n=24) and bakeapples (1.6% all species, n=23).





**Figure 2** *The Number of Citations Associated with the Overall Top 25 Food Items. Categories include both informal group level or common names and species-level names when possible. Categories are based on common food item names from entries in the database from a literature search on wild and country foods in Newfoundland and Labrador.*

***Total Number of Citations Per Informal Group***

As shown in Appendix 2, plants, as a group, had the most citations, followed by fish, birds, aquatic mammals and land mammals respectively.

***Most Mentioned Species by Informal Group***

Each of the informal groups (marine mammals, terrestrial mammals, fish, plants, birds, crustaceans, fungi and terrestrial invertebrates) were considered alone to determine the prevalence of food items within each category as explained in the next several subsections.

**Marine Mammals (Within Class Mammalia):** Most marine mammal food items had relatively high prevalence compared to other informal groups (Appendix 3). Within

the 259 citations for marine mammals, seals (32.4% of marine mammals, n=84) in general were most prevalent (Appendix 4). As mentioned previously, Harp seal (13.1% of marine mammals, n=34) was the most prevalent species, followed by Jar or Ringed seals (9.7% of marine mammals, n=25). Seals were mentioned 4.2 times as often as walrus, the next most common marine mammal, and 4.4 times as often as dolphins and whales.

**Terrestrial Mammals (Within Class Mammalia):** Terrestrial mammals were noted in a total of 219 citations. Caribou were by far the most prevalent food item of terrestrial mammals (35.6% of terrestrial mammals, n=78). They were mentioned 3.7 times more often than the next most common mammals, moose (9.6% of terrestrial mammals, n=21) and rabbits (9.6% of terrestrial mammals, n=21) (Appendix 5).

**Fish (Phylum Chordata):** Fish were noted in a total of 305 citations. “Fish” without a species term was most common (21.6% of fish, n=66), followed by Atlantic cod (15.1% of fish, n=46) and Atlantic salmon (Ouananiche) (13.4% of fish, n=41) (Appendix 6). Atlantic cod were mentioned 1.6 times as often as the next most common fish, Arctic char (9.5% of fish, n=29), and 2.2 times more than trout (7.2% of fish, n=22).

**Plants (Kingdom Plantae):** Berries and fruits composed 65.6% (n=217) of the 331 plant citations. Within berries and fruits, Berries (12.7% and 19.4%, n=42 for both plants- and berries and fruits-specific analysis respectively) were most prevalent. After Berries, partridgeberries (8.2% and 12.4%, n=27 for plants and berries and fruits respectively), blueberries (7.3% and 11.1%, n=24 for plants and berries and fruits respectively) and bakeapples (6.9% and 10.6%, n=23 for plants and berries and fruits

respectively) were most evident. Partridgeberries were mentioned 2.7 times more than raspberries, blackberries and dewberries which is the next most common group or species following blueberries and bakeapples (Appendices 7 and 8). Prevalent plants not categorized as fruits or berries included dandelion, then seagrasses and Labrador tea.

**Birds (Class Aves):** Of the 276 citations for birds, partridge or ptarmigan (10.5%, n=29 of birds), eider duck (9.4%, n=26 of birds) and Canadian goose (7.2%, n=20 of birds) were most prevalent, following Birds in general (12.0%, n=33 of birds) (Appendix 9). Partridge or ptarmigan were mentioned 1.8 times more than American black duck, the next most common species after eider duck and Canadian goose.

**Crustaceans (Subphylum Crustacea):** Crustaceans had low prevalence in the database with 64 citations. Within this group, crab (20.3%, n=13), mussels (18.8%, n=12), lobster (17.2%, n=11) and shrimp (12.5%, n=8) were the most prevalent food items (Appendix 10). Crab was mentioned 2.6 times more than scallops, the next most evident species or group after mussels, lobster and shrimp.

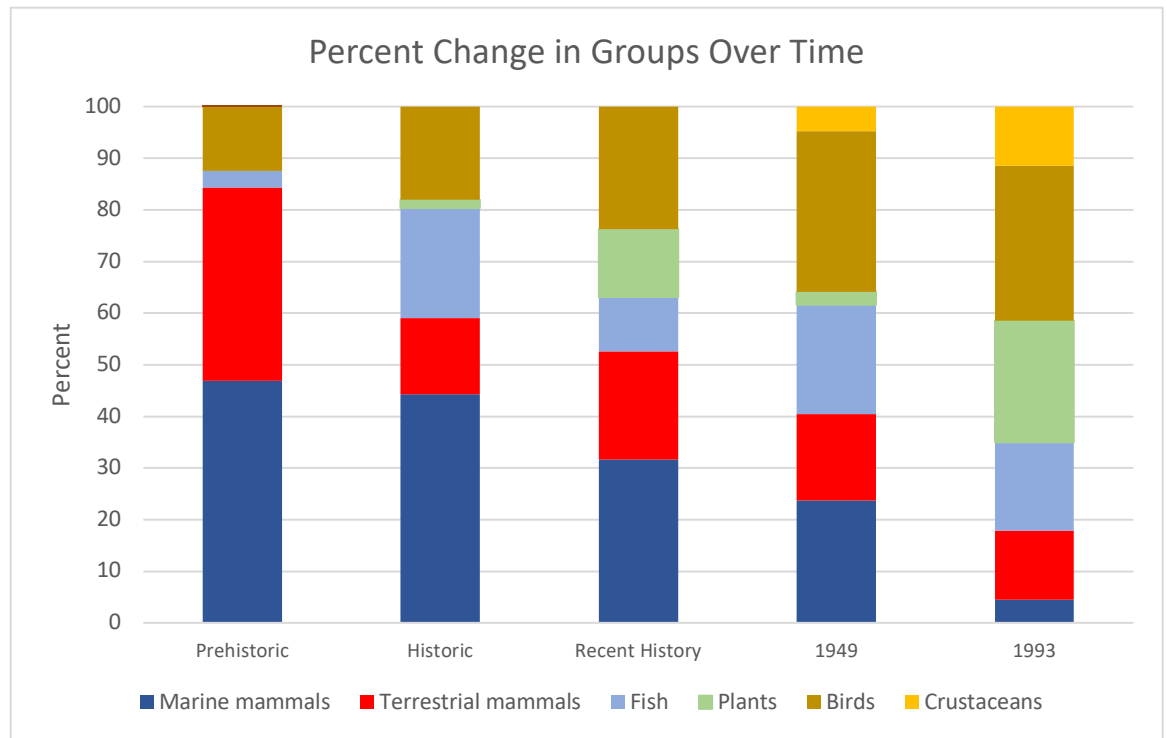
**Fungi (Kingdom Fungi) and Terrestrial Invertebrates:** Each fungi species in the database was only documented once (n=19). Snails were the only terrestrial invertebrates documented (n=1). Therefore, the importance of specific species within each of these groups could not be ranked or determined.

## **Changes Over Time**

### ***Overall Changes***

The percentages of each informal group per time period were analyzed for changes in food items over time. Percentages were used due to unevenness in the number of sources

per time period (Appendix 12). The number of citations per time period differed, with most of the citations recorded referring to the time period between 1949-1992 (60.2%, n=442) and 1993-2011 (21.4%, n=157). As seen in Figure 3, the percentage of marine mammals and terrestrial mammals consumed, such as seal and caribou, decreased over time particularly after the cod collapse during the 1993-2011 period (4.5% and 13.4% respectively). The percentage of marine mammals in harvested wild and country foods decreased from 46.9% to 4.5%, as compared to terrestrial mammals. These terrestrial mammals decreased overall from 37.5% to 13.4% from the prehistoric period at their greatest percentage to the 1993-2011 period at their lowest percentage. During 1993-2011, other groups of wild and country foods, including plants and crustaceans, increased (23.6% and 11.5% respectively).



**Figure 3** *Percent Changes of Informal Wild and Country Foods Groups Over Time. The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador as a percent change over time. Prehistoric describes the time period prior to 850 BCE. Historic describes the period of time between about 850 BCE to the European colonization of Canada, which began in the mid-1950s. Recent History describes the period during European colonization to the time of the province being brought into the Canadian Confederation which occurred in 1948. 1949-1992 describes the period after the province to the Canadian Confederation to the time of the Atlantic cod fishery collapse in 1992. 1993-2011 describes the period of time after the Atlantic cod fishery collapse.*

**Prehistoric:** In the prehistoric period (including entries with dates from 8,000 years ago and 4000 BCE to 850 BCE for the pre-Dorset and paleo-Inuit peoples) there were 33 citations, wherein both seals (21.2%, n=7) and caribou (15.2%, n=5) were most prevalent (Appendix 13).

**Historic:** The historic period includes 61 citations associated with entries that focus on findings from 500 BP and the Dorset and Thule peoples. In this period, both seals (including bearded seal and ringed seal) (11.5%, n=7) and caribou (9.8%, n=6)

remain high in prevalence, as well as “whales” (11.5%, n=7) and walruses (9.8%, n=6). For species-specific whale entries, the Greenland right whale was documented as the only whale consumed during this time period (n=2) (Appendix 14).

**Recent History:** Recent history includes the time period in which European colonization initially took place, including entries with dates from 1806 to 1948). It contains 41 citations. During this time, seals (including harp seal, jar seal and ranger seals) (12.2%, n=5) were most prevalent. The next most evident species included caribou (4.9%, n=2), fish (including Atlantic salmon and cod) (4.9%, n=2) and whales (including Greenland right whale) (4.9%, n=2) (Appendix 15).

**1949-1992:** The period of 1949 to 1992 includes the modernization period following the provincial confederation until the cod collapse. It included 442 citations, the most of any time period. During this period, seals (including harp seal and jar seal) (7.7%, n=34), birds (including eider ducks) (6.6%, n=29), fish (including Atlantic cod) (6.6%, n=29) and caribou (6.3%, n=28) were documented as the most prevalent (Appendix 16).

**1993-2011:** *Within the period of 1993 to 2011 CE after the cod fishery collapse, 157 citations were collected. In these citations, bakeapples (7.0%, n=11) and partridgeberries (6.4%, n=10) were documented as the most prevalent food items (Appendix 17). These foods were followed by Atlantic cod (5.7%, n=9) and blueberries (5.7%, n=9).*

## Discussion

### Introduction

Overall, 293 different food items were documented in published and gray literature. The analysis in this report indicate that the number of edible food items in each informal group are different from the food items that are more prevalent in the database. The diversity of the documented food items (Figure 1) and the prevalence per group (Appendix 2) show that plants, birds and fish were the largest food groups for both of those two analyses. In contrast, when the individual food items and subgroups were considered, the most prevalent food items overall were seal and caribou, followed by fish and berries (Figure 2). This is further supported when each informal group is considered where most of the marine mammal food items had relatively high prevalence in comparison to the other informal groups, followed by both fish and terrestrial mammals. This difference between what is edible and what was documented as most prevalent in the database analyses suggests that certain environmental, cultural, personal and technological factors (Kuhnlein & Receveur, 1996) impact the foods most harvested in the province, and that these factors shift over time. It is also important to consider that the literature and what is documented as being harvested and consumed can be influenced by specific academic and cultural interests and biases which can change over time. Therefore, studies and references may not accurately reflect what people are harvesting and consuming at a given time and can make it more difficult to interpret dietary changes over time.

This section discusses some of the factors impacting which foods were most commonly harvested, including environmental, cultural and economic contexts. Environmental influences include geographical factors such as which foods are or were harvested in coastal areas as compared to more inland ones. For example, the Pre-Dorset primarily hunted caribou and musk-ox inland, but also hunted seals on the coast. Before colonization on the Newfoundland island, the Beothuk relied on both terrestrial and marine environments for food as compared to the Dorset who settled more on the coast and consumed more foods from the ocean, especially seal and walrus (Fitzhugh, 1997; Harris et al., 2019). Coastal Arctic areas support more food stability, more species and larger food webs that promote greater sedentarism for those who settled there as compared to peoples in more inland areas (Fitzhugh, 1997). Cultural reasons include, among others, the food patterns associated with Indigenous groups as compared to settlers. For example, in Labrador during European colonization, the hunting of caribou was not as highly valued as fishing for cod by settlers and Indigenous peoples were “encouraged” to fish for cod instead (Arendt, 2010). Technological developments occurring in different cultures also influenced the foods that they ate. For example, changes in technology in the Thule culture starting in the Bering Strait allowed increased harvesting of large whales (Fitzhugh, 1997). The development of cultural adaptations of migration and mobility, sharing of food through the communities and flexible harvesting strategies promoted survival in the north (Fitzhugh, 1997). Economic reasons for food source selection included comparisons between commercial and sustenance food harvesting patterns. The information recorded in the database for this report includes



information from both subsistence and commercial food harvesting and does not distinguish between the two. Of course, environmental, cultural, and economic factors are interrelated and all influence one another. This discussion will be supported by the literature including what foods have been harvested in the province overall, discussions of the findings from the database, and conclude with some of the limitations of the database and thus of the analyses.

### **Cultural Identification**

One of the most interesting findings of this study is that even though the province, especially the island of Newfoundland, strongly and culturally identifies with fish in general and particularly Atlantic cod (Davis, 2014; McCann, 1988), these food items are not the most prevalent food sources evident in the literature. Instead, the analysis of this report indicates that seal and caribou are most prevalent, in that order, throughout the history of the province. Marine mammals, and particularly seals, and caribou have remained highly harvested and consumed throughout time, based on the database evidence. The Indigenous peoples of the province have been dependent on marine mammals and caribou since prehistoric times and these species are a major part of Indigenous identity and culture (Borré, 1991; Peter et al., 2002). Seal continues to be harvested in the most recent period designated in this report (1993-2011) but the percentage of these food sources has decreased over time. Yet, harvesting seals in Canada continues today as supported in documentation by Fisheries and Oceans Canada (DFO) indicating that 12,070 marine mammals were harvested in 2019 (FisheriesandOceansCanada, 2020).

“Fish” is well-represented in these data even if not as prevalent as seal and caribou. Indeed “fish” are an important part of the province’s diet both economically and for sustenance. This fact is well supported by the literature throughout the history of Newfoundland and Labrador. The relatively high prevalence of fish, Atlantic cod and Atlantic salmon in this study reflect their historical importance to the island, before, during and since the initial European exploration and settlement. Although fish were consumed by different Indigenous peoples of the province, it was to a lesser extent than other food items such as seal and caribou. During the initial colonization period, when the Genovese explorer John Cabot (or Zuan Chabotto) landed on Newfoundland in 1497, he recorded that the abundance of cod was such that they could be easily harvested from the sides of the boat (Davis, 2014; Milich, 1999). Further, the island of Newfoundland soon became known as the “land of the cod” (*Tierra de los Bacallao*) by the Portuguese and “land of the fish” (*Talamh an Éisc*) by the Irish (Davis, 2014). Partially influenced by agricultural constraints in the region, the cod industry became established as the main industry of the island (Haedrich & Hamilton, 2000). This led to some cod being consumed locally and the rest being salted for market (Davis, 2014; Hamilton et al., 2004).

The identification of the province with cod post-colonization is due to several factors. One explanation is that early settlers encouraged an economy based on cod, which they valued more highly rather than traditional Indigenous food. Thus, during European colonization in Labrador, caribou hunting declined as settlers “encouraged” the Indigenous peoples to fish for cod (Arendt, 2010). A resulting decrease in terrestrial

animals (mostly caribou) after colonization and continuing until after the 1992 cod collapse is reflected in the database.

Yet cod fishery was not the only settler-influenced commercial food industry to accelerate in Newfoundland and Labrador. In the early 1700s, the presence of the sealing industry emerged. Seal flipper pie is an iconic part of the local cuisine of Newfoundland where seal flippers from the spring seal hunts were and still are cooked as food (Everett, 2012). Today, seal flipper pie can be bought in local grocery stores such as Belbin's in St. John's, the capital city, but its position is not as central as cod dishes.

While not as "provincial" as cod, caribou serves important cultural, social, nutritional and economic roles for several of the province's Indigenous peoples (Mason et al., 2007). The reduction in the number of caribou resulted in a total quota for caribou hunting licenses of 575 in 2019 on Newfoundland where caribou was allowed for the 2019-2020 hunting season (NewfoundlandandLabrador, 2019). This, and additional local foodways accounts (Everett, 2011), demonstrates that hunting and consuming caribou is still important to the province and regional identity even if to a lesser extent than in the past.

Food studies in other parts of Canada show that Newfoundland and Labrador has unique Indigenous food identities even when some food is similar in other places outside the province. A study that investigated the preferred wild and country foods of the community of Broughton Island (that is now known as Qikiqtarjuaq in Nunavut) determined that marine mammals, especially ringed seal, narwhal and walrus, and terrestrial mammals, especially caribou, were the top preferred food items in their

community (Kuhnleini & Soueida, 1992). This emphasis on marine and terrestrial mammals mirror the patterns in Newfoundland and Labrador even if the specific species differ somewhat. However, another study found the most preferred food items for the Sanikiluaq on Belcher Island in the Hudson Bay were fish and shellfish (especially Blue mussels and Arctic char) and birds (especially Common eider) (Wein et al., 1996), which differs from diets in Newfoundland and Labrador even though most of these species are present in both locations.

While there is no conclusive evidence of why the mainly settler province of Newfoundland and Labrador is identified by cod despite the consistent and sustained importance of seal and caribou to Indigenous peoples as well as settlers in the province, this study's database provides a starting point to investigate further. Future analyses might potentially use it to consider confluences of time, regions within the province, and cultural groups as variables that may nuance these trends and provide more explanatory power.

### **Species Population Patterns**

In many cases, food source consumption patterns follow species population patterns. Particularly, the cod collapse of 1992 was a defining moment in shaping the province's food patterns. The establishment of the cod industry served as a significant reason for colonizing of Newfoundland and together with the international fishing industry eventually led to a cod population collapse from overfishing (Hamilton et al., 2004). Predictably, the prevalence of fish consumption in general, including cod,

decreased. This shift resulted in a decrease in reported fish consumption from 21.2% in 1949-1992 to 17.1% in 1993-2011.

Simultaneously, there was a notable shift of more plants and berries citations after the 1992 cod collapse. The two main divisions in food items in the database are animals and plants. The prevalence of plants increased from the 1949-1992 time period to the 1993-2011 time period by 21.1% suggesting that plant harvesting and consumption has increased over time, especially during the most recent periods. Although plant prevalence increased from 2.5% to 23.6% in the most recent time periods, it is worth noting that the percentage of plants consumed as food sources has increased inconsistently across time with the proportion of the diet being 0% during the prehistoric period, 1.6% during the historic period and 13.2% during the recent history period. The fact that plants were less represented than animals in this report overall until relatively recently is supported in the literature which indicates that plants, in general, have been eaten less than other food sources by Indigenous peoples in the Canadian north (Kuhnlein & Turner, 1991). Most recent time periods have documented bakeapples and partridgeberries as becoming more prevalent. In particular, the high prevalence of bakeapples within the berries and plants categories in this report suggests their high importance in the province which is supported in the literature as bakeapples serve as a cultural keystone species for peoples such as those living near Charlottetown, Labrador (Karst, 2005). Possible explanations of this change toward more plants and berries references after the cod collapse may be a shift in diet toward more plant and berry consumption, or more studies and references to plants

and berries that may be reflective of academic or cultural shifts in interest rather than shifts in consumption.

Another change noted after the cod collapse in 1992 was that the fishing industry began harvesting more crustaceans (Davis, 2014; Hamilton, 2003; Hamilton et al., 2004; Mather, 2013). Consequently, snow crab and shrimp populations increased being attributed to the cascaded effects of the decline of predatory cod and haddock (Davis, 2014; Hamilton, 2003; Hamilton et al., 2004). Noticing this population increase and opportunity, fishers shifted toward more snow crab, Northern shrimp and lobster (Davis, 2014; Hamilton, 2003; Hamilton et al., 2004; Mather, 2013).

In 2019, 1.02 times more crustaceans were harvested by landed weight (10,552,759 kgs) than groundfish (10,307,321 kgs), 1.25 times more than pelagic fish (8,469,490 kgs), 17.56 times more than mollusks (600,924 kgs) and 198.20 times more than miscellaneous harvested items (53,243 kgs) (FisheriesandOceansCanada, 2020). Despite this large shift in commercial fisheries since the cod collapse, crustaceans were less prevalent in this wild and country foods analysis compared to other food items, with only a documented presence starting in the 1949-1992 period before the cod collapse took place.

There are several possible explanations for these differences. One explanation is that crustaceans were not documented adequately because the data collected ends in 2011 and therefore advances in the industry since that time are not evident. Another potential explanation is the provincial identity associated with cod concealed actual consumption patterns of crustaceans during previous studies. A third possible explanation is that

crustaceans from the commercial fishery were being exported and not being consumed locally in the province. Finally, the data doesn't differentiate between commercial sources of wild food and subsistence harvesting and were not compared to each other. Despite these issues, the high prevalence of chordates (Chordata) in this analysis is supported by the lesser prevalence of literature associated with crustaceans and invertebrates across all time periods. This may suggest that in comparison to the other food items, crustaceans were not favored for harvesting and consumption until other food items, especially cod, became scarce.

Another “collapsed” food species documented in this research is the caribou. Inland populations rely on caribou hunting for food. However, caribou populations can experience unpredictable and large cycle changes that have historically promoted human migrations to avoid starvation (Fitzhugh, 1997). Though it is a key food item in the province, one possible reason for the decrease in caribou consumption in recent times is that caribou bans were enacted in 2013 and are not reflected in the dataset, which ends in 2011. The populations of caribou have experienced fluctuations in the past, including an increase in population in 1979 to 1997 and later a population decline in 2003 to 2012 on the island of Newfoundland (Mahoney et al., 2016; Schaefer & Mahoney, 2013). Later, the number of caribou decreased by 2013 to the point that a caribou hunting ban was established in the province by the Government of Newfoundland and Labrador resulting in further decreased harvesting and consumption (Blaser, 2016; Kenny et al., 2018). In addition, research from Newfoundland and British Columbia, indicates that increased predation can lead to woodland caribou calf mortality and the decline of the caribou

populations (Mahoney et al., 2016; Wittmer et al., 2005). Changes in predator population pressures can be further complicated based on the biogeography of the Newfoundland island as the number of native terrestrial mammals are less the number of transient or non-native terrestrial mammals from human introductions or natural range expansion (Strong & Leroux, 2014). This includes coyotes, which are predators of juvenile caribou, that arrived to Newfoundland in 1985 through their own range expansion (Mahoney et al., 2016; Strong & Leroux, 2014). Therefore, the shift away from caribou as a food source in this report is reflective of availability and harvesting opportunities related to changes in population numbers and hunting restrictions, as well as terrestrial food web changes.

Birds have been an important part of the history of Newfoundland and Labrador for both provincial Indigenous peoples and for settlers, but overexploitation decreased populations for a time and even resulted in some species becoming extinct. Although birds were less prevalent than other food items in this analysis, they still served as a significant part of the diet when birds increased in proportion to other harvested food items over time and across time periods. When the prevalence of the “bird” group was considered, partridge or ptarmigan, eider ducks and geese were most common. Similarly, birds (Aves) (n=301), waterfowl order (Anseriformes), the ducks, geese and other water bird family (Anatidae) and ptarmigan genus (*Lagopus*) were most evident when the scientific taxonomy was analyzed. This importance of birds and the high prevalence of eiders in this report is supported by the database noting the importance of migratory and marine birds and their eggs such as Common eider to the people of the province (Merkel



et al, 2008; Montevecchi et al, 2007; Natcher et al, 2012). It was also noted that Great auks and other birds were particularly important for the prehistoric Maritime Archaic People as well as the Beothuk (Montevecchi et al., 2007). The largest number of seabirds harvested for food in Canada are attributed to Newfoundland's annual murre hunt (Merkel & Barry, 2008; Montevecchi et al., 2007). The continuation of the murre hunt season was a term of the province's joining of the Canadian Confederation as the only legal non-Indigenous migratory seabird hunt on the North American continent (Merkel & Barry, 2008; Montevecchi et al., 2007).

Environmental fluctuations and unsustainable harvesting between both European settlers and Indigenous peoples decreased seabird populations for a time, and in some cases, resulted in the extinction of some species. During colonization, European settlers heavily relied on Great auks and hunted them to extinction by the early 1800s (Montevecchi et al., 2007). Unsustainable harvesting of Common eiders by the late 1800s and early 1990s led to the local absence of Common eiders from the north Atlantic coast (Montevecchi et al., 2007). At this same time, the local Indigenous peoples were also gathering eggs at levels that resulted in Common eiders along Canada's north Atlantic coast becoming locally absent (Natcher et al., 2012). The Labrador duck was also subjected to unsustainable harvesting pressures between both the European colonists and the subsistence harvesting of the local Indigenous peoples (Montevecchi et al., 2007), which led to the extinction of the Labrador duck around 1878.

In the 1970s, The Inuit of Nain published guiding harvesting principles including "(1) take only what is needed; (2) do not waste; and (3) take only what is suitable for

harvesting” when harvesting wild and country foods (Natcher et al., 2012). Based on research conducted in 2007, a community-based program was established by the Nunatsiavut Government to document the harvesting of eggs of migratory birds and other harvested wild and country foods (Natcher et al., 2012). These principles, regulations and programs seem to have helped reestablish Common eiders with evidence suggesting the population increased by 244% in the period between 1980 and 2006 for the continued presence, as well as the hunting and consumption of this species (Chaulk, 2009). Regulation has also been implemented in other parts of the province. The first Canadian regulations to regulate the Newfoundland murre hunt started in 1993, which established daily bag limits and set hunting seasons (Montevecchi et al., 2007).

Walrus were evident as one of the top four animals in the marine mammal group, and their harvesting and consumption patterns fluctuate with their populations. The Inuit and other Indigenous communities in the North have harvested walrus for thousands of years for a variety of purposes, such as preparation of the fermented food *igunaq*, and the use of walrus skin as clothing (Martinez-Levasseur et al., 2020). All coastal Inuit groups and their ancestors harvested walrus (Gotfredsen et al., 2018) and research indicates that walrus were often harvested during the period between 2,500-1,000 BP (Wiig et al., 2014). Outside of the province, a study of the late Dorset people on Little Cornwallis Island in Nunavut documents walrus were harvested for food and the ivory was used for tools (LeMoine & Darwent, 1998). In addition to harvesting bowhead whales, walrus harvesting was particularly important for the Thule Inuit in the northwest Foxe Basin of Nunavut where the largest walrus populations in the eastern Arctic are

located (Desjardins, 2013). Another study in the North Water area documents that walrus were an important food source and served as a key species with spiritual, economic and social significance for the historical periods studied, as well as for the modern population that lives there today (Gotfredsen et al., 2018).

From the 1500s to 1700s, European settlers began harvesting walrus at the same time that the whaling industry got underway (discussed below) (Aldsworth & Harris, 2007; McLeod et al., 2014). They were harvested for multiple uses including blubber and ivory to such an extent that by 1680 and 1704, the walrus that had formerly lived in the St. Lawrence River and the Gulf of St. Lawrence respectively were gone (Aldsworth & Harris, 2007; McLeod et al., 2014). The dataset indicates that walrus were harvested in the 1949-1992 time period although to a much lesser extent than earlier times. The Inuit still continue to harvest walrus in Canada and Greenland today where they are still considered important (Martinez-Levasseur et al., 2020; Wiig et al., 2014). A study in Nunavik documented that walrus have historical local significance but are not harvested as often today as in the past (Martinez-Levasseur et al., 2020).

By the early 1700s, the industry began to harvest Harp and Hooded seals as well as walrus (Aldsworth, 2007). After the local walrus populations had been over-harvested, the industry shifted to seal hunting and harvested Grey seals until the 1860s when they disappeared locally as well (Aldsworth, 2007). Despite this documented information, an increase in seal consumption was not reflected in the research dataset during this time. This is likely due to the large time periods used in the analysis of this report. It is possible that the overall decrease in seal consumption by Indigenous groups

in favor of the fisheries promoted by settlers was potentially masked by the increase in commercial seal harvesting following the local extinction of walruses.

The sealing industry came under significant scrutiny when dissension arose after a video became widely distributed in 1964 that appeared to show harvesters skinning a seal alive (Hawkins, 2017). In an effort to alter the negative effects from this Canadian sealing controversy, which had impacted the economic and commercial sealing efforts of the Indigenous peoples in Canada, local Indigenous people began using social media to document how seals were harvested ethically in the north and were still important to them (Hawkins, 2017). Documentation shows that in 2016 around 66,800 Harp seals and 1,612 Grey seals were harvested in Canada commercially, further emphasizing their continued importance to the province and to the nation (FisheriesandOceansCanada, 2016).

Whales, especially Greenland right whales, were also prevalent marine mammals for Indigenous peoples before colonization and are fairly represented in the marine mammal group included in the research dataset. Baleen whales have been identified as cultural keystone species for the Canadian Inuit (Garibaldi & Turner, 2004). Active subsistence whaling of Greenland right whales in eastern Canada and West Greenland was started by the Thule around 1200 CE (in Labrador by 1350-1500 CE) and the Indigenous peoples of the area harvested them as well (Higdon, 2010; Reeves, 2002). In Labrador, roughly 4 to 5 whales per year were harvested during the initial colonization period (Higdon, 2010; Reeves, 2002). Area harvests declined with commercial harvesting started in 1530 CE by Basque whalers and ended in the early 1990s (Higdon, 2010; Reeves, 2002). Mirrored in the database, whales served as a food source during the

prehistoric, historic and recent history periods but not after that, indicating that they were harvested up to and including the 1949-1992 time period. Both this report and the literature suggests no or limited harvesting of whales in the province have occurred since early 1990.

After confederation, increased sedentarization through resettlement, the formation of a cash economy, importation of food and more refrigeration in households resulted in a shift away from local food sources in the 1950s and 1960s (Montevecchi et al., 2007). These changes are supported in this research analysis. This modernization trend, rather than a species trend, intensified during the period of 1993 to 2011 after the collapse of the cod industry, in a notable shift away from consuming the historically important seal and caribou, as well as marine and terrestrial mammals.

### **Further Studies**

There was limited provincial-related literature about, and low prevalence of, fungi and snails in the dataset to determine and discuss the most prevalent fungi and snail species in this report. This was despite there being known edible mushroom harvesting in the province and the establishment of Foray Newfoundland and Labrador, a non-profit organization that promotes mushroom foray trips in the province. The Naskapi of Labrador were documented as never eating mushrooms despite the numerous mushrooms available to them (Kuhnlein & Turner, 1991). While the literature suggests that despite the prevalence of many mushroom species across Canada, few mushrooms were eaten or used nationally for other purposes, likely due to the poisonous nature of many mushroom species (Kuhnlein & Turner, 1991). Despite limited information about mushroom

consumption in Newfoundland and Labrador and little use across Canada in general, it has been noted that fungi have been important as food and medicine in some cultures in certain periods of time elsewhere in Canada. For example, there is some indication of snail harvesting in Atlantic Canada and fungi harvesting by the Indigenous peoples of British Columbia (Bazzicalupo et al., 2017; Lirette et al., 1992), including the Interior Salish and in other areas of Canada for food and medicine (Kuhnlein & Turner, 1991). Although many cultures have used certain fungi as hallucinogens, the literature suggests that Indigenous peoples of Canada have not (Kuhnlein & Turner, 1991). Overall, the actual harvesting, use and consumption of wild fungi species in the province appears to have a short history in Newfoundland and Labrador, being harvested only relatively recently.

Snails were the only land invertebrate noted in the literature as being consumed and was only mentioned once. Attempts have been made to research local snail cultivation, but most food snails are generally imported (Lirette et al., 1992). Because literature on snails and fungi in the province is highly limited, further research may be conducted on the consumption of fungi and snails as food sources in Newfoundland and Labrador.

Additional sources of provincial-specific food knowledge may be located in other areas of literature that were not identified from food-specific searches. Some food items may overlap with other uses and have important properties beyond, or may be indirectly related to, areas such as medicine. Notably the most prevalent plants in this report that are not fruits or berries include dandelion, seagrasses and Labrador tea emphasizing the

difficulty in distinguishing between food and medicine. Both dandelion (Schütz et al., 2006) and Labrador tea (FoodFirstNL, 2013; Pigford & Zutter, 2014) have been used for food, drink (as in teas) and for medicinal reasons. In the case of seagrasses, they have been documented in east Africa and in other parts of the world to have edible, medicinal and additional uses (De la Torre-Castro & Rönnbäck, 2004; Rengasamy et al., 2013). Although the species of seagrass harvested as documented in the database was not named, eelgrass (*Zostera marina*) is the most common seagrass in the Northwest Atlantic Ocean and grows widely around the world (Cullain et al., 2018). It has been used for food by the Haida, Nuu-chah-nulth, Kwakwaka'wakw and Straits Salish peoples in British Columbia (Turner, 1995) as well as by the Seri people in Sonora Mexico (Valencia et al., 1985). Furthermore, it has been determined that eelgrass serves as an important nursery habitat for the survival of juvenile Atlantic cod indicating the seemingly interrelated connection that both these food items have to one another (Lilley & Unsworth, 2014). Therefore, further studies could incorporate other research areas, such as medicine, and compare the overlaps with food, as well as study the relationships between food items.

This report used the prevalence of food items as an indirect indicator of importance as food in Newfoundland and Labrador. There is room for additional analyses, perhaps incorporating different ways of considering the importances of food items, including qualitative analysis. Future studies might build on the contributions of this study, using the existing importance indicators recorded here and comparing them to other ways of understanding the importance of certain foods, including those that are not often consumed.

The prevalence of the food items only analyzed a portion of the data included in the research database. Additional information recorded in the database, including place harvested, main consumers and parts of the food item harvested, allows for more analyses to be conducted. This information may be helpful in potential future studies that extend beyond just the prevalence of food items in the literature.

The results of this study may be used to promote more sustainable harvesting and consumption of wild plant foods. In addition to promoting traditionally consumed species, this work can also complement growing global efforts to shift diets to focus on consumption of foods lower on the food chain in order to address the overall impacts of climate change, bioaccumulation of contaminants and other environmental concerns. Therefore, groups and non-governmental organizations such as Food First NL and Foray Newfoundland and Labrador may find this report useful in promoting foods or future studies relating to traditional foods and the consumption of plants and fungi or animals lower on the food chain. Specific recommendations are not universal as different recommendations can be made for different groups such as comparing the general population to provincial Indigenous groups based on health and cultural needs as with Canada's food guidelines (Health Canada, 2007, 2019). The ability for Food First NL and the public to access the database compiled as an outcome of this research and the database itself having the capacity to be updated in an ongoing way, increase the potential for additional research opportunities. Thus, the wealth of information compiled in this initial database can serve as a foundation for increasing the understanding of wild



and country foods that are harvested and consumed by all peoples across Newfoundland and Labrador.

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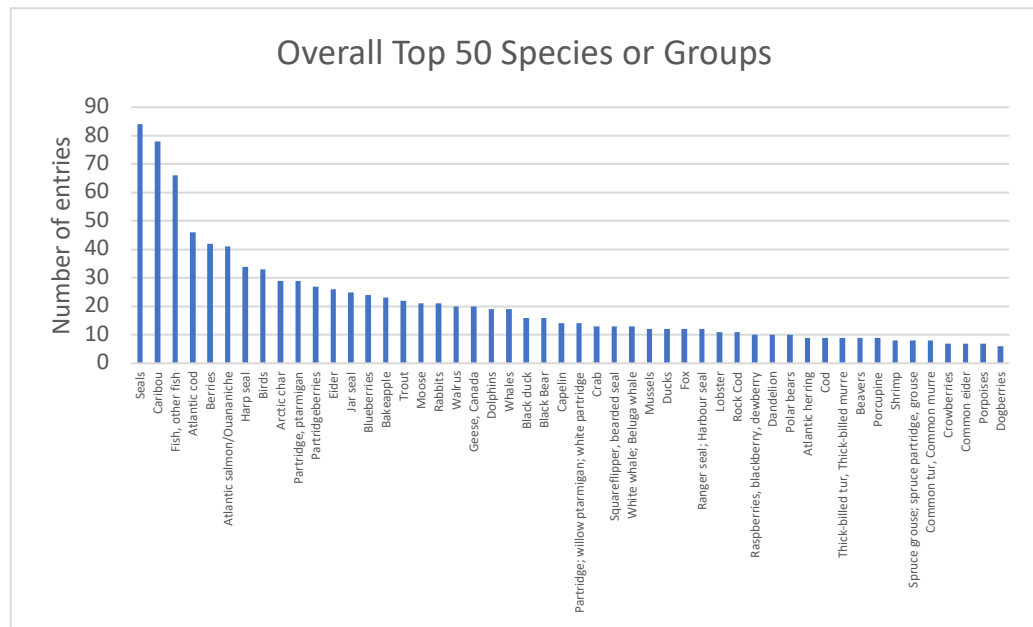
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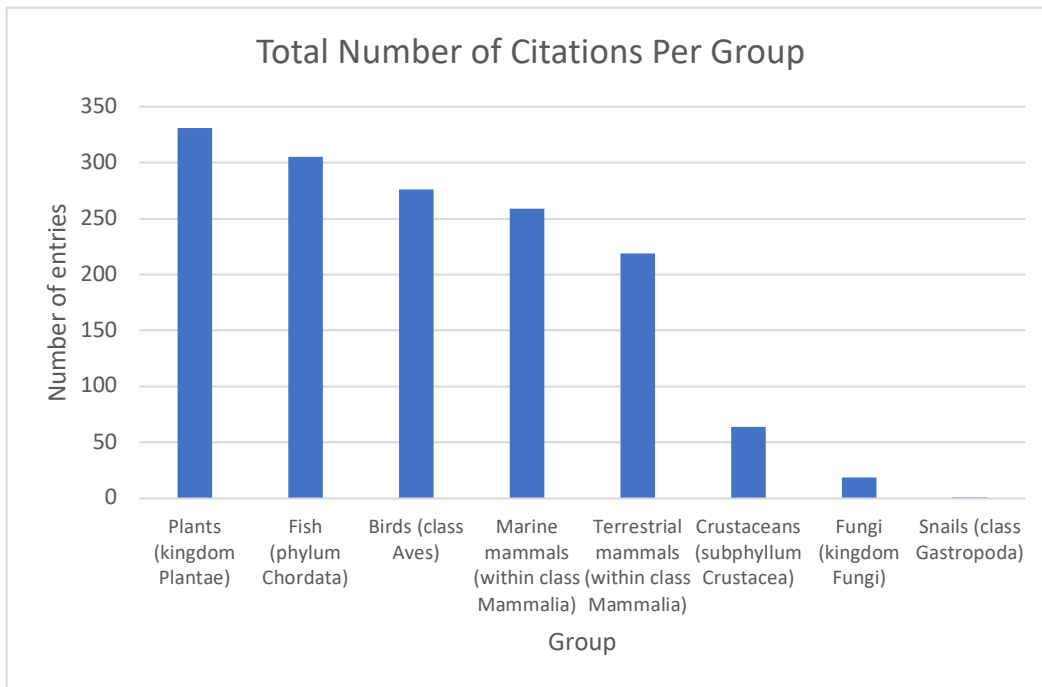
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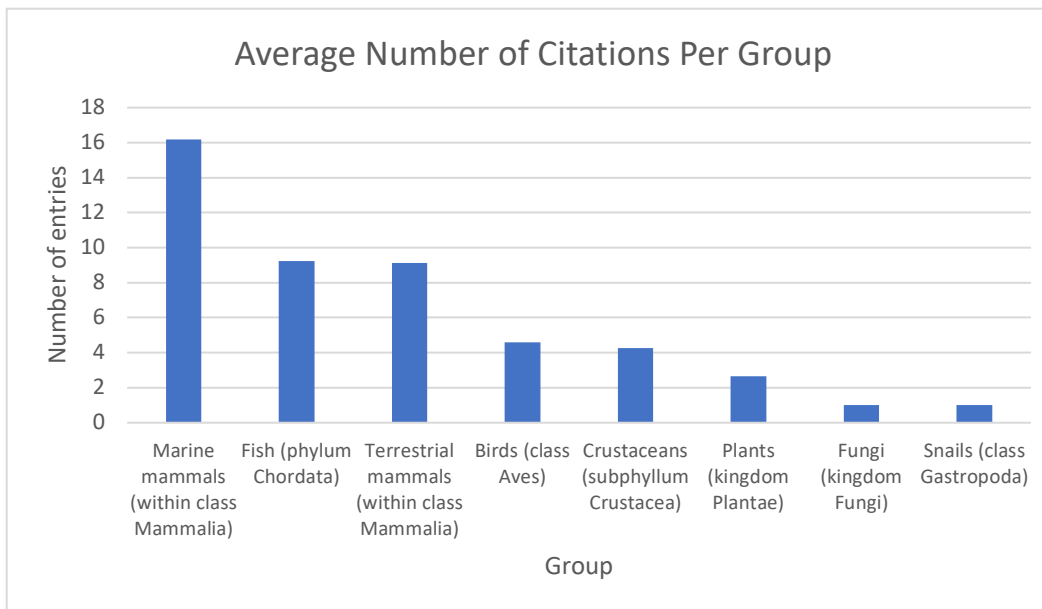
## Appendices



**Appendix 1** *The Number of Citations Associated with the Overall Top 50 Species or Groups. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

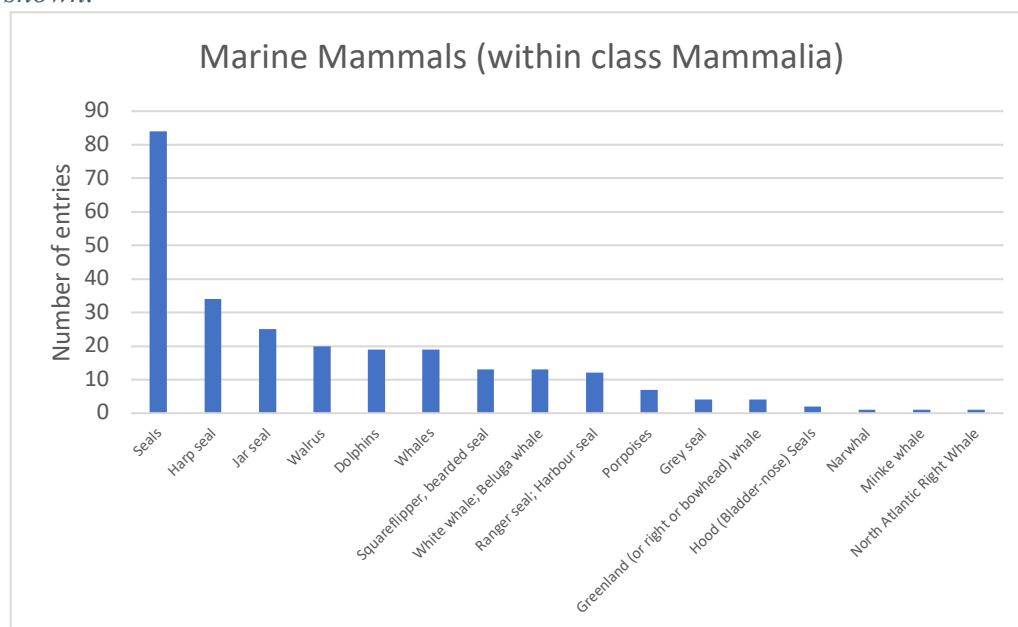


**Appendix 2** *Total Number of Citations per Group. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

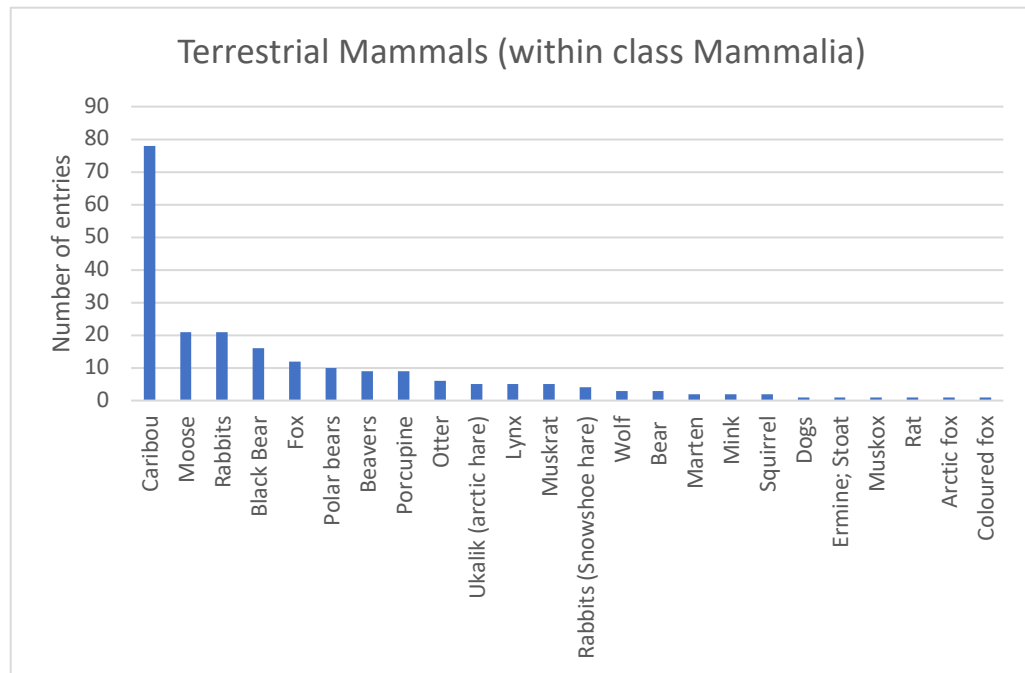


**Appendix 3** *Average Number of Citations per Group. The information is based on documented entries in the database from a literature search on the wild and country*

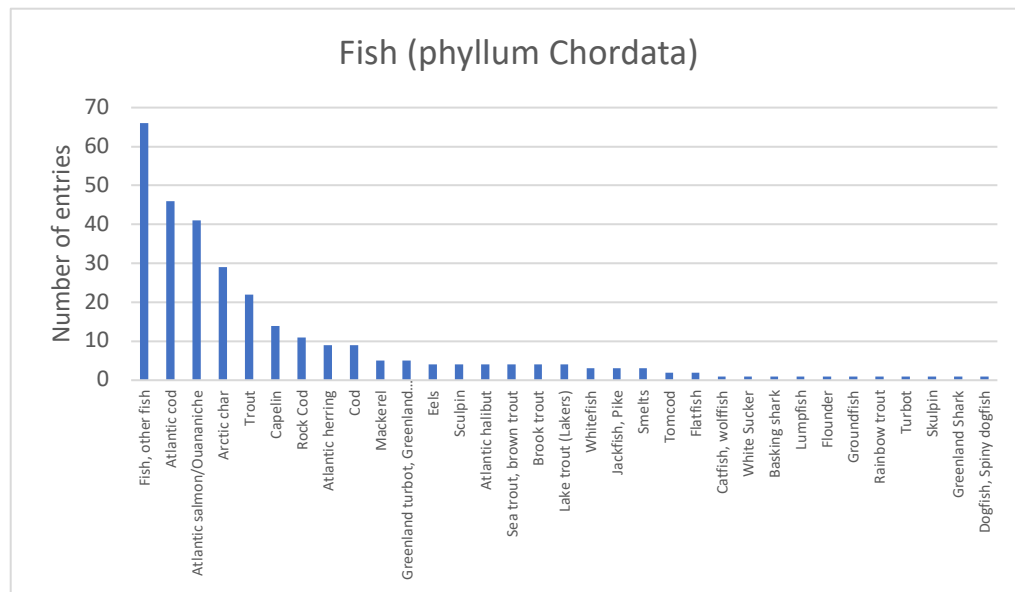
*foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



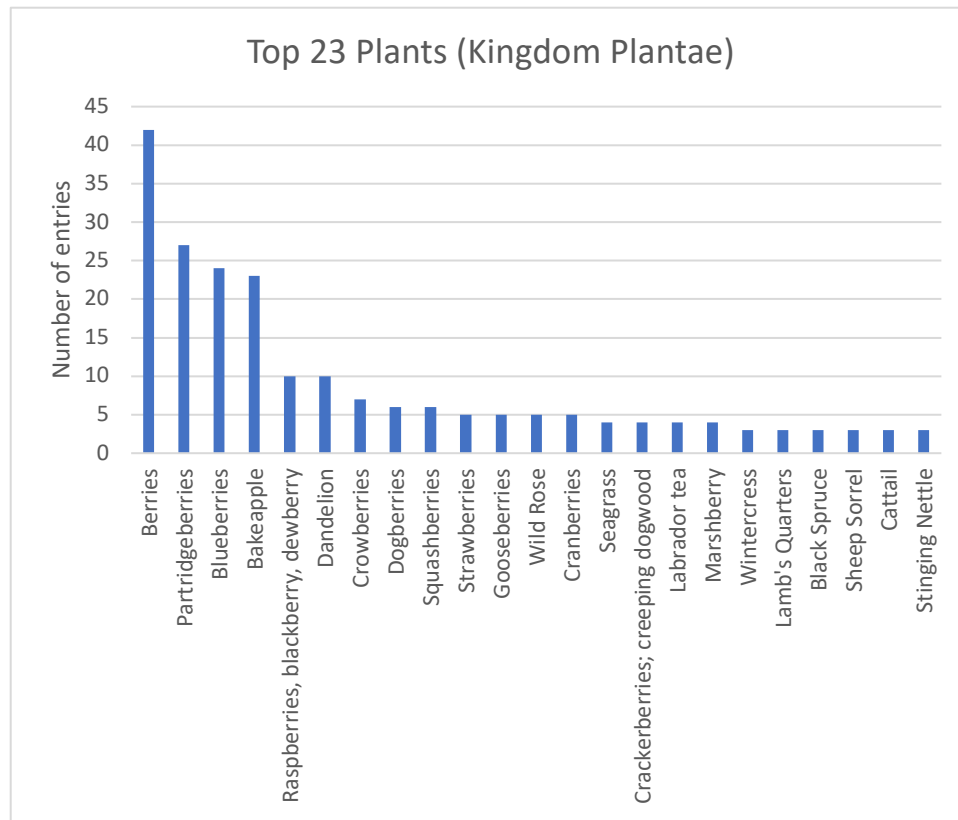
**Appendix 4** *The Number of Citations for Marine Mammals. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



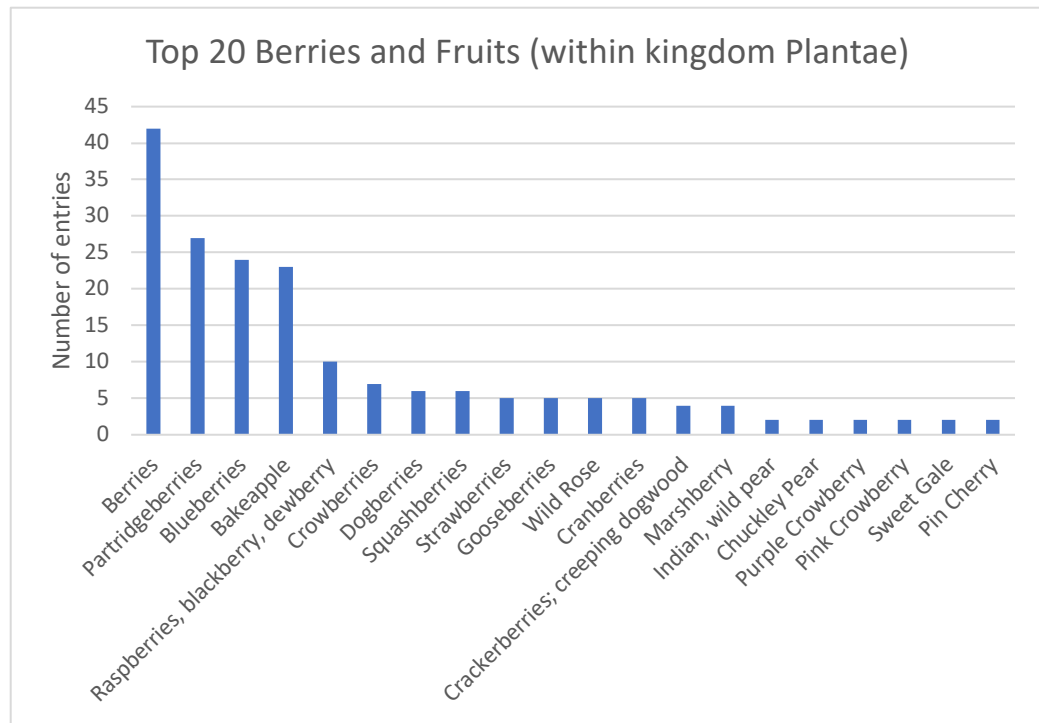
**Appendix 5** *The Number of Citations for Terrestrial Mammals. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



**Appendix 6** *The Number of Citations for Fish. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

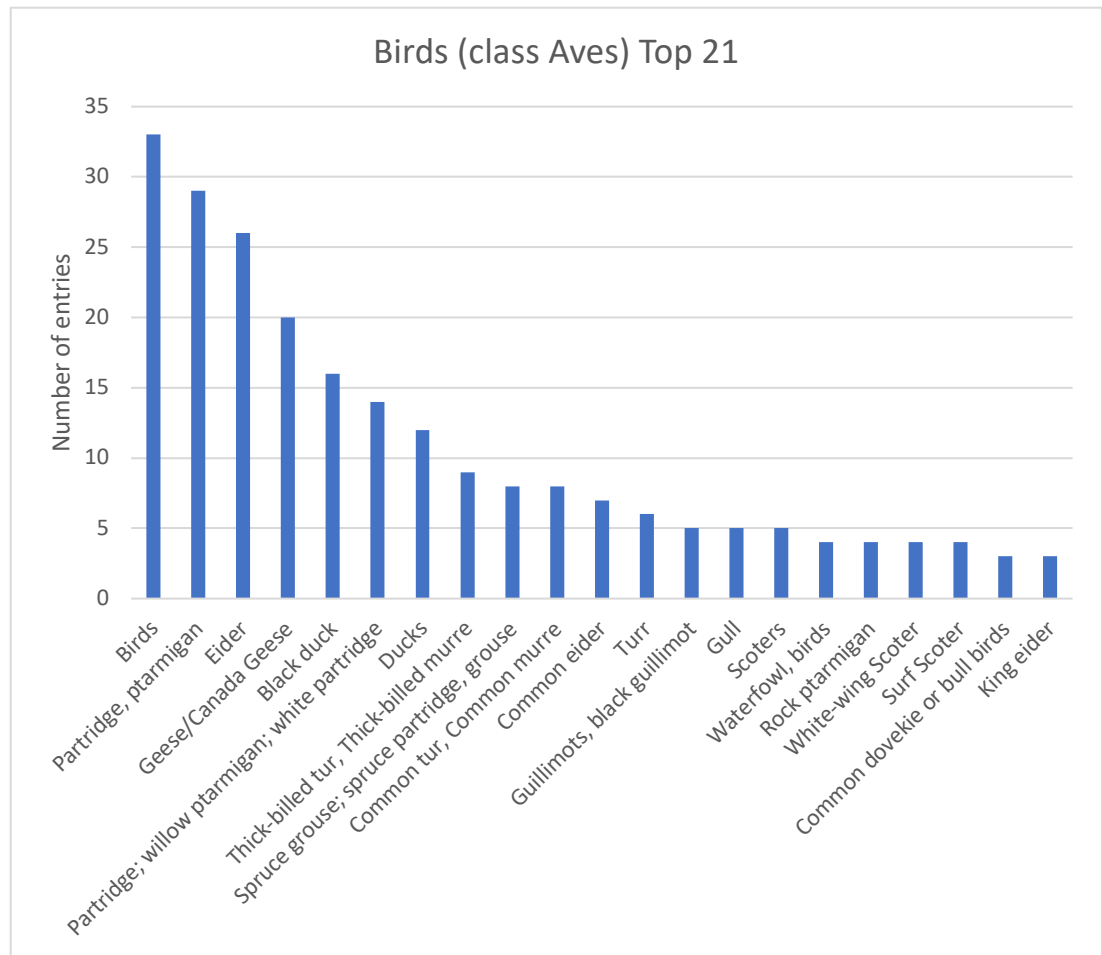


**Appendix 7** *The Number of Citations for the Top 23 Plants. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

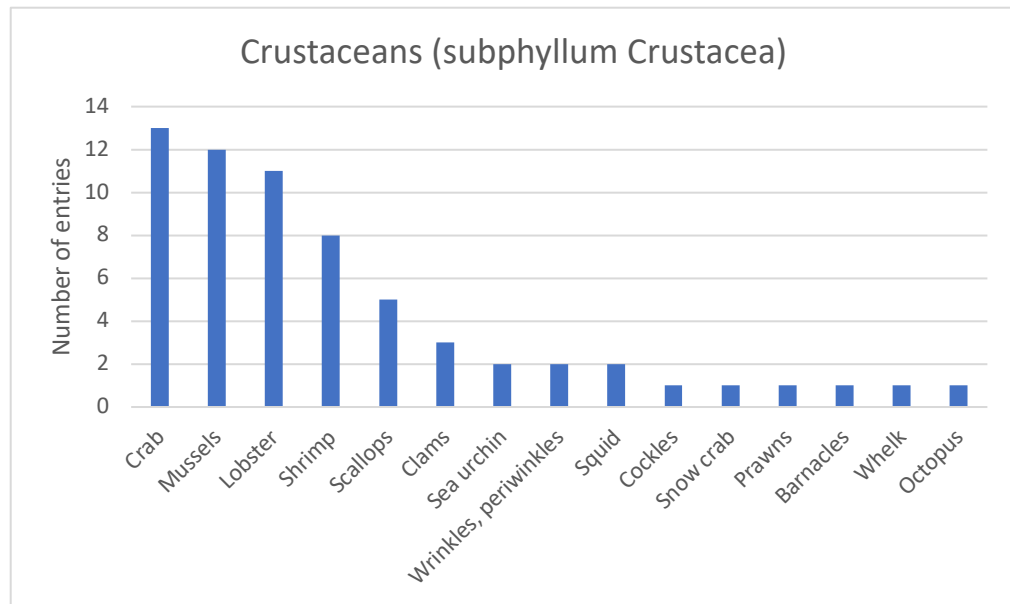


**Appendix 8** *The Number of Citations for Berries and Fruits. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*





**Appendix 9** *The Number of Citations for the Top 21 Birds. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



**Appendix 10** *The Number of Citations for Crustaceans. The information is based on documented entries in the database from a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

# Overview of the Importance of Wild Food in NL



## Explanation of the wild/country food database -- and why it's important

Scattered studies have been conducted about the wild and country foods in Newfoundland and Labrador.

However, there hasn't been an effort to bring all these resources together into one database. It was predicted that there are hidden connections and comparisons that can be made between the types of foods that people hunt, trap, fish and forage. The construction of the wild and country foods of Newfoundland and Labrador database brought these resources together based on what has been documented so far. The results of this database include the historical and current wild and country foods of the province. The data includes entries for 8,000 years ago to present.

## The historical and continued importance of wild food in NL

Wild and country foods have had and continue to have an important role in the food security of the province. These foods originally sustained the Innu of Nitassinan, the Inuit of NunatuKavut and Nunatsiavut, the Mi'kmaq, and Beothuk. These foods then also sustained settlers to the province. Local access to wild and country foods is crucial due to several food security challenges that impact Newfoundland and Labrador including the province having the lowest number of farms and the lowest farm area in Canada, having to import 71% of foods and 84% of communities don't have a standard grocery store. In addition to food security, wild and country foods are also important for various forms of provincial health such as the physical exercise of getting out on the land and sea.

## Species diversity in the database

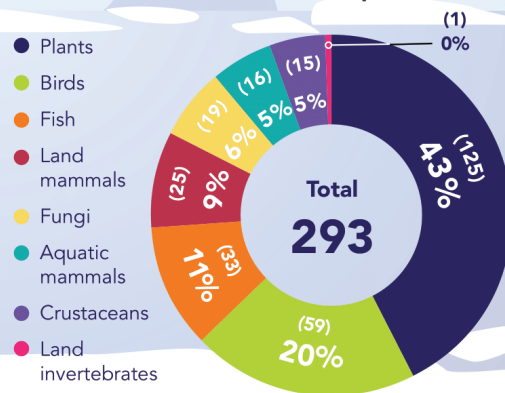
There is a great diversity of the number of edible species that have been documented in Newfoundland and Labrador. Plants are the group of organisms that has the greatest amount of diversity, with berries being the most harvested, followed by birds and fish.

## KEY SPECIES

Several species were noted as being particularly important for hunting, fishing, trapping and foraging.

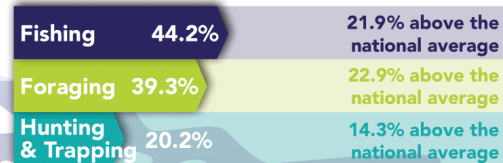
-  **AQUATIC**
- MAMMALS:** Seals (Incl. Harp Seal, Jar Seal)
- LAND**
- MAMMALS:** Caribou, Moose, Rabbits
-  **FISH:** Atlantic Cod, Atlantic Salmon, Arctic Char, Trout
-  **BERRIES:** Partridgeberries, Blueberries, Bakeapples
-  **BIRDS:** Partridge (Ptarmigan), Eider Ducks, Canada Goose

## Number of documented edible species



## Statistics on wild food in NL

The number of people who harvest wild and country foods is relatively high compared to other parts of Canada. The number of people fishing, foraging, and hunting and trapping is the highest in Canada.



<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=4510003001&geocode=A000210>

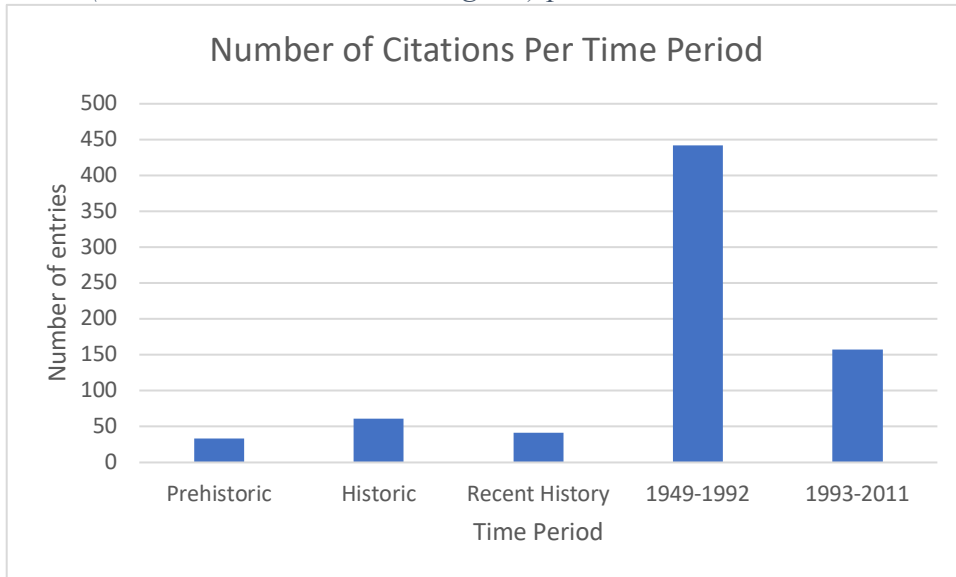
**Authors:** John Atkinson, Max Liboiron, Natasha Healey, Nadia Duman, Marissa Van Harmelen

**Acknowledgements:** A partnership between Food First NL and the Civic Laboratory for Environmental Action Research (CLEAR), and funded by the Public Engagement Accelerator Fund at Memorial University of Newfoundland.

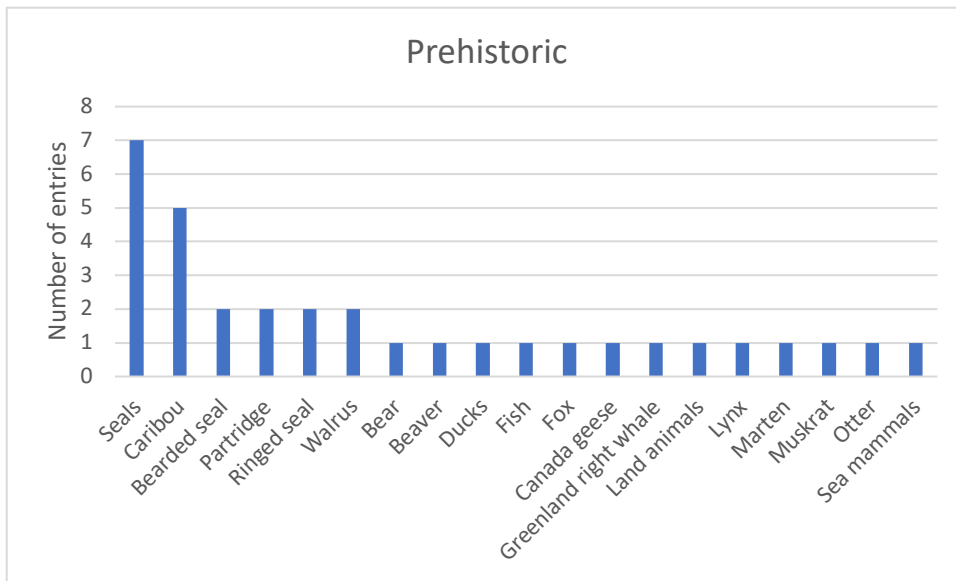
Designed by Tracey O'Neil, [simplelifedesigns.ca](http://simplelifedesigns.ca)

*Appendix 11 Infographic of Overall Results. The information is based on documented entries in the database from a literature search on the wild and country foods in*

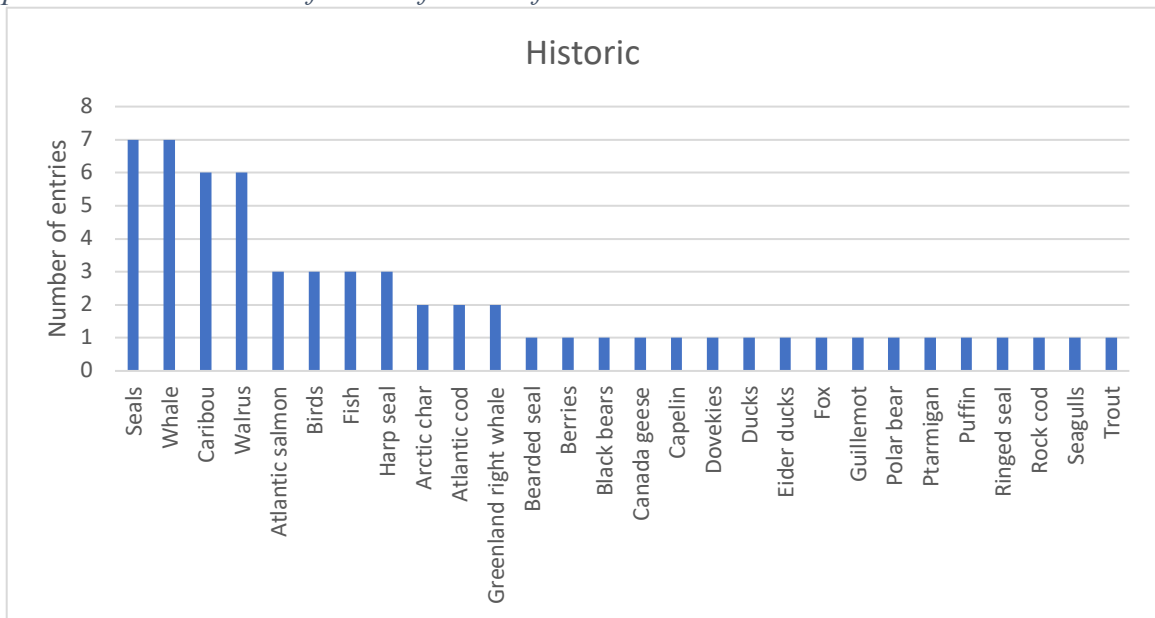
Newfoundland and Labrador. Discussions took place with Food First NL about what information would be most valuable for their audience. It was decided to include a general overview of database findings and a focus on berries and fruits used for wild and country foods in Newfoundland and Labrador. An overall summary infographic was created illustrating the main findings mentioned above in this report (Appendix 14). This infographic and one specific to provincial food-related berries and fruits were developed to engage the public, which is Food First NL's target audience. This information is posted on Food First NL's website and has been shared through Food First NL's social media (Facebook, Twitter and Instagram) posts.



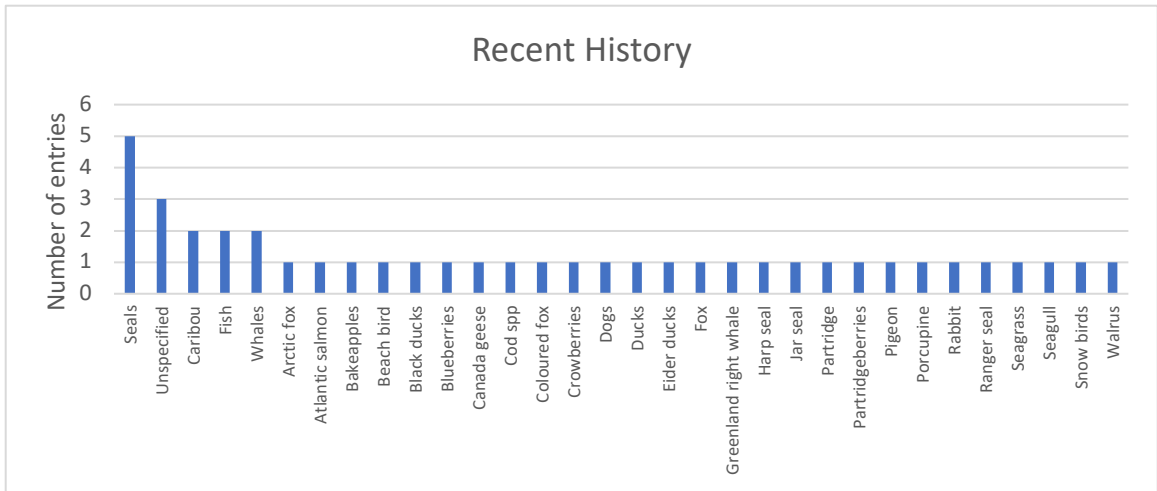
**Appendix 12** *The Number of Citations per Time Period. The information is based on documented entries in the database based on a literature search on the wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



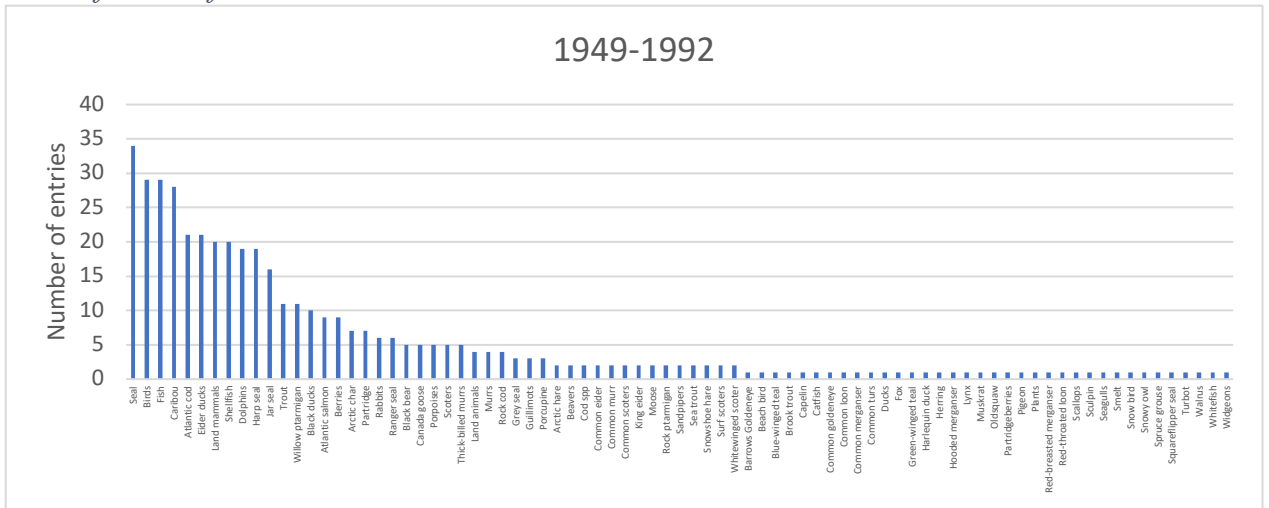
**Appendix 13** *The Number of Citations Associated with the Prehistoric Period (6000 BCE-850 BCE). The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



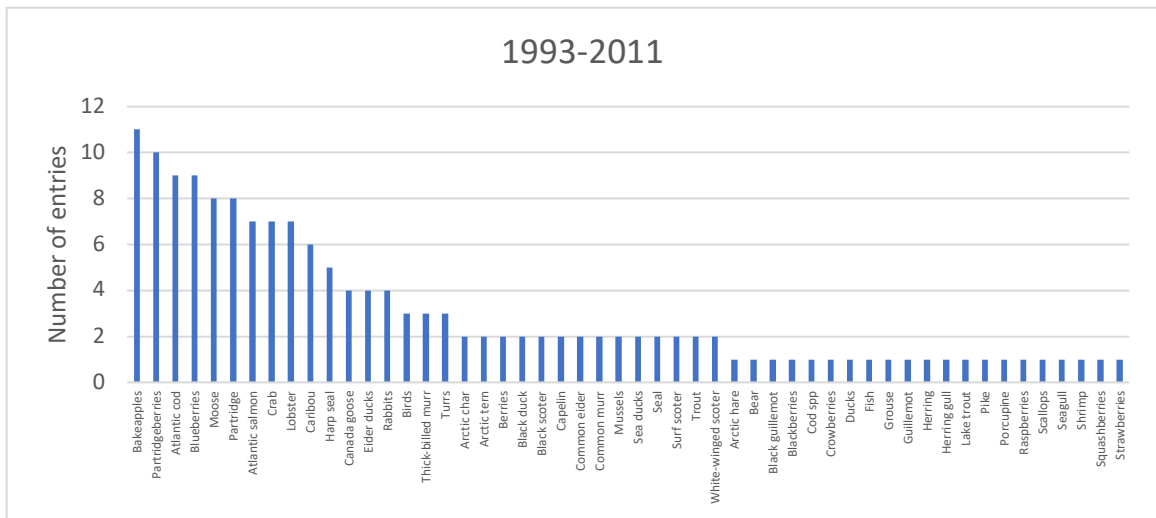
**Appendix 14** *The Number of Citations Associated with the Historic Period (500 BCE-1499 CE). The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



**Appendix 15** *The Number of Citations Associated with Recent History (1500-1948 CE). The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



**Appendix 16** *The Number of Citations Associated with 1949-1992 CE. The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*



**Appendix 17** *The Number of Citations Associated with 1993-2011. The information is based on documented entries in the database from a literature search on wild and country foods in Newfoundland and Labrador. The prevalence or number of entries for each food item is shown.*

### **Appendix 18** Scientific Taxonomic Analysis and Pivot Tables

Pivot tables were analyzed by taxonomy across the different time periods for a multiscale analysis across food groupings that may not be of interest to public audiences but may be of importance to scientific audiences (as shown below in the following tables). At the kingdom level, animals (Animalia) were most prevalent (n=1234) and were 3.7 times more prevalent than the next most prevalent kingdom which was plants (Plantae) (n=334). Animals were more evident than plants as food sources across all time periods.

At the phylum, clade and division level, the chordates (Chordata) were more prevalent (n=1130) across all time periods and were 3.5 times more prevalent than the tracheophytes (Tracheophytes) (n=327).

For the class or clade level, the most evident class was mammals (Mammalia) (n=505) which was 1.6 times more prevalent than flowering plants (Angiosperms) (n=311), 1.7 times more prevalent than birds (Aves) (n=301), and 2.1 times more prevalent than ray-finned fishes (Actinopterygii) (n=237). When time periods were considered, mammals remained the highest throughout time until 1993-2011, during which birds and flowering plants were most common and ray-finned fishes were not far behind.

Considering the order level, carnivorans (Carnivora) (n=228) were 1.3 times more prevalent than even-toed ungulates (Artiodactyla) (n=169), 1.8 times more prevalent than the waterfowl order (Anseriformes) (n=125) and 2.1 times more prevalent than salmonids (Salmoniformes) (n=108). Carnivorans were the most common during all time periods except for the following exceptions. Even-toed ungulates were more prevalent during the Historic period and during the 1993-2011 period waterfowl and the order that includes blueberries (Ericales) were most evident.

At the family level, the ducks, geese and other water bird family (Anatidae) (n=120) was 1.1 times more prevalent than the salmon family (Salmonidae) (n=108) and 1.2 times more prevalent than the deer family (Cervidae) (n=100). When considering time periods, the deer family was the most common for the prehistoric (followed by phocid seals Phocidae) and historic (followed by seals and salmon) periods. Canids (Canidae) were most evident for the recent time period (followed by water birds and deer) and water birds were most prevalent for 1949-1992 (followed by phocid seals) and for 1993-2011 (followed by blueberries).



At the genus level, reindeer (*Rangifer*) (n=79) were 1.2 times more prevalent than the cod genus (*Gadus*) (n=68), 1.3 times more prevalent than the blueberry and cranberry genus (*Vaccinium*) (n=62) and 1.6 times more prevalent than the ptarmigan genus (*Lagopus*) (n=50). From the prehistoric time period to the recent time period, reindeer were most prevalent until 1949-1992 when cod gained prominence (followed by reindeer, *Somateria* eiders and ptarmigan) and 1993-2011 when blueberries and cranberries were more common (followed by the blackberries and raspberries genus *Rubus*).

At the species level, caribou (*Rangifer tarandus*) (n=79) were 1.7 times more prevalent than Atlantic cod (*Gadus morhua*) (n=47) and 1.9 times more prevalent than Atlantic salmon (*Salmo salar*) (n=41). When time periods were considered, caribou was the most common for the prehistoric, historic (followed by walrus *Odobenus rosmarus*), recent time and 1949-1992 (followed by Atlantic cod) time periods. The 1993-2011 time period documented evidence of the bakeapple (*Rubus chamaemorus*) as the most prevalent food source followed by Atlantic cod and partridgeberry (*Vaccinium vitis-idaea*).

Finally, for all classifications associated with a time period, the incorporation of wild and country foods as food sources was noted with greatest prevalence during the 1940-1992 time period, except for the those associated with plants (Plantae, Tracheophytes, Angiosperms, *Vaccinium*) which were more prevalent with the 1993-2011 time period.

*Table Counts for the Prevalence of Each Time Period by Kingdom, Phylum (or Clade or Division), Class (or Clade), Order, Family, Genus and Species. The information is based on documented entries in the database from a literature search on the wild and country*

foods in Newfoundland and Labrador. The prevalence or number of entries associated with each time period for each taxonomic level is shown. Prehistoric describes the time period prior to 850 BCE. Historic describes the period of time between about 850 BCE to the European colonization of Canada, which began in the mid-1950s. Recent History describes the period during European colonization to the time of the province being brought into the Canadian Confederation which occurred in 1948. 1949-1992 describes the period after the province to the Canadian Confederation to the time of the Atlantic cod fishery collapse in 1992. 1993-2011 describes the period of time after the Atlantic cod fishery collapse.

	<i>Time Period</i>						
<i>Kingdom</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Animalia	533	31	65	48	436	121	1234
Fungi	20						20
Plantae	279		1	6	11	37	334
<b>Grand Total</b>	<b>832</b>	<b>31</b>	<b>66</b>	<b>54</b>	<b>447</b>	<b>158</b>	<b>1588</b>
	<i>Time Period</i>						
<i>Phylum, Clade or Division</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Arthropoda	20					15	35
Ascomycota	2						2
Basidiomycota	18						18
Chordata	480	30	63	46	409	102	1130
Echinodermata	2						2
Embryophytes	1						1
Mollusca	24				1	3	28
Tracheophytes	275		1	6	10	35	327
<b>Grand Total</b>	<b>822</b>	<b>30</b>	<b>64</b>	<b>52</b>	<b>420</b>	<b>155</b>	<b>1543</b>
	<i>Time Period</i>						
<i>Class or Clade</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Actinopterygii	128		10	6	67	26	237
Agaricomycetes	17						17
Angiosperms	258		1	5	10	37	311
Aves	97	4	10	10	133	47	301

Bivalvia	17				1	3	21
Cephalopoda	3						3
Chondrichthyes	3						3
Echinoidea	2						2
Gastropoda	4						4
Malacostraca	11					14	25
Mammalia	216	24	33	27	177	28	505
Maxillopoda	1						1
Pezizomycetes	1						1
Pinopsida	11						11
Polypodiopsida	4						4
Sordariomycetes	1						1
<b>Grand Total</b>	<b>774</b>	<b>28</b>	<b>54</b>	<b>48</b>	<b>388</b>	<b>155</b>	<b>1447</b>
	<i>Time Period</i>						
<i>Order</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Agaricales	7						7
Alismatales	1						1
Angiosperms	2			1			3
Anguilliformes	4						4
Anseriformes	30	2	3	4	64	22	125
Apiales	4						4
Artiodactyla	69	6	18	8	54	14	169
Asparagales	1						1
Asterales	14						14
Aves			1		3		4
Boletales	3						3
Brassicaceae	1						1
Brassicales	8						8
Cantharellales	4						4
Cardiida	1						1

Carnivora	94	14	13	17	82	8	228
Caryophyllales	19						19
Charadriiformes	11		3	1	9	9	33
Charandriiformes	3				9	5	17
Clupeiformes	7				1	1	9
Columbiformes	1			1	1		3
Cornales	5						5
Cypriniformes	1						1
Decapoda	11					14	25
Dipsacales	9					1	10
Ericales	60			3	1	20	84
Esociformes	2					1	3
Fabales	6						6
Fagales	8						8
Gadiformes	26		3	3	28	10	70
Galliformes	25	2	1	1	21	9	59
Gaviiformes	1				2		3
Gentianales	2						2
Hypocreales	1						1
Lagomorpha	15			1	10	5	31
Lamiales	6						6
Lamniformes	1						1
Liliales	1						1
Littorinimorpha	2						2
Malpighiales	4						4
Mammalia	6	1	6				13
Myrtales	2						2
Neogastropoda	1						1
Nymphaeales	3						3
Octopoda	1						1

Osmeriformes	12		1		2	2	17
Osmundales	1						1
Oxalidales	1						1
Passeriformes	5						5
Pectinida	3				1	1	5
Pelecaniformes	1						1
Perciformes					1		1
Pezizales	1						1
Pinales	11						11
Pleuronectiformes	11				2		13
Poales	6						6
Polypodiales	3						3
Ranunculales	2						2
Rodentia	17	2		1	6	1	27
Rosales	56			1		14	71
Russulales	3						3
Salmoniformes	55		6	3	32	12	108
Saxifragales	10						10
Scombriformes	5						5
Scorpaeniformes	5				1		6
Squaliformes	2						2
Strigiformes					1		1
<b>Grand Total</b>	<b>693</b>	<b>27</b>	<b>55</b>	<b>45</b>	<b>331</b>	<b>149</b>	<b>1300</b>
	<i>Time Period</i>						
<i>Family</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Adoxaceae	8					1	9
Agaricaceae	3						3
Alaudidae	1						1
Alcidae	11		2		15	10	38
Amaranthaceae	5						5

Amaryllidaceae	1						1
Anarhichadidae					1		1
Anatidae	30	2	3	4	60	21	120
Anguillidae	4						4
Apiaceae	4						4
Apocynaceae	1						1
Ardeidae	1						1
Asteraceae	14						14
Balaenidae	2	1	3	1			7
Balaenopteridae	1						1
Berberidaceae	1						1
Betulaceae	5						5
Boletaceae	2						2
Bovidae	1						1
Brassicaceae	9						9
Buccinidae	1						1
Calcariidae	1						1
Canidae	12	1	1	5	1		20
Cantharellaceae	2						2
Caprifoliaceae	1						1
Cardiidae	1						1
Caryophyllaceae	2						2
Castoridae	6	1			2		9
Catostomidae	1						1
Cervidae	40	5	7	4	30	14	100
Cetorhinidae	1						1
Clupeidae	7				1	1	9
Columbidae	1			1	1		3
Cornaceae	5						5
Cottidae	2				1		3

Crassulaceae	2						2
Cricetidae	3	1			1		5
Cupressaceae	3						3
Cyclopteridae	1						1
Cyperaceae	1						1
Dennstaedtiaceae	1						1
Elaeagnaceae	1						1
Erethizontidae	5			1	3	1	10
Ericaceae	57			2	1	20	80
Esocidae	2					1	3
Fabaceae	6						6
Felidae	3	1			1		5
Fringillidae	1						1
Gadidae	26		3	3	28	10	70
Gaviidae	1				2		3
Grossulariaceae	8						8
Hydnaceae	2						2
Hypocreaceae	1						1
Juglandaceae	1						1
Lamiaceae	4						4
Laridae	1		1	1	1	4	8
Leporidae	15			1	10	5	31
Liliaceae	1						1
Littorinidae	2						2
Lycoperdaceae	1						1
Monodontidae	12		1	1			14
Morchellaceae	1						1
Murinae	1						1
Mustelidae	9	2					11
Myricaceae	2						2

Nephropidae	4					7	11
Nymphaeaceae	3						3
Odobenidae	2						2
Onagraceae	2						2
Onocleaceae	2						2
Oregoniidae	1						1
Osmeridae	12		1		2	2	17
Osmundaceae	1						1
Oxalidaceae	1						1
Passerellidae	1						1
Passeridae	1						1
Pectinidae	3				1	1	5
Phasianidae	25	2	1	1	21	9	59
Phocidae	31	4	5	3	45	5	93
Phocoenidae	2				5		7
Physalacriaceae	1						1
Pinaceae	7						7
Pinnipedia	10	1	6		1		18
Plantaginaceae	2						2
Pleuronectidae	8				2		10
Poaceae	2						2
Polygonaceae	12						12
Primulaceae	1						1
Ranunculaceae	1						1
Rosaceae	51			1		14	66
Rubiaceae	1						1
Russulaceae	3						3
Salicaceae	2						2
Salmonidae	55		6	3	32	12	108
Sciuridae	2						2



Scolopacidae	2				2		4
Scombridae	5						5
Somniosidae	1						1
Squalidae	1						1
Strigidae					1		1
Suillaceae	1						1
Taxaceae	1						1
Tricholomataceae	2						2
Typhaceae	3						3
Ursidae	20	1	2		5	1	29
Urticaceae	4						4
Violaceae	2						2
<b>Grand Total</b>	<b>652</b>	<b>22</b>	<b>42</b>	<b>32</b>	<b>276</b>	<b>139</b>	<b>1163</b>
	<i>Time Period</i>						
<i>Genus</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Abies	1						1
Agaricus	1						1
Alca	2						2
Alces	11				2	8	21
Alcidae			1				1
Alle	2		1				3
Allium	1						1
Alnus	2						2
Amelanchier	4						4
Ammophila	1						1
Anarhichas					1		1
Anas	6			1	11	2	20
Anatidae					3		3
Angelica	1						1

Anguilla	4						4
Apioperdon	1						1
Arctium	1						1
Arctostaphylos	1						1
Armillaria	1						1
Aronia	2						2
Asclepias	1						1
Atriplex	2						2
Balaena	2	1	2	1			6
Balaenoptera	1						1
Barbarea	3						3
Berberis	1						1
Betula	1						1
Boletus	1						1
Bonasa	1						1
Branta	9	1	1	1	5	4	21
Bubo					1		1
Bucephala					2		2
Cakile	1						1
Caltha	1						1
Camptorhynchus	2						2
Canis	3			1			4
Cantharellus	1						1
Capsella	1						1
Castor	6	1			2		9
Catathelasma	1						1
Catostomus	1						1
Cepphus	1				2	1	4
Cetorhinus	1						1
Chamaenerion	2						2

Chenopodium	3						3
Chionoecetes	1						1
Cichorium	1						1
Cirsium	1						1
Clangula					1		1
Clintonia	1						1
Clupea	7				1	1	9
Cochlearia	2						2
Coprinus	1						1
Coregonus	2				1		3
Cornus	5						5
Corylus	2						2
Craterellus	1						1
Cyclopterus	1						1
Cystophora	2						2
Delphinapterus	11		1	1			13
Empetrum	7					1	8
Epigaea	1						1
Erethizon	5			1	3	1	10
Erignathus	9	2	1		1		13
Esox	2					1	3
Eubalaena			1				1
Falciennis	6				1	1	8
Fragaria	6					1	7
Fratercula	1		1				2
Gadus	24		3	3	28	10	68
Galium	1						1
Gaultheria	2						2
Gavia	1				2		3
Gaylussacia	2						2

Halichoerus	1				3		4
Hippoglossus	4						4
Histrionicus					1		1
Hydnum	2						2
Hypomyces	1						1
Juglans	1						1
Junco	1						1
Juniperus	3						3
Lactarius	2						2
Lagopus	18	2	1	1	20	8	50
Larus						1	1
Lathyrus	1						1
Leccinum	1						1
Lepus	2				4	1	7
Leymus	1						1
Ligustricum	2						2
Lonicera	1						1
Lontra	5	1					6
Lophodytes					1		1
Lycoperdon	1						1
Lynx	3	1			1		5
Mallotus	10		1		1	2	14
Mareca					1		1
Martes	1	1					2
Matteuccia	2						2
Melanitta					8	6	14
Melilotus	1						1
Mentha	4						4
Mergus					2		2
Microgadus	2						2

Monodon	1						1
Morchella	1						1
Mustela	1						1
Myoxocephalus	1						1
Myrica	2						2
Nasturtium	1						1
Neovison	2						2
Nuphar	1						1
Nymphaea	2						2
Odobenidae	10	1	6		1		18
Odobenus	2						2
Oncorhynchus						1	1
Ondatra	3	1			1		5
Osmerus	2				1		3
Osmundastrum	1						1
Ovibos	1						1
Oxalis	1						1
Pagophilus	7		3	1	19	5	35
Phoca	6			1	6		13
Picea	6						6
Pinicola	1						1
Plantago	2						2
Plectrophenax	1						1
Polygonum	1						1
Primula	1						1
Prunus	4						4
Pteridium	1						1
Pusa	6	2	1	1	16		26
Rangifer	29	5	7	4	28	6	79
Rattus	1						1

Reinhardtius	4				2		6
Reynoutria	3						3
Rhodiola	2						2
Rhododendron	4						4
Ribes	8						8
Rosa	7						7
Rubus	22			1		13	36
Rumex	8						8
Russula	1						1
Salix	2						2
Salmo	22		3	1	12	7	45
Salvelinus	22		2	1	8	3	36
Sambucus	1						1
Schoenoplectus	1						1
Shepherdia	1						1
Smyrniun	1						1
Somateria	4		1	1	25	6	37
Somniosus	1						1
Sorbus	6						6
Spatula	1				1		2
Squalus	1						1
Stellaria	2						2
Sterna						1	1
Suillus	1						1
Tanacetum	1						1
Taraxacum	10						10
Taxus	1						1
Thlaspi	1						1
Tricholoma	1						1
Trifolium	4						4

Tringa	1						1
Typha	3						3
Uria	5				12	8	25
Ursus	20	1	2		5	1	29
Urtica	4						4
Vaccinium	40			2	1	19	62
Viburnum	7					1	8
Viola	2						2
Vulpes	1			2			3
<b>Grand Total</b>	<b>587</b>	<b>20</b>	<b>39</b>	<b>25</b>	<b>247</b>	<b>120</b>	<b>1038</b>
	<i>Time Period</i>						
<i>Species</i>	<i>Unspecific</i>	<i>Prehistoric</i>	<i>Historic</i>	<i>Recent Time</i>	<i>1949-1992</i>	<i>1993-2011</i>	<i>Grand Total</i>
Abies balsamea	1						1
Agaricus campestris	1						1
Alca torda	2						2
Alces alces	11				2	8	21
Alle alle	2		1				3
Alnus alnobetula	1						1
Alnus incana	1						1
Amelanchier bartramiana	2						2
Ammophila breviligulata	1						1
Anas carolinensis	1				1		2
Anas rubripes	4			1	10	2	17
Angelica atropurpurea	1						1
Anguilla rostrata	4						4
Apioperdon pyriforme	1						1
Arctium lappa	1						1
Armillaria ostoyae	1						1

Aronia melanocarpa	1						1
Aronia prunifolia	1						1
Atriplex glabriuscula	1						1
Atriplex patula	1						1
Balaena mysticetus	2	1	2	1			6
Balaenoptera acutorostrata	1						1
Barbarea vulgaris	3						3
Betula papyrifera	1						1
Boletus edulis	1						1
Bonasa umbellus	1						1
Branta canadensis	9	1	1	1	5	4	21
Bubo scandiacus					1		1
Bucephala clangula					1		1
Bucephala islandica					1		1
Cakile edentula	1						1
Caltha palustris	1						1
Camptorhynchus labradorius	2						2
Canis lupus	2						2
Canis lupus familiaris				1			1
Cantharellus roseocanus	1						1
Capsella bursa-pastoris	1						1
Castor canadensis	6	1			2		9
Catathelasma ventricosa	1						1
Catostomus commersonii	1						1
Cephus grylle	1				2	1	4



Cetorhinus maximus	1						1
Chamaenerion angustifolium	2						2
Chenopodium album	3						3
Cichorium intybus	1						1
Clangula hyemalis					1		1
Clintonia borealis	1						1
Clupea harengus	7				1	1	9
Cochlearia officinalis	2						2
Coprinus cornatus	1						1
Coregonus clupeaformis	2				1		3
Cornus canadensis	4						4
Cornus seucica	1						1
Corylus cornuta	2						2
Craterellus tubaeformis	1						1
Cyclopterus lumpus	1						1
Cystophora cristata	2						2
Delphinapterus leucas	11		1	1			13
Empetrum atropurpureum	2						2
Empetrum earnesii	2						2
Empetrum nigrum	3					1	4
Epigaea repens	1						1
Erethizon dorsatum	5			1	3	1	10
Ericaceae	2			1			3
Erignathus barbatus	9	2	1		1		13
Esox lucius	2					1	3

Eubalaena glacialis			1				1
Falcapennis canadensis	6				1	1	8
Fragaria vesca	1						1
Fragaria virginiana	1						1
Fratercula arctica	1		1				2
Gadus morhua	11		2	2	22	10	47
Gadus ogac	6		1		4		11
Gaultheria hispidula	1						1
Gaultheria procumbens	1						1
Gavia immer					1		1
Gavia stellata					1		1
Gaylussacia baccata	1						1
Gaylussacia dumosa	1						1
Halichoerus grypus	1				3		4
Hippoglossus hippoglossus	4						4
Histrionicus histrionicus					1		1
Hydnum repandum	1						1
Hydnum umbilicatum	1						1
Hypomyces lactifluorum	1						1
Junco hyemalis	1						1
Juniperus communis	1						1
Juniperus horizontalis	1						1
Lactarius deterrimus	1						1
Lactarius thyinos	1						1
Lagopus lagopus	3				11		14

Lagopus muta	2				2		4
Lathyrus japonicus	1						1
Leccinum scabrum	1						1
Lepus americanus					2		2
Lepus arcticus	2				2	1	5
Leymus arenarius	1						1
Ligustricum scoticum	2						2
Lonicera villosa	1						1
Lontra canadensis	5	1					6
Lophodytes cucullatus					1		1
Lycoperdon perlatum	1						1
Lynx canadensis	3	1			1		5
Mallotus villosus	10		1		1	2	14
Mareca americana					1		1
Martes americana	1	1					2
Matteuccia struthiopteris	2						2
Melanitta					3		3
Melanitta americana						2	2
Melanitta deglandi					2	2	4
Melanitta nigra					2		2
Melanitta perspicillata					2	2	4
Melilotus officinalis	1						1
Mentha arvensis	1						1
Mentha cardiaca	1						1
Mergus merganser					1		1

Mergus serrator					1		1
Microgadus tomcod	2						2
Monodon monoceros	1						1
Mustela erminea	1						1
Myoxocephalus scorpius	1						1
Myrica gale	2						2
Nasturtium microphyllum	1						1
Neovison vison	2						2
Nuphar variegata	1						1
Nymphaea odorata	2						2
Odobenus	10	1	6		1		18
Odobenus rosmarus	2						2
Oncorhynchus mykiss						1	1
Ondatra zibethicus	3	1			1		5
Osmundastrum cinnamomeum	1						1
Ovibos moschatus	1						1
Oxalis stricta	1						1
Pagophilus groenlandicus	7		3	1	19	5	35
Phoca vitulina	6			1	6		13
Picea glauca	1						1
Picea mariana	3						3
Pinicola enucleator	1						1
Plantago major	1						1
Plantago maritima	1						1
Plectrophenax nivalis	1						1

Primula veris	1						1
Prunus pensylvanica	2						2
Prunus virginiana	1						1
Pteridium aquilinum	1						1
Pusa hispida	6	2	1	1	16		26
Rangifer tarandus	29	5	7	4	28	6	79
Reinhardtius hippoglossoides	4				2		6
Reynoutria japonica	2						2
Reynoutria sachalinensis	1						1
Rhodiola rosea	2						2
Rhododendron groenlandicum	4						4
Ribes glandulosum	1						1
Ribes nigrum	1						1
Ribes rubrum	1						1
Rosa nitida	1						1
Rosa virginiana	1						1
Rubus canadensis	1						1
Rubus chamaemorus	11			1		11	23
Rubus pubescens	1						1
Rumex acetosa	2						2
Rumex acetosella	3						3
Rumex crispus	2						2
Russula peckii	1						1
Salmo salar	20		3	1	10	7	41
Salmo trutta	2				2		4
Salvelinus alpinus	17		2	1	7	2	29

Salvelinus fontinalis	2				1		3
Salvelinus namaycush	3					1	4
Shepherdia canadensis	1						1
Smyrniolum olusatrum	1						1
Somateria mollissima	2				2	2	6
Somateria spectabilis	1				2		3
Somniosus microcephalus	1						1
Spatula discors	1				1		2
Squalus acanthias	1						1
Stellaria media	2						2
Suillus luteus	1						1
Tanacetum vulgare	1						1
Taraxacum officinale	10						10
Taxus canadensis	1						1
Thlaspi arvense	1						1
Tricholoma magnivelare	1						1
Trifolium hybridum	1						1
Trifolium pratense	1						1
Trifolium repens	1						1
Tringa melanoleuca	1						1
Typha latifolia	3						3
Uria aalge	1				3	2	6
Uria lomvia	2				5	3	10
Ursus americanus	9		1		5	1	16
Ursus maritimus	9		1				10

Urtica dioica	3						3
Urtica urens	1						1
Vaccinium angustifolium	1						1
Vaccinium macrocarpon	1						1
Vaccinium oxycoccos	4						4
Vaccinium vitis-idaea	15			1	1	10	27
Viburnum edule	5					1	6
Viburnum nudum	1						1
Viburnum opulus	1						1
Viola cucullata	1						1
Vulpes lagopus	1			1			2
<b>Grand Total</b>	<b>485</b>	<b>17</b>	<b>36</b>	<b>21</b>	<b>209</b>	<b>91</b>	<b>859</b>

**Appendix 19** The Species That Are Documented in the Database as Being Eaten or Able to be Consumed in Newfoundland and Labrador. The information is based on documented entries in the database based on a literature search on the wild and country foods in Newfoundland and Labrador.

<b>Common Name</b>	<b>Scientific Name</b>	<b>Common Name (continued)</b>	<b>Scientific Name (continued)</b>
Arctic char	<i>Salvelinus alpinus</i> ( <i>Salvinus alpinus</i> )	Mackerel	<i>Scombridae</i>
Arctic fox	<i>Vulpes lagopus</i>	Maidenhair berry	<i>Gaultheria procumbens</i>
Arctic hare (Ukalik)	<i>Lepus arcticus</i>	Marshberry	<i>Vaccinium oxycoccos</i>
Atlantic cod	<i>Gadus morhua</i>	Marten	<i>Mustela erminea</i>
Atlantic halibut	<i>Hippoglossus hippoglossus</i>	Migratory waterfowl	<i>Anatidae</i>
Atlantic herring	<i>Clupea harengus</i>	Mink	<i>Neovison vison</i>
Atlantic puffin	<i>Fratercula arctica</i>	Minke whale	<i>Balaenoptera acutorostrata</i>
Atlantic salmon, Ouananiche	<i>Salmo salar</i>	Mint	<i>Mentha spp.</i>
Bakeapple	<i>Rubus chamaemorus</i>	Moose	<i>Alces alces</i>

Barberries	<i>Berberis spp.</i>	Muskox	<i>Ovibos moschatus</i>
Barnacles	<i>Cirripedia</i>	Muskrat	<i>Ondatra zibethicus</i>
Barrow's Goldeneye	<i>Bucephala islandica</i>	Mussels	<i>Bivalvia</i>
Basking shark	<i>Cetorhinus maximus</i>	Narwhal	<i>Monodon monoceros</i>
Bear	<i>Ursus spp.</i>	North Atlantic right whale	<i>Eubalaena glacialis</i>
Bearberries	<i>Arctostaphylos spp.</i>	Northeastern Rose	<i>Rosa nitida</i>
Beavers	<i>Castor canadensis</i>	Northern Fly Honeysuckle	<i>Lonicera villosa</i>
Berries	<i>Angiosperms</i>	Northern Wild Raisin	<i>Viburnum nudum var. cassinoides</i>
Birds	<i>Aves</i>	Octopus	<i>Octopoda</i>
Birds (ducks)	<i>Aves</i>	Oldsquaw, Long-tailed ducks	<i>Clangula hyemalis</i>
Bittern	<i>Botaurinae</i>	Ostrich Fern	<i>Matteuccia struthiopteris</i>
Black bear	<i>Ursus americanus</i>	Otter	<i>Lontra canadensis</i>
Black Chokeberry	<i>Aronia melanocarpa, Photinia melanocarpa</i>	Partridge, ptarmigan	<i>Lagopus spp.</i>
Black Currants	<i>Ribes nigrum</i>	Partridge, willow ptarmigan, white partridge	<i>Lagopus spp.</i>
Black duck	<i>Anas rubripes</i>	Partridgeberries	<i>Vaccinium vitis-idaea</i>
Black Huckleberry	<i>Gaylussacia baccata</i>	Pigeon	<i>Columbidae</i>
Black scoter	<i>Melanitta americana</i>	Pin Cherry	<i>Prunus pensylvanica</i>
Black Spruce	<i>Picea mariana</i>	Pine grosbeak	<i>Pinicola enucleator</i>
Blueberries	<i>Vaccinium spp.</i>	Pink Crowberry	<i>Empetrum eamesii</i>
Blue-winged Teal	<i>Anas discors</i>	Polar bear	<i>Ursus maritimus</i>
Brook trout	<i>Salvelinus fontinalis (Salvinus fontinalis)</i>	Porcupine	<i>Erethizon dorsatum</i>
Canada Yew	<i>Taxus canadensis</i>	Porpoises	<i>Phocoenidae</i>
Canadian Blackberry	<i>Rubus canadensis</i>	Prawns	<i>Crustacea</i>
Capelin	<i>Mallotus villosus</i>	Purple Chokeberry	<i>Aronia prunifolia, Photinia floribunda</i>



Caribou	<i>Rangifer tarandus</i> ( <i>Rangifer arcticus</i> )	Purple Crowberry	<i>Empetrum atropurpureum</i>
Catfish, wolffish	<i>Anarhichas spp.</i>	Rabbit(s)	<i>Lepus spp.</i>
Cattail	<i>Typha latifolia</i>	Rainbow trout	<i>Oncorhynchus mykiss</i>
Chickweed	<i>Stellaria media</i>	Ranger seal, harbour seal	<i>Phoca vitulina</i>
Chokecherry	<i>Prunus virginiana</i>	Raspberries, blackberry, dewberry	<i>Rubus spp.</i>
Chuckley Pear	<i>Amelanchier bartramiana</i>	Raspberry	<i>Rubus idaeus</i>
Clams	<i>Bivalvia</i>	Rat	<i>Rattus spp.</i>
Cockles	<i>Cardiidae</i>	Razor-billed auk	<i>Alca torda</i>
Cod spp.	<i>Gadus spp.</i>	Red Currants	<i>Ribes rubrum</i>
Coloured fox	Unknown, was listed as <i>Vulpes rubicosus</i>	Red-breasted Merganser	<i>Mergus serrator</i>
Common dovekie, bull birds	<i>Alle alle</i> , ( <i>Plautus alle</i> )	Red-throated Loon	<i>Gavia stellata</i>
Common eider	<i>Somateria mollissima</i>	Rock cod	<i>Gadus ogac</i>
Common goldeneye	<i>Bucephala clangula</i>	Rock ptarmigan	<i>Lagopus mutus</i>
Common Juniper	<i>Juniperus communis</i>	Roseroot	<i>Rhodiola rosea</i>
Common Loon	<i>Gavia immer</i>	Ruffed Grouse	<i>Bonasa umbellus</i>
Common Merganser	<i>Mergus merganser</i>	Sandpipers	<i>Charadriidae</i>
Common scoter	<i>Melanitta nigra</i> , ( <i>Oidemia nigra</i> )	Scallops	<i>Pectinidae</i>
Common tur, common murre	<i>Uria aalge</i>	Scotch Lovage	<i>Ligusticum scoticum</i>
Crab	<i>Brachyura</i>	Scoters	<i>Melanitta spp.</i>
Crackerberries, creeping dogwoods	<i>Cornus canadensis</i>	Sculpin	<i>Cottidae</i>
Cranberries	<i>Vaccinium spp.</i>	Scurvygrass	<i>Cochlearia officinalis</i>
Creeping Snowberry	<i>Gaultheria hispidula</i>	Sea ducks	<i>Mergini</i>
Crowberries	<i>Empetrum nigrum</i>	Sea trout, brown trout	<i>Salmo trutta</i>
Curled Dock	<i>Rumex crispus</i>	Sea urchin	<i>Echinoidea</i>

Dandelion	<i>Taraxacum officinale</i>	Seagrass	<i>Alismatales</i>
Dog	<i>Canis familiaris</i>	Seals	<i>Pinnipedia</i>
Dogberries	<i>Sorbus spp.</i>	Sheep Sorrel	<i>Rumex acetosella</i>
Dogfish, spiny dogfish	<i>Squalus acanthias</i>	Shrimp	<i>Crustacea</i>
Dolphins	<i>Cetacea</i>	Skunk Currant	<i>Ribes glandulosum</i>
Ducks	<i>Anatidae</i>	Smelt	<i>Osmarus sp.</i>
Dwarf Huckleberry	<i>Gaylussacia dumosa</i>	Snipe	<i>Scolopacidae</i>
Eels	<i>Anguilla rostrata</i>	Snow bunting	<i>Plectrophenax nivalis</i>
Eider	<i>Somateria spp.</i>	Snow crab	<i>Chionoecetes</i>
Elderberry	<i>Sambucus spp.</i>	Dark-eyed Junco	<i>Junco hyemalis</i>
Ermine; Stoat	<i>Mustela erminea</i>	Snowshoe hare	<i>Lepus americanus</i>
Fireweed	<i>Chamerion angustifolium</i>	Snowy Owl	<i>Nyctea scandiaca</i>
Fish, other fish	<i>Chordata</i>	Soapberry	<i>Shepherdia canadensis</i>
Flatfish	<i>Pleuronectiformes</i>	Sparrows	<i>Passeridae</i>
Flounder	<i>Pleuronectiformes</i>	Spruce	<i>Picea spp.</i>
Fox	<i>Vulpes spp.</i>	Spruce grouse, spruce partridge, grouse	<i>Falcapennis canadensis (Canachites canadensis)</i>
Fragrant Waterlily	<i>Nymphaea odorata</i>	Squareflipper seal, bearded seal	<i>Erignathus barbatus</i>
Garden Sorrel	<i>Rumex acetosa</i>	Squashberries	<i>Viburnum edule</i>
Geese, Canada	<i>Branta canadensis</i>	Squid	<i>Decapodiformes</i>
Gooseberries	<i>Ribes spp.</i>	Squirrel	<i>Sciuridae</i>
Greater Yellowlegs	<i>Tringa melanoleuca</i>	Stinging Nettle	<i>Urtica dioica</i>
Greenland shark	<i>Somniosus microcephalus</i>	Strawberries	<i>Fragaria spp.</i>
Greenland turbot, Greenland halibut	<i>Reinhardtius hippoglossoides</i>	Surf scoter	<i>Melanitta perspicillata</i>
Greenland whale, right whale, bowhead whale	<i>Balaena mysticetus</i>	Swedish Bunchberry	<i>Cornus suecica</i>
Green-winged Teal	<i>Anas carolinensis</i>	Sweet Gale	<i>Myrica gale</i>
Grey partridge	<i>Perdix perdix</i>	Teals	<i>Anas spp.</i>
Grey seal	<i>Halichoerus grypus</i>	Tern	<i>Laridae</i>
Groundfish	<i>Vertebrata</i>	Tern (Common tern, Arctic tern)	<i>Sterna spp.</i>

Guillemot	<i>Alcidae</i>	Thick-billed tur, thick-billed murre	<i>Uria lomvia</i>
Guillemots, Black guillemot	<i>Cepphus grylle</i>	Tomcod	<i>Microgadus tomcod</i>
Gull	<i>Laridae</i>	Trailing Juniper	<i>Juniperus horizontalis</i>
Hairy Plumboy	<i>Rubus pubescens</i>	Trout	<i>Salmoninae</i>
Harlequin duck	<i>Histrionicus histrionicus</i>	Turbot	<i>Scophthalmus maximus</i>
Harp seal	<i>Pagophilus groenlandicus (Phoca groenlandica)</i>	Turr	<i>Uria spp.</i>
Hazelnut	<i>Corylus cornuta</i>	Virginia Rose	<i>Rosa virginiana</i>
Highbush Cranberry	<i>Viburnum opulus var. americanum</i>	Walrus	<i>Odobenus rosmarus</i>
Hood seal, bladdernose seal	<i>Cystophora cristata</i>	Waterfowl birds	<i>Anseriformes, Aves</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>	Whales	<i>Cetacea</i>
Indian pear, wild pear	<i>Amelanchier spp.</i>	Whelk	<i>Gastropoda</i>
Jackfish, Pike	<i>Esox lucius</i>	White sucker	<i>Catostomus commersonii</i>
Japanese Knotweed	<i>Fallopia japonica</i>	White whale, beluga whale	<i>Delphinapterus leucas (Beluga catadon)</i>
Jar seal or Ringed seal	<i>Pusa hispida (Phoca hispida)</i>	Whitefish	<i>Coregonus clupeaformis</i>
Juniper	<i>Juniperus spp.</i>	White-winged scoter	<i>Melanitta deglandi</i>
Kakajuks, willow	<i>Salix spp.</i>	Widgeon	<i>Mareca americana</i>
King eider	<i>Somateria spectabilis</i>	Wild Cherry	<i>Prunus spp.</i>
Labrador duck	<i>Camptorhynchus labradorius</i>	Wild Rose	<i>Rosa spp.</i>
Labrador tea	<i>Rhododendron groenlandicum</i>	Wild Strawberry	<i>Fragaria virginiana</i>
Lake trout	<i>Salvelinus namaycush</i>	Wintercress	<i>Barbarea vulgaris</i>
Lamb's Quarters	<i>Chenopodium album</i>	Wolf	<i>Canis lupus</i>

Larks	<i>Alaudidae</i>	Woodland Strawberry	<i>Fragaria vesca</i>
Lobster	<i>Nephropidae</i>	Wrinkles, periwinkles	<i>Littorinidae</i>
Loons	<i>Gavia spp.</i>		
Lumpfish	<i>Cyclopterus lumpus</i>		
Lynx	<i>Lynx canadensis</i>		