

Introduction supplement (10/2021): Traditional Plant Foods of Canadian Indigenous Peoples by HV Kuhnlein and NJ Turner

As an encyclopedic-type reference guide on traditional food species used by Indigenous Peoples in Canada, this volume is useful to scholars from a variety of backgrounds, including Indigenous Peoples with their specific cultural worldviews; nutritionists and other health professionals who work with Indigenous Peoples and other rural people; other biologists, ethnologists, and organizations that address understanding of the resources of the natural world; and academic audiences from a variety of disciplines. This book is focused on plant species that are “edible” and that may serve medicinal needs when consumed as food. We continue the emphasis on species used as food by Indigenous Peoples and original, peer-reviewed, published laboratory analyses on nutrient values.

Clearly, new information on the topics of this book have become available since its original publication in 1991. In this regard we attempt here to provide resources that can help the reader access updated information presented in categories of the major knowledge bases.

Updated nutrient contents of Indigenous Peoples’ traditional plant foods

Our original intent was to search the literature for ethnographic sources of plant food species used by Indigenous Peoples in Canada, and then to provide data and citations of original, peer-reviewed, published information on the nutrient contents of these species, often in the form and plant part(s) known to have been consumed. As originally, the data are still very incomplete, not only on identification of all species that may be used as food within a culture, but also for the complete chemical analysis of nutrients. Nevertheless, we persisted to present the available information and the methods to derive it; this has proved useful to many communities and scholars. Here we contribute additional information and citations to expand that information. Additional recent literature includes some species identified in territory similar to Canadian ecosystems (i.e., Alaska and the Northern United States). The search retained the objective of finding additional nutrient values and has not included other entities related to nutrition (i.e., anthocyanins and other phytochemicals, contaminants, or toxic factors, etc.).

Table 1 notes several key references that augment the original nutrient tables in Kuhnlein and Turner (1991), but an exhaustive search on the 500 or so species with nutrition data has not been completed.

Table 1. Species and citations on nutrient data since the original publication of *Traditional Plant Foods of Canadian Indigenous Peoples*.

| Species | Citation | Location | Nutrients |
|---|----------------------------|-------------------------------|------------------------------------|
| Beach asparagus, or glasswort* | Drury, 1985 | Southeast Alaska | Macronutrients, Ca, Fe, 5 vitamins |
| Kelp, 2 greens, 2 berries | Kuhnlein, et al., 1991 | Baffin Island | Lipids |
| Kelp, 2 greens, 2 berries | Kuhnlein and Soueida, 1992 | Baffin Island | Macronutrients, minerals, carotene |
| Woodfern root | Turner et al., 1992 | British Columbia (Nuxalk) | Macronutrients, minerals |
| Wild rhubarb, wild onion, Labrador tea, 8 berries | Kuhnlein et al., 1994 | Northwest Territories (Sahtu) | Macronutrients, minerals |

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|--|-----------------------|--------------------------------|---|
| 3 berries | Kuhnlein et al., 2002 | Canadian Arctic | Macronutrients, minerals, fatty acids |
| Kelp, sorrel, 3 berries | Fediuk et al., 2002 | Nunavut and Labrador | Vitamin C |
| Kelp | Kuhnlein et al., 2006 | Canadian Arctic | Vitamin E |
| Pine tree cambium | Dilbone et al., 2013 | Central British Columbia | Macronutrients, sugars, vitamins, minerals |
| 3 greens, 5 fruits, wild hazelnut, prairie turnip | Phillips et al., 2014 | Northern Plains, United States | Macronutrients, folate, carotene, minerals, B vitamins, vitamin C, vitamin K, |
| 6 roots, 7 fruits, 2 leaves, 1 lichen, wild hazelnut | Kuhnlein et al., 2016 | British Columbia (Secwepemc) | Macronutrients, minerals |
| Maize, 2 beans, pumpkin | Mt. Pleasant, 2016 | North America (Haudenosaunee) | Macronutrients, amino acids, Ca, carotene, vitamin C, niacin |
| 8 fruits, 17 seeds, 25 leaves/roots | Kindscher et al, 2018 | Central United States | Protein, fiber |

*Other data from this citation were included in Kuhnlein and Turner (1991).

The nutrient information of species from global ecosystems can be found at the INFOODS international data files of the Food and Agriculture Organization of the United Nations (<http://www.fao.org/infoods/infoods/tables-and-databases/faoinfoods-databases/en/> Accessed 17 October, 2019). North American species information by plant common name can be found in the Canadian Nutrient File (<https://food-nutrition.canada.ca/cnf-fce/index-eng.jsp> Accessed 21 October, 2019) and in the USDA files at FoodData Central (<https://fdc.nal.usda.gov/> Accessed 6 November, 2019). Nutritional data for 527 animal food species used by Indigenous Peoples in North America can be found at <http://traditionalanimalfoods.org/> (Accessed 21 October, 2019).

Contemporary names of the communities inhabited by Indigenous Peoples in Canada can be found in the Reference Maps published by The Royal Canadian Geographic Society in the *Indigenous Peoples Atlas of Canada* (2018).

Updated nomenclature and information for species of plant foods used by Indigenous Peoples in Canada

Many of the plant species included in the original edition of this book have since been re-named by botanical researchers, reflecting new information, mostly in the area of genetic analysis. For example, the species named in the original book as “Labrador tea, or Hudson's Bay tea (*Ledum groenlandicum* and *L. palustre*)” have now been reclassified into the genus *Rhododendron*, and their new botanical names are *Rhododendron groenlandicum* and *R. tomentosum* (Northern Labrador tea), respectively (see entries for this and other species in *E-Flora BC: Electronic Atlas of the Plants of British Columbia* (<https://ibis.geog.ubc.ca/biodiversity/eflora/> Accessed 1 November, 2019). This database, edited by Brian Klinkenberg [eflora.bc.ca] (Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver), is an excellent resource for finding the most recently recognized scientific names for the plant species included in the original book, especially for the western species. There are

other up-to-date online databases that can be searched for name changes as well, including that of Flora of North America (http://beta.floranorthamerica.org/Main_Page/ Accessed 1 November, 2019).

Since the first publication of this book there have been numerous additional theses, papers and books published that augment the information on Indigenous plant foods provided originally. These are too numerous to cite, but examples of such papers can be found in the journals *Economic Botany* (<http://www.econbot.org/home/publications/economic-botany.html> Accessed 08 February, 2020) and *Journal of Ethnobiology* (<https://ethnobiology.org/publications/journal-of-ethnobiology> Accessed 08 February, 2020). Many other useful and relevant references are cited in Turner (2014).

We encourage readers to be mindful of the need to continue full documentation of the biodiversity of Indigenous Peoples' food systems, with particular attention to the nutrition, scientific nomenclature and use of traditional foods that expands our global understanding of the wisdom of Indigenous Peoples.

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