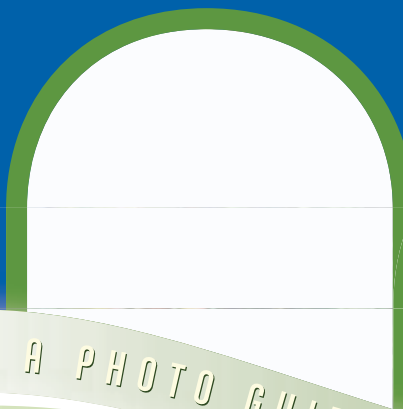


# Our Atlantic Woods:



A PHOTO GUIDE TO NON-TIMBER FOREST PRODUCTS R.F. SMITH



# Our Atlantic Woods:

## A PHOTO GUIDE TO NON-TIMBER FOREST PRODUCTS

R.E. Smith

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### *Disclaimer*

#### **Living to be an Old AND Bold wild harvester of edible wild plants and mushrooms**

This guide is intended to help you identify some of the opportunities whereby your woodlot can provide a variety of goods and products, including foods and beverages.

Many of the NTFPs listed in this guide have potential as foods or beverages. However, just as not all plants are edible, not all plant parts are equally edible and how you handle, store and prepare what you collect is CRITICAL.

This guide is not a cookbook nor will it provide you enough information by itself to allow you to safely collect all of the species shown. You will need additional guides, references and even more importantly, training and experience.

Please refer to the references in this guide and elsewhere such as the materials contained in the Around Your Woodlot Course (NTFP Module) available through INFOR Inc. in New Brunswick.

*IF YOU ARE NOT COMFORTABLE WITH YOUR OWN KNOWLEDGE, CONSULT SPECIALISTS FOR HELP.*

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I would like to extend my appreciation to Marie-Claude Gauthier, General Manager, Lac-Saint-Jean Model Forest, for her help in contacting the owners of most of the photographs used in the section on mushrooms. These photos originally appeared in *Champignons comestibles du Lac-Saint-Jean*, a publication of the Lac-Saint-Jean Model Forest. The generosity of the following photographers in allowing us to reprint these photos is gratefully acknowledged:

Aldei Darveau  
Marie-France Gévy  
Guillaume Roy  
Dany Simard  
Luc Simard

I would also like to thank Ed Fletcher, Strategic Sourcing Inc., and Dave Fuller, University of Maine Cooperative Extension, for ginseng and fiddlehead photographs respectively.

My appreciation also to Maritime College of Forest Technology instructor Julie Singleton and the first year students in the class of 2009 who gave their valuable time to field test an early version of the tool. Their insightful comments and suggestions were very helpful in the early stages of this project. Julie also provided valuable edits to the final document.

Finally, I want to thank Ian Smith, Mactaquac Provincial Park, and Peggy MacDougall, Thulium Farms, for providing access to their forest management plans and allowing me to explore their properties. Their cooperation was invaluable in developing this guide.

Tree, shrub and herbaceous species in New Brunswick number in the thousands. It was not possible to include every NTFP in this guide. The examples in the photo guide are among the species most commonly found in the Acadian Forest Region.

While it is hoped that this tool may prove useful for a variety of forest types in New Brunswick, it has been field tested within the Acadian Forest Region. It has been designed to help woodlot owners identify opportunities to manage for classes or groups of NTFPs for their own use or to develop as a small business.

Respectfully,  
Ron Smith, August 2010

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## Introduction



The forests of New Brunswick contain a wealth of plant and animal species. For woodlot owners, the values and reasons for owning woodland are as diverse as the plants and animals living in them. These woodlots represent far more than a repository of wood fibre. The suite of values and products aside from the traditional sawlogs and pulp are usually lumped into a group called non-timber forest products (NTFPs). This photo guide is intended to help you identify some of the plants growing in your woodlot and the NTFPs that can be obtained from them.

The species shown in this photo guide are not intended to represent a comprehensive listing of the flora of New Brunswick. While it is hoped that this tool proves useful for a variety of forest types in New Brunswick, it has been field tested primarily within the Acadian Forest Region. If you are unfamiliar with NTFPs, you are encouraged to contact one of the Atlantic Model Forests (Model Forest of Newfoundland and Labrador, Nova Forest Alliance, PEI Model Forest Network Partnership or Fundy Model Forest), your provincial Department of Natural Resources, or the Canadian Forest Service. In New Brunswick, landowners are encouraged to take the NTFP Module within INFOR's "Around Your Woodlot" course. The course provides a detailed overview of the range of NTFP opportunities and helps landowners make informed decisions about activities involving NTFPs on their woodlots. More information on this course is found on the INFOR website: [www.infor.ca](http://www.infor.ca).



## Using the Guide

The guide is divided into four main sections: 1) Ground flora (herbaceous plants, and ferns, mosses and lichens), 2) Small trees and shrubs, 3) Trees (hardwoods and softwoods), and 4) Mushrooms. Within each section, species are sorted in alphabetical order by their Latin name.

For each species in the guide, there is a photo of the plant, the type of forest (habitat diagrams) where it is usually found, and information on its potential use as a NTFP. There are no habitat diagrams for trees as this information should be self-evident.

## Photos

The photos in this guide are intended to help you identify some of the species found in your woodlot. In many cases a photograph alone may not be sufficient to positively identify a given plant, and a plant identification book may be necessary. Highly technical plant identification books such as *The Flora of New Brunswick* by H. R. Hinds are not easily used without some formal training, but other references provided at the end of this section and some of the web sites cited in the guide contain photographs and keys that may be easier to use. When in doubt, contact a local botanist, forester or forest technologist to help you to confirm the identity of an unknown plant.



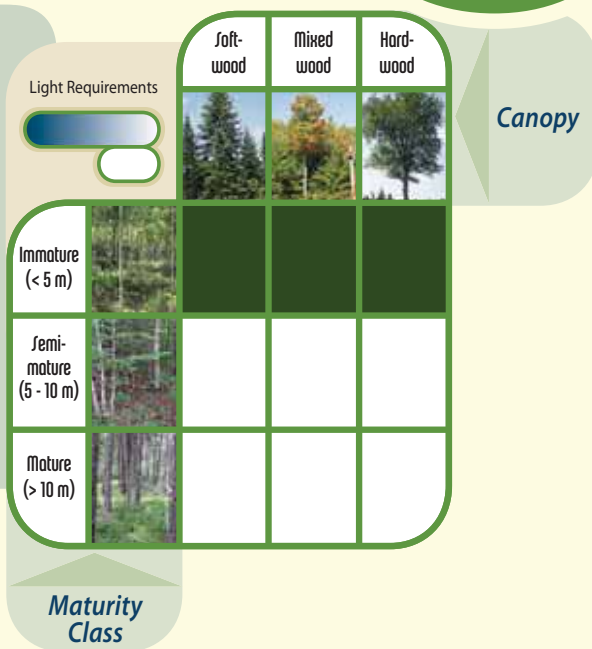
# Introduction



**Figure 1.**

On the right is an example of the habitat diagrams for NTFPs found in this photo guide. Squares coloured in green indicate that the species may be found in this forest type.

The 'Light Requirements' in the upper left of the diagram provides the likely range of light conditions from full shade to full sun.



## Habitat Diagrams Light Requirements

The 'Light Requirements' diagram provides a quick visual as to the range of light conditions from full shade to full sun that a species is typically found growing under. Some species grow well under a wide range of light conditions, while others flourish under more specific light conditions such as partial shade or full sunlight. Bunchberry (*Cornus canadensis*), for example, grows under shade in mature stands but also in clearcuts under fairly high light levels. Choke cherry (*Prunus virginiana*), on the other hand, only grows in full sunlight conditions. Of course, there are always exceptions to these general guidelines.

**Figure 2.**

An example of a NTFP Opportunity Class table as found in the guide.

NTFP Opportunity Class					
Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries



### Maturity Class

The left side of the habitat diagram shows three possible stages of maturity of a forest in which a given species could be found. For simplicity, tree height in metres was used to create the maturity classes.

### Canopy

“Hardwood (hwd)” is forest made up of 75% or more hardwood trees; “softwood (swd)” is forest made up of at least 75% softwood trees; and “mixed wood (mixed)” is everything in between. Once again, this is a general guide to the forest type where a given NTFP species is most likely found.

### NTFP Opportunity Classes

For each species in the guide, one or more potential NTFP ideas are provided in a NTFP Opportunity Class table. An opportunity class represents the potential end-use or market for the NTFP(s) that can be obtained.





## Opportunity Classes

The information contained here defining the NTFP classes has been adapted, with permission, from the INFOR Around Your Woodlot Non-Timber Forest Products Module.

**Nutraceuticals:** From a strictly scientific perspective, nutraceuticals are chemicals that are found as natural components of foods. To 'qualify' as a nutraceutical, the chemical(s) should have been shown to benefit the human body by preventing or treating one or more diseases, or improving 'physiological' performance, i.e., your health. An unofficial but perhaps more 'simplified' definition is:

*A nutraceutical is a chemical that when eaten can help your body treat or fight off one or more diseases and (or) improve one's overall health. NTFPs are listed in this guide as a nutraceutical if, when eaten, they have been shown to provide benefit beyond their essential role in normal growth and maintenance of the human body. It is important to note that the definition of a food that provides "additional health benefits" varies considerably between Canada and other countries.*

Nutraceuticals come in a wide variety of consumable products including pills, powders, and as a natural component of foods. Examples of nutraceuticals are certain wild fruits and the chaga mushroom (as a tea) that contain high levels of antioxidants.

**Medicinals/Pharmaceuticals:** For the purposes of this guide, medicinals and pharmaceuticals refer to any plant or plant part that is harvested with the specific intent to be used in a medical application. A simplified way to view pharmaceuticals is to look at them as the active ingredient(s) in prescribed drugs (medicines). So, for pharmaceuticals the plant or plant part is processed and the extract is used as a component in a drug. Canada yew foliage harvested to extract anti-cancer compounds (taxanes) is an example of a pharmaceutical NTFP.

**Foods/Beverages:** The NTFPs in this class refer to those species that people can consume either wholly or in part. These include berries and mushrooms, as well as any species used to make a tea or syrup. Accordingly, there is some overlap with the nutraceutical NTFP opportunity class.

**Crafts/Wreaths/Greenery:** This group includes species collected for decorative purposes, including cones, flowers, branches, and, in some cases, whole plants.





**Essential Oils:** Essential oils are organic compounds that can be extracted from a variety of trees and plants, and are typically aromatic (i.e., they give off a scent). The smell of freshly cut balsam fir or cedar branches comes from these trees' essential oils. Depending on the plant, essential oils can be obtained from bark, leaves, flowers, seeds, and roots. The list of uses for essential oils is long and includes cosmetics, toiletries, perfumes, aromatherapy, flavourings in the food industry, antiseptics, soaps and detergents, adhesives, paints, paper and printing, insecticides, textile making, solvents, and rubber and plastic products.

Many of the common essential oils such as peppermint, lavender, primrose and rosemary are mostly produced from agricultural crops. The most common 'forest' sources of essential oils come from the conifers such as cedar, spruce, fir, pine, juniper, and hemlock. But, many more of our native forest plants produce oils that are being or could be used in commercial products.

**Landscaping/Nurseries:** There is increasing interest in using native plants in landscaping. This group of NTFPs includes plants or plant parts for use in landscaping or for producing nursery stock. Many ferns, for example, can be transplanted and used in shade gardens.

**Syrup/Sap/Gums:** Maple syrup and related value-added products are often the first to come to mind when this group of NTFPs is mentioned. However, white birch, yellow birch, and red maple can also be tapped and similar products produced. The use of balsam fir gum to produce a product known as Canada Balsam is a lesser known NTFP in this category.

### Why not include wildlife, recreation, and eco-tourism as NTFP Opportunity Classes?

Wildlife, recreation, and ecotourism are often cited as important NTFP values for good reason. Every plant species in this guide is used by one or more species of wildlife for food, shelter, or both. Similarly, eco-tourism in its various forms is based on the non-destructive 'use' of our forests. Forested landscapes and all the forest species they contain have potential to be used in activities such as photography, education, and appreciation of nature. In other words, every species mentioned in this guide would be checked off were this class of NTFPs to be included.





## Master Checklists

Two Master Checklists are included as APPENDICES 1) Opportunity Classes and 2) Habitats. Both of these lists includes all of the species in the photo guide and the habitats and the NTFP opportunity classes that are associated with each. You can use the Habitat Checklist as a starting point to help shorten the list of species to look for. That is, some species can be ruled out as unlikely to be found in a particular woodlot or in parts of a woodlot based on the forest types and age. Those who are interested in a specific type of NTFP, such as essential oils, can use the Opportunity Class Master Checklist to provide an initial `short list` of species to look for.

## What do I do with the information from the guide?

This guide provides a general idea of which NTFPs a woodlot has or could produce. Once you have this information, you may wish to do a detailed inventory that focuses on specific species or groups of species. For example, those who wish to establish a sugar bush should conduct a detailed inventory of the numbers of trees of appropriate size before starting a commercial operation. You may wish to consult a forest technician or technologist or professional forester for guidance on how to proceed with an inventory that will suit your objectives.

## Where to from here?

This photo guide is intended to be a user-friendly tool to help you, the landowner, identify opportunities to diversify the goods and services that you can obtain from your woodlot through NTFPs. This is not the end of the process, and more species may be added in the future.

Many of the species in the Acadian Forest identified in this guide are also included in the United States Department of Agriculture plant database: <http://plants.usda.gov/>. This database includes many species that can be found in New Brunswick but have not been included here.

No species listed in this guide are considered to be endangered in New Brunswick or in the Maritime provinces by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). A couple of species are identified as being locally threatened and these have been noted. Those who wish to have more information about the conservation status of a particular plant can consult the book *Edible and Medicinal Plants of Canada*, which contains a summary table for most of the species listed in this guide. For the most up-to-date information on the conservation status of wild plant and animal species, go to the COSEWIC website: <http://www.COSEWIC.gc.ca>. This site contains a downloadable PDF file listing all of the species at risk in Canada. A given species may be listed in one province but not considered threatened in another.



## Mushroom Disclaimer

Mushrooms vary by season more than any other NTFP group. The time of year that an assessment is conducted will determine which mushrooms will be visible. Since mushrooms are the 'fruiting bodies' of fungi and the fungi only reproduce at a specific time of year, it is difficult to provide specific recommendations about when to find specific mushrooms.

The guide *Champignons comestibles du Lac-Saint-Jean* (ISBN 978-2-923787-00-8) is published by the Lac Saint-Jean Model Forest, and provides a good overview of edible mushrooms found within certain forest types. The stand types given in this guide indicating where these mushrooms are most likely to be found are based on the information contained in the Lac-Saint-Jean publication.

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## APPENDIX I: Master Checklists

## Opportunity Classes

### Ground Flora: Herbaceous Plants

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Ground Nut	<i>Apios americana</i>			✓				
Wild Sarsaparilla	<i>Aralia nudicaulis</i>			✓			✓	
Wild Ginger	<i>Asarum canadense</i>		✓	✓				
Yellow Clintonia	<i>Clintonia borealis</i>		✓	✓				
Lily of the Valley	<i>Convallaria majalis</i>		✓				✓	
Bunchberry	<i>Cornus canadensis</i>		✓	✓			✓	
Fireweed	<i>Epilobium angustifolium</i>		✓	✓			✓	
Trout Lily	<i>Erythronium americanum</i>		✓	✓			✓	
Wintergreen	<i>Gaultheria procumbens</i>		✓	✓		✓		
Wild Lily of the Valley	<i>Maianthemum canadense</i>		✓	✓			✓	
Indian Cucumber Root	<i>Medeola virginiana</i>		✓	✓				
Partridgeberry	<i>Mitchella repens</i>		✓	✓	✓			
Ginseng	<i>Panax quinquefolius</i>	✓	✓	✓				
Blackberries	<i>Rubus spp.</i>	✓	✓	✓				✓
Raspberries	<i>Rubus spp.</i>	✓	✓	✓				✓
Bloodroot	<i>Sanguinaria canadensis</i>		✓				✓	
Starflower	<i>Trientalis borealis</i>						✓	
Red Trillium	<i>Trillium erectum</i>						✓	
Painted Trillium	<i>Trillium undulatum</i>						✓	
Common Cattail	<i>Typha latifolia</i>		✓	✓				
Violets	<i>Viola spp.</i>						✓	

### Ground Flora: Ferns, Mosses and Lichens

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Ostrich Fern	<i>Matteucia struthiopteris</i>			✓			✓	
Sensitive Fern	<i>Onoclea sensibilis</i>			✓			✓	
Cinnamon Fern	<i>Osmunda cinnamomea</i>			✓			✓	
Interrupted Fern	<i>Osmunda claytoniana</i>			✓			✓	
Clubmosses	<i>Lycopodium spp.</i>		✓		✓	✓		
Haircap Mosses	<i>Polytrichum spp.</i>		✓	✓	✓		✓	
Old Man's Beard	<i>Usnea spp.</i>		✓	✓	✓			



## APPENDIX I: Master Checklist

## Opportunity Classifier

### Trees: Hardwoods

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Striped Maple	<i>Acer pensylvanicum</i>	✓	✓	✓				✓
Red Maple	<i>Acer rubrum</i>			✓				✓
Sugar Maple	<i>Acer saccharum</i>	✓	✓	✓				✓
Speckled Alder	<i>Alnus incana ssp. rugosa</i>	✓	✓	✓				✓
Serviceberry spp.	<i>Amelanchier spp.</i>		✓				✓	
Yellow Birch	<i>Betula alleghaniensis</i>	✓	✓		✓			✓
White Birch	<i>Betula papyrifera</i>	✓	✓	✓	✓			✓
Grey Birch	<i>Betula populifolia</i>	✓	✓	✓				✓
Hawthorne spp.	<i>Crataegus spp.</i>	✓	✓	✓	✓		✓	✓
Beech	<i>Fagus grandifolia</i>	✓	✓					
White Ash	<i>Fraxinus americana</i>				✓			✓
Black Ash	<i>Fraxinus nigra</i>				✓			
Balsam Poplar	<i>Populus balsamifera</i>		✓	✓				
Large-Toothed Aspen	<i>Populus grandidentata</i>			✓				
Trembling Aspen	<i>Populus tremuloides</i>	✓	✓	✓				
Pin Cherry	<i>Prunus pensylvanica</i>		✓					✓

### Trees: Softwoods

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Balsam Fir	<i>Abies balsamea</i>		✓	✓	✓	✓		✓
Tamarack	<i>Larix laricina</i>	✓	✓		✓	✓		✓
White Spruce	<i>Picea glauca</i>	✓		✓	✓	✓		✓
Black Spruce	<i>Picea mariana</i>			✓	✓	✓		✓
Red Spruce	<i>Picea rubens</i>				✓	✓		
Jack Pine	<i>Pinus banksiana</i>				✓	✓		
Red Pine	<i>Pinus resinosa</i>			✓	✓	✓		✓
White Pine	<i>Pinus strobus</i>	✓			✓	✓		✓
Eastern White Cedar	<i>Thuja occidentalis</i>			✓	✓	✓		✓
Hemlock	<i>Tsuga canadensis</i>	✓	✓	✓	✓			✓





## APPENDIX I: Master Checklists

## Opportunity Classes

### Small Trees and Shrubs

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Black Chokeberry/ Black Choke Cherry	<i>Aronia melanocarpa</i>	✓	✓	✓				
Alternate-Leaf Dogwood	<i>Cornus alternifolia</i>				✓	✓		
Red Osier Dogwood	<i>Cornus serica</i>				✓	✓		
Beaked Hazelnut	<i>Corylus cornuta</i>	✓	✓	✓				
Witch Hazel	<i>Hamamelis virginiana</i>		✓	✓				
Juniper	<i>Juniperus communis</i>		✓	✓	✓	✓		
Sweet Gale	<i>Myrica gale</i>		✓	✓		✓		
Choke Cherry	<i>Prunus virginiana</i>			✓				
Staghorn Sumac	<i>Rhus typhina</i>		✓	✓	✓	✓		
Red Currant	<i>Ribes rubrum</i>	✓	✓	✓				
Black Currant	<i>Ribes americanum</i>	✓	✓	✓				
Skunk Currant	<i>Ribes glandulosum</i>			✓				
Willows spp.	<i>Salix spp.</i>		✓	✓	✓			
Elderberry	<i>Sambucus canadensis</i>		✓	✓				
Red-Berried Elder/ Red Elderberry	<i>Sambucus pubens</i>		✓				✓	
American Mountain Ash	<i>Sorbus americana</i>	✓	✓	✓			✓	
Meadowsweet	<i>Spiraea alba var. Latifolia</i>		✓				✓	

### Small Trees and Shrubs

Common Name	Scientific Name	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Saps/Syrups/Gums
Hardhack/ Steeplebush	<i>Spiraea tomentosa</i>		✓	✓			✓	
Canada Yew	<i>Taxus canadensis</i>		✓	✓				
Blueberries spp.	<i>Vaccinium spp.</i>	✓		✓			✓	✓
Hobblebush	<i>Viburnum lantanoides / alnifolium</i>				✓			
Highbush Cranberry	<i>Viburnum trilobum</i>				✓		✓	

### Mushrooms

Chanterelle	<i>Cantharellus cibarius</i>			✓				
Trumpet Chanterelle	<i>Cantharellus tubaeformis</i>			✓				
Hedgehog Mushroom	<i>Hydnum repandum</i>			✓				
Lobster Mushroom	<i>Hypomyces lactifluorum</i>			✓				
Chaga	<i>Inonotus obliquus</i>	✓						
Spruce Bolete	<i>Leccinum piceinum</i>			✓				
Black Morel	<i>Morchella elata</i>			✓				
Oyster Mushroom	<i>Pleurotus ostreatus</i>			✓				

## APPENDIX 2: Master Checklists



## Habitats

### Ground Flora: Herbaceous Plants

Common Name	Scientific Name	Soft-wood		Mixed wood		Hard-wood	
		Immature	Semi-mature	Immature	Semi-mature	Immature	Semi-mature
Ground Nut	<i>Apios americana</i>						
Wild Sarsaparilla	<i>Aralia nudicaulis</i>						
Wild Ginger	<i>Asarum canadense</i>						
Yellow Clintonia	<i>Clintonia borealis</i>						
Lily of the Valley	<i>Convallaria majalis</i>						
Bunchberry	<i>Cornus canadensis</i>						
Fireweed	<i>Epilobium angustifolium</i>						
Trout Lily	<i>Erythronium americanum</i>						
Wintergreen	<i>Gaultheria procumbens</i>						
Wild Lily of the Valley	<i>Maianthemum canadense</i>						
Indian Cucumber Root	<i>Medeola virginiana</i>						
Partridgeberry	<i>Mitchella repens</i>						
Ginseng	<i>Panax quinquefolius</i>						
Blackberries	<i>Rubus spp.</i>						
Raspberries	<i>Rubus spp.</i>						
Bloodroot	<i>Sanguinaria canadensis</i>						
Starflower	<i>Trientalis borealis</i>						
Red Trillium	<i>Trillium erectum</i>						
Painted Trillium	<i>Trillium undulatum</i>						
Common Cattail	<i>Typha latifolia</i>						
Violets	<i>Viola spp.</i>						

### Ground Flora: Ferns, Mosses and Lichens

Common Name	Scientific Name	Soft-wood		Mixed wood		Hard-wood	
		Immature	Semi-mature	Immature	Semi-mature	Immature	Semi-mature
Ostrich Fern	<i>Matteucia struthiopteris</i>						
Sensitive Fern	<i>Onoclea sensibilis</i>						
Cinnamon Fern	<i>Osmunda cinnamomea</i>						
Interrupted Fern	<i>Osmunda claytoniana</i>						
Clubmosses	<i>Lycopodium</i>						
Haircap Mosses	<i>Polytrichum spp.</i>						
Old Man's Beard	<i>Usnea spp.</i>						





## APPENDIX 2: Master Checklist

## Habitat

### Small Trees and Shrubs

Common Name	Scientific Name	Soft-wood		Mixed wood		Hard-wood	
		Immature	Semi-mature	Immature	Mature	Immature	Mature
Black Chokeberry/ Choke Cherry	<i>Aronia melanocarpa</i>	■			■		■
Alternate-Leaf Dogwood	<i>Cornus alternifolia</i>					■	■
Red Osier Dogwood	<i>Cornus serica</i>	■	■	■	■	■	■
Beaked Hazelnut	<i>Corylus cornuta</i>	■	■	■	■	■	■
Witch Hazel	<i>Hamamelis virginiana</i>	■	■	■	■	■	■
Juniper	<i>Juniperus communis</i>	■	■	■	■	■	■
Sweet Gale	<i>Myrica gale</i>	■	■	■	■	■	■
Choke Cherry	<i>Prunus virginiana</i>	■	■	■	■	■	■
Staghorn Sumac	<i>Rhus typhina</i>	■	■	■	■	■	■
Red Currant	<i>Ribes rubrum</i>	■	■	■	■	■	■
Black Currant	<i>Ribes americanum</i>	■	■	■	■	■	■
Skunk Currant	<i>Ribes glandulosum</i>	■	■	■	■	■	■
Willows spp.	<i>Salix spp.</i>	■	■	■	■	■	■
Elderberry	<i>Sambucus canadensis</i>	■	■	■	■	■	■
Red-berried Elder/ Red Elderberry	<i>Sambucus pubens</i>	■	■	■	■	■	■
American Mountain Ash	<i>Sorbus americana</i>	■	■	■	■	■	■
Meadowsweet	<i>Spiraea alba var. Latifolia</i>	■	■	■	■	■	■

### Small Trees and Shrubs

Common Name	Scientific Name	Soft-wood		Mixed wood		Hard-wood	
		Immature	Semi-mature	Immature	Mature	Immature	Mature
Hardhack/ Steeplebush	<i>Spiraea tomentosa</i>	■	■	■	■	■	■
Canada Yew	<i>Taxus canadensis</i>	■	■	■	■	■	■
Blueberries spp.	<i>Vaccinium spp.</i>	■	■	■	■	■	■
Hobblebush	<i>Viburnum lantanoides / alnifolium</i>			■	■	■	■
Highbush Cranberry	<i>Viburnum trilobum</i>	■	■	■	■	■	■

### Mushrooms

Common Name	Scientific Name	Soft-wood		Mixed wood		Hard-wood	
		Immature	Semi-mature	Immature	Mature	Immature	Mature
Chanterelle	<i>Cantharellus cibarius</i>	■	■	■	■	■	■
Trumpet Chanterelle	<i>Cantharellus tubaeformis</i>	■	■	■	■	■	■
Hedgehog Mushroom	<i>Hydnum repandum</i>	■	■	■	■	■	■
Lobster Mushroom	<i>Hypomyces lactifluorum</i>	■	■	■	■	■	■
Chaga	<i>Inonotus obliquus</i>	■	■	■	■	■	■
Spruce Bolete	<i>Leccinum piceinum</i>	■	■	■	■	■	■
Black Morel	<i>Morchella elata</i>	■	■	■	■	■	■
Oyster Mushroom	<i>Pleurotus ostreatus</i>	■	■	■	■	■	■





*GROUND FLORA: HERBACEOUS PLANTS*



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Ground Nut (*Apior americana*)

- Found along rivers and stream banks
- Tubers are high in protein.
- Often associated with poison ivy



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Wild Sarsaparilla

*(Aralia nudicaulis)*

- Roots are used in making 'root beer'.
- There are two other species of Aralia native to New Brunswick which can easily be confused.



# Ground Flora: Herbaceous Plants

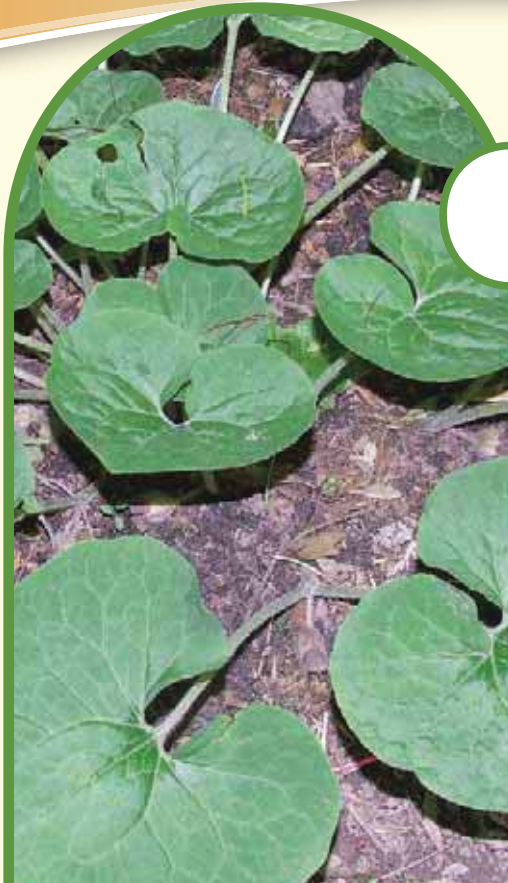


Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



## Wild Ginger *(Asarum canadense)*

- Leaves and tubers are edible.
- Potential slug repellent – seems to be inducible (produced where there are slugs present) (*Edible and Medicinal Plants in Canada*, Mackinnon et al 2009)



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Yellow Clintonia *(Clintonia borealis)*

- Roots have anti-inflammatory properties.
- Poultice of fresh leaves is good for burns, sores and infections
- Roots may be an insect (mosquito) repellent (Hike New England [www.hikenewengland.com](http://www.hikenewengland.com))
- Young leaves are edible; fruit is mildly toxic (Edible and Medicinal Plants in Canada, MacKinnon et al 2009).**



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Lily of the Valley (*Convallaria majalis*)

- Attractive and fragrant garden plant
- Has been used instead of foxglove in herbal remedies (Herbal Supplement Resource [www.herbal-supplement-resource.com](http://www.herbal-supplement-resource.com))
- Can be invasive



Light Requirements



		Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)				
Semi-mature (5 - 10 m)				
Mature (> 10 m)				

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



# Bunchberry

*(Cornus canadensis)*

🔍 Berries have a number of traditional uses and there is research for their potential use in combatting heart disease and some forms of cancer.



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Fireweed

*(Epilobium angustifolium)*

- Leaves and young shoot tips are edible.
- Honey from fireweed is of high quality (Virtual Museum of Canada [www.virtualmuseum.ca](http://www.virtualmuseum.ca)).



Light Requirements



		Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)				
Semi-mature (5 - 10 m)				
Mature (> 10 m)				

NTFP Opportunity Class

	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Trout Lily

*(Erythronium americanum)*

- Leaves and corms (similar to tubers) are edible.



## Ground Flora: Herbaceous Plants



Light Requirements



		Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)				
Semi-mature (5 - 10 m)				
Mature (> 10 m)				

### NTFP Opportunity Class

	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Wintergreen (*Gaultheria procumbens*)

- Oil contains methyl salicylate.
- Contains arbutin (used in cosmetic skin creams)
- Found in dry, sandy, slightly acidic soil – (Canadian Forestry Association [www.canadianforestry.com](http://www.canadianforestry.com))

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

NTFP Opportunity Class	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Wild Lily of the Valley

*(Maianthemum canadense)*

- Edible berries
- Roots and leaves are medicinal.



## Ground Flora: Herbaceous Plants



	Soft-wood	Mixed wood	Hard-wood
Light Requirements			
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



## Indian Cucumber Root

*(Medeola virginiana)*

- ☛ Tuber is edible.
- ☛ "Although this plant produces a deeply rooted, 2-3 cm edible white tuber with a bland cucumber taste and crisp watery texture, it is truly unfortunate to destroy the plant for such a tiny morsel" (*Flora of New Brunswick*, Hinds 2000).

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



## Partridgeberry *(Mitchella repens)*

- Ornamental use
- Used in jam
- Berries are edible but not flavourful.
- Found in coniferous or mixedwoods.



# Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



Photo: Ed Fletcher

## Ginseng (*Panax quinquefolius*)

NOTE: Although 'wild ginseng' is not listed as a native plant in New Brunswick in the current edition of *Flora of New Brunswick*, it is included in this guide because it can be grown in New Brunswick as a NTFP. Wild ginseng is in the same family as sarsaparilla, and can be confused with this plant and its two cousins. There is potential to grow ginseng here in New Brunswick but not at a large-scale, i.e., small plantings for local use.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Blackberries

*(Rubus spp.)*

There are two species of 'wild' blackberry that are quite common. The fruit of both is edible. There are also many domestic 'escapes'.



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Dave Powell, USDA Forest Service, Bugwood.org



## Raspberries

*(Rubus spp.)*

- There are three species of raspberry that are quite common. There are a number of other less common species.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Bloodroot

*(Sanguinaria canadensis)*

- Bloodroot sap has antimicrobial, anti-inflammatory and antioxidant properties and many traditional uses have been reported (*Edible and Medicinal Plants in Canada*, MacKinnon et al 2009).
- However, the alkaloids contained in bloodroot can be poisonous in large amounts. Use with caution.



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



**Starflower**  
*(Trientalis borealis)*

- ☛ Good versatile shade garden plant

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photo: Charles T. Bryson, USDA Agricultural Research Service, Bugwood.org

## Red Trillium

*(Trillium erectum)*

## Painted Trillium

*(Trillium undulatum)*

- Some reports indicate new leaves are edible and taste like sunflower seeds.
- Should be left in place and not transplanted. For landscaping purposes, collect seeds.



## Ground Flora: Herbaceous Plants



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wraths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Common Cattail

*(Typha latifolia)*

- There are food/beverage opportunities from young shoots, rhizomes and flower spikes.
- Leaves can be woven into baskets etc.
- Florals
- Cattails can be very invasive.**

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)	Dark Green	Dark Green	Dark Green
Semi-mature (5 - 10 m)	Dark Green	Dark Green	Dark Green
Mature (> 10 m)	White	White	White

NTFP Opportunity Class	
Nutraceuticals	Green
Medicinals/Pharmaceuticals	Green
Foods/Beverages	Green
Crafts/Wreaths/Greenery	Green
Essential Oils	White
Landscaping/Nurseries	Green
Syrup/Sap/Gums	White



## Violets (*Viola spp.*)

- Most violet species will transplant well but the seeds are a challenge to collect.
- Yellow violet is less prone to escape.
- Plants are suitable for light shade gardens.
- Foliage and flowers are edible.
- Leaves can be used as a thickening agent for soups, and in making tea and wine.



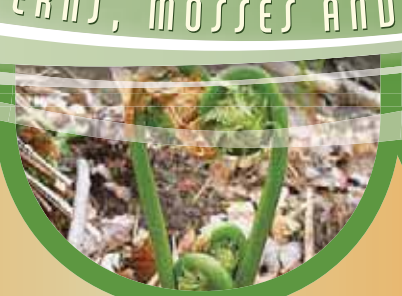
Notes:



A large central area with a light yellow background, divided into two columns by a vertical line. Each column contains ten horizontal lines for writing notes.



GROUND FLORA: FERNS, MOSSES AND LICHENS



# Ground Flora: Ferns, Mosses and Lichens

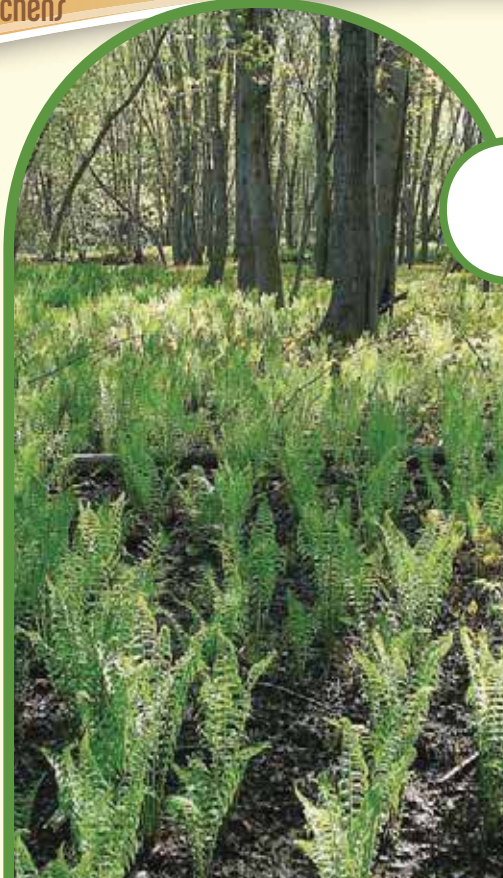


Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



Photos: Dave Fuller

## Ostrich Fern (*Matteucia struthiopteris*)

👁️ The preferred fiddlehead fern





Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photo: Chris Dickie INFOR



## Sensitive Fern

*(Onoclea sensibilis)*

- Found in wet woods
- Hardy landscape plant forming colonies in slightly acidic soils
- Reported to be poisonous to horses (Canadian Biodiversity Information Facility [www.cbif.gc.ca](http://www.cbif.gc.ca))



## Ground Flora: Ferns, Mosses and Lichens



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Cinnamon Fern

(*Osmunda cinnamomea*)

- Ornamental
- Can be used as a substrate (fibre osmundine) to grow orchids ([www.rook.org](http://www.rook.org))
- Fiddleheads can be eaten.

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

**NTFP Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Interrupted Fern

*(Ornunda claytoniana)*

👁️ Fiddleheads are edible but not as good as ostrich fern (Ontario Ferns [www.ontarioferns.com](http://www.ontarioferns.com)).



# Ground Flora: Ferns, Mosses and Lichens



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Princess pine/ground pine (*Lycopodium dendroideum*)



## Clubmosses (*Lycopodium spp.*)

- There are several other species of clubmosses not shown that can be used as floral greenery. However, all species are slow-growing and sustainable harvest levels have yet to be determined.
- Spores from several species of clubmoss have been used as dusting powder on wounds.
- Used to treat various skin problems (*Edible and Medicinal Plants of Canada*, Mackinnon et al 2009); For homeopathy see [www.herbs2000.com](http://www.herbs2000.com)
- Pyrotechnics – spores are flammable.

Stiff clubmoss (*Lycopodium annotinum*)



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

**NTFP Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Haircap Mosses (*Polytrichum spp.*)

- Multiple species are native and fairly common.
- Juuniper polytrichum moss (*Polytrichum juniperum*) has strong diuretic properties (Henriette's Herbal Homepage [www.henriettesherbal.com](http://www.henriettesherbal.com)).
- Suitable for light shade gardens
- Common haircap moss (*Polytrichum commune*) In the past, teas have been made to dissolve kidney and gall bladder stones. A tea mixture has also been used as a hair rinse ([www.borealforest.org](http://www.borealforest.org)).
- Stems are woven to make baskets (Ohio State University, Department of Environmental and Plant Biology <http://www.ohio.edu>).



## Ground Flora: Ferns, Mosses and Lichens



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

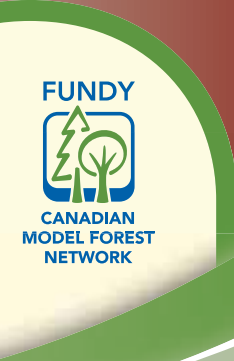
Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Old Man's Beard

(*Usnea spp.*)

- Species of *Usnea* have been used in fighting certain fish diseases in aquariums (Wikipedia [www.en.wikipedia.org/wiki/Usnea](http://www.en.wikipedia.org/wiki/Usnea)).
- Old Man's Beard is particularly sensitive to air pollution.**



SMALL TREES AND SHRUBS



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photo: Fotosearch



## Black Chokeberry/Black Choke Cherry (*Aronia melanocarpa*)

- Aronia berries contain many phytonutrients that are receiving increasing interest. For example, several known food and beverage producers have included aronia juice in products such as: Sobe (Pepsi) and Amp Energy drinks (SunOpta) (The Agricultural Marketing Resource Centre [www.agrmc.org](http://www.agrmc.org)).



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

**NTPF Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Plant Stock Photos



# Alternat-leaf Dogwood

*(Cornus alternifolia)*

☞ The roots, mixed with vinegar, yield a light to dark brown dye.



Photo: Julie Singleton



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Red Osier Dogwood *(Cornus sericea)*

Branches can be used in wreaths and other arrangements.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			



**NTFP Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Beaked Hazel

*(Corylus cornuta)*

- ☞ The nuts are edible.
- ☞ Roots are pliable and were used in making baskets.
- ☞ Husks can be used in making dyes.



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Witch Hazel *(Hamamelis virginiana)*

- ♥ The nuts are edible.
- ♥ Witch hazel extracts are used in a variety of natural health products.
- ♥ Twigs are used as divining rods and for bows.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Fotosearch



# Juniper

*(Juniperis communis)*

Juniper berries are used in making gin.



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



## Sweet Gale *(Myrica gale)*

- 👉 Fruits, leaves and nutlets are edible.
- 👉 Leaves can be used for tea.
- 👉 Produces essential oils



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Choke Cherry

*(Prunus virginiana)*

Despite the large seed, the fruit makes excellent jams and jellies, wines, etc.



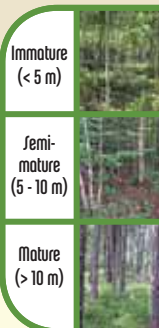
# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			



## NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Staghorn Sumac (*Rhus typhina*)

- ☛ Lemonade is made from the flowers.
- ☛ Chewing fruit relieves thirst and leaves a pleasant taste in the mouth (*Edible and Medicinal Plants of Canada*, MacKinnon et al 2009).





Light Requirements



Soft-wood    Mixed wood    Hard-wood

Immature (< 5 m)

Semi-mature (5 - 10 m)

Mature (> 10 m)


NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Red Currant

*(Ribes rubrum)*

- ☛ In addition to using the fruit in jams and jellies, the berries are high in antioxidants.
- ☛ This is a widely escaped species now commonly found in the 'wild'.



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Black Currant *(Ribes americanum)*

Seeds contain gamma-linoleic acid which is used in treating migraines and other ailments (*Edible and Medicinal Plants of Canada*, MacKinnon et al 2009).

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Skunk Currant

*(Ribes glandulosum)*

- ☛ Low trailing plant
- ☛ Despite the smell when being cooked, it makes good jelly.
- ☛ Found in moist woods and thickets



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Willows (*Salix spp.*)

- Willow bark was the original source of salicin (aspirin).
- Young shoots and leaves can be eaten in an emergency and are rich in vitamin C (*Edible and Medicinal Plants of Canada*, MacKinnon et al 2010).



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

**NTFP Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Elderberry

*(Sambucus canadensis)*

♥ Elderberries have high levels of anti-oxidants and are in demand for a variety of health and food and beverage products.



Photo : iStockphoto





Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photo : Shutterstock



## Red-Berried Elder/Red Elderberry *(Sambucus pubens)*

The fruit of red elderberry is considered by many inedible but they are used as flavouring and in some medicinal teas.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photos: fruit European mountain ash;



# American Mountain Ash

*(Sorbus americana)*

- Although not necessarily regarded as very tasty, the fruit can be used in jams, jellies, and ground into flour (*Edible and Medicinal Plants of Canada*, MacKinnon et al 2009).
- Juice from fruit is rich in vitamin C.
- Leaves are considered poisonous.**



leaves Sorbus americana



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photo - meadowsweet



## Meadowsweet/Hardhack or Steeplebush (*Spiraea alba* var. *latifolia*) / (*Spiraea tomentosa*)

- Steeplebush can be distinguished from meadowsweet by its densely hairy leaves. Both species have recorded uses in traditional medicine but steeplebush appears to have been used to a greater extent than meadowsweet (Plants for a Future <http://www.pfaf.org>).



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



# Canada Yew

*(Taxus canadensis)*

- Berries are edible but the seed is not.
- Contrary to many publications, Canada yew can grow in full sun.
- Taxanes extracted from the needles and small twigs are used in anti-cancer and other medicines.



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Photos: Chris Dickie



## Blueberries (*Vaccinium spp.*)

Blueberries and blueberry extracts are used in many products, including juices, wine, and baking mixes. Many health products now contain blueberry extracts.



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



# Hobblebush

*(Viburnum lantanoides/alnifolium)*

☛ Bouquets of hobblebush flowers used to be sold (Flora of New Brunswick, Hinds 2000).



# Small Trees and Shrubs



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

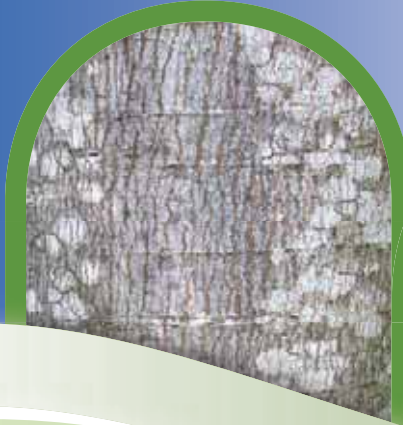
Photos: Chris Dickie



## Highbush Cranberry *(Viburnum trilobum)*

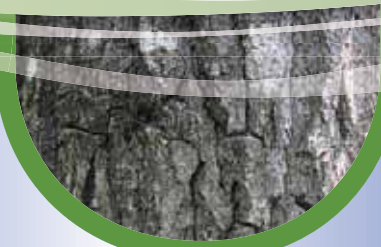
- ☑ Attractive as a landscape plant
- ☑ Fruit is edible.





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TREES: HARDWOODS





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

There are a variety of uses for the inner bark  
*(Edible and Medicinal Plants of Canada, Mackinnon et al 2009).*



## Striped Maple *(Acer pensylvanicum)*



**NTFP Opportunity Class**

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

- Although not as high in sugar content as sugar maple, red maple produces a good syrup.



# Red Maple

*(Acer rubrum)*





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

- ☛ This is the tree that produces maple syrup.
- ☛ Bark is used as part of a cough remedy.



## Sugar Maple

*(Acer saccharum)*



Photo: Chris Dickie



### NTFP Opportunity Class

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

- Found in wet and open ground
- Seed cones are used for crafts/wreaths/greenery.

## Speckled Alder

*(Alnus incana ssp. rugosa)*





NTFP Opportunity Class

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	■
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	■
Syrup/Sap/Gums	

Use the fruit as you would blueberries (*A Field Guide to Trees and Shrubs: Northeastern and North-central United States and Southeastern and South-central Canada*, Peterson 1977).



# Serviceberries

*(Amelanchier spp.)*



### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

- The essential oil methyl salicylate has analgesic properties.
- Used in many natural health products
- Also contains betulinic acid (See white birch.)



## Yellow Birch

*(Betula alleghaniensis)*



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NTFP Opportunity Class

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

- Bark contains betulinic acid and other compounds which are showing promise in the treatment of a number of diseases including skin cancer, HIV, and malaria.
- Can be tapped to produce a high quality syrup low in sucrose (better for diabetics).



# White Birch

*(Betula papyrifera)*



### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

📌 In the past used for spoolwood and barrel hoops (Canadian Forest Service <http://cfs.nrcan.gc.ca>)



## Grey Birch

*(Betula populifolia)*



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NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

- 👉 Haws are rich in vitamin C.
- 👉 Makes a great natural fence.



# Hawthorns

*(Crataegus spp.)*



### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

- Wood can be distilled to produce an antiseptic creosote.
- Nuts are edible.



## Beech

*(Fagus grandifolia)*

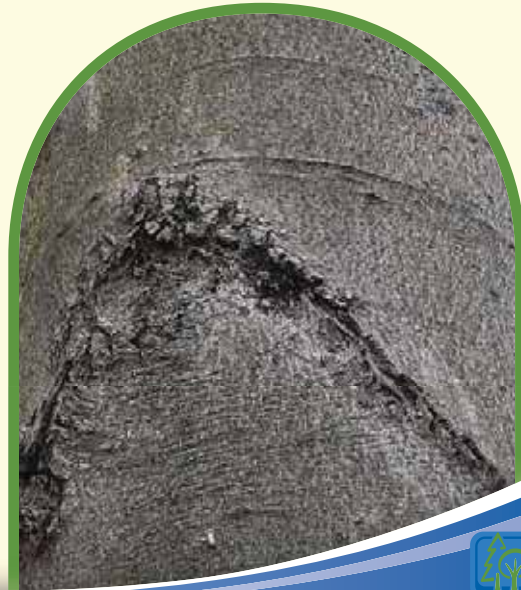


Photo: Chris Dickie





NTFP Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	■
Essential Oils	
Landscaping/Nurseries	■
Syrup/Sap/Gums	

🍷 Bark is used for making dyes and tans.



Photo: Keith Kanoti, Maine Forest Service, Bugwood.org

# White Ash

*(Fraxinus americana)*





### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

- Well known for its use in basket-making, canoe ribs, snowshoe frames, etc.



## Black Ash

*(Fraxinus nigra)*



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NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

Resin from buds is used for salves, cough medicines and painkillers.



Photo: Keith Kanoti, Maine Forest Service, Bugwood.org

## Balsam Poplar

*(Populus balsamifera)*



### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Inner bark is boiled and then often dried, ground into a powder and used as a thickener in soups, etc. or added to cereals when making bread (Plants for a Future [www.pfaf.org](http://www.pfaf.org)).



## Large-Toothed Aspen

*(Populus grandidentata)*





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

Leaves and inner bark contain salicin (original source of aspirin).



## Trembling Aspen

*(Populus tremuloides)*



Mature Bark      Immature Bark      Bark in Transition

**NTFP Opportunity Class**

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Cherry produces gum arabic which is a substance produced when the tree is wounded. Gum Arabic has many uses, including those in the cosmetic industry and in many processed foods.



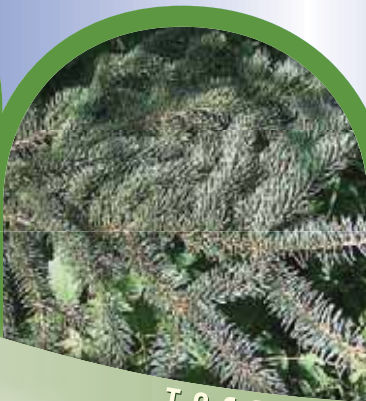
**Pin Cherry**  
*(Prunus pennsylvanica)*



Notes:



A large, light yellow rectangular area with a wavy top edge, divided into two columns by a vertical line. Each column contains ten horizontal lines for writing notes.



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TREES: SOFTWOODS





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

- A common tree in New Brunswick
- Many NTFPs can be commercially produced from balsam fir.



# Balsam Fir

*(Abies balsamea)*





### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

- Turpentine can be obtained from tamarack.
- Arabinogalactan can be extracted from the bark which is used in paints, ink and medicines.



## Tamarack

*(Larix laricina)*



Photos: Chris Dickie





NTFP Opportunity Class					
Nutraceuticals					
Medicinals/Pharmaceuticals					
Foods/Beverages					
Crafts/Wreaths/Greenery					
Essential Oils					
Landscaping/Nurseries					
Syrup/Sap/Gums					

Similar to balsam fir, white spruce needles are an excellent source of vitamin C (*Edible Medicinal Plants of Canada*, MacKinnon et al 2009).



# White Spruce

*(Picea glauca)*



### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Needles can be used as a component in spruce tea.



## Black Spruce

*(Picea mariana)*





NTFP Opportunity Class						
Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Red spruce wood is a favourite for use in making musical instruments including piano sounding boards, guitars and violins.



## Red Spruce

*(Picea rubens)*



**NTFP Opportunity Class**

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

Some First Nations used jack pine wood in canoe frames.

Photo: Chris Dickie



# Jack Pine

*(Pinus bankiana)*

Photo: Chris Dickie





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

- ☛ A vanillin flavouring is obtained as a by-product of other resins that are released from the pulpwood (Plants for a Future [www.pfaf.org](http://www.pfaf.org)).
- ☛ Vanillin is one of the key ingredients in natural vanilla that gives us the 'vanilla' flavour. Natural vanilla is a mixture of hundreds of compounds. Artificial vanilla is usually a solution of pure vanillin, typically produced synthetically.



## Red Pine

*(Pinus resinosa)*



**NTFP Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Another versatile species that can yield a suite of NTFPs.



# White Pine

*(Pinus strobus)*

Photo: Chris Dickie





NTFP Opportunity Class						
Nutraceuticals						
Medicinals/Pharmaceuticals						
Foods/Beverages						
Crafts/Wreaths/Greenery						
Essential Oils						
Landscaping/Nurseries						
Syrup/Sap/Gums						

📌 A variety of essential oils can be obtained from cedar.



## Eastern White Cedar *(Thuja occidentalis)*





**NTFP Opportunity Class**

Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	

- ☛ Bark can be used for medicine.
- ☛ Needles rich in vitamin C
- ☛ Pitch can be used for waterproofing.
- ☛ Boiled bark produces a dye.



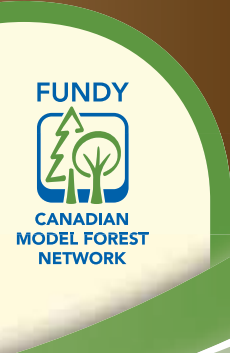
# Hemlock

*(*Truga canadensis*)*

Photo: Keith Kanoti, Maine Forest Service, Bugwood.org







MUSHROOMS





## Caution

There are many species of mushrooms that grow in the Acadian Forest but only a few are shown here.

This guide is not a cookbook nor will it provide you enough information by itself to allow you to safely collect all of the mushroom species shown.

You will need additional guides\*, references and even more importantly, training and experience.

The species of mushrooms shown in this guide have potential as food or beverage. However, for mushrooms, the stage of development and how you handle, store and prepare what you collect is critical. Even edible mushrooms can produce toxins that can be potentially fatal if they are handled and stored improperly.

**NEVER COLLECT AND EAT MUSHROOMS UNLESS YOU ARE 100% CERTAIN OF THE SPECIES and HOW TO COLLECT AND HANDLE THEM.**

\* Much of the information in this section on mushrooms was obtained from:  
*Champignons comestibles du Lac-Saint-Jean* published by the Lac-Saint Jean Model Forest. 2009. ISBN 978-2-923787-00-8

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTFP Opportunity Class

	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



Photos: Guillaume Roy

# Chanterelle

*(Cantharellus cibarius)*

- ☞ Predominantly found associated with black or red spruce, balsam fir
- ☞ Fruits late July to October



# Mushrooms



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Trumpet Chanterelle *(Cantharellus tubaeformis)*

- Found in moist stands
- Fruits mid-July to late October



Photos: Marie-France Gévy

Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

**NTPF Opportunity Class**

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Marie-France Gévry



# Hedgehog Mushroom

*(Hydnum repandum)*

- Found in conifer and mixed forests
- Fruits July to September



Photo: Guillaume Roy





Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

### NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Guillaume Roy



## Lobster Mushroom

*(Hypomyces lactifluorum)*

- Found in mature mixed woods often with a balsam fir component
- Fruiting June to October



Photo: Aldei Darveau



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class	
Nutraceuticals	
Medicinals/Pharmaceuticals	
Foods/Beverages	
Crafts/Wreaths/Greenery	
Essential Oils	
Landscaping/Nurseries	
Syrup/Sap/Gums	



# Chaga

*(Inonotus obliquus)*

Chaga has been used as a traditional immune system booster in Russia for centuries. It is also processed and marketed by several natural health product manufacturers.



# Mushrooms



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTFP Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Aldei Darveau



## Spruce Bolete *(Leccinum piceinum)*

- Found in black or red spruce and mixed forests
- Fruiting in June to September

Photo: Guillaume Roy



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

NTPF Opportunity Class

	Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums

Photo: Dany Simard



Photo: Marie-France Gévy

# Black Morel

*(Morchella elata)*

- Found under low shade and in openings in a variety of semimature to mature stand types including black spruce, mixedwoods, poplar and white birch
- Fruiting in the spring (April to June)



# Mushrooms



Light Requirements



	Soft-wood	Mixed wood	Hard-wood
Immature (< 5 m)			
Semi-mature (5 - 10 m)			
Mature (> 10 m)			

## NTPF Opportunity Class

Nutraceuticals	Medicinals/Pharmaceuticals	Foods/Beverages	Crafts/Wreaths/Greenery	Essential Oils	Landscaping/Nurseries	Syrup/Sap/Gums



## Oyster Mushrooms *(Pleurotus ostreatus)*

- Often found associated with mature white birch and black spruce forest types
- Fruiting June to October



Photos: Aldei Darveau



Two columns of horizontal lines for writing notes on a light yellow background.



Notes:



A large, light yellow rectangular area with a wavy top edge, divided into two columns by a vertical line. Each column contains ten horizontal lines for writing notes.



## **Our Atlantic Woods: A Photo Guide to Non-Timber Forest Products**

was developed for the Fundy Model Forest by Ron Smith of VarFor Ltd.

Fundy Model Forest has undertaken several projects to help develop the sustainable production of non-timber forest products.

Fundy Model Forest and Model Forests throughout Canada continue to support initiatives to develop this sector.

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## Ron Smith

Born in Montreal, Quebec, Ron graduated with a Bachelor of Science in forestry from the University of New Brunswick in 1978 and soon joined the Canadian Forest Service. For more than 15 years he conducted applied research in forest genetics and tree improvement with the Canadian Forest Service. During this period, he obtained a MSc and PhD. In the mid-1990s his efforts shifted from operational tree improvement to research on non-timber forest products (NTFPs). Most notably, he and his colleague Dr. Stewart Cameron developed and implemented a collaborative project between government and the private sector on the ecology, sustainable management, and domestication of Canada yew (ground hemlock). In 2005, he left the Canadian Forest Service to pursue a second career that has included promoting the sustainable use of NTFPs in woodlots and working as a research scientist for the University of New Brunswick, Wood Science and Technology Centre.

### A PHOTO GUIDE TO NON-TIMBER FOREST PRODUCTS

The term non-timber forest products is used to describe everything other than conventional wood products (timber and pulp). Hundreds of NTFPs can be obtained from our Atlantic forests. This guide has been designed to help woodlot owners identify species that are growing in their woodlots as well as the types of NTFPs they can yield. This guide is intended to help landowners identify economic opportunities as well as gain a greater appreciation of the diversity of values their woodlots hold.

