



Non Timber Forest Product Inventory Method

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Non timber forest products inventory method

Local needs

The first step in the inventory is to consult with managers of the site about their needs, and those of the local community. These discussions should be focussed on the current uses of the woodland, the plans that the local people have for the woodland in terms of commercial ventures, and recreational improvements. If possible, historical uses of the woodland should also be discussed, to give an idea of any NTFPs that might have been used in the past.

Informal survey

The second step of the inventory is to walk the woodland, and to record species of interest occurring along the paths. This is done to give a general idea of the species make up of the wood, and to cover ground that might not be seen in an entirely random survey. If possible, this walk should be done with a local person in order to include local knowledge. It would also be advisable to walk a couple of transects through the whole woodland, say from north to south and east to west. The surveyor could then decide whether to concentrate on the resources currently available, or the potential of the habitats with potential to be developed.

Random survey

Equipment required for this part of the survey includes:

Fifty metre measuring tape

Ten metre measuring tape

Sighting compass

At least three bamboo canes

Reference books for plants and fungi¹

¹ See references.

The third part of the inventory is a random survey. A hundred metre grid should be imposed on the site and a series of random coordinates generated. These coordinates are the start points for two hundred metre by four metre transects. Along these transects the extent of all target species are recorded, together with major vegetation types and tree species make up. The slope angle and aspect are also recorded and photographs of the north and south extremes of the transect to allow them to be found again. For the sake of consistency these photos should always be taken from the same direction. No permanent markings were made in order to minimise the impact of the survey on the wood.

The start points for the transects are located by measuring distances and bearings from a known point and then pacing this out. In order to do this the surveyor will need to work out and record their individual pacing over 100 metres on the flat, uphill and downhill. Where possible checks were made by taking back bearings off known points. If it is available it might be advisable instead to use differential GPS to locate the locations of transects.

Circular survey plots were also used. These plots should be randomly located on the same 100 metre grid, and their positions recorded photographically and located in the same way. A ten metre circle was measured out centered on the grid point, and tree coverage recorded, nested within this is a three metre circle, in which all relevant shrubs and fungi are recorded. Two one metre circle plots are then located on the east and west edges of the ten metre circle, in which relevant ground flora is recorded.

This inventory method is designed to capture both widespread and clustered species, and to capture habitats that would be suitable for target species, but where they are not currently found. For this reason open space is been mapped onto transects, together with records on the general species composition of each transect and survey plot and the aspect and slope angle. Coverage of approximately 15 percent of the woodland area is recommended.

Recording

Target species (Shown in appendix 1) are recorded together with an indication of the general species make up. Record sheets for the survey plots show how species were recorded, with ground flora and fungi recorded as a percentage of the area, and tree species as a number of individuals (see Appendix 3). Species in the transects were recorded in the same way, with areas of ground flora species drawn on to the record form, and individual trees marked. Where the survey was in plantation forest with trees of one or two species at an even distribution, this was recorded on the sheet, but individual stems were not marked.

Reporting

Area cover and percentage cover or specimens per area and total number in area for all target species were calculated for both the transects and the survey plots. An average of these figures was used. By using both transect and survey data, linear or gradient effects in the woodland should be corrected for by the survey plot data, and patch effects by the transect data, and both widespread and clustered species are captured.

Analysis

The fieldwork carried out to test this inventory method only represents a snapshot in time, in all seasons and preferably over several years (as yields will vary greatly according to weather conditions) to give a more accurate picture of resource availability – including spring foliage and fungi availability throughout the year. However, some attempt has been made to gauge the likely species that would be present at other times of year.

The final analysis reviewed the available documentation of the wood including timber inventories, management plans etc., together with the local solid and drift geology. These were used to assess habitats in the woodland and to review the effects of management changes in the wood. An assessment of the habitats in the wood and their potential to support species has been made.

Recommendations considering the needs that local people mentioned, the marketability of the resources found in the woodlands and the management changes required to produce resources other than those found there at present.

References

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- Phillips, R (1980). *Grasses, Ferns, Mosses and Lichens*. Macmillan London.
- Rose, F (1981). *The wild flower key. British Isles and north west Europe*. Fredrick Warne London.

Appendix 1: Target Species

, = mentioned in text Y = recommended to take forward

Species	Edible	Decorative	Medicinal	Pharmaceutical	Aromatic/ Cosmetic
Alder (<i>Alnus glutinosa</i>)					
Poles		Y			
Ash					
Leaves			(<i>Fraxinus excelsior</i>)		
Aspen					
Poles		Y	(<i>Populus tremula</i>)		
Basil (<i>Clinopodium vulgare</i>)					
(<i>Arctostaphylos uva-ursi</i>)			Bearberry		
Fagus sylvatica					
Leaves					
Bark			Y		
Birch					
Sap			(<i>Betula pubescens</i> and <i>pendula</i>)		
Poles		Y			
Bark					
Leaves					
Blaeberry (<i>Vaccinium myrtillus</i>)	Y				
(<i>Hyacinthoides non scriptus</i>)			Bluebell¹		
(<i>Myrica gale</i>)			Bog myrtle		
(Dryopteris austriaca)					
Broom					
Buds			(<i>Sarothamnus scoparius</i>)		
Cep (<i>Boletus edulis</i>)	Y				
(<i>Cantharellus cibarius</i>)	Y		Chanterelle		
(<i>Galium aparine</i>)			Cleavers	Y	
Cloudberry (<i>Rubus chamaemorus</i>)					
(<i>Rumex acetosa</i>)			Common sorrel		
(<i>Echinacea sp</i>)			Coneflower		
(<i>Mentha arvensis</i>)			Corn mint		Y
(<i>Vaccinium vitis-idaea</i>)			Cowberry	Y	

Species	Edible	Decorative	Medicinal	Pharmaceutical	Aromatic/ Cosmetic
Cranberry (<i>Vaccinium oxycoccus</i>), Crowberry (<i>Empetrum nigrum</i>)			.	Y	
Cranberry (<i>Vaccinium oxycoccus</i>), Crowberry (<i>Empetrum nigrum</i>)	Y		.		
			Dandelion (<i>Taraxacum officinale</i>)		
Root			.		
Elder			(<i>Sambucus nigra</i>)		
Berry	Y		.		
Flower	Y		.		
Eyebright (<i>Euphrasia nemorosa</i>)			.		
			Garlic mustard (<i>Alliaria petiolata</i>)		
			.		
			Foxglove (<i>Digitalis purpurea</i>)	Y	
Leaves					
Hard shield fern (<i>Polystichum</i> sp)		Y			
			Hazel (<i>Coryllus avellana</i>)		
Poles		Y			
Hawthorn			(<i>Crataegus monogyna</i>)		
Berry	Y				
Leaves			Y		
Heather (<i>Calluna vulgaris</i>)			.		
			Hedgehog mushroom (<i>Hydnum repandum</i>)	Y	
			.		
			Holly (<i>Ilex aquifolium</i>)		
			.		
Honey	.				
			Horsetail (<i>Equisetum</i> sp)		
			.		
		Y	Ivy (<i>Hedera helix</i>)		
			Juniper (<i>Juniper communis</i>)		
			.		
Lemon scented fern (<i>Oreopteris limbosperma</i>)			Male fern (<i>Dryopteris filix-mas</i>)	Y	
		Y			
			Marjoram (<i>Origanum vulgare</i>)		
			.		
			Meadowsweet (<i>Filipendula ulmaria</i>)		
			.		

Species	Edible	Decorative	Medicinal	Pharmaceutical	Aromatic/ Cosmetic
			Mistletoe		
<i>(Viscum album)</i>			Morel		
<i>(Morchella esculenta)</i>			Mosses		
(Various sp)					
Mugwort					Y
<i>(Artemisia vulgaris)</i>					
Mullien					
<i>(Vabascus thapsus)</i>			Nettles		
<i>(Urtica dioica)</i>			Y		
			Northern bilberry		
<i>(Vaccinium ulinosum)</i>	Y				
			Norway spruce		
			<i>(Picea abies)</i>		
Cones					
Oak					
Bark					
Oyster mushroom					
<i>(Plerotus ostreatus)</i>					
			Reindeer moss		
<i>(Cladonia rangiferina/ alpestris)</i>					
			Rose (Dog)		
			<i>(Rosa canina)</i>		
Hip					
Rowan					
Berry	Y				
Saffron milk cap					
<i>(Lactarius deliciosus)</i>	Y				
			Sea buckthorn		
			<i>(Hippophae rhamnoides)</i>		
Berry					
Scot's pine					
Cones					
Sap					
Needles			Y	Y	Y
Slippery jack					
<i>(Sullius luteus)</i>	Y				
			Sloes /Blackthorn		
			<i>(Prunus spinosa)</i>		
Berry					
Poles					
Bark					
St John's wort					
Flowering tops					
Summer truffle					
<i>(Tuber aestivum)</i>					
Sweet cicely					
<i>(Myrrhis odorata)</i>					

