



POWYS WILD FOOD PROJECT

(GH010)

A report for Glasu by Doriennne Robinson,
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Wild Food Project

July report on work in progress and results so far.

Below are the contact details for the bodies and appropriate personnel who I initially approached and their responses.

Organisation	Contact No	Contact Person	Comments
CCW	01597 827400	Ray Woods (827401)	Report of conversation below
DEFRA	01597 823777	Ali	Go to website first. Not helpful, difficult to navigate. Spoke to farmers instead.
PCC	01597 826000	Andrea Gannon, Bio-diversity Officer (827599)	Leaving post in 2 weeks, not replaced for a while.
CALU	01248 680450	Kerrin	See Jenny Wong website. Very helpful. Report attached

CCW comments on wild food harvesting

Notes from telephone conversation with Ray Woods of CCW, 7.07.05

As yet there is no specific legislation in place that regulates the harvesting of wild foods. There is a common law regarding picking hedge fruits that says that it is permissible providing the fruit is not then sold. It can, however, be sold with the landowners permission.

It's then a case of deciding what level of harvesting is sustainable. There are no figures available for that yet so the advice is to find interested farmers and then come back to CCW to discuss and decide on these figures.

CCW felt that there were probably only a limited amount of wild foods that could be harvested at any sort of commercial level. These included Winberries, Elderflowers and Berries, Blackberries, Nettles and possibly Horsetails.

CCW can implement codes of practice in conjunction with National Heritage.

A series of licences for harvesting may actually enhance the amount of crop plants, as training would be given in crop management.

Advice from Ray was to go ahead and work up the legislation as it became necessary, suck it and see.

DEFRA's single farm payment and harvesting wildfoods

DEFRA advised a visit to their website where most questions could be answered. Their site was very difficult to navigate though and after twenty minutes I decided to take a different route and talk to farmers

instead. It will be necessary to go back to DEFRA for verification of information, but a visit might be more appropriate.

It appears that the single farm payment is based on grazing land. If any land comes out of grazing and goes into crop production, e.g. growing an acre or two of stinging nettles, then the payment is reduced accordingly. The payment is not affected by cropping hedgerows, ponds, field margins, woods etc.

However the loss of income from a reduced single farm payment may well be more than balanced by the income from the crop replacing it. It might also be made back up from various diversification grants.

More research needs doing in this area and a visit to DEFRA is to be arranged to clarify information so far.

PCC bio-diversity officer

It appears that the PCC bio-diversity officer will be leaving post in the very near future and that there is no immediate plans to replace her. This post will remain unfilled. On the strength of this there seems little point in making contact with PCC a priority.

CALU, Centre for Alternative land Use

CALU recommended contacting Jenny Wong, who runs Wild Resources Ltd – the website is www.wildresources.co.uk, tel 01248 382282, e-mail info@wildresources.co.uk

The site contained the full version of an 86 page report on wild foods and resources available in Mid Wales. The report dealt mainly with its application for woodlands and margins but covers wild flowers, fruits, herbs etc in enough depth to be extremely useful.

The full report is available on the site, and I have a hard copy version of it. However below is an abbreviated version that includes some of the most relevant information and facts, which would impact on any viable wild food project.

Also included here are the full sections on ‘environmental impacts’ and ‘regulations and policies’, with relevant tables.

The report deals with the following wild resources:

- Foliage Collection
- Seed Collection
- Herbs
- Flowers, berries, fruit and sap
- Bark
- Wildings
- Wood Products, charcoal, green woods
- Fungi
- Wild Animals
- Cultivation within woodlands

Foliage Collection:

Foliage collection involves a mixed group of people ranging from large-scale enterprises, casual collectors to farmers supplementing their farm incomes. Most collection takes place on third party land and collectors are very protective of their sites and interests. Incomes can be significant.

There are a few larger scale foliage enterprises, Booth Moss and Foliage in Colwyn Bay and The Green Man in Ruthin both specialising in foliage. There are also a few collectors for whom foliage is a part of a diverse enterprise e.g. Goodstock in Aberystwyth.

Discussions with wreath manufacturers revealed that there are many more species than those being supplied that can be used for wreaths. Universal display, a company with offices in London, Paris and New York is an international wholesaler of Christmas decorations. They sell wreaths of 'Natural English Fir', presumably Noble Fir some of which might come from Wales. The company also sell wreaths described as Balsam Pine, Monterey Pine, Aberdeen Spruce, Augusta Fir, Austin Spruce, Canadian Pine, Oregon Fir, Oxford Fir, Sugar Pine, Virginia Fir, Sterling Pine, and White Spruce. Several are species that are grown in Wales and could be developed into a foliage' wreath market.

Main trees for foliage collection are:

- **Yew**
- **Holly**
- **Shrubs** . There are several shrubs from which foliage is collected such as Rhododendron and Laurel. Both of these are exotic, invasive plants with waxy evergreen leaves, which are used for wreaths. The UK market for evergreen, broadleaved foliage is relatively small and supplied by a few collectors in Cornwall and elsewhere. In Wales The Green Man reports falling demand for rhododendron in the UK and no longer collects on a large scale. However, there is a large and apparently insatiable demand for rhododendron in particular from two Amsterdam auction houses, which dominate the European floristry trade. MacPhearson Atlantic based in Glasgow supply 200,000 stems of rhododendron per week to Amsterdam some of which at least is sourced from FE (Forest Enterprise) land in Argyll and Bute. The price paid to collectors is usually in the order of 80p for 20 thus providing in the order of £8,000 of potential income for collectors per week. At present there is almost no collection of Rhododendron from Wales though there have been approaches from Scotland, Ireland, England and France for access to the considerable Welsh resource. One reason for this is that large-scale collectors prefer to manage the resources rather than clearing it and forest managers in Wales have refused, preferring clearance. Foliage management entails cutting down the bushes and harvesting 18-month-old coppice shoots. Foliage collection takes place from August to January when the plants are not flushing new leaves or flowers. It is reported that a new trend is for closed Rhododendron buds, which are picked from March to May. This means that Rhododendron management could provide full time employment for up to 10 months of the year. Management of this type effectively prevents the plants from flowering and therefore spreading and could provide long-term local employment. The potential establishment of an enterprise of this type in Snowdonia is presently being investigated by Wild Resources Limited on contract to the Beddgelert Rhododendron Management Group with the support of the FC (Forestry Commission) and the Snowdonia NP.

Moss. Moss collection for the horticultural and floristry market is a widespread commercial activity in Wales. People have been making an income from the sale of fresh moss from Wales for many years. Many of the current collectors have been active for 20 – 25 years with one business established in 1952 involving two generations of the same family. The largest moss collection in the UK is based in North Wales with collectors active across Wales and also in Scotland.

Potential damage to NNRs and SSSIs by mossing activities has created friction between conservation bodies, such as CCW, and collectors with some shifting their operations to Scotland. However because mossing creates local employment opportunities woodland managers (e.g. FE and Fountain Forestry) again permitted moss collection though now this is much more closely controlled and monitored.

Because of increased apprehension from the gardening sector of the sustainability of moss collection, several products are now being marketed as more environmentally friendly alternatives to moss for the lining of hanging baskets – some of these are made from felted wool, which is also something that could be manufactured in Wales.

Lichens. Only one collector mentioned collecting dead wood and lichens along with moss for sale to floristry outlets in London. This collector commented that there is a huge demand for ‘natural’ products in the city, which he cannot see decreasing unless there is a sudden change in the current fashion trends. Lichens have also been collected, dried and sold through model shops to represent shrubs and trees in scale railway models.

Although several collectors are aware of the markets for lichens they do not collect because of conservation concerns particularly the rarity and slow growth rate of most species.

Seed Collection, Trees & Shrubs, Wildflowers. Already informed by Local Provenance tree project

Medicinal Herbs. Wild herbs for medicinal use are often preferred to cultivated forms, as they are considered more potent. In Wales there is relatively little collection of wild herbs other than for personal use.

Tree Harvest is a company based in Ledbury, Herefordshire, which imports and markets tree products collected from around the world. At present they don’t source any products from Wales but would be happy to do so if it were made available. The prices for Tree Harvest’s products that come from native species give some indication of the value of medicinal preparations of herbs.

Table 1. The price is pounds per 100gms

Species	Bark	Leaves	Flowers	Berries
Ash	1.80	2.30		
Birch		2.45		
Bilberry		2.60		
Blackberry		1.00		
Elder		1.80	2.10	1.30
Hawthorn		1.70		1.50

There is interest in Wales in staying ahead in the exploitation of Wales’s natural pharmacopoeia . The National Botanic Gardens of Wales, Cardiff University, Molecular Nature and Conwy Natural Health Project (Leader +) are working towards the development of herbal or plant based medicine based on native species in Wales.

Culinary Herbs. There is little or no collection of wild herbs for culinary use in Wales beyond what people gather for personal use.

In Scotland over the past few years a considerable trade in wild herbs has been established by *Caledonian Wildfoods*. This company, which has a turnover of £500,000 a year is the largest business trading in Scottish-sourced wild plants and fungi and employs 8 permanent staff and over 100 casual (seasonal) pickers. Although the most important commodity is wild mushrooms, they also collect and sell a broad range of plants including: wild basil, thyme, marjoram, marsh samphire, bilberries, cowberries, wild raspberries, sloes, rosehips, hawthorn, rowan, elder, crab apples, hazelnuts, burdock, horseradish, garlic mustard, sweet cicely, pignuts, broom buds, wild garlic, wild strawberries,

Watercress, wood sorrel, bog myrtle, common sorrel, wild chives and nettles. Most of this is used as food with some being exported as novel items to the U.S.A. There is no enterprise of this type in Wales although most of these plants are plentiful in Wales, though not in the volumes available in Scotland. There is the potential for collecting herbs for sale even if it is only to local restaurants and manufacturers of Welsh preserves.

Flowers, Berries, Fruits and Sap. There are many species that produce edible berries (bilberry, blackberry, rowan, hawthorn etc) and fruit (damson, crab apple). Several species produce edible flowers the most notable of which is elder. Sap can be used as a basis for syrups, wines and beers.

Beverages. The biggest fruit wine producer in Wales is Cwm Deri in Pembrokeshire, which sells through supermarkets as well as local off licences. The main product used is elderflower, which is made into a range of increasingly popular cordials and champagne and also as flavouring for ice cream by the Brookes Wye Valley Ice Cream Company.

The largest consumer of elderflowers close enough to be supplied from Wales, is the Bottle Green drinks company in Stroud, Gloucestershire. Bottle Green employs around 600 seasonal pickers to harvest two tonnes of elderflowers from the wild and cultivates a further two tonnes. The wild harvest, at a price to pickers of £2.60 per Kg represents a cost of £52,000 a year. There are occasional requests for elderflower harvesting from Wales but picking is not as well organised as in England.

Table 2. Wild Products used in beverages.

Ingredient	Product	Company
Elderflower Blackberry	Bluestone - flavoured spring water	Aqua Prima, Carmarthenshire
Silver Birch (Sap) Elderflower and berry Honeysuckle Damson (wild) Blackberry Rosehips Sloes Juniper Hazel (nuts)	Wine & Liqueur	Cwm Deri, Pembrokeshire
Elderflower Mixed berries	Non-Alcoholic drinks	Cwm Deri, Pembrokeshire
Elderflowers	Spritzer	Alderwicks, Pembrokeshire
Elderflowers & berries	Wine & Port	Celtic Country Wines, Ceridigion
Blackberry	Liqueur	Celtic Country Wines, Ceridigion
Sloe	'jin'	Celtic Country Wines, Ceridigion
Elderflower	Spritzer	Cariad Wines, Vale of Glamorgan
Elderflower	Herb Tea	Nicomon, Anglesey
Sloe	Sloe 'jin'	Cerist, Dinas Mawddwy

Fungi. To be dealt with in a separate report.

The Powys Wild Food Project

August report on work in progress and results so far.

Ludlow Visit

A day in Ludlow proved helpful for gauging the level of interest in wild foods in a town noted for its gastronomy.

Although wild foods did not appear to feature on many menu's, where they did mushrooms were the most common. Leaves such as Sorrel were not indicated as being from the wild. Where I could I spoke to the owners and the chefs, which was not always welcomed during a busy working day. However, some were very helpful and the general feeling I got from informal chats was that there was definitely interest in using fresh wild foods. Problems could be envisaged with continuity of supply, freshness and quantity.

Local Restaurant Interest

Several local restaurants have expressed an interest in using wild foods. A prestigious restaurant at Llanwrtyd Wells already uses mushrooms, elderberries, blackberries, wild raspberries and would be very interested in using what ever was available. He has also good contacts in the media and will promote Powys Wild Foods for us, as his restaurant will feature in it.

Wholesalers

Calonwen and Organic Farm Foods, organic wholesalers, are very interested in being supplied with wild foods for their customers. Again quantity and distribution may be an issue, but as they already buy from Allt Goch Farm, St Harmon it would be easy to dovetail pick-ups.

This has raised some issues around harvesting and packaging methods, but as wild foods are being used in a much bigger way in places such as Scotland, (see July report), it should be possible to find best practice methods.

Value added to Woodlands by Fungi Inoculating and Wild Mushroom Collecting

Report below is taken from the Fungi section of a report by Jenny Wong for Wildresources Ltd

There are two main types of woodland fungi; those that feed on dead plant material – Saprophytic fungi, and those that form a symbiotic association with tree roots- mycorrhizal fungi. There are many species of both types in Welsh woodlands and of these, 20 are both common and edible (Phillips 1981). Wild harvesting issues are much the same for both types but there are very significant differences in cultivation techniques.

There are very exacting standards for the heavy metal and pollution content of foods offered for sale laid down by the Food Standards Agency. Wild foods are not exempt from these regulations and larger scale producers have regular samples of products tested at Food Standards Laboratories to provide assurance that they are safe to eat. The heavy metal content of foods that are picked close to roadsides is a concern

as the fungi may concentrate the metals from car exhausts while fruit may have surface contamination. In 2000 MAFF (now DEFRA) produced a report of the metal content of wild edible fungi and blackberries. This showed that there are higher concentrations of lead in fruit taken from urban areas and close to roads. However, the report concluded that ‘ the concentrations of the elements arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, platinum, tin, titanium, and zinc in fungi and blackberries collected from the wild did not provide any cause for concern for individuals eating those foods’.

Commercial Collection

Wild edible fungi (WEF) collection is mainly from woodland and meadow areas. Semi-natural woodlands, beech, and noble Fir plantations and older plantation stands are regarded as having the most abundant edible species both in terms of different species and quantities. Likewise it is older unimproved grasslands, which are the most productive.

The edible fungi fruiting season is largely in the autumn between the beginning of October and the end of December, there is also a spring fruiting season which begins in April. During the fruiting season some woodlands in the Aberystwyth area may have up to 20 people per day collecting fungi for personal use. The fruiting period varies annually and is largely dependent on local weather patterns. Good mushroom years are termed flushes and are estimated to occur at 3-5 year intervals. Ceps and Chanterelle both flush and a good year can yield vast quantities of the mushroom. For example, a flush of ceps gave a harvest worth £400 from two days collection and it was estimated that 5/6 times this amount was available from the same patch. A flush of chanterelle yielded 20 kg from a single days collection. In poor years it can be difficult to locate any significant quantity of either mushroom. This variability is a major limiting factor for WEF commercialisation.

The main species collected in Wales are:

Woodland	Grassland
Ceps (<i>Boletus edulis</i>) Chanterelles (<i>Cantharellus cibarius</i>) Wood Blewitts (<i>Lepista nuda</i>) Saffron Milk Caps (<i>Lactarius deliciosus</i>)	St. George’s mushroom (<i>Calocybe gambosa</i>) Parasol mushroom (<i>Lepiota procera</i>) Field mushroom (<i>Agaricus campestris</i>)

Most collectors do not request permission from the woodland owner. Collection for personal use where there is public access is a common right but commercial collection requires the permission of the landowner. There is no code of conduct for mushrooming in Wales although codes have been prepared for England (English Nature) and Scotland (Wild Mushroom Forum).

Commercial sale of mushrooms is highly dependent on the resource availability and is mostly of fresh material to local buyers. A collector can expect to be paid around £10 kilo for fresh mushrooms from a local restaurant. The survey identified just four WEF based enterprises with apparently very few people involved in commercial WEF collection across Wales. A recently established commercial collector in Mid-Wales estimates he can supply 9-30 kilos of fresh *Boletus edulis* to an outlet within 100 miles a year. This collector is hoping to expand £1-2,000 pa WEF income in the coming years and to provide seasonal employment for 2-3 people to assist collection of both autumn and spring species. This level of enterprise is considered by the collector as being the most that wild harvesting can sustain in this area.

Collection of WEF is a relatively skilled job, as it requires careful identification of the species being collected and selection of the right growth stage and condition. Informal guidelines for sustainable

collection emphasise the picking of caps with open gills (so some spores will have been released) and restrictions on the intensity of harvesting. For example some collectors only remove 20-30% of caps from Wood Blewitt patches. Once collected mushrooms are transported, cleaned, graded and packed ready for sale. The process from collection to delivery is regarded as time consuming and in some cases uneconomic.

Within the UK there is a growing market for wild mushrooms as tastes especially in the elite restaurant trade broadens, A kilo of mixed wild mushrooms may fetch up to £28.60 with a kilo of ceps costing £45 in London's Borough market. The largest commercial collector in Scotland sells around 87 different species, has around a £500,000 a year turnover and provides seasonal employment to hundreds of people with collection centred around Glasgow, Conan Bridge, Tomintoul, and Avimore. There is also large-scale collection from the New Forest in England. Development of a similar industry in Wales looks attractive but the results of the survey suggest that the commercial harvest of WEF collection in Wales is not economically viable because of the limited nature of the resource and competition from Europe. This is surprising given the scale of collection in Scotland, which has, at least superficially, similar forests to Wales. The apparent inactivity in WEF collection in Wales may be due to: under reporting in the survey; the lack of a suitable entrepreneur; collectors originating from outside Wales or low productivity in Welsh woodlands. Of these, the survey did not discover the existence of WEF buying stations as found in Scotland so this may be a limiting factor. Current knowledge of WEF in Wales is limited and depends largely on the BMS record and anecdotal information from collectors and amateur mycologists. These sources all suggest that there is a limited WEF resource across Wales though the scarcity of observers (six professional mycologists, a single fungi group covering Flintshire based in Liverpool and only 12 BMS records for the whole of Snowdonia). It has been hypothesised that Welsh woodland soils are too rich in nitrogen to stimulate mushroom production, as tress with sufficient nitrogen do not foster the growth of mycorrhizal fungi. However, it is difficult to imagine that conditions are that different in English and Scottish forests.

Although little is known of the distribution and abundance of WEF in Wales there is some understanding of fungal conservation. A recent assessment of important fungal areas in the UK (Evans *et al* 2001) placed 58 of the 520 sites in Wales. A red data list assessment of Welsh macrofungi also considered 261 species being of conservation concern (Rotheroe undated). The National Botanical Gardens is also in the process of preparing a comprehensive mycoflora for Wales. This information is relevant to WEF collection but does not address the central questions of the location, abundance and sustainable harvesting for commercial collection.

In order to develop the potential for WEF-based enterprises in Wales the following programme of investigations would be required:

- Survey of Welsh woodlands (semi-natural, broadleaf and conifer plantations) to assess the species, abundance and location of WEF
- Determination of the level of sustainable harvest from identified populations
- Development of a code of conduct for commercial mushroom picking
- Development of WEF trading networks (perhaps buying stations along the Scottish model)
- Research into methods of enhancing the productivity of selected species particularly from plantations where interventions would have minimal impact

Summary of Augusts Work

- I have identified two farms that are willing to embrace wild food collection and the development of their wild foods as an educational resource.
- There is interest from restaurants, both locally and in Ludlow, London, and Cornwall, (these were the only places contacted and showed a 100% interest rate).
- Gathering from the wild may prove unreliable and unsustainable, therefore I'm leaning more towards managed gathering from designated organic farms.
- Wild mushrooms are an area that could be expanded quite successfully as 'inoculation' of woodlands with indigenous species is neither too difficult nor too expensive.
- Both Welsh wholesalers have expressed an interest in taking wild foods, but this again raises the issue of sustainable gathering. Wild mushrooms could be the exception providing inoculation was viable.

The Wild Food Project

September & October Report

Surveying

In order to establish the basis of a wild food industry/tourism it was necessary to discover the variety and quantity of wild foods available in the immediate locality.

Allt Goch farm and **The Doldowlod Estate** offered themselves as a source of wild foods.

Allt Goch farm is situated in the Marteg Valley at St Harmon. It rises from around 800ft above sea level to 1600ft on the uplands. The farm encompasses a variety of habitats which include. Bog and wetland, grazing, vegetable fields, ancient oak forests, upland moors, upland bogs and heather moors.

The farm is in organic conversion, is in an ESA scheme and may be joining Tir Gofel.

This would mean that a lot of habitat will be protected and therefore harvesting would need permission.

The surveying was done on foot and ran over three days. Day one covered riverbanks and marshy ground; day two vegetable fields, hedgerows and pastures and day three studied the upland heather moors and bogs.

In all 40 different edible plants were identified, as follows:

River & Marsh	Pastures & Hedgerows	Upland Heather Moors and Bogs
Elder	Field Mushrooms	Heather
Meadowsweet	Gorse	Winberries
Yellow Water Iris	Hawthorn	Rowanberries
Mint	Clover	
Nettles	Broom	
	Raspberries	
	Blackberries	
	Yarrow	
	Strawberries	
	Fireweed	
	Daisy	
	Burdock	
	Common Mallow	
	Ash Keys	
	Comfrey	
	Bisort	
	Lady's Smock	
	Primrose	
	Rosehip	
	Hazelnuts	
	Beach Mast	
	Sloe	
	Crabapple	
	Acorn	
	Big fat Hen	
	Dandelion	
	Cleavers	
	White Dead Nettle	
	Red Dead Nettle	
	Wall Pennywort	
	Birch	
	Chickweed	
	Winter Purslane	
	Jack by The Hedge	

Although Government guidelines for wild harvesting are not readily available, it is common sense that some plants could be harvested on a more commercial scale than others.

At Allt Goch it would be possible to commercially harvest the following:

Mushrooms, Gorse Flowers, Hawthorn Leaves and Berries, Winberries, Rowanberries, Elderflowers and berries, Broom flowers, Meadowsweet, Yarrow, Big Fat hen, Nettles, Bisort and Cleavers.

Of those that could not be commercially harvested they could still produce a yield/s. A limited and controlled amount could be harvested for local restaurants and eco tourism could become a serious harvest without the plant being touched. Educational holidays being on the increase 'wild food forays' start to become a serious option for diversification.

Doldowlod Estate is situated on the main A470 between Newbridge on Wye and Rhayader. The estate has been reduced in size recently with some farms being sold off so the exact size is hard to gauge at this point in time but remains much larger than Allt Goch.

Although a few hundred feet less above sea level than Allt Goch the habitats are, not surprisingly, very similar. Work has taken place to develop and secure some of these habitats such as fencing of the old railway line that runs through the estate and enlarging and managing the wetland sites and ponds. The estate has far more conifers than Allt Goch which, although on the surface does not seem suitable for the production of wild foods, could support regular harvests of wild mushrooms if inoculated correctly.

The survey included all the plants found at Allt Goch with the addition of Pig Nuts and Angelica.

The Estate is very keen to promote the tourism and educational side of wild foods and is also hoping to develop a restaurant which would include the use of its own wild plants.

It is at Doldowlod, with Dave Burridge, that experiments into semi-cultivation of wild plants could take place using the walled garden. Plants such as Burdock and Pig Nuts give a good yield and have an excellent flavour. Winter Purslane fills the green leaf gap in mid winter as can Wall Pennywort.

Both Julian and M T Gibson-Watt are keen for this project to be taken forward and add another dimension to the output of the estate. Discussions with them have thrown up further possibilities for seed saving, indigenous wild flower production and added value to their woodlands through wild mushroom inoculation programmes.

Database

The database of surveyed and identified plants is increasing and being refined as needs require. It is now a relational database, which can call up plants by usable part, habitat, commercialism and edibility.

Fungal Inoculation

By far the most common wild foods, and the most lucrative, are mushrooms. Gathering wild mushrooms can be inconsistent, as mushrooms tend to flush one year and give nothing the next. Identification can prove difficult unless some form of training has been given and, as with all wild foods, they have to be searched out. It is possible, however, to encourage controlled mushroom growth by inoculating woods and forests with indigenous mushroom spores.

Woodland provides the ideal habitat for growing mushrooms and correct inoculation can produce edible gourmet mushrooms within 12-18 months of establishment. A small woodland of five hectares could produce income, within three years of establishment, of around £20,000. A company called Jac by the Stowl offers woodland owners a consultancy and planning service to help bring this about.

As with introducing any crop to the wild it would be proffered if the mushrooms were indigenous, indeed it would probably be contrary to CCW and English Nature policy to do otherwise.

Inoculation Sites

Three woodland owners have come forward expressing an interest in introducing fungi into their woodlands as a cash crop; Julian Beard, Llanyrthwal; Evan Price, St. Harmon and Richard Easton, Nant Glas.

All sites have been visited and two of the three owners are waiting to carry the project forwards. More work needs to be done into setting up suitable markets and outlets for the fungi before proceeding.

Tourism

Internet searches showed little serious 'wild food forays' and educational weekends being available at the present moment. Some responses from travel operators haven't arrived yet but a general trawl shows that token wild food forays are offered but these only go as far as mushrooms and then as only a small part of the weekend break. Some enterprising companies such as www.naturaldiscovery.co.uk also include a picnic with llama's carrying your sandwiches.

These bodes well as we could be in the for front of offering serious educational/gastronomic weekend breaks in Powys.

The majority of eco-tourism holidays are abroad and include rainforests, spotting endangered species, trekking in Nepal etc. It doesn't appear that anyone is offering tours of a similar kind in this country where our own fauna and flora can be observed and appreciated.

When talking to local branches of established tourism operators there was almost a complete blank on this kind of enterprise, although more specific details were asked for. I have, accordingly, sent a synopsis of the kind of holidays requested and the kind we would be offering. I'm awaiting replies.

Wild Food Recipes

Proof of the pudding etc.

November 14th to 20th is Organic Week in Rhayader, which culminates, with an Organic Food Buffet in the Wye Lounge, Rhayader Leisure Centre. We are hoping to trial some wild food recipes on that day.

Summary

The end of work for September/October shows that there are no other enterprises involved in wild foods other than a small handful of people offering fungi forays. The wider wild food subject is totally unexplored, and un - (sustainably) exploited. The potential is here in Mid Wales as both the natural resources and the owners of those resources are willing to engage in a future wild food enterprise.

Tourism is unengaged in this subject but a niche market is waiting to be revealed and developed here.

Work for November, December

Firm up eco-tourism in this area. Continue contact with main tourism operators.

Contact education providers in all areas e.g. Coleg Powys for evening classes, Coleg Powys to include a section on wild food holidays in their tourism courses, students to research. Local schools to include 'wild walks' as part of their compliance with the national curriculum science section. Local WI's to place a speaker on wild foods on their speaker lists.

Herbal companies and local herbalists to be approached. Why use nettles from Eastern Europe when they can be grown here. What are the reasons for not using local herbs and wild plants, etc

The Wild Food Project

November/December Report

November and Decembers research deals mainly with the possibilities of developing educational opportunities and tourism initiatives around Wild Food Forays, (WWF), and the possibilities of supplying herbalists and herbal companies with local produce.

As noted in previous reports there is a thriving Wild Food Industry in Scotland which has not, so far, transposed to Wales. The lack of such an industry should not necessarily preclude Wild Foods creating tourism and offering educational opportunities. The lack of such an industry could infer a lack of local knowledge and therefore a lack of suitable educators/tour guides. Hopefully this final report goes some way to deals with those issues and offers a conclusion.

Herbal Companies

The following companies were contacted:

Twinings	Faith
Waleda	Maroma
Hambledown Herbs	Postlethwaites
Penbontbren Herbs	Urtekram
Aqua Oleum	Heath and Heather
Brookhouse	Hampstead Tea and Coffee
Caurie Soaps	

Surprisingly it was very difficult to obtain contact details for these companies. Contact was by phone and by email.

The questions I asked were:

1. What percentage of herbs and plant parts used in the companies preparations was sourced from within the UK?
2. If a source of herbs and plant parts were available within the UK and of a consistent quality and supply would they use them?

Most companies had to be rung several times, as the person with the authority to comment was rarely available. Smaller companies were much easier to engage with, as the person answering the phone was very often the owner.

To date no email responses have been received but I intend to follow these up.

Conclusions so far are as follows:

Most of the larger companies such as Twinings have contracts that they are committed to and which make it difficult for them to source randomly from seasonally available sources. Continuity of quality and

supply are a serious issue for them and, again, makes sourcing from smaller producers problematic. However, climatic changes are now making companies look for potential suppliers outside their usual suppliers.

It appears that a vast amount of plant materials are sourced from Eastern Europe. The stinging nettle is a good example of a plant that one would think to find in abundance and readily available close to any processing plant, however nearly all nettles for herbal teas are bought in from Poland. The reason for this is that, strangely enough, very few herbal teas are actually made from registered organic plants. This means that quantity and cheapness of supply is the main criteria when sourcing. Wild Food foragers in Poland receive a fraction of the wage that a comparable worker would receive in this country. So, although a lot of nettle tea is sold as a 'detox' tea, it doesn't have to be organic in origin. To date I haven't been able to establish the 'quality control' criteria for these imported herbs.

Waleda is an exception to this rule and are unique in the market place. They grow a lot of their own plants, not only organically but also biodynamically.

Of the smaller companies **Penbontbren Herbs**, South Wales, and **Caurie Soaps**, Scottish Isles, were the most approachable. Both companies grew and processed their own herbs and were interested in using locally sourced plants that they were currently not growing.

Legislation.

I contacted Environmental Health and Trading Standards to discuss the regulations surrounding the obtaining, processing and selling of naturally occurring plants matter.

Environmental Health are only concerned with the public health aspect of contaminated plant matter. For example, it is not an issue with them whether a particular plant is rare, but it is an issue if it's poisonous. It's also an issue if, at any stage from picking to using, the plant material is contaminated with pathogens or poisonous materials or becomes a health hazard through mishandling, storing and processing. The normal food handling rules apply, such as anyone handling the plant materials having clean hands, not carrying any infectious diseases, receptacles being clean and sterilised etc

Trading standards require correct labelling and traceability which, again, applies to all food substances.

It's important to remember that legislation is being prepared for harvesting from the wild, so regular updates from CCW (Countryside Council for Wales) would be a good idea for anyone wishing to become a collector. CCW is advised by English Nature.

Herbalists.

I approached several Herbalists all of whom were hard to elicit information from. There appears to be an ongoing review on herbal remedies in the European Parliament at the moment which is sending shock waves through the world of complementary medicine .

When I discovered that Herbalists were reluctant to talk to me about their preferences for sourcing raw plant materials I approached the College of Phytotherapy for guidance. They in sent me to The European Scientific Cooperative on Phytotherapy whose role it is to advise and guide the new legislation.

It appears that leading drug companies are not happy with Herbalists being able to source and prepare their own plant materials. Their problem seems to be with the possible inaccuracy and variations of potencies with the potential for harm to members of the public seeking herbal treatments. The large drug companies want all herbal and plant based 'drugs'/'remedies' to be licensed. The cost of a licence could well be prohibitive to most practising herbalists. In short, the European Parliament could make it illegal for complementary therapists using plant based substances as their treatments to practice unless they can

fins the licensing fee and will, even then. Only be allowed to source their remedies from registered drug companies.

In the light of that it was not hard to see why so many Herbalists were reluctant to comment on where they preferred to source their plants.

If, as it seems, both the European Government, and therefore our own, will ban the sourcing of local plants for use by qualified herbalists, there does seem to be a need, never the less, to retain the knowledge of where these plants are growing, what their uses are and how to prepare them. There is no legislation that says an individual cannot source, prepare and treat themselves with local herbs.

These leads neatly on to 'Education/Tourism'

Education

I divided education into two strands, mainstream and alternative.

To investigate the possibility of integrating 'Wild Foods' and 'Wild Food Forays' into mainstream education I contacted Coleg Powys.

Coleg Powys was very helpful. Although no departments had considered wild foods as a study option I was asked to develop a one-day session on wild foods for the catering department. Catering students are already being made aware of both organic and local produce so local, organic and wild could be an interesting addition to the study programme.

Coleg Powys also suggested developing an evening class on wild foods. This has possibilities and could certainly bring both Allt Goch farm and Doldowlod Estate into focus as sources of these foods. There will be obvious issues surrounding correct identification of plants but Coleg Powys Llandrindod has good training kitchens so produce could be brought in by experts and prepared and tasted by the students.

Alternative Education

There is huge scope for people with sound knowledge of wild foods to run weekend workshops, etc, to study the identification, harvesting methods and cooking of wild plants.

Dave Burrige from the Doldowlod Estate is taking exams that will qualify him to teach and to lead parties of walkers. These qualifications will enable him to get insurance cover for weekend forays.

Other tutors have been identified such as Rob Underhill who would be interested in using both Allt Goch and the Doldowlod Estate to run 'Survival' weekends. He has had sufficient enquiries to begin weekends as soon as accommodation and catering are suitable.

Dan Butler is already established with his 'Fungus Forays' and could be persuaded to do more.

There are a vast amount of alternative learning centres offering courses in health and well-being. One such College is based in Cornwall. Stoneybridge College offers correspondence courses in a wide range of personal development and health areas.

They have requested more information on a 'Wild Food' studies programme, which I'm hoping to develop shortly. Practical studies will be necessary which would include hands on weekend in Powys.

Tourism

I think we are aware that, as with education, tourism can be split into two categories, mainstream and alternative. I'm sure that 'wild food forays' are alternative, but magazines such as 'Country Living' popularise the rural idyl and familiarise readers with the concept of eating from hedgerows while desensitising them from the fears of poisoning. It would not be inconceivable to imagine, shall we say, a

middle class, 'green' lifestyle family with a reasonably disposable income enjoying the thought of a weekend break to explore the countryside and the wild foods it can offer. Everyone knows about rocket and sorrel, blackberries and elderflowers, but imagine how exciting it would be to dig up some strange shaped root and boil it for tea.

If that is combined with good accommodation then it's surely a recipe for success.

Mainstream Tourism Operators

I contacted the following tour operators:

Radnor Travel Services
Terry Jones Travel Ltd
Midlands Coop Travel
Thomas Cook
Travel Care Leominster
Yeomans Canyon Travel Ltd
Status Travel, Bromyard
All Seasons Travel, Hereford

With nearly all-mainstream tourism operators the first point of contact is a receptionist who obviously cannot comment on company policy or possible future developments and trends. They can only comment on what is or is not available at the moment.

All companies were very polite and helpful, but all said that they didn't offer any weekend breaks of this kind at present and has also never received any requests for them.

To bypass the standard phone call I went to Hereford and Ludlow in the guise of a 'punter' wanting a rural weekend gastronomic break in Mid Wales with an emphasis on local and preferably wild foods. I was offered the 'Drawing Room' in Newbridge on Wye who offers cooking weekends and takes in Brecon Farmers Market, but don't specialise in wild foods. There were quite a few other venues offering locally produced meats and cheeses, but no wild foods.

Alternative Tourism

Being 'alternative' is fast becoming 'modern'. Again, the desires to reconnect with the land you live in/on and to be aware of how you integrate and relate to it is very important. There are vast amounts of publications which service this market, e.g. The Ecologist; Positive News; Green World; Resurgence and Red Pepper, etc.

There is a very enlightened and forward thinking element that is actively seeking to re-establish and reconnect its roots.

Advertised in the right places and using word of mouth with the well established networks that we have will, in my opinion, create an embryonic but healthy alternative tourist industry around wild foods and reconnecting to the land.

Trawling through Yellow Pages there are no offers of this kind of tourism.

The Internet offers gastronomic holidays but not of this nature. I would imagine that there are still so many people wanting to travel to the sun for peanuts that most tour operators don't need to look further a field for customers. But there are a growing number of people who need a break but who don't want to waste their time on trivialities. For them taking time of is to spend time wisely and they are looking to widen their knowledge and experience base... not get a suntan.

We are looking to head up a new kind of holiday in Powys. The fact that these holidays don't exist at the moment is possibly a good thing because it allows us to create them while knowing that the demand is there and growing.

Project Conclusion

Having researched the four chosen aspects of wild foods in Powys the conclusions are as follows:

1. There is potential for a wild food industry here but it will take entrepreneurial skills to pull it together. The plants are available but at present there are no infrastructures in place for such an industry to happen, i.e. no collectors, no correlation of information on plants and their whereabouts, no central buyers, no listings of individual buyers. No one who can process plants in quantities, no marketing strategy.
2. Legislation is vague at present on who can harvest what and where and for what purpose. This needs close monitoring as it could make even simple weekend trips illegal if endangered plants were to be threatened
3. There is a demand for wild foods from local restaurants and this could prove lucrative for anyone with the right knowledge and the permissions from landowners to gather on their land.
4. There is a demand for wild foods from members of the general public. The 40 hours work done in kind for this project operated throughout the project from The Wild carrot in Rhayader in the form of a questionnaire. This was designed to assess the interest in wild foods from shoppers who were already buying organic produce. Well over 60% of shoppers expressed an interest in trying wild foods if they were sustainably harvested and guaranteed safe.
5. There is a demand for training in the identification and uses of wild foods which, at present, looks to be able to generate four weekend courses a year, potentially seasonal, with an average of 10/15 attendees on each course. At roughly £100 a head that could produce an extra income of between £4,000 and £6,000 per year for a landowner with suitable plant materials.
6. Harvesting wild plants for the herbal industry looks to be highly problematic as, once again EU legislation could make even the growing of common herbs for medicinal use illegal without a licence. It would appear that the licences would be exclusive to large companies based on cost.
7. Due to the sheer lack of volume of edible wild plants the harvesting of them will never contribute in even a small way to the average persons diet. They will always be a novel food and one, which this project has identified a potential market for. However, because tourism and education does not rely solely on the plants being harvested there is the opportunity to develop these areas significantly. For organic farms this could become a real option.
8. Between wild foods and the conventionally grown vegetables and fruits that we are familiar with today there lies a half way house which now leaves itself open for research. Permaculture, (permanent agriculture), is a way of growing which uses almost exclusively perennial plants. There is no need to plough or dig, the soil structure remains intact. There is no need to continually buy new seed each year, or worry overly much about seed saving. There are plants suitable for woodland, marginal land, bog etc, as well as good quality arable land.
9. With climate change becoming a reality and the possibility of food imports being jeopardised we need to think seriously about food security. Powys has more of a food security issue than a lot of areas as very little fruit; vegetables or cereals are grown here. Encouraging the redevelopment of small orchards across Powys is an example of food security and permaculture. There are at least 7,000 edible perennial plants that could be grown on farms, in parks, in schools, in woods, in window boxes, in bogs, on moorland etc. I see the research into these plants as a natural follow on from the wild food project and would like to ask Glasu to consider investing in it.