

Autumn 1999

# NATIVE WOODLANDS DISCUSSION GROUP

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Newsletter



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Volume 24 (2)

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## NWDG OBJECTIVES AND ACTIVITIES

**Objectives:** *The purpose of the Group is to encourage interest in native woods, their ecology and management, with a particular emphasis in N. Britain.*

**Activities:**

- \* Organise at least one Field Meeting with related discussion each year.*
- \* Organise Workshops on subjects suggested by members (initially two per year).*
- \* Issue Newsletters (currently two per year) with an emphasis on members' contributions.*
- \* Maintain contact with like-minded organisations through the membership.*

**Membership:** *This is open to any interested individual (There is no corporate membership).*

**Subscription:** *According to the following categories -*

<i>Ordinary individual</i>	<i>£12.00 p.a.</i>
<i>Family</i>	<i>£18.00 p.a.</i>
<i>Concs./Unwaged</i>	<i>£ 6.00 p.a.</i>

**Constitution:** *The NWDG constitution is on the inside back cover of this newsletter*

*Subscriptions should be sent to Membership Administrator Viv Halcrow (address on page 4)*

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## NOTES FOR FUTURE CONTRIBUTORS

**Copy date for the spring newsletter is 15<sup>th</sup> February.** The newsletter will go out in the second half of March/early April.

The following types of contributions are always welcome:

- Group or organisation reports
- Woodland reports/updates
- Research, management and articles
- Shorter items of news, e.g. new groups/initiatives/projects or personnel changes
- Letters to the editor
- Reviews of books or other publications relating to native woodlands.
- Illustrations - cartoons, logos, pen and ink drawings of trees and wildlife etc..

Contributions can be up to 1500 words long. They should ideally be word-processed in Word. Hard copy and a disc are very helpful to the editor (or else via email).

Please contact the editor if you have something to contribute but are having difficulty meeting a deadline. Also with an idea for an article you wish to discuss. Also phone/fax/send in ideas for improving the newsletter.

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## EDITORIAL

As is usual at this time of year, our Newsletter is dominated by the Field Excursion, an event which will be long remembered by many. Many thanks to all who contributed the excellent reports and, of course, to the tireless organisers.

You will see a notice about the 2000 Excursion at the end of this section.

This issue sees some new developments:

- A letter!
- The Index of Articles in ENACT. Many of the articles are highly relevant to native woodland managers. Future issues of the newsletter will draw attention to such information in other publications.
- The notice requesting nominations for Trustees for Scottish Native Woods.
- The new logo replaces our tree on the front cover. It has been a long time coming, but it has been worth waiting for. You will see a lot more of this logo in future. Many thanks to Bob Jones for producing it.
- There are several graphics (many thanks to Yorick Corre). These are intended to make the Newsletter a pleasanter read.

Finally, Carol suggests, in her article, reintroducing the Points of View section to raise controversial issues and debate them and to cover other Topical Issues. This is under active consideration, and your comments will help in the decision.

Nick Marshall

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### The Millennium Field Excursion

#### ◇ May 11<sup>th</sup> - 14<sup>th</sup>, 2000 - North West Sutherland

The Native Woodland Discussion Group Annual Field Excursion will be held in North West Sutherland in 2000. The meeting will be based in Assynt and will address a number of themes topical to the area. North West Sutherland is an area of bioclimatic extremes and this issue will become evident throughout the meeting. Land ownership issues will also feature strongly and participants will be staying in Assynt, an area well known for the historic buyout by the Assynt Crofters. This will be a visit loaded with controversy and the debate will no doubt spill over well into the early hours.

More information and a booking form will be sent with the next mailing in early 2000.



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# NWDG NEWS

## MINUTES OF 1999 AGM HIGHLAND HOTEL, STRATHPEFFER SATURDAY 5TH JUNE, 1999 Kate Holl

1. **2000 Field Meeting.** Next field meeting to be centred around Lairg.
2. **Treasurer's Report.** Mairi Stewart presented her audited accounts to the committee and noted that an identical copy of the unaudited accounts had been published in the newsletter. Treasurer's report proposed by Iris Glimmerveen and seconded by Juliet Robinson.
3. **Election of committee.** All committee members are voted on for 3 years and existing committee members are prepared to carry on in that capacity.
4. **Changes to constitution.** The following changes were proposed:
  - a two thirds majority of membership required to approve any changes
  - membership of NWDG will be one calendar year and shall cease after 18 months
  - change the auditing year for the Group from the calendar to the financial year (April 1- March 31). The advantage of this is that we would know better the Group's subscription income in a particular financial year. Audited accounts would then be presented at the AGM.these proposed changes were voted in by the majority of membership.
5. **Newsletter.** Nick Marshall thanked all contributors and invited new articles by Sept. 15th for the next newsletter.

Changes to the newsletter were proposed: it is felt that there is too much space given to group reports; in future these reports will need to be as concise as possible. It is proposed that there will be more general/technical articles and news updates; there will be an increased follow-up of developing themes e.g. devastation and intervention, woodland grazing, pigs etc. NM proposed the idea of a small editorial group and invited comments from membership on the newsletter.

6. **Logo.** Richard presented the logo. There was a brief discussion about whether the Group really needed a logo, but in general it was agreed that the Group needed a logo or "stamp of recognition" to help promote itself, and that the principal of a logo for the Group had been voted in by the membership at the last AGM. Membership approved spending £50 to "smarten up" logo, but felt that the logo should incorporate a reference to pine given the origins of the NWDG as the pine discussion group, and approved the idea of logo depicting a pine seedling growing into an oak leaf(!).

7. **Membership Report.** Viv Halcrow gave a report on the Group's membership: 171 paid-up members of which:  
143 ordinary members  
18 concession  
10 family (plus a donation of £50)

39 members are new members and 24 rejoined as a result of receiving the reminder.

8. **Workshops.** (Reports by Carol Crawford) Lichen workshop was sold out with 24 participants. The second workshop on natural regeneration developed into a seminar with 60 participants; the proceedings have been published.

There are proposals for 2 or 3 more workshops this year:

- Identification of woodland mosses;
- Feedback from regeneration seminar to look at other woodland types
- Woodland survey (NVC) techniques
- Monitoring training

9. **2001 Field Meeting.** A couple of possible options were presented: Trossachs or Argyll. Both areas offer an interesting range of issues to explore. Chris Perkins volunteered to look into the Trossachs option. NWDG committee to investigate someone to look into the Argyll option.

10. **Date of next NWDG Committee meeting:** Thursday 9th September at Battleby (10.30 am). •

# **NATIVE WOODLANDS DISCUSSION GROUP 1999 FIELD EXCURSION**

## **INTRODUCTION**

**Nick Marshall**

This year's excursion was, by many accounts, one of the most inspiring yet, despite the traditional appalling weather.

The excursion, organised by Highland Birchwoods, was based at Strathpeffer and visited sites mainly in Easter Ross and along Loch Ness-side. The sites varied from high elevation (non-) exclosures near the summit of Ben Wyvis to sea level at Ledmore and Migdale, and from native woodland creation and restoration to detailed management of existing native woodlands.

An impressive amount of native woodland work is going on in this small part of the Highlands. Looking over from Corrimony to the distant hills around Glen Affric and hearing that there were plans for native woodlands to expand over the whole of this vast expanse, brought to mind Roy Dennis's vision of a "native forest large enough that you can walk all day and still not have reached the other side".

There was a strong feeling that native woodlands are moving into the mainstream, and that many of the old antagonisms are past. This leaves more time and space for people to discuss the detail of managing native woodlands and what they are for, including the fascinating suggestion (brought up at Novar) of areas of forest alternating between rotations of native and non-native species.

No serious injuries were sustained during the excursion, apart from occasional injured pride at being mistaken for Saga holiday-makers. Members remarked on the quaintness of Strathpeffer and its hotels - a Swiss spa resort in the Highlands. So, an all round - sociological as well as ecological - experience was had by all.

Thanks and congratulations, of course, to Highland Birchwoods. Also to the visit leaders as well as the owners and managers who made us welcome to their land. Also to those who made the thought-provoking presentations in the

evening sessions. And finally, my thanks to all the reporters, who were given a difficult brief but, as you will see below, fulfilled it admirably.

As usual, I have copies of most of the field handouts. If you would like the handout for a specific outing, please send me an SAE. •

## **A TRIBUTE TO HIGHLAND BIRCHWOODS**

**Ruth Anderson**

Twos on a weekend wild and wet  
The weather quite inclement  
A group of woodland weirdies met  
Relationships to cement

They travelled far by coach and car  
From all across the nation  
Strathpeffer - Oh ye wondrous spa -  
Their sumptuous location

And on each morning's very brink  
From Victorian splendour surging  
Undaunted by ravages of excess drink  
The eclectic group emerging

We see two mother hens are there  
As round their brood they fusses  
One's voice is hoarse, one tears her hair  
To get them on the buses

But yet like clockwork all depart  
To destinations wooded  
Bright of eye and light of heart  
In Goretex jackets (hooded)

For Juliet no time to sleep  
Her woodland chicks she chivvies  
And fair Diana lithely leaps  
To lead hers up Ben Wyvis

And so their arboreal days are filled  
Their bodies eased and limber  
Their minds by diverse issues stilled -  
Deer, black grouse and timber

So now we must our thank yous pledge  
With love and admiration  
To Highland Birchwoods - cutting edge  
Of sylvan stimulation •

**THURSDAY 3<sup>RD</sup> JUNE, EVENING**  
**Iris Glimmerveen**

In her welcoming speech, as chair for the evening, Ro Scott reminded everyone that all members of the NWDG are seen as individuals, not representatives of their organisations, so as to encourage free and frank discussions.

#### **James Pendlebury - Highland Birchwoods**

James started the evening off by explaining how Highland Birchwoods had evolved from its inception in 1992 to a project with a current turnover of almost £1 million, and undertaking 11 projects this year. With 15 staff, HB has concentrated on the conservation value of woodland and scrub (Atlantic Oakwood Restoration Project); on the development of woodland products (from Shiitake mushrooms to high quality furniture) as well as on education and promoting best woodland management practices.

#### **Bob Dunsmore - Forestry Commission**

Bob gave a historical perspective laced with many statistics on forestry in the Highlands. He then highlighted current issues, such as devolution allowing forestry to move up the political agenda; timber transport and its implications for road infrastructure; the constructive positive targeting of native woodland management through Indicative Forestry Strategies and the need for co-operation in private sector marketing, as pointed out in the Jaakko Poyry report. He further talked about Community Forests, crofting forestry, non-market benefits, landscape, red deer, naturalising plantations, management zoning and small-scale harvesting at Rothiemurchus, habitat networks, BAPs, HAPs and land reform. He ended by saying that recent funding was good, but that future funding may be even better through a range of funding options, such as EU Structural and Rural Development Funds, Article 10 bids and LIFE, all targetted at native woodlands. Native woodlands, he said, were now part of mainstream forestry.

#### **Peter Quelch**

Peter launched the Native Pinewood Inventory on floppy disk. [Full description in News Section.]

#### **Roy Dennis**

Now a Deer Commissioner, as well as a crofter, Roy described how the Deer Commission for Scotland (DCS) is at last changing to take on the challenges presented by excessive deer populations to ecological restoration in many parts

of Scotland. The DCS was in the process of drawing up a strategy, including a long-term vision, and NWDG members should take this opportunity to express their views to the DCS.

The strategy should reflect a new emphasis on managing deer for maintaining and restoring semi-natural habitats (especially native woodlands). A key issue will be the relationship of communities with deer, and in particular the access which local people without land have to deer as a sustainable source of food and jobs. Of course, while deer cause problems when badly managed, they are an integral component of semi-natural ecosystems throughout Scotland, not least woodland ecosystems. Complete exclusion of deer hinders development of natural ecosystem processes.

Roy anticipated that there would be a broad-based public consultation on a draft DCS strategy in late 1999. It was also likely that a priority would be the production of a comprehensive set of Deer Management Plans for the whole country. •

### **FRIDAY 4<sup>th</sup> JUNE**

#### **Option A - Ben Wyvis (am) and Novar Estate (pm)**

#### **BEN WYVIS**

#### **Ruth Anderson**

Indisputably the weekend's most strenuous outing (nocturnal activities excluded) - an event which stretched legs, lungs, heart and mind. The day began innocuously enough with a warm bus journey in steamy sunshine up a long and winding road (plenty of deer to be seen), to disgorge at the west end of Loch Glass just as the weather began to deteriorate. Our mission: to scale all but the highest pinnacle of Ben Wyvis, viewing en route regeneration inside and outside an enclosure, and culminating with the Highland Birchwoods/SNH scrub willow restoration project in Coire Lochain. Our leaders: Peter Wortham and Hugh Brown (SNH), and Diana Gilbert (HB).

Ben Wyvis is a SSSI, a NNR and a candidate SAC for its upland habitats. It also supports

downy willow *Salix lapponum* (scrub community W20) in Coire Lochain, and shrub rich blanket bog (M19) with good populations of dwarf birch *Betula nana* below the corrie. Conservation management has focussed on restoring birch woodland here on the south side of the loch, using deer exclosures (totaling 115ha). Sheep are not an issue.

This was a no-messing sort of start to the weekend. Abandoning our cosy bus far below, we slogged up a boggy burnside, experiencing intimately a transition from deepish to much deeper peat. Conversation also got a little bogged down as we laboured upwards. But we witnessed some promising regeneration in the exclosure to our left (1990), spreading from the burn. Pine of local provenance had also been planted here. The exclosure extends to 1,400 feet, encompassing an area of dwarf birch. Even beyond the exclosure we had no trouble finding dwarf birch among the heather. Would downy birch ultimately take over from dwarf birch? It was thought not - altitude and peat depth would prevent - but there might be some hybridisation, as on Ben Loyal.

We discussed habitat linkage from mixed birch woodland at the lochside, up through dwarf birch to the willow scrub in the corrie. Was it possible to envision an end-point? We concluded not - nature would take its own course, albeit beset by deer. Dwarf birch are extremely palatable (as are downy willow), but grow back vigorously from the base. Wyvis Estate's deer shooting policy has not changed in 15 years. On this frustrating but familiar note we proceeded upwards and came at last to the corrie, where we enjoyed a wet lunch, a wee scramble, and the vicarious pleasure of watching the dog swim.

The scrub restoration project (with MFST funding) aimed to restore 3ha by deer fencing, to give practical experience and contribute towards production of guidance notes. Downy willow is not a particularly rare plant, and there is quite a lot of it (and other dwarf willows) on the rocky ledges and steep walls of Coire Lochain. However, being dioecious, it needs male and female plants in close enough proximity to produce viable seed. Short of taking up residence in the corrie to survey the plants there was no way of knowing whether viable seed was being produced, and whether enough was establishing even to maintain the current population.

The ideal conditions for seed establishment equate to a fencer's nightmare - altitude, gradient, snow, scree and rocks. Bravely in the face of this knowledge, in 1997 a 2m high deer fence was erected, with 4 electric wires powered by a 12V battery off a solar panel - a 5000V kick for any bold deer. Following snow damage the first winter, the wires were removed for the second winter. Snow damage with a few tons of stone thrown in then polished off half the posts. The inescapable conclusion is that fence maintenance (and even monitoring) in such locations is impractical. Which leaves deer control. Perhaps the Deer Commission would enjoy this outing as much as we did? ●

## **NOVAR ESTATE**

### **Helen Gray**

This was a relentlessly wet visit to two parts of the 9000 ha Novar Estate, lead by the Estate Forester, Cameron Ross. The visit looked at aspects of birch silviculture. The following is a record of snatches of conversation overheard and what could be deciphered from what remained of my notebook following drenching, drying out, pages sticking together, and subsequent peeling apart three months later. The opinions expressed are those of participants, not necessarily of the author.

### **Contullich Wood**

This is a 5 ha birch woodland, approx. 50 years old and has been thinned. There was debate about whether we should expect birch to follow birch - is this appropriate ecologically. It was suggested that if the overall conifer/broadleaf balance in estate or locality is OK, then rotations alternating conifers and broadleaves might be acceptable (with the added soil improvement benefit of birch rotations)? In that case, the permission needed to spray out unwanted birch regeneration during the conifer rotation should be more readily granted.

It's actually working *with* nature, since, using continuous cover forestry, small coupe sizes don't let enough light in for birch regeneration anyway. Verily, birch woodland is in effect another woodland type just waiting to happen.

Enough of this self-indulgent grant-dependent conservation forestry! Without timber considerations, conservation forestry is a mono-purpose forest, just like the reviled commercial

plantations. We have to develop skills in native-species forestry in order to produce decent timber. Many of these 'new native woods' are only good for firewood! You might be able to produce Scottish brand charcoal, which is fine if you have the local, independent, skilled, interested and motivated manpower, but can't be a core estate business - or a core skill. It's regarded, erroneously or not, with the same earnings to hassle ratio as porridge spurtles.

Forest Habitat Networks provide a way of balancing business and conservation needs. They result in areas of high timber production forest (both native and exotic) nestling within a matrix of 'pure' conservation stuff on the steep bits, boggy bits, inaccessible bits, less productive bits and bits recorded on the AWI, which act as a reserve for flora and fauna. Remember, biodiversity of inverts (those who injured themselves at last year's ceilidh & who therefore refused to dance this year?) and lower plants is far greater in commercial conifer plantations where birch & other broadleaves are retained.

#### **Novar Quarry**

This was an old sand and gravel quarry. In 1988, a tiny amount of regeneration was visible. In 1995, the site was ripped to break up compaction. Now there is thick regeneration. This was respaced (with a clearing saw or chainsaw) when trees were 3m high (but 2m high is ideal), at approx. 2m spacings, selecting for the best stems. It cost £300-350/ha, which is OK because there's no planting cost, but doesn't include the large amounts of management time spent thinking, planning and supervising more sophisticated operations (significantly higher than in 'traditional' commercial systems). Next operation is to thin at 20yrs down to 25-30 m<sup>3</sup>/ha. Dead, shaded-out branches are pruned (never live wood).

And finally, all we want for Christmas is a market for small round wood. •

#### **Option B - Ledmore and Migdale (am) and Milton Community Woodland (pm)**

**LEDMORE & MIGDALE WOODS**  
**Debbie Cowen**

Paul Young, Woodland Officer for the Woodland Trust met us at Ledmore and Migdale Woods, which is the biggest of the 8 Woodland Trust sites he manages. Also on hand was Angela Douglas, Operational Director for WT Scotland.

These woods are part of a larger complex, which is important for wildlife, landscape, recreation and amenity. The site totals 710 ha and contains three SSSIs: Spinningdale Oakwood (95 ha), Migdale Rock Pinewood (144 ha) and Spinningdale Bog (29 ha). Ledmore and Migdale woods were purchased by the WT in 1993.

#### **Ledmore Oakwood**

This wood is being managed under continuous cover with small coupe (approximately ½ ha) fellings, which have been fenced and are subject to differing levels of grazing protection. Fixed transects allow monitoring of regeneration under these differing regimes. Removal of exotics is occurring throughout the wood.

The discussion covered all aspects of regeneration techniques, monitoring, sale of timber from coupes as well as many other topics. The main feeling from these discussions was the wood was still relatively young at 130 years old and therefore WT should not rush their decisions with regard to regeneration. It was suggested that results from monitoring such trials should be well published regardless of the final results.

#### **Migdale Pinewood**

In an effort to restructure the wood over a 20 year period, an average 30% thinning has been undertaken over the whole site. Preference has been given to areas dominated with a blaeberry understorey, with increased thinning concentrated in areas dominated by exotics. Main topics for discussion covered the issue around species protection vs habitat protection, most agreed habitat should be our main focus (no surprise there). Also the possible reduction in access if Capercaillie were to become established and the problems this presents to organisations like WT. We didn't really resolve this issue.

The main point to pull out of this visit, is that there is lots of work going on out there that needs to be shared in order that we learn from each others' mistakes and don't all keep re-inventing the wheel! A possible way of collating such

information may be through organisations such as Reforesting Scotland. •

## **MILTON COMMUNITY WOODLAND**

### **Eric Stevens**

Spurred into action by fears over safety and a lack of management, the Milton Community Woodland Trust was set up 5 years ago to purchase and then manage their local woodland. The 6 hectare wood, part owned and part leased by the Trust, poses a number of management challenges, not just of the woodland but also of the community.

Unmanaged since the 1960's much of the woodland has become dominated by sycamore, which continues to spread aggressively throughout the site. The most obvious suggestion, to simply clear the sycamore, has met with objection from the community – an aversion to change being the stumbling block. Another major management challenge is the control of giant hogweed across the site. A narrow window for effective chemical control combined with a lack of co-operation from upstream neighbour is making control of this potentially dangerous weed extremely difficult. The woodland does however present a number of interesting and diverse opportunities for imaginative management including: hazel coppicing under the power line wayleaves, restoration of fragments of oak/birch and alder/ash woods, production of high quality ash stems.

Possibly the largest single constraint on woodland management is, ironically, the community itself, which has been divided on several issues including: use of trail bikes, camping and fires, removal of sycamore, construction of an adventure park. Although frustrating for those involved, at the very least, objection and debate demonstrates the community's interest and stake in the planning process.

Despite the gentle spring shower, those who were pessimistic enough to take their waterproofs from the bus, enjoyed a thought provoking visit to a diverse woodland. •

## **FRIDAY EVENING**

### **Andy Fairbairn**

Ivor Davies chaired the session, speakers were Dennis Torley, Angela Douglas and Peter Wortham.

### **Dennis Torley – Forest of Spey Project**

The Forest of Spey (FoS) project was set up by the Cairngorms Partnership to increase native woodland in the area as well as to promote sustainable land use and local employment. The aim is to build up viable native habitat networks for species such as Black Grouse and Capercaillie. The area has the largest Capercaillie lek in Scotland and it is hoped that 35km of deer fences will be removed next year. The project is training joiners and encouraging product development e.g. window production and promotion to architects and builders. Overall the project is facilitating more of what had already been happening.

Chair noted window development and advised that if they are to be considered for Scottish Parliament building, they require the insertion of steel plates and a bomb proof certificate!

### **Angela Douglas – Woodland Trust Scotland (WTS)**

The Trust's first acquisition in Scotland was 15 years ago at Balmacaan in Drumnadrochit. Since then, WTS have acquired 76 sites covering 6500 hectares, all managed for conservation, wildlife, landscape and free public access. Two projects of interest are the Community Woodland Stewardship Programme and a project researching the establishment of native ground flora in woodland creation areas. The WT has successfully applied for FSC accreditation in England and Wales and will be applying for accreditation in Scotland later in 1999. At Glen Finglas estate, in the Trossachs, WTS is implementing a forest regeneration project combined with agriculture, access, recreation and community involvement. Also undertaking a separate study to develop Community Involvement Principles on which to base future activity.

Chair expressed his surprise at WTS involvement with black faced sheep, pre-paid funeral plans and peculiar shaped trees!

### **Peter Wortham – SNH**

This talk provided background for the visit to Strathconon Estate on Saturday.

A management agreement was agreed between SNH and Danish owners in 1995. The management plan was completed in 1997, complementing full range of SNH's remit for access, interpretation and natural heritage.

Key points to consider during visit:

- \* Restructuring of Glenmeannie plantation
- \* Regeneration in existing enclosure
- \* Deer control – deer management group
- \* Browsers from neighbouring estate
- \* Regeneration

Questions:

- Was Forest of Spey Challenge Fund fully subscribed ? Dennis - Yes over-subscribed. Too early to tell if regeneration schemes are a success.
- What are the variety of regeneration methods at Glen Finglas ? Angela – Ranges from deer and stock fencing, mounding and planting to grazing management with no fencing. Will also experiment with natural regeneration using low intensity cattle, seed broadcasting and scarifying. Project is funded by having whole estate in WGS, plus EU agriculture payments and Heritage Lottery Fund. •

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## **SATURDAY 5<sup>th</sup> JUNE**

### **Option C - Corrimony (am) and Abriachan (pm)**

#### **CORRIMONY - CALEDONIAN FOREST RE-CREATION**

**Colin Blyth**

After the deluge of the previous day we were blessed by reasonable weather for our trip to the RSPB's reserve at Corrimony, where we were hosted enthusiastically by Dave O'Hara, the reserve warden.

Corrimony has been owned by the RSPB since 1997. It extends to 1503ha and contains a variety of habitat types, principally heath/mire mosaic and woodland. The woods are a mixture of native woodland (2%), pine forest of uncertain provenance (15%) and exotic conifer plantation (23%).

The aim of the RSPB is to establish native woodland, primarily pinewood, as part of the re-creation of Caledonian Forest habitat on the

property. The long-term vision is to have up to 1,000ha of woodland cover. Black grouse, and potentially capercaillie, are expected to benefit. The site will also be used for demonstrating conservation management techniques in the Beaully catchment. Surprisingly, given its proximity to Glen Affric, the area does not have any statutory designations.

Our first stop was to look at the plantation and discuss its future management. Half of this area had been burnt recently. We were told that it was accidental but I was sure I got a whiff of petrol! Anyway this has presented a superb opportunity for a start to be made on restoring native woodland to the area. This will be done mainly by natural regeneration supplemented by some planting.

Sound deer management will be critical to the success of this project. Removal of much of the existing deer fencing is underway and the cull of red deer has been increased. The use of lower profile electric deer fencing is being trialled (in an effort to minimise bird strikes) and there was debate on whether or not the Forestry Commission would approve of this under a Woodland Grant Scheme. To date the FC have said "No" in north Scotland but this may change if the use of this type of fence is seen in the context of a sound and vigorous deer control strategy.

After a pleasant lunch, taken above Loch Comhnard, we headed back to the buses. On the way we had a distant view of another plantation area where the exotics had been removed to free up existing birch woodland. We also passed through a 40 year old crop of mixed conifers where the intention is to remove the exotics and thin the Scots pine in such a way as to create a more naturally structured forest.

The theme of genetic purity arose several times during the day. It was suggested that the NWDG should arrange a major seminar on this subject next year. This would involve both researchers and practitioners. Personally I would welcome this as I fear that policy and practice over recent years have been governed by what might be some rather dodgy science (my spell checker suggested that this should be doggy science!) and it would be good to have the current position clarified and debated. •

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## **ABRIACHAN**

### **Peter Quelch**

Margaret Davidson, Trustee and secretary of the Abriachan Community Forest spoke to the group in the village hall. The sense of community spirit became very apparent, as well as the people-oriented attitudes of the whole project. I. M. Forestry (Iain MacLennan and Dietrich Pannwitz) were able to give local and relevant forestry advice for the community in running the scheme.

Out of 130 people in the area, 60 were members of the Trust. An opportunity arose out of the land reform movement and the community took it - namely to purchase 541 ha of FC woodland for social reasons. Initially the aim was just to secure access, but has now developed into a plan to restructure the forest, change gradually to mainly native species, and to provide amenity and landscape benefits for the village. The Great Glen Way comes through the village and access is a major issue. Public car-parking is managed and a track system linking to neighbouring properties is being developed.

A WGS has been agreed with the FC, along with fundraising from many other sources including Objective 1, Leader 2, Rural Challenge, MFST, etc.

So far 45,000 trees have been planted, and many footpath networks begun. Deer fences have been removed and members have had chainsaw training for removal of conifers. It is important for the project to encourage local employment, and to help keep young people in the locality. Cash flow and accounting are essential parts of the project as all work must be self financing. It is estimated that about £30,000 has been put into the local economy so far.

Deer management is a vital part of the work and 70 deer have been shot this year (red, roe and sika), with 3 people involved in deer control. Costs are about £40 per deer shot, and venison income means it more or less breaks even.

The tour of sites showed recent planting of Scots Pine and birch at high elevation, and work on footpaths and viewpoints. Discussion took place on utilisation of the conifers being felled and the need to develop new local uses rather than simply selling to low-value bulk markets. We were

impressed by the vision and enthusiasm, which can probably only be instilled on such a local basis where every villager is to some extent a stakeholder in the project and the land itself. It will be fascinating to follow progress over the years, and to see if the project does indeed become a model for other communities to follow.

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## **Option D - Strathconon Estate (am) and Brahan Estate (pm)**

### **STRATHCONON ESTATE**

#### **Ro Scott**

Strathconon Estate spans 24,500ha from Glen Orrin in the south to the A832 Garve to Achnasheen road in the north. The Danish owners, Kirkbi Estates Ltd, purchased the estate in 1995 and have entered into a 40-year management agreement with Scottish Natural Heritage to enhance the natural heritage value of the estate, whilst maintaining the sporting interest and local employment. They aim to increase the area of native woodlands from the present 150ha to 2,800ha and to re-structure the 1,200ha of existing conifer plantations. New native woodlands of 1,100ha have so far been fenced and planted. The red deer population will be reduced from the present 2,550 (nearly 11 per 100ha), to a level at which natural regeneration close to existing native woodlands will be possible without fencing.

Our first stop was at Glen Meinich, a 5km long glen which had, under previous ownership, been entirely planted with exotic conifers. Here we met the resident Factor, Hans Jorgenson, who gave a very frank explanation of the Estate's philosophy and finances (its viability depends on massive financial inputs from the owners). We looked at the restructuring in Glen Meinich, which is designed to leave about 50% of the ground, particularly in the valley bottom, open for deer grazing (and deer control).

Next, we moved to Glen Meig to look at native birch woodland on a very steep north-facing slope. This wood occupies an area used by deer as a through-route from the hill to the more desirable grazings in the valley floor. Regeneration was absent from the lower grassy slopes, but higher up, small trees of birch and rowan could be found amongst the heather. A couple of exclosures

packed tight with birch regen showed that the deer were the problem! Much discussion ensued as to whether it would ever be feasible to reduce deer numbers sufficiently in this particular locality to achieve regeneration without fencing. One interesting suggestion was that some kind of scaring mechanism (human or otherwise) could be employed to discourage deer from lingering. We too were discouraged from lingering, as it was time to leave for the next visit..... •

## **BRAHAN ESTATE**

### **Richard Toleman**

This was the location of a birch respacing trial. Dense birch natural regeneration had become established on a clear-felled SP site in the early 1980's. In 1996 staff of the Northern Research Station set up a respacing trial. It's purpose was to give guidance on the management of existing birch stands where timber production was the main objective. No results are yet available but, based on its silvicultural and ecological characteristics and existing advice on thinning and respacing stands in Scandinavia, the following is likely:

- Dense initial stocking in excess of 3,000 SPH.
- At 2m - 4m stand ht. respaced to 2m x 2m.
- Maintain 50% crown length.
- 1st. thinning when branches have died down to 4 - 6m up the stem (11 - 14m stand height). Thin to 800 - 1000 +/- 100 SPH. Maintain 50% crown length.
- 2nd crown thinning to favour dominant trees leaving 450 +/- SPH.

At a second location there were two sets of demonstration plots. They aimed at testing the effectiveness of different ground preparation techniques in producing a predictable rate of established young birch trees. The site was rich ex-agricultural land with scattered mature birch. It had very heavy grass and weed growth. Treatments included:

1. complete herbicide
2. complete cultivation
3. mounding
4. control

Half the plots were sown with birch seed and half left to see whether NR. would occur. As the treatments had only been carried out over 1998/9 no results were available. Little seedling growth

as seen but the most promising was the plot treated with complete herbicide.

Those requiring more information, particularly after future assessments, should contact Richard Thompson at the FC's Northern Research station, Roslin. Tel: 0131 445 2176. •

## **SATURDAY EVENING**

### **Tim Hall**

The session was chaired by Richard Toleman, with presentations by John Parrott and Jon Priddy

### **John Parrott - North Highland Native Woods**

John explained that North Highland Native Woods was a part of Scottish Native Woods, whose role is to advise owners of native woodlands on appropriate management and give help and guidance for grant applications etc. John is particularly involved with riparian woodlands and used some excellent slides to illustrate some of the issues faced when trying to manage such woodlands.

Riparian woodlands have usually only survived because of lack of access for sheep grazing. They are often the only remnants of ancient woodland in an area and are thus not only important habitats in their own right, but have the potential to provide the nucleus for woodland expansion in the future.

Restoration of riparian woodlands can also help to increase the carrying capacity of rivers for fish stock. A varied underwater topography will allow fish to shelter from predators (and each other). Leaf fall plays its part in a complex food chain, which benefits fish and other species.

It was no surprise to discover that overgrazing is a major threat to riparian woodlands and John expressed concern about the withdrawal of LEAP. Difficult access as well as the need for watergates makes fencing difficult and expensive. Access problems make all operations expensive and a figure of £4,000/ha was quoted for rhododendron removal!

### **John Priddy - North West Sutherland Native Woodland Initiative**

Established in 1993 as an initiative from the Highlands and Islands Development Board, the aims of the project are:

- Halt native woodland decline
- Establish new native woodlands
- Encourage appropriate management of existing woods

Sutherland is one of the least densely populated areas in Europe. It has about 2,000 ha of native woodland, representing about 1% of the total land area (1992 figures). John explained that Sutherland has an extremely marginal climate, soils and many “marginal characters”! High rainfall and wind are major ecological factors (well illustrated with slides of impressive gully erosion and a horizontal tree!) and most of the commercial plantations are managed under a no thin regime. Large red deer numbers are a threat to native woodlands and no one has risked planting without deer fences.

Jon summarised Sutherland as an area of extremes, with marginal environments and communities. Despite these issues, he was able to identify opportunities in the form of growing interest in community ownership and crofting schemes to encourage new, younger crofters. •

## **SUNDAY 6<sup>th</sup> JUNE**

### **HIGHLAND BIRCHWOODS**

**Doreen MacIntyre**

The state of the hardwood timber market was discussed - a challenge in view of the strong pound, and marginal economics due to haulage and storage costs. Highland Birchwoods is concentrating on helping complete the supply chain, believing that there is lots of timber and possible applications. HB are investigating means of improving this situation through the provision of suitable processing facilities and product development.

A static double-slabber saw was demonstrated, producing flooring from small diameter birch

logs. The next closest machine is in Carlisle! Drying facilities were also demonstrated. Air drying reduces moisture content to around 20%, further reductions in m.c. being carried out by a kiln or, for smaller lots, a dehumidifier. The dehumidifier is more energy efficient, but is less controllable than the kiln. It costs around £3,000 compared with £25,000 upwards for a conventional kiln.

With regard to product ideas, HB is looking to develop the traditional housing market, promoting cladding, window frames, doors and flooring from native timber sources. The organisation sees opportunities in the areas of house refurbishment, pubs, clubs and grant assisted housing.

The Millennium Guide to Scotland’s Forest Resource GIS system was demonstrated. This aims to provide a nation-wide inventory of semi-natural woodlands larger than 0.1ha and is complementary to the Forestry Commission Inventory. The aims for the system include providing a national public information service and providing a finer resolution replacement for the existing semi-natural part of the existing Ancient and Semi-natural Woodland inventories held by SNH.

It is planned that this system will be compatible with other data sets, and will provide information on integral mixes of semi-natural woodlands within commercial plantations (semi-natural component from 10% to 90%), and commercial plantations (semi-natural component less than 10%). Some ground truthing has already taken place in Strathspey.

There are some ongoing concerns about what levels of information will be publicly available on the Internet, due to issues concerning confidentiality and information “blight”. •

# LETTER

## FENTON – BABBLE AND BORDEAUX

James Fenton wishes to promote the sparsely wooded island of Kvaloya in Norway as the model for forests in parts of the Highlands (NWDG Newsletter 1999, Vol 24(1) p. 36) and gives us a delightful photo to provide us with a “mental image”. This is all part of his efforts to convince us that widespread reforestation of the Highlands is not ecologically justified.

I would like to point out to NWDG members (because James neglected to) that Kvaloya (literally Whale Island) is 500 km north of the Arctic Circle and is some 1500 km north of Edinburgh (see map). Kvaloya lies just south of the northern limit of global tree cover and is well north of the natural distribution of a range of tree species including oak, elm, ash, hazel and alder. A very questionable environment for a model for Scottish forests.

Kvaloya has a sea-level July isotherm of about 10 degrees – a value which is often cited in ecological literature as an approximation of the treeline ecotone. This temperature occurs in the Highlands at elevations between about 450 m on the north coast and 750 m in the central and southern Highlands. Thus Kvaloya may have some relevance for the treeline ecotone but other than that it gives a misleading vision for forests in the Scottish Highlands.

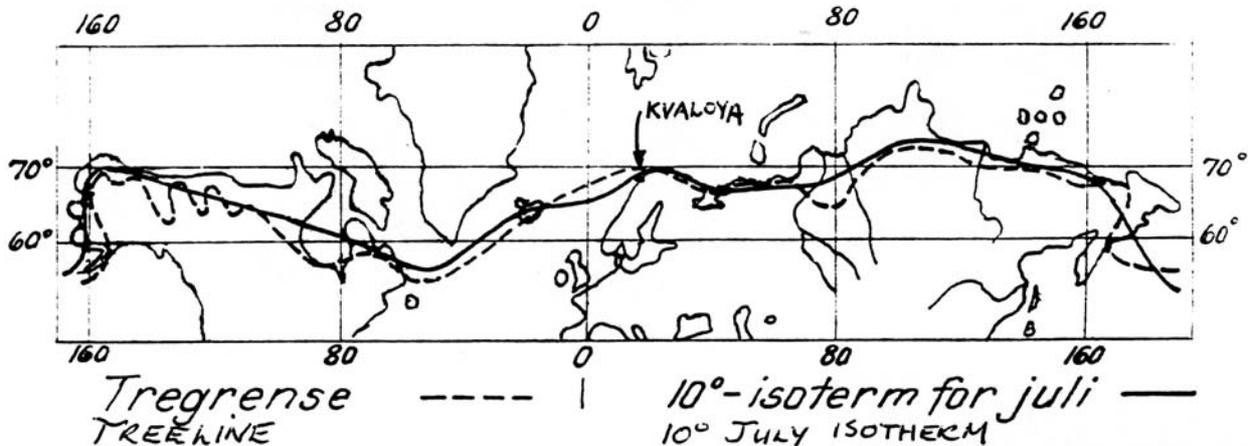
For sake of comparison, 1500 km south from Edinburgh lands us into Portugal or around Bordeaux, depending on how you measure it. Thinking Bordeaux with its vineyards, and I feel moved to provide an alternative picture which is probably as useful as James’s for inspiring a vision of Scotland’s future forests.



*A bottle of Bordeaux Claret; a good antidote for Fenton-Babble*

Rick Worrell  
Institute of Ecology and Resource Management  
University of Edinburgh.

**References:**  
Skinnermoen, K 1969 Skogskjotsel [Forest management] Landbruksforlaget, Oslo. •



*Map of North Temperate/Arctic Zone; after Skinnermoen 1969*

## GROUP/PROJECT REPORTS

### NATIVE PINWOOD MANAGERS GROUP - BLACK WOOD OF RANNOCH (5 MAY 1999)

Irvine Ross

#### HISTORY

The Black Wood has a long and well recorded history, dating back to at least the 14<sup>th</sup> century, of exploitation by felling and grazing. Felling continued through the First and Second World Wars, latterly with the Canadian Forestry Corps. Together with ongoing estate felling, this removed most of the large trees of good form apart from the eastern end of the wood adjacent to the main house.

The area was heavily used as a deer wintering area from the end of the Eighteenth Century. Therefore, when the estate was acquired by the Forestry Commission in 1947 there had been no regeneration for many years and the ground vegetation was cropped very short. Almost immediately the core area was declared a conservation area. A programme of deer control was introduced, mainly by enclosing the pinewood within a larger fenced area of 3,500 ha which was programmed for afforestation. Extensive planting of spruce and Rannoch origin pine then took place amongst the scattered remnants of the old pines on the fringes of the conservation area.

The pinewood was declared a SSSI in 1975 and, largely due to the foresight and enthusiasm of the late Gunnar Godwin, a 10 year management plan was jointly prepared with NCC the same year. This has had two subsequent revisions, the latest in 1995.

#### RESEARCH AND MONITORING

In one of the earliest programmes of research into native pinewoods, the FC ecologist (J. Brown) laid down 5 unfenced research plots in 1948, to monitor stand structure and ground vegetation. Four of these "Brown plots", totalling 4.5 ha, survive. These were last monitored in 1996.

In 1976, ITE set up 3 deer-fenced enclosures, to assess the impact of browsing on the regeneration

of the forest and the structure and composition of the ground flora.

In 1981, the Forestry Commission set up 10 transects through the core area, to monitor levels of regeneration. Three of these were used to create the Backmeroff transects (set up by George Peterken) in 1985, and were re-assessed in 1996. In this method, every single tree taller than 1.3m along the 20 m wide transect, living or dead, is mapped and recorded. It is then possible to monitor the progress of every individual tree in the transect. Over the 10 year period the results have shown a net recruitment of:

Scots pine	7.0 stems/ha/annum
Birch	1.5 stems/ha/annum
Rowan	0.75 stems/ha/annum

Monitoring at this intensity is expensive, and only the "Backmeroff" transects are planned to be re-assessed in future. The other 7 transects remain marked out and recognisable on the ground, but there are no plans to continue monitoring them.

In the eighties, trials were set up to assess the effects of swiping, scarifying and burning on regeneration. These displayed no significant difference from the untreated control plots after 10 years, and have now been closed.

Considerable effort has also gone into recording the invertebrate population in the pinewood. Much of this is done by academic institutions and skilled volunteer groups. There has, however, been no attempt made to systematically monitor the population trend amongst the invertebrates.

Much of the monitoring and research effort has gone into the minimal intervention Conservation Zone. Due to the high costs of intensive monitoring programmes, FE have decided to monitor the "Brown" plots, the three "Backmeroff" transects, the ITE enclosures and the Fire plot. In addition, two new transects were set up in consultation with George Peterken in the Restoration Zone, to monitor the impact following removal of introduced conifers from that area.

#### MANAGEMENT

The primary objective is to "maintain and enhance the historic, landscape and scientific interest of the Black Wood as a semi-natural Caledonian pinewood with its associated fauna and flora,

while perpetuating the genetic purity of the local Rannoch pine". At present timber production is not a priority within the Reserve and, although there is an open access policy, recreation will not be actively encouraged.

The current Management Plan contains three management zones:

<b>Conservation Zone</b>	386 ha
<b>Restoration Zone</b>	245 ha
<b>Extension Zone</b>	381 ha

All of these now comprise the Caledonian Forest Reserve which was declared in 1993.

The management policy in the **Conservation Zone** is principally one of minimal intervention with the main management input being in deer control and the monitoring already described.

**The Restoration Zone** lies next to the core Conservation Zone but has a history of planting with introduced conifers. It was decided to remove these, to create opportunities for the native tree species to regenerate from the scattered pockets of surviving native woodland. Because of the concern to conserve the ground vegetation, initial techniques involved the complete removal of the felled trees and branchwood from the site. This was very expensive with costs running up to £3,000/ha.

It was then discovered, from experience in one plot, where felling had been done previously but extraction had not been completed, that the ground flora was surviving well after felling, providing the trees were not de-limbed. Thus the technique of felling to waste/recycling was developed. With an average cost of £300/ha the programme could progress 10 times as quickly within the budget limits. The technique has an immediate effect in allowing light through to the forest floor and the brash deters deer from browsing the regeneration. Some 100ha have now been treated with a further 80ha to be completed by 2005.

The technique does have disadvantages. The visual impact of the dead timber is striking and it does present a high fire risk. Access through the treated areas is very difficult. One site visited by the group some 6 years after felling was still impenetrable except along the drains and

streamsides where brash was removed to permit monitoring and maintenance.

An assessment of the felled areas was done in 1996 and showed that pine and birch had begun to regenerate, although still small and scattered at that stage. The difficulty of access to these areas caused considerable problems and the results are therefore only indicative.

Areas where the crop trees were taller and impossible to harvest have been treated by herbicide injection. Although this is cheaper at around £250 /ha, the trees are left standing and may take longer to decay and completely disappear. However, this will result in a lower impact on ground vegetation rather than felling these large trees.

The **Extension Zone** lies on the outer fringes of the Conservation and Restoration Zones. Here the crops of planted conifers were older and had already shaded out much of the ground flora. The policy in this zone is to fell and extract the timber from the planted crops as they become economically mature. One such site was visited in the year following harvesting. Brash had been left on the ground and discussion ranged around the benefits/disadvantages of brash clearance, a major factor being cost. It was agreed that slow breakdown of brash would continue to provide a succession of niches for seedling regeneration over a period of up to 10 years. Given the periodicity of Scots pine seed years, this moderated the risk of a poor seed supply of pine seed in the short interval when the site would be in the most favourable condition for native tree regeneration.

The possibilities of further expansion once the work in the Extension Zone has been completed were also discussed. It was pointed out that the soils to the south and west of the present pinewood were predominantly peaty and not favourable for Scots pine regeneration. Opportunities for birch/pine expansion to the east will be exploited as part of the long-term Forest Plan for the whole of South Rannoch Forest.

Deer control in the entire 3,500 ha block is carried out by one Wildlife Ranger. The target population for the **Conservation Zone** is 10 deer/100 ha and the cull for 1998 was 100 red and 60 roe. Discussion ranged over the difficulties of stalking in the relatively open woodland where the deer

are well dispersed and where thickets of regeneration up to 20 years old provide good cover for the deer.

The structure of the woodland in the Conservation Zone was compared with a fenced enclosure dating back to 1947. In the enclosure the tree stocking was:

Scots pine	729/ha
Birch	2400/ha
Rowan	<u>2300/ha</u>
TOTAL	5500/HA

The original regeneration experiment within the enclosure was considered a failure in 1951 as it displayed no effect on regeneration after 4 years. The problems of the private sector dealing with the 5 year time horizon imposed by the WGS schemes was thereby highlighted.

It was suggested that 5500 stems/ha was “too dense”. Discussion covered the difficulties of setting criteria to judge whether any given stand structure was appropriate for any given location. The lack of any accurate historical knowledge of the structure of the native pinewoods and how and to what extent they were modified by humans in pre-history remains a major gap in our knowledge. The difficulty of translating European boreal forest experience to Scottish conditions is one area where further research effort might be able to give us better guidance in time. •

## **CLYDE VALLEY WOODLANDS INITIATIVE**

### **Graham Newport**

Clyde Valley Woodlands Initiative (CVWI) was formed in 1996 with funding from Scottish Natural Heritage, the Forestry Commission, South Lanarkshire Council and the Millennium Forest for Scotland Trust. Scottish Wildlife Trust, North Lanarkshire Council and Central Scotland Countryside Trust are also represented on the CVWI steering group. The main aims are protection and expansion of existing woodland and promotion of multiple-benefit management. The project area is the middle Clyde Valley (roughly from Abington to Uddingston) and tributary valleys. I took over as CVWI Project Officer in April. The area has many small, fragmented woods. Among these there are 11

woods which have been proposed for designation as European “Special Areas of Conservation” (SACs). Management and expansion of these SAC sites (all W9 ash/elm woodland) may attract European funding. A bid to the European “Life Fund” is planned for next year.

George Peterken is currently carrying out a study of all the woods in the area with a view to forming a long-term ecological vision to guide future management. His draft report is not due until November but clairvoyants on the CVWI steering group have predicted that he will put forward a “Forest Habitat Network” proposal to link fragmented woods to form a larger forest. I expect a lively debate as to what constitutes a “link” between fragments of native woodland. Some will argue that all links must be 100% native woodland. Others will argue that non-native woodland, open space, gardens and orchards can all form links in the chain. A link for one species is a barrier to another species.

Orchards are causing further lively debate. Should derelict orchards be restored for historical, cultural and landscape reasons? Should they be allowed to revert to woodland? A survey of Clyde Valley orchards, which is planned for next year should provide information on the presence (or absence) of old fruit tree varieties.

Another contentious issue is the status of beech, sycamore and Scots pine. In the Clyde Valley beech is generally regarded as undesirable because it is a highly invasive non-native species. Some people, however, argue that the natural spread of beech into Scotland was prevented by human intervention and that it should now be regarded as a natural stage in woodland succession. Sycamore is widely recognised to be non-native but does not appear to be a major threat in most of the ash/elm woodlands of the Clyde Valley. Natural regeneration of ash frequently occurs under mature sycamore in these woods. Could sycamore be filling a valuable role in species alternation, previously provided by elm? Scots pine is generally tolerated even though it is not supposed to be native in this area. Some people argue that absence of native Scots pine from some parts of southern Scotland is due to human intervention and that its reintroduction should therefore be encouraged.

Yet another subject of disagreement is seed sources for tree planting. Use of local Clyde

Valley seed sources is considered preferable, to protect the genetic integrity of native woodlands. Strict adherence to use of local seed may be impractical and could cause difficulties since nurseries do not currently stock a full range of trees from each local area. Also, locally collected seed is not necessarily of local origin. It is also debatable whether non-local seed sources are necessarily harmful to the biodiversity of the local area. One solution may be to encourage woodland expansion through natural regeneration.

Natural regeneration (particularly of ash, rowan, birch, beech and sycamore) is generally widespread and plentiful in Clyde Valley woodlands. Natural regeneration also occurs into adjacent fields and orchards where there is no grazing, suggesting that this would be a viable method for achieving woodland expansion. Deer are plentiful but are not preventing natural regeneration, presumably because of abundant alternative food. Prolific ash regeneration in some woods provides opportunities to introduce continuous cover systems for timber production. In one council-owned wood, CVWI is involved in re-spacing of birch regeneration with the aim of producing timber.

Timber production and utilisation are considered to be important elements in the multiple-benefit management of Clyde Valley woodlands, along with biodiversity, recreation and landscape. The multiple-benefit approach may lead to greater tolerance of non-native trees than would be the case if biodiversity were the only objective. In many woods native trees are favoured, while also exploiting the commercial potential of non-native species already present. At Falls of Clyde, Scottish Wildlife Trust are gradually converting coniferous plantations to native woodland. CVWI will be proposing management of a Norway spruce/oak mixture in (council-owned) West Brownlee Wood, with the aim of producing timber from both spruce and oak. CVWI is assisting a landowner in the New Lanark Designed Landscape area with an application to restore a block of conifers to wood pasture. At (council owned) Mauldslie Wood, a birch/ash/sycamore/ wild cherry mixture will be thinned to favour the native species, while retaining sycamore trees which have future timber potential.

Although some Clyde Valley woodlands are publicly owned, most are in private ownership.

Any plans to manage or expand Clyde Valley woodlands will need the support of private landowners. CVWI will consult woodland owners through the "Clyde Valley Woodland Forum", a group which holds regular meetings to discuss a variety of issues. Timber production was chosen as the topic for the September Forum. A future meeting will canvas landowner opinion on the proposed bid to the European Life Fund to support management and expansion of SAC woodlands.

Other issues currently concerning CVWI are (in no particular order): burnt out cars, Biodiversity Action Plans, oak woodland threatened by industrial development, demonstration woodlands, advising landowners, grant applications and possible reintroduction of Herb Paris to selected sites.

If you have any comments on any of the above, I would be interested to hear from you. •

## **SCOTTISH NATIVE WOODS HILL CATTLE AND NATIVE WOODLAND MANAGEMENT EVENT**

**Mairi Stewart**

In late May, Scottish Native Woods (SNW) organised a hill cattle and native woodland management seminar and demonstration event in Highland Perthshire.

It focused on the benefits of hill cattle for native woodlands and, uniquely, brought together the combined experience of the farming, conservation and forestry sectors. During the morning there were four presentations: John Christie (Lochdochart Estate owner), Alastair Gourlay (Chairman of the Galloway Cattle Society), Peter Quelch (FC's native woodland adviser) and Roy Dennis. Roy Dennis gave an inspiring presentation, with a plea for the recognition of the critical role that hill cattle play in maintaining the wildlife diversity of our native woods. An Open Forum followed with contributions from the invited audience, including farmers, advisers, and representatives from FC, SERAD, SNH, NTS and RSPB.

Discussion continued in the afternoon on Lochdochart estate, where the group viewed the estate's Galloway herd and a native woodland,

where the beneficial effects of cattle could be seen.

The event, a first in Scotland, attracted 60 people. This indicates the level of interest in the issue, both in farming and forestry, and recognition of the need to encourage the integration of cattle husbandry and native woodland management. It was also a very timely event. With both hill cattle and native woodlands in decline, their needs are interdependent. It is crucial to reverse this decline for ecological as well as social reasons.

There was general agreement of the importance of hill cattle for native woodlands. There was a feeling that the symbiotic relationship between them was crucial to the future of the Highlands and its human population. However, encouragement for livestock integration with woodlands through forestry and agricultural incentives is not yet evident.

FC's grants currently includes a Livestock Exclusion Annual Payment (LEAP), coming to an end this September. This grant has limitations in relation to hill cattle. Therefore FC have a great opportunity to integrate cattle and native woodlands for mutual benefit, through replacing this with a livestock annual management payment (LAMP). This would enable an appropriate level of cattle grazing in woods. It might even be heralded as FC finally 'seeing the light'!

Despite cross-sectoral agreement of the benefits of such a grant, FC have still not declared a successor to LEAP. There are undoubted difficulties with the monitoring a scheme where livestock management in native woods is concerned. However, perhaps its time for FC to 'take the bull by the horns', and give it a try! •

## **TAYSIDE NATIVE WOODLANDS**

### **Debbie Cowen**

#### **NEWS**

There have been a few changes at TNW since the Spring Edition. Paul Sizeland has left us and is now working for the DFID in Nepal as the Eastern Nepal Community Forest Manager. He has been there since July this year and has survived the

monsoon so far! If any one wishes to contact him his email address is [sizeland@koshi.wlink.com.np](mailto:sizeland@koshi.wlink.com.np) I'm sure he would love to hear from you all.

Also we have two new staff members; Emma Jane Clarke a forester formerly working for CSCT and FC, started in July; and Jamie Reith, part-time farmer and independent forestry consultant who started in August - working for us part-time. We also have a lodger from RSPB – Kenny Kortland is the new Capercaillie Project officer and will be based in TNW's offices from 9th September.

#### **PROJECTS**

##### **Woodland Skills Development Programme**

We have run two seminars so far this year with another 3 planned. All the seminar topics selected this year are from the results of a questionnaire we posted to all attendants of seminar last year. The first; 'Basic Woodland Flora Identification' was held at the Birks of Aberfeldy with three NVC surveyors leading small groups through the main plant species found within 6 NVC types. Ancient woodland indicators were also identified and discussion took place regarding best management practices for such species.

The second seminar 'Planning for New Native Woodlands – Ecological Site Classification' was held in the Ochils at Struiehill Farm. Duncan Ray and members of his team from Northern Research Station (FC) provided a demonstration of ESC, the new decision tool currently being promoted by FC as the way forward when planning new woodland. We also visited a site where ESC had been used in the planning process for a new 230ha native woodland. What became apparent through out the day was that ESC is a sophisticated tool, but it is just that, **a tool** - decisions still have to be made by the owner/ agent.

##### **Demonstration Woods**

Emma Jane is now developing this programme and is currently identifying new examples of good practice, and will be adding them to our current suite of demonstration woods. We hope to be able to cover many aspects of native woodland management through this programme.

##### **Action Plan Implementation – Phase I**

Assistance has been given to a community group in Tarfside, Glen Esk, to develop a 20 ha community woodland. Four tenants within the

Angus Glens have been encouraged to submit WGS applications for 30 ha of new planting and regeneration. Discussions are still underway for long-term regeneration of a 300 ha site within the Angus Glens.

Millenium funding has allowed a 185 ha native woodland planting scheme to go ahead this year close to Kenmore, with car parking, interpretation and footpaths linking to an extensive footpath network.

Involvement in Tayside's Local Biodiversity Action Plan is continuing. The Audit is now complete and the Steering Group is concentrating on prioritising habitats for delivery in the first phase of the plan. TNW has been asked to lead for the woodland habitats and we will shortly be involved in consultation with other organisations and individuals, involved in woodland management in Tayside, in order to produce a woodland habitats priority list for Tayside.

TNW is the SWIN representative on the 'Native Woodland HAP – Scottish Partnership Group' which has been set up by FC to provide advice regarding delivery of UK HAPs in Scotland. The group also provides a useful reporting mechanism back to the UK Biodiversity Steering Group on HAP and SAP achievements.

As with all Woodland Initiatives we too have been involved in a lot of consultation recently, most importantly the Forestry Strategy for Scotland.

TNW has been a partner in the Angus Glens Countryside Project, which has recently been completed. The final report, which examines the extent of the rabbit problem in the Angus Glens and provides a working strategy, is due for publication in late October.

We held a 'Woodland Archaeology' day at Drummond Estate on the 8 September, which proved very popular, people seem to be very interested in old trees and their links with our historical and cultural past. We have produced a booklet from the day, which is available at a bargain price of £5!

### **Collaborative Hardwood Marketing Programme**

There has been a 3-month hold on this programme due to Paul leaving and Jamie starting at TNW. We are now getting back on track and Jamie will be concentrating on this project. He has already made some new contacts for TNW and I'm sure has been speaking to many NWDG members.

### **Tayside Native Woodlands Forum**

We had a joint meeting with RSFS on Atholl Estate on the 15 September. Chris Langton gave us all a wonderful day looking at regeneration of juniper, birch and pine and a large-scale new pinewood planting scheme. We even saw a golden eagle!

### **Events**

We attended the Countryside Fair at Vane Farm near Kinross where we had a stand with Forestry Commission and Forest Enterprise promoting the utilisation of hardwood timber, particularly oak.

### **Web Site**

TNW are now on the World Wide Web! Why not visit our site to find out more about us and to keep up to date with all our forthcoming events:

[www.taysidenativewoodlands.freereserve.co.uk](http://www.taysidenativewoodlands.freereserve.co.uk) •



## ARTICLES

### MANAGING WOODLANDS FOR EDIBLE MUSHROOMS: A REVIEW OF CURRENT KNOWLEDGE

Alison Dyke

#### INTRODUCTION

The demand for wild mushrooms has grown dramatically in recent decades, creating a world market for many species. In Scotland, Chanterelle (*Cantharellus cibarius*), Cep (*Boletus edulis*), Hedgehog Fungus (*Hydenum repandum*) and Winter Chanterelle (*Cantharellus tubiformis*) are harvested commercially. The growth of the industry in Scotland is comparatively recent and small scale (around £406,000 per year, Dyke and Newton 1999), but still has the potential to provide valuable extra income from woodland, throughout the life of a timber crop.

At present mushrooms are generally harvested by independent pickers, often without the permission of the landowner, and are then sold on to a buyer. As a result landowners in areas where there is heavy picking pressure (e.g. The Black Isle) have little influence over the harvest and little chance of profit from it. Where population densities are lower, or where holdings are smaller and are more likely to be respected as private property, there is more opportunity for landowners to profit and consequently more incentive to make management decisions that will benefit fungi.

#### INCOME FROM WILD FUNGI

It is difficult to estimate the kind of incomes that could be generated by wild mushrooms, as yields

vary greatly from habitat to habitat and from year to year, and it is also difficult to estimate returns from native woodlands, with different authors giving wildly differing figures. In the US Pilz, Brodie, Alexander and Molina (1998) have estimated incomes from Douglas Fir and Chanterelle. In Table 1 below, these figures are compared with Spilsburg's (1990) optimistic estimates for Birch and Oak/Ash mixed.

The price used for Chanterelle was £4/kg (about the average paid by buyers). £12/kg could be obtained by selling direct to an outlet. Account is also taken of the expenses of the harvester, which in the US are thought to equal around 80% of selling costs. When it is considered that there may be several possible species to harvest, that yields may be improved with targeted management, that the income from fungi is available throughout the rotation, and also that harvester expenses are unlikely to be as high as those used in the study, these figures become more attractive.

#### HABITAT

Habitats obviously vary from species to species and also with type of association. Favourable conditions for parasitic and wood rotting fungi can be created by leaving a certain amount of dead and damaged wood in situ. Mycorrhizal species are found in association with both broadleaved and coniferous species, including exotics. Obviously the greater the variety of tree species, the greater the variety of fungi that will be able to associate. Most favourable conditions

Crop	50 yr. rotation - no commercial thinning	80 yr. rotation - Commercial thinning at ages 35 and 55
Chanterelles (2kg/ha <sup>-1</sup> yr <sup>-1</sup> )	27	32
Chanterelles (5kg/ha <sup>-1</sup> yr <sup>-1</sup> )	68	80
Chanterelles (20kg/ha <sup>-1</sup> yr <sup>-1</sup> )	272	320
Douglas Fir timber	4905	4106.25
Birch	556	
Oak/Ash groups	336	

Table 1: Discounted present net worth in perpetuity for Chanterelle mushrooms and Douglas Fir timber under two harvest regimes, base age 50 years, on the Olympic Peninsula, Washington. Values are £/ha<sup>-1</sup> yr<sup>-1</sup>. After Pilz, Brodie, Alexander and Molina (1998). Management regime for Birch and Oak/Ash not specified. A low yield class is assumed and a discount rate of 4% used. After Spilsburg (1990).

are found where there is little ground vegetation with a shallow litter layer, where trees are growing vigorously and with an open canopy to allow light and heat through

The majority of harvesters pick at sites with semi natural woodland, generally Birch (Dyke and Newton, 1999), where there is likely to be little management intervention. This, however, is not to say that lightly managed forests can not be more productive.

### **THE EFFECTS OF MUSHROOM HARVESTING**

The majority of research in this area focuses on the effect of harvesting on future abundance rather than on the organism as a whole or on tree hosts. Two studies, Egli and Ayer (1997), a twenty year study (on all species found) based on results from a fungal reserve in Switzerland, and Norvell (1996) a preliminary report on a ten year study on the Chanterelle in the Pacific Northwest, agreed that no significant effects on the size of the yield were recorded, either positive or negative following harvesting.

#### **Harvesting method**

The actual method in which mushrooms are removed may have some effect. Egli and Ayer's study showed no difference in the fruiting body production of plots that had been harvested by pulling or cutting. Norvell's 1996 study showed a trend towards an increase in biomass of fungi where fruiting bodies had been pulled rather than cut. Perhaps the best advice at this stage is to gently ease the fungus out, perhaps using the tip of a knife, to avoid damaging the mycelia below.

Attempts have been made to establish whether trampling of the ground during harvesting has a negative effect. Egli (1995) found that yields were reduced by a factor of 20 when plots had been trampled every two days during the season. A recent study (Dyke, 1998) found that Scottish pickers would return after an average of 23 days, much less regularly than Egli. The author has seen carelessly harvested sites, where the ground surface has been disturbed and primordia scattered. This kind of disturbance is sure to lead to a smaller yield in that season and possibly the next.

### **WOODLAND MANAGEMENT**

#### **Timber harvesting**

There are several aspects of woodland management that are likely to have an effect on wild mushroom populations, the most obvious is timber harvesting. As pointed out by Danell (1994) fungi that spread vegetatively may take several decades to recover. A study by Pilz, Amaranthus and Molina (1998) showed that yields of Chanterelle were reduced from an average of 5kg/ha to zero in the year following a clearcut. Aside from the obvious affect of removing tree hosts, harvesting equipment may compact the ground and damage the mycelia.

#### **Thinning**

Egli and Ayer (1997) found that in the six years following a 35% thin the number of edible species increased by an average of 48.5% and the number of fruiting bodies increased by 92.6%. Other studies are being carried out in the Pacific Northwest (Pilz et al. 1998), preliminary results show that thins of 56% and 80% were followed by significantly reduced yields, with the heavier thin showing a greater reduction. This study hypothesises that, after the immediate drop in harvest, due to removal of tree hosts, drier forest floors and brash that makes Chanterelles difficult to find, but that there will be a revival due to the trees growing more vigorously and fully occupying their habitat.

Anecdotal evidence from Lithuania (Johnson, pers comm. 1999) suggests that leaving large amounts dead wood, including leaving high stumps prolongs the life of tree roots, giving the mycelia a chance to spread to regenerated saplings. The dead wood also serves as a habitat for decomposer fungi.

#### **Litter removal**

A study by De Vries, Jansen, Van Dobben and Kuyper (1995) in the Netherlands looked at the removal of litter layers rich in lignin and nitrogen, the breakdown of which may be slow and prevent mycorrhiza formation. The removal of litter improved species diversity after one year and had a particular effect on the abundance of some species, though not edible or commercial ones. The effect on species diversity had declined after four years.

#### **Chemical interventions**

Fertiliser applications can have significant effects on mycorrhizal fungi, Rühling and Tyler (1991) used a fertiliser of ammonium nitrate granules in amounts three times and nine times the ambient deposition rate. After three years of treatment there were 92% and 97% less mycorrhizal fruiting bodies than in control plots. The effect on species diversity was similarly devastating at both treatment levels. Rühling and Tyler speculate that these effects may be due to a suppression of mycorrhizal infection, an increase in the longevity of fine tree roots and a reduction in the spread and density of tree roots.

## CONCLUSIONS

Light management can result in forests that are productive for both fungi and timber. The level of management required is unlikely to produce such a great cost as to cancel out the benefits of an extra source of income. Management systems that give continuous cover and mixed in ages and species are most likely to give a continuous supply of fungi of several species. Beneficial management techniques include light thinning, provided care is taken to minimise disturbance and the removal of litter layers to reduce nitrogen rich environments. Negative conditions are created by clear cutting and the use of chemical fertilisers which will in turn reduce the benefit that the tree receives in terms of nutrients from the fungus.

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## **HISTORY OF NWDG - REVIEW OF NWDG NEWSLETTERS 13 - 24**

**(1988 - 1999)**

**Carol Crawford**

NWDG Newsletter 13 contained a review of newsletters 1 - 12, by Robin Callander. Now NWDG is 25 years old, I will attempt to bring the story up to date. First a summary of the earlier period:

### **1974 - 1987**

The Native Pinewoods Discussion Group was formed in 1974. The aims of the Group were widened in 1978: *to promote the conservation and development of Scotland's native woodlands by providing a forum for the exchange of information and ideas....* and the name changed to the Native Woodlands Discussion Group. Informality to encourage freedom of discussion between the wide spectrum of interests has always been important. Thus membership was for individuals rather than organisations or their representatives. NWDG has avoided acting as a lobby group, relying on discussions within the Group to stimulate action outside. This approach led to the ITE Pinewood Symposium in 1975 and provided a basis for FC's Native Pinewood Grant Scheme in 1978.

The 1970s newsletters reflect the Group's then purpose of ensuring appropriate management of the pinewoods listed by Steven and Carlisle. The Group lost direction somewhat in the 1980s and activity lapsed in 1984 and 1985. By 1987 there was a renewed sense of direction and a widening of the annual newsletter to include articles and news, in addition to the annual meeting report.

### **CHANGING SECRETARIATS, EDITORS AND NEWSLETTERS**

Newsletters 1 - 6 were compiled by ITE and NCC with Bob Bunce and Rawdon Goodier as editors. After the group widened its remit, in 1978, NCC continued to provide the secretariat. Local NCC officers organised the annual field meeting and Rawdon Goodier edited the newsletter till 1984.

Phil Lusby took over as editor when the group was revived in 1987 and continued till 1990 when the secretariat passed to FC. The hazel sprig on the newsletter cover was then replaced by the

familiar "native tree in the landscape". Membership rose from 119 in 1987 to 235 in 1990 when the list became too long to continue publishing at the end of the newsletter. The annual excursion began to be organised by a wider range of individuals during these final NCC years. The newsletter remained relatively slim: 17 - 28 pages.

Graham Gill was the first FC newsletter editor (1991 - 1993); Gordon Patterson edited from 1994 to 1996. The A5 newsletter format continued until 1995, when the number of pages reached 65. Therefore the format was expanded to A4. Since 1996 it has been 35 - 50 A4 pages long. During the FC years the newsletter became more structured and included a lively "Points of View" section between 1991 and 1994. Where did that go?

1997 was the transitional year when FC "relinquished the reins" and an interim committee explored options for the future. I became editor in spring 1997 and we added a second newsletter that autumn. At the first AGM in 1997 NWDG came of age. It was decided to form an independent group which would, for the first time, charge a subscription. A committee was voted in. Peter Quelch chaired in 1997; Richard Toleman took over in 1998.

In 1998 the publication and mailing of the two newsletters was funded from subscriptions for the first time. Nick Marshall took over as editor in 1999. The structure of the newsletter remains similar to the FC years, with additional "theme" sections and illustrations. Since 1997 the annual meeting has been reported in the autumn newsletter of the year it occurred, rather than the following spring. More editions per year may be necessary soon.

Contributions are lightly edited; NWDG newsletter thus display a range of writing styles: informal, poetic, scientific, journalistic, dry, entertaining. Newsletters are always informative and stimulating; staple reading for people involved in native woods.

Our paid up membership now stands at 175 - already half the total reached in the final "free" year. We have a healthy bank balance. This edition has our new logo on the cover for the first time.

## CHANGING NWDG ACTIVITIES

When we became a free-standing Group in 1997, the aims of the group were redefined as: *to encourage interest in native woodlands, their ecology and management.* The main NWDG activity remains the annual field excursion.

Meetings reported since 1988 are:

1987 - Doire Darach, Loch Tulla and a local meeting at Deeside

1988 - Nairn

1989 - Pitlochry and Perth, both joint with Rural Forum

1990 - Loch Maree

1991 - Balmacara & Skye (one meeting)

1992 - Rum and Lanarkshire

1993 - Cumbria

1994 - Cairngorms

1995 - Loch Lomond

1996 - Highland Perthshire

1997 - Morvern, Argyll

1998 - The Scottish Borders

1999 - Strathpeffer

Good memories. Attendances averaged 50 - 80 people (*c.f.* 20 - 40 in the earlier years). Ceildhs (spontaneous and organised) have been a feature since 1993 and there may be increasing references to hangovers in the meeting reports! These reports expanded from 1 A5 page in 1988 to 14 A4 pages in 1998. We're now trying to slim them down.

The first "skills or information exchange" workshop was organised in December 1998, on lichens, in Argyll, and was followed in March 1999 by a workshop on "The Ecology of Natural Regeneration" at Battleby, Perthshire. Both were over-subscribed. More regional meetings are suggested from time to time, but may no longer be necessary, with the plethora of native woodlands initiatives now organising local events. Peripatetic workshops may enable more people to enjoy the unique NWDG experience!

## THE CHANGING SCENE

During the "NCC years" the three largest NWDG membership groupings were NCC staff; university and research institute staff, and individuals. Others included FC, conservation charities (including RSPB, SWT and the Woodland Trust), community organisations (in the Borders and Orkney), landowners, factors, forestry companies, independent researchers and consultants, teachers and planners.

The "Forestry Commission years" saw more involvement from FA, FE and their research staff, and the appointment of Graham Tuley and Peter Quelch as FA Native Woodland Advisers, reflecting the increased importance of native woods in FC's remit. There was also a growth in the number of organisations concentrating on native woodlands (charities like Scottish Native Woods and Reforesting Scotland and agency-led initiatives like Highland Birchwoods and Tayside Native Woodlands) and proportionally less involvement from NCC/SNH in NWDG.

An offshoot in 1991 was the Native Pinewoods Managers Group where those actively involved in practical management share their experiences; a return to the focus of the Native Pinewoods Discussion Group which spawned NWDG! Charlie Taylor, its secretary, has sent a report every year since. In 1995, the Scottish Woodland History Group was formed: *to further the study of the history of Scottish woodlands in a way that will be of relevance to foresters, land managers and conservationists alike.* Many NWDG members are involved. There were also occasional reports from initiatives in N. England (e.g. Cumbria Broadleaves) and Wales.

In 1992 FC formed the Native Woodlands Advisory Panel in the Highlands encompassing a range of specialists (including long-standing NWDG members). It aimed to provide authoritative statements on technical aspects for review/policy development and to guide all those involved in practical work on the ground. In 1995 its remit was extended to the whole of Scotland. It was wound up earlier in 1999.

In 1994, FC published their 8 guides to *The Management of Semi-Natural Woodlands* and the seminal *Creating New Native Woodlands* by John Rodwell and Gordon Patterson.

During our "independent years" the range of local initiatives writing in the newsletter has increased further, several generated by the Millennium Forest for Scotland Trust since 1996. MFST obtains lottery funding via the Millennium Commission to fund native woodland restoration and community involvement in woodlands.

## THE SCOTTISH NATIVE WOODS STORY

As an illustration of the changing scene, we can follow the evolution of the pioneering organisation, Scottish Native Woods, which sends a report each year to the newsletter. It was founded by Alan Drever to catalyse local woodland initiatives and launched in 1988 as the Scottish Community Woods Campaign. It focused initially on Highland Perthshire starting "Growing up with Trees" projects in primary schools, to raise awareness, and moving on to concentrate on working with native woodland owners.

The name changed to the Scottish Native Woods Campaign in 1991, by which time initiatives in West Fife and Highland Strathclyde were established. Research into native hardwood timber - resource and utilisation was carried out with the SDA. By 1993 there were five staff working with landowners in: the North and West Highlands, the Central Lowlands and Highland Perthshire.

In 1994 the organisation was renamed Scottish Native Woods, the "campaign" to raise the profile of native woods having succeeded. In 1996 a native woodland product development adviser was appointed and the Riparian Woodland Initiative was launched, with three publications, from which many other organisations have benefited. In 1997, the fifth area initiative was established in the North East.

Now SNW has a staff of ten. The current chairman, Neil Mackenzie, has been a trustee throughout. Fund-raising means constant toil for Alan, particularly since the advent of agency-led initiatives, which scoop agency funds. Now SNW's two main funders are MFST and the EU. SNW has followed the principle of low-intervention management, promoting natural regeneration rather than planting, and has demonstrated this in numerous woods all over the Highlands.

#### **THE EVER-WIDENING SCOPE**

The number of regional woodland initiatives and staff became so large that the Scottish Native Woodlands Initiatives Network was set up in 1997 by Peter Quelch (now the only FC Native Woodland Adviser), for the exchange of news,

information and experience. In addition, Peter now produces a Native Woodland Update, for a limited circulation within FC and beyond. Extracts from his first Update appeared in the Spring 1999 NWDG newsletter and this Newsletter also includes part of the current Update. Peter's Updates illustrate the range of native woodland activity and interest: coppicing, veteran trees, pasture woodlands, Habitat Action Plans, management planning, forest habitat networks etc.. They also mention the Native Woodland Policy Forum (NWPF), started by WWF in the 1990s as a lobbying mechanism, and involving several NWDG activists. NWPF may shortly reinvent itself to target the Scottish Parliament

Other native woodland topics covered in the NWDG newsletter between 1988 and 1999 include: natural regeneration, exclosures, monitoring, vegetation dynamics, grazing, song-birds, montane scrub, tree-lines, capercaillie (and deer fencing), bryophytes, grants, ground flora, oakwoods, birchwoods, aspen, control of non-native plants, native woodland inventories and databases, native seed sources and collection, gene conservation and genetics, native timber products and marketing, Coed Cymru, pine martens, gorge woods, woodland nature reserves, lichens, insects, fencing, woodland structure, soil changes, developing a forest "culture", native woods in Norway, ecological design, hazelwoods, tree establishment, wooded meadows in Scandinavia, devastation, butterflies and bracken, deer, sheep, pigs, deconiferisation, woodland flora introductions, UKWAS and willow.

#### **CHANGED PEOPLE AND PRIORITIES?**

At the annual field meetings now many participants are people who work full time as native woodland restorers and managers; 10 years ago native woodlands only formed part of participants' workload. The number of FC and SNH participants has recently declined and usually only their specialist advisers, and officers in each field meeting location, attend. 10 years ago FC/private foresters and nature conservationists formed strong groupings who shared an interest in native woodlands. The "hats off" approach allowed solutions to problems to emerge informally. There were of course some heated exchanges. Now the arguments for the importance of native woodlands have been won, and native woodlands are firmly on the agenda of

many organisations involved in rural and urban areas. Those who attend NWDG meetings today: enjoy visiting new sites; learn about woodland wildlife and management history; and sharpen their practical management skills.

Constant throughout NWDG history has been the involvement of: universities and research institutes; many independent consultants and researchers; a steady group of landowners; retired professionals and interested individuals. It is appropriate that the group is now independent, with the committee reflecting the diversity of interests and activities.

With so much active involvement in native woodlands, many hundreds of hectares of valuable or old semi-natural woodland have been secured. There is a still larger area of such woodland with a less certain future; its conservation should be a higher priority than the conversion of exotic woodlands and new planting of native woods (though both are important in certain situations). We have moved on from simply fencing remnants to using other management tools, such as low-intensity grazing, to maintain ecological balance. We also now try to link native woodland remnants.

Looking forward, one challenge is to apply the sensitive, scientific, holistic ecological management approach, now adopted in many native woodlands, together with the knowledge gained from studying these woodlands, to all forms of forest creation and management.

### TRIBUTES

So many people have helped NWDG grow over the years - the format of the group facilitates involvement - and many of the key players are mentioned above. Those who have organised annual field meetings also deserve special thanks. Finally, I don't think NWDG would be so far on today without Rawdon and the two Peters. Rawdon Goodier was a driving force in the ITE and NCC years (and donated the complete set of newsletters which made this review possible). Peter Quelch has gently guided and stimulated "the movement" for 10 years (at least). Peter Wormell's pioneering work on Rum, deep knowledge and ready assistance throughout the 25 years has inspired many members.

I'm sure NWDG will be the heart of the native woodland movement for another 25 years or more. ●



## TOPICAL ISSUES - GRAZING

### WILD FARM, GLENLIVET Elizabeth Smith

Our farm is situated on the Glenlivet Estate by Tomintoul, and the first animals we brought on to the farm were part of our reindeer herd from the Cairngorms. This went against the grain of traditional farming in the area, to say the least. But, having gone down this unusual road, we decided to manage the ground in a more unusual way than most.

One of our plans, then and indeed now, was to extend the existing birch woodlands that we had, and provide browse for the reindeer at some future stage. After visiting North Norway in 1993, and seeing the extent of Birch wood there, it further reinforced our thoughts that this was an important habitat for the reindeer.

With this in mind, we highlighted areas that would be suitable for tree regeneration and fenced them off. Inside those fenced areas we introduced pigs. Our original pigs were described to us as Iron Age pigs. They were big and hairy, very hardy and produced anything up to 8 - 9 piglets at a time. Basically a cross between wild boar and domestic pig, they reflected a stage in the domestication of the bacon producing pig we most often see today.

We reckoned a pig's snout could do as good a job as a mechanical scarifier and there was to be a delicious by-product - free range pork. For a long time we have called them edible ploughs. As the pigs went about enjoying their job, we benefited from the turning over of the ground and the delicious meat. In fact, the meat became so popular that for a while demand exceeded production.

More recently, we have entered our farm into the Cairngorm Straths ESA scheme and we persuaded the "powers that be", by showing them the effects of our pigs, that they would be a useful addition to promote tree regeneration.

Areas fenced for tree regeneration have pigs in them just now. Once the pigs are deemed to have "done their job" they will be removed elsewhere and the area left to grow.

Our own experience, mind you, is that tree regeneration is quite unharmed by the constant presence of pigs. We have a fine example where the disturbance of ground by the pigs has led to very good regeneration despite them remaining in the area.

Ten years on and we have learnt a lot from practical experience. The saying goes that after 7 years of pigs you've had enough. Well it came close to that at the time, but our pigs continue to go from strength to strength, and as a working farm as well, they contribute substantially to our income in meat and live sales.

If you don't fence them in well with rylock netting and electric fencing **and** feed them plenty, then you can expect an irate phonecall from you next door neighbour who's just found them rooting over their ground just when they wanted a flat field.

Free ranging pigs get a much better quality of life too, compared with your average bacon producing pig. Notorious for disease in intensive pig units, our pigs have never had a visit from the vet yet. In terms of their day to day management, we have always held the premise that if you are pleasant to them they will be pleasant back. If ever we want to move them between pens via trailer or walking, we do it by getting them to follow a bag of feed. That also helps when you are getting them back from the neighbouring farm.

The impact of the pigs varies tremendously with the type of ground. Soft fertile fields get scarified extremely quickly, but harder ground, particularly heather moorland, is much less affected, and apart from the places we feed them you would not really know that they had been there. ●



# NEWS, ANNOUNCEMENTS INFORMATION NOTES, FORTHCOMING EVENTS

## TRUSTEES REQUIRED



Scottish Native Woods is seeking to recruit new trustees to join its board of directors. No particular experience is required, though an interest in native woodlands would be an

advantage. The positions are voluntary but expenses are reimbursed. Please contact our administration manager, Alison Mitchell for details - Tel. 01887 820392. •

## NATIVE WOODLANDS UPDATE – SEPTEMBER 1999 Peter Quelch

### Editor's Note:

Peter is always looking for short contributions for future updates, particularly on local events or projects, including reports of events which have been held, and diary dates of forthcoming events.

### 1. NATIVE WOODLAND POLICY FORUM

The forum met on 29 July to discuss a way forward, post-FC Advisory Panel. There was a new interest in forming an alliance with exponents of community and social forestry and of ecologically sustainable forestry generally.

Building these alliances could take some time – in the meantime the NWPF is expected to continue to concentrate in the field of native woodland policy issues.

### 2. WOODLAND TRAINING NETWORK

Woodland Initiatives managers have had early discussions about co-ordinating their efforts on woodland skills training. This could result in a joint network of courses on both practical and managerial aspects of native and community woodland management.

### 3. WOODLAND ARCHAEOLOGY

Tayside Native Woodlands ran a field event on behalf of the Scottish Woodland History Discussion Group at Drummond Castle, Crieff on 8.9.99. A large group attended and were shown features of historic designed landscape, ancient parks and woodlands close to the castle. Veteran trees were discussed in the context of the Lowland Wood Pasture HAP, which SNH are expected to take forward in a Scottish context soon.

The Drummond day illustrated the value of bringing together foresters, conservationists, historians and archaeologists, with landowners and their factors and managers. This is of course a prime aim of the SWHDG, who next meet at a conference at Battleby on 23.11.99 entitled:

*'Using the Past in the Future of Scotland's New Native Woodlands'*.

### 4. MLURI NATIVE WOODLAND MODEL

MLURI continue to refine their model which in many ways is similar to the FC's ESC, but is designed to work at a more strategic planning scale. This model is being used increasingly by SNH in broad scale woodland habitat network planning. It is important to realise that the model indicates potential native woodland types, and is only a first step in actual woodland planning. However the power of such a model is obvious, especially as it is refined to take on the full range of climatic factors which ESC contains.

The MLURI model's power will increase when combined with other GIS datasets, particularly the Millennium Guide to Scotland's Native Woodland Resource (ie Caledonian Partnership's 'Life' Survey).

### 5. COASTAL HAZELWOODS

Highland Birchwoods held an event at Torrin common grazings on Skye on 13.8.99, in some typical coastal hazel woodland. Dr Brian Coppins pointed out the lichenological interest, which was moderate in recently expanded parts of the Torrin woods, especially when compared to a second SSSI site nearby. The value of lichens as indicators of ecological continuity was again demonstrated.

In discussions on the management of grazed unenclosed hazelwoods, the idea of actually cutting back some regrowth to maintain grazing values and grassland biodiversity was mooted.

Most agreed that if done sensitively, there could be benefits both to farmers and the habitat interest. Concessions in this aspect could be offset by allowing expansion of open hazel scrub onto adjoining grazings. Otherwise crofters could see further expansion of hazel as a threat.

## 6. NEW PUBLICATIONS

The FC Native Woodlands Advisory Panel's Final Report is now available (from PQ), which contains a number of recommendations for action.

FC Technical Paper 30, an updated resume of the area statistics for Scotland's Native Woodland Resource by Neil Mackenzie has been published.

The Forestry Contracting Association have published a bullish report on developing the Grampian Birch Resource, while the eagerly awaited Birch Management Handbook is expected to be launched soon.

FC have published a new and useful Information Note on Natural Colonisation (R Harmer – June 99), though the research for this note is mainly lowland and southern.

## 7. NEWSLETTERS

There is so much going on in the native woodlands field that it is increasingly difficult for any one source to keep abreast of developments. Apart from this quarterly update of a few selected items, regular news of other events and actions in native woodlands in Scotland may be found in:

NWPF Bulletin (occasional), NWDG Newsletters (6-monthly), Scottish Forestry (quarterly), Reforesting Scotland (4-monthly), MFST Project Update and MFST Awards News ('Going Native'), Newsletters and reports from NGOs, societies, other journals etc also contain relevant items, but there is no central collation of these – as far as I know! •

## LAUNCH OF THE CALEDONIAN PINEWOOD INVENTORY ON FLOPPY DISK

**Peter Quelch**

Editor's note:

This paper was presented by Peter Quelch at the NWDG Annual Excursion. The floppy disk can be obtained from Peter or through FC HQ or Conservancy offices.

We have chosen the NWDG event as a good time and place to launch the new user-friendly floppy disk version of the Caledonian Pinewood Inventory. It contains all the notes and data on each of the 84 pinewoods considered to be genuinely native, which were previously held in typed notes in ring binders in FC Conservancy offices.

The inventory builds on the pinewoods described in "The Native Pinewoods of Scotland" by Steven and Carlisle, published in 1959. The field work was carried out by Graham Tuley while he worked for the FC. Since he retired, a small team has edited his work and now present it in computer format. Jo Lenthall worked on the references and Bob Black edited the text and input it into electronic format.

There are two types of approach to inventory - lumpers and splitters. Splitters divide things into discrete units and that is the approach taken with this inventory. Out of the whole native pinewood resource, 84 separate woods are identified and described. Lumpers tend to aggregate things into groups, and there is perhaps scope to lump pinewoods back into local groupings. The 7 biochemical zones give a regional grouping.

This inventory gives no scoring or weighting for quality or significance. Neither does it relate the pinewoods to other semi-natural woodland types adjacent, or take a woodland habitat network approach. Its strength is that it is a straightforward list of genuinely native pinewoods that meet certain criteria as defined in the inventory itself. So it could be added to, and Graham added 8 woods compared to the previous version. He also removed one, namely Loch Assynt, on grounds of probable planting history. If anyone knows of evidence why another wood fits these criteria, then we would be interested to hear from you, and possibly add to the inventory at some future revision.

My own thoughts turn to a new breed of strategic survey of native woodlands, linking pine to other woodland types, even to related habitats such as montane scrub. Such surveys are now likely to be based on GIS mapping linked to a computer database. Hopefully as the LIFE Inventory database and maps become available, new types of field survey can concentrate on assessing condition,

quality, naturalness and structure. For example, I'm working on a new classification of woodland structure, which could be useful in field survey.

GIS systems can easily handle the layers of data produced by each new survey, and the Caledonian Pinewood Inventory also has digital maps of each pinewood, though it was not possible to include these on the floppy disk. If you wish to see paper maps of any particular inventory pinewoods, please request a paper copy as explained on the disk cover.

May I commend the new Caledonian Pinewood Inventory to you. •

### **MFST MILLENNIUM AWARDS - GIVE YOURSELF AN AWARD!**

**Neil McGillivray**

If you hear the words "It's awards time again" you might instantly think of the Oscars, or the BAFTAs. But, far from *Tinseltown*, now is the time you could get an Award for doing something you've always wanted to do.

Millennium Forest for Scotland Trust (MFST) is halfway through its programme of dishing out 270 Millennium Awards to people aged 16 or over who want to carry out their own personal project related to woodlands or the use of wood. "We don't want anyone to miss the opportunity" says Awards manager, Ernest Law. "There are some tremendous stories of what people up and down the country are doing and we must make the most of the £1m we've been granted by the Millennium Commission. It also gives me great satisfaction to help folk make their dreams come true.

"People sometimes think they would have to tackle work in a woodland" continues Ernest, "But that is far from the case; the link might be practical, cultural or educational". So far, only a limited number of Award projects involve woodland management itself. However, there are notable examples of this sort of activity. In Fife, tremendous work is being done by local adults with learning difficulties.

Wood-working projects are popular, ranging from a pair of amateur wood-turners in Ayrshire who want to run workshops for disabled people, to three women from the Central Belt who have constructed a portable timber-framed structure called 'The Storytelling Yurt'. Other ideas that have come forward include gathering and sharing information, story-telling and other educational activities for children, right down to a video of life on the forest floor.

On a cautionary note, Ernest stressed that "All Millennium Award projects must be substantially completed by the end of the year 2000. Now is the time to act if you want to take advantage of this opportunity."

Details of the scheme are available from The Awards Team. •

### **ENACT - INDEX OF ARTICLES**

Enact is a quarterly journal published by English Nature which provides information on ecologically sensitive land management practices. It is aimed at managers of nature reserves and other high conservation value sites, but many articles are relevant to native woodland management. Articles cover management of most British habitats. In addition, there are items on species management, book reviews and, very usefully, reviews of products, machinery and new land management techniques.

English Nature have kindly given us permission to reproduce the current index, from the first issue in 1993 up to 1998. The editors of ENACT are always looking for articles and information which may be useful for people managing land in an ecologically sensitive way. If you have any views or can contribute to the journal, contact:

Paul Lacey  
c/o English Nature  
Regent House  
110 Northgate Street  
Bury St Edmunds  
Suffolk, IP33 1HP

Tel: 01284 762218

## **NATIVE WOODLANDS DISCUSSION GROUP CONSTITUTION**

**Name:** The organisation shall be the Native Woodlands Discussion Group

**Aims and objectives:** The purpose of the group is to encourage interest in native woodlands, their ecology and management.

**Membership:** Membership of the group will be:

- a. Individual
- b. Family (1.5 x full rate)
- c. Concessionary (0.5 x full rate)

Membership of the group will cease 18 months after the payment of an annual subscription. Committee will advise the Meetings Organiser for the year of the fee for attendance of non-members.

**Officers and committee:**

- a. The group elects a committee of not more than eight members. The committee shall co-opt or appoint such officers as are considered necessary. Officers will be eligible to vote at committee meetings.
- b. Committee members shall serve for three years, but shall be eligible for re-election.
- c. The chairperson shall be nominated by the committee and endorsed by the Annual General Meeting.
- d. All members are free to attend committee meetings.

**Accounts:**

- a. The financial year shall be the calendar year
- b. The committee will set the annual membership fee before the end of October.
- c. The treasurer will keep accounts and present a financial report by 15th March each year. The accounts shall be independently audited by a competent person before presentation.

**Annual General Meeting:** An AGM shall be held at such a date as is determined by the committee. Notification of that meeting shall appear in the newsletter at least one month prior to the AGM.

Business at the AGM shall be determined by a simple majority except changes to the constitution which shall require a two-thirds majority of those members present. Family membership entitles up to two votes if both are present.

The chairperson and the treasurer will each submit a report at the AGM.

**Meetings:** The committee shall organise or authorise any member to organise such meetings as considered desirable.

**Publications:** The committee shall approve such publication as are considered desirable, and which carry the group's endorsement.