Chairman’s Report, April 2010
Phil Morgan

CCFG Management Meeting 2010

BBC Today Programme

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ABOUT CCFG …

The Continuous Cover Forestry Group was founded in 1991. Our primary objectives are to promote the transformation of even-aged plantations to structurally, visually and biologically diverse woodlands, and to promote the sustainable management of high quality timber. We play a key role in training and education, and are influential in the formulation of new forest policies in England, Wales and Scotland. We have over 200 individual and corporate members, and membership is open to all with an interest in forestry, forest conservation and woodland environments.
CHAIRMAN’S REPORT

So many things have happened and have been going on since we last published the CCFG Newsletter that there are too many to list. I have tried to limit myself to the important events that concern the group but in these turbulent times we find that CCF is increasingly talked about and referred to as a mechanism that has the potential to contribute to mitigating climate change; there is a question of capacity and how the group responds.

As reported in Newsletter 29, Ted Wilson our first administrator has indeed moved on to make a mid career break to learn a new discipline and is now studying for a degree in medicine at Sheffield University. Newsletter 29 was Ted’s parting tribute to the group and this set the benchmark we now have to maintain and that we aspire to. Ted has very special skills that made him the ideal editor and the lateness of this issue Newsletter 30 is an indication of how much this particular ability of his is missed; (see ‘Challenging times’ further in this issue). We thank Ted for all his dedicated hard work and for the continued support he provides the group and wish him well in his new chosen path.

Gill Pemberton is now the administrator for the group. She is running the accounts, membership subscriptions and supporting the committee. Gill has been with us for almost a year and has helped to run all the very successful activities during that time. She has a special role in updating the website that has recently been revised and updated as well as preparing the Newsletter.

The first Scientific Conference organised by CCFG was held at Westonbirt Arboretum in September last year, (see report by Rodney Helliwell). The conference was a great success and the proceedings were recorded and transcribed and are published on the CCFG website. An important group of scientists provided a clear presentation on current knowledge and on the latest remote sensing technology used to construct some very sophisticated modelling. This contrasted with some simple demonstrations of recording light using specialist light sensing equipment generously provided by Skye Instruments. The conference was thought of and to a great extent organised by Rodney who still has many unanswered questions and is continuing to explore the nature of light and how the living environment reacts to it, (see short paper by Rodney Helliwell).

CCFG attended the 20th anniversary of the inauguration of ProSilva at Logarska dolina in September last year on the occasion of the ProSilva annual meeting held in Slovenia. The Group was represented by Phil Morgan, Rik Pakenham and Jim Ralph and was accompanied by Phil’s wife Catriona. Logarska dolina is high in the Steiner Alps close to the border with Austria in one of the most beautiful parts of Europe and in a country where clearfelling has been banned by law since 1949, (see report further in this issue).

Woodland Heritage have once again supported CCFG for both these events. They have also gone to great lengths to promote the group and the group’s activities through their Journal. Woodland Heritage also very generously assist students and those who want to learn about Close to Nature Forestry with bursaries so that they can attend field meetings and foreign tours. Accounts of these visits are then reported in the Journal and in the Newsletter.

The Newsletter contains a response dated 5th March 09 to an article in the previous Newsletter No 29 demonstrating how late this latest edition has been. This item continues the useful debate there is within the group about systems and definition.

This year we have a Foreign Tour to Romania that Gill has been advertising and an important Training Seminar with a guest speaker from Germany, Hanns Höfle as well as Field Meetings in England, Scotland and in Wales.

The ProSilva annual meeting will be in June and will be held in Arnhem in Holland. ProSilva will be welcoming on this occasion a new member country from outside of Europe for the first time when the New England Forestry Trust will officially be joining ProSilva. The NEFF share many of the same forest management principles supported by ProSilva and this first attempt at reaching out beyond Europe and to explore Close to Nature Forestry on another continent will be very exciting. Two delegates from CCFG will attend the meeting.

Phil Morgan has attended a meeting at Directorate-General for the Environment in Brussels on behalf of ProSilva in March. ProSilva have been invited to respond to the green paper titled, Consultation on the green paper on Forest Protection and Information in the EU: Preparing forests for climate change. We had a useful meeting with the Director and his staff who showed a keen interest in many of the principles of multifunctionality and adaptability that Close to
Nature Forest management provides in the face of climate change.

The potential and need for CCF is increasingly being discussed in publications from Forest Research such as the recent paper by Victoria Stokes and Gary Kerr, Oct 2009, ‘The evidence supporting the use of CCF in adapting Scotland’s forests to the risks of climate change’. This is evidence that CCF is now widely discussed and considered as a management option. CCF also appears in government commissioned studies or reviews such as The Read Report (Nov 2009), ‘Combatting Climate Change – a role for UK forests’ where it is described as a Forest Management Alternative (FMA) called Close to Nature Forestry; a refreshing use of the term so often rejected as being inappropriate in Britain. Elsewhere in the report CCF is still referred to as Continuous Cover Management generally in reference to literature citations, limited to the narrow definitions from published information which are not keeping pace with the rate of change in understanding. The Forest Management Alternatives in the report tend to dismiss Close to Nature Forestry as selection systems yet score them quite highly in terms of their carbon storage capacity but then score them down and bracket their contribution to carbon budgets, (brackets mean that the information used for modelling is less reliable). Once again this shows that CCF is providing the solutions yet because of our narrow view of forest management and economics is not seen as the main driver for change. CCF has to be better understood by researchers and by managers for it to gain the acceptance that research now says we need to meet some of the challenges of climate change.

The Land Use and Climate Change Report from the Welsh Assembly Government signals a change in policy with the new planting targets and a change in direction. We must hope that the focus will not be taken off the effective management of our woodlands and the contribution that they make to producing products for carbon substitution and ways of effective carbon management. We must also influence how the new areas of woodland are designed so that we optimise the future potential of these woods to provide carbon benefits. How will mixtures be managed and which woods should be productive and which are to be left to sequestrate and to provide ecosystem services are important questions to be asked for those devising incentives for changes in land use. This is a great opportunity to integrate forestry and farming which could have some real benefits to the countryside in Wales if it supports a strong, vibrant and sustainable rural economy.

There is a continuing debate within the group about what constitutes CCF. There are differences of opinion that revolve around questions of coupe size, the use of natural regeneration and continuity of production within a stand. Because a stand is regenerated by natural regeneration or because a silvicultural system is describe in a silvicultural tume, some are of the opinion that clearfells restocked by natural regeneration can be defined as Continuous Cover or Close to Nature Forestry. If we refer to the CCFG principles we see that there is no specific reference to maximum coupe size but instead, in Principle 3 to: Maintaining forest conditions and avoiding clearfelling. Unless the growing stock is distributed over a wide range of tree sizes, the forest conditions that allow regeneration to establish, and then to control that regeneration in quantity and quality, are not there. Therefore stands that are de-capitalised to a point where the forest conditions are no longer suitable to manage the regeneration cannot be described as continuous cover; this is what happens in uniform shelterwoods. Different levels of irregularity can accommodate groups in the form of holes, strips, bands or any other shape, but in all cases, they will only be continuous cover if the overall stand retains productive.

Shelterwoods have never been excluded from the CCFG Principles, they are clearly referred to as useful silvicultural systems and allowance is made for transitions and different phases of development within transformation periods. The Principles accept that, constrained by site conditions, management history, acts of nature and market constraints that stands will undergo periods where there is no production outside of the period of the prescribed harvesting cycle while the growing stock recovers its productive capacity. If management is managing according to CCF principles then non-productive periods will be minimised because a degree of irregularity will have been established before the productive element is removed; the dip in production is seen as a transition forced upon the stand by unavoidable constraints. However, if unproductive periods are planned or designed to be repeated, management will then require an entirely different form of control by area rather than by volume and the management system will be a shelterwood with all the ensuing management costs and difficulties that follow.
It is time that we have a simple generic definition for CCF, that makes no reference to minimum or maximums that we will use to argue about, but defines CCF in terms of the growing stock as it is in the CCFG Principles. A definition that is accepted as a standard used by government agencies and accreditation bodies to avoid the confusion that muddies the waters.

**Continuous Cover Forestry or Close to Nature Forest Management:** *Forests where a permanent growing stock is maintained and increment is harvested in cyclical interventions.*

*Phil Morgan, FICFor  
Chairman  
chairman@ccfg.org.uk*

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**David Hockney as Guest Editor on the BBC Today Programme**

A member of CCFG who knows the value of political effect proposed that the Chairman submit a suggestion to the Today Programme when the guest editor over the Christmas period was David Hockney who has commented in the past on the effects of clearfelling in the public’s consciousness of the countryside. The following text was sent to the BBC. (The Today Programme did not invite further comment).

*The chairman of the Continuous Cover Forestry Group (CCFG) writes:*

*Why is clearfelling of our state owned and private woodlands still continuing? Why do government agencies in the UK still condone and promote this practice on our woodland resource? At a time when man made climate change has reached public consciousness why do we destroy the carbon reservoirs, the engines for sequestration, the environmental guardians and the very things that provide meaning and reassure ordinary people? The Continuous Cover Forestry Group thinks that we should manage our forests so that they can bend and adapt to conditions we are not able to accurately foresee, whether they be economic, social or environmental, so that forests continue to provide benefits to society and to the planet.*
Pakenham with special input from several Forestry Commission staff, Craig Harrison (Regulations Manager), Gary Kerr (Forest Research) and Matthew Woodcock (Operations Manager).

The title for this meeting was:

**Managing Small Broadleaved Woodlands using the principals of CCF with Special Reference to Monitoring.**

The monitoring system adopted is based on Forestry Commission Information Note 45 (FCIN 45).

The woodland plan is currently being renewed and entered into the EWGS. This comes at a fortuitous time with the recent publication by the FC of Operations Note 21, EWGS Support for Continuous Cover Forestry.

**History**

Ramscoat is a small woodland of 22 hectares, parts of which are designated as ancient semi-natural, but most of it was established in the late 19th or early 20th century on farmland. Much of the wood was felled during the Second World War and replanted probably with conifer/broadleaved mixes. Little management was carried out until 1986 when it was heavily thinned. It is now comprised of 100% mixed broadleaves.

**Management**

The current owners purchased the wood in 1997 and since then it has been managed under the principles of continuous cover forestry, with the aim to start the transformation process to a more uneven aged structure.

The heavy thinning in 1986 had created suitable conditions to allow some natural regeneration to establish, principally Ash, Sycamore and Hornbeam, so a more diverse structure was beginning to develop. This process is now being assisted by interventions to encourage and free regeneration using uniform shelterwood and group selection systems.
The management has been assisted by grant aided operations under the WGS. With forward thinking Forestry Commission officers, assistance was given for works to help achieve the transformation process, which at the time did not sit easily within the WGS guidelines. The principal help was to set up permanent monitoring plots in 2003 under FCIN 45 guidelines, plus uneconomic thinning, respacing and scrub clearance.

32 permanent plots (8 metre diameter) were established covering the whole wood. The centre was pegged with an angle iron bar and a GPS reading was also recorded. These readings turned out to be fortuitous as many of the pegs were vandalised and removed. Consequently the 2009 survey plots were not exactly on the same footprint as 2003 plots but to the nearest GPS reading.

The data recorded from each plot was amalgamated, as illustrated below; into compartments each of which happened to have similar structures.

Comparing the data in figures 1-4 between the two survey years the following conclusions were reached:
- The increase in trees in the 7-24.9cm category was due to recruitment from the sapling stage.
- Conversely the drop in sapling numbers was due to this recruitment, plus some tending operations of cleaning and coppicing.
- The changes in the next two categories were due to growth moving some trees into the next diameter class.
- The loss in the largest category was due to the plot not being on the exact footprint as 2003, which amounted to one Oak being omitted.

No economic thinning works had been implemented in this compartment between the two surveys; however some uneconomic thinning/cleaning under a WIG had been carried out in small groups to increase light levels to free regenerating saplings.
Figure 3

Figure 4

Compartment 2. 2009 enumeration
Total area: 3.2 ha
Basal area: 27m2
Standing volume: 268.95 m3 per ha.
Species mix: Ash, Hornbeam, Oak, Silver Birch, Sycamore with Rowan, Hazel, Holley and Hawthorn.
Its current structure consists of two levels gradually moving to a more complex structure with a third level beginning to develop.

The next intervention is planned for 2010. This will be a firewood thinning aimed at reducing the basal area to nearer 20m2 per ha and will have the effect of reducing the number of stems in the 7-24.9 cm and in the 40-54.9 cm classes. There are some large poor quality Sycamore in the latter class that require removal.

Following this intervention it is expected that recruitment into the three larger diameter classes will start to produce a structure moving towards resembling the classic reverse J curve. However it is not as yet a management objective to aim to produce stands to this structure, but encourage development by natural processes to move in this direction.

Less stems per ha will increase growth rates in all categories, aid crown development and consequently seed production. The hope is that the Oaks, the oldest probably only being 60 years old, will increase their numbers due to the fact that they are only just moving into a productive and viable seed production stage.

It is planned to explore FC Operations Note 21 in a separate article.

Rik Pakenham. Sept 09
cforest@psa-online.com

Rik Pakenham is currently CCFG Co-ordinator for England and is active in several forestry organisations. He is a forestry consultant based in the Chilterns and manages a number of estates and woodlands on CCF principles.
I was delighted to be asked by Phil to write an account of the extremely interesting CCFG Wales field meeting at Coed Bryn Arau Duon, which combined visits to innovatively-managed stands with stimulating discussion. What follows is a rather personal account, concentrating on the issues I found most interesting on the day.

Our hosts Phil Morgan and Huw Denman introduced us to Bryn Arau Duon in a stand of young Sitka spruce which had just received its first thinning according to the principles of Talis Kalnars’ Graduated Density (GD) thinning. Racks had been cut every eighth row. In the immediately adjacent rows roughly 50 % of trees had been removed, in the second rows out from the racks around 25 % were removed, in the third rows 10 % were taken, and the fourth rows, half way between racks, were untouched (Figure 1). This thinning was said to be at marginal intensity, i.e. the same intensity assumed in the yield models in FC Booklet 48. Selection of trees for removal was on the basis of quality rather than size or spacing, with trees selected by the harvester operator following instructions from Phil and Huw. In the next thinning, the intact rows would be removed to make new racks, the previous racks being abandoned, with further selective thinning either side (Figure 2). The time of second thinning intervention is dependent on closure of the canopy over the rack; in Bryn Arau Duon the typical early thinning cycle is 4 years. The approach was rationalised in terms of wind stability, with the untouched rows in the first thinning providing a stabilising effect, and with the heavily released trees hopefully achieving a measure of stability by the second thinning. This seems to have worked so far in practice, with wind damage in the forest claimed to be very minor. I was rather concerned that by the end of the second thinning a great many trees would have been removed – every fourth row in its entirety, with heavy thinning either side – and wondered what consequences this might
have for the productivity of the stand. In addition, the thinning aims to create spatial diversity and whilst this is achieved by the first thinning it seems to be largely undone by the second. The approach is a fascinating one, and it will be most instructive to see how stands thus managed develop in terms of timber production and natural regeneration. I wonder whether other CCFG members have experimented with this approach to thinning, and what their experiences have been; I would encourage all to write accounts for the newsletter!

![Recent thinning operations in Coed Bryn Arau Duon](image)

We next visited a mixed stand of Sitka spruce and Japanese larch which, after a reputedly rather unpromising start, had responded quite well to thinning. I was rather surprised and disappointed that some present seemed quick to dismiss the larch as a crop, and most of the discussion revolved around underplanting to increase species diversity, the vast majority of Bryn Arau Duon (87 %) being stocked with Sitka spruce. I would have liked to have considered the thinning of the existing crop to favour some of the better larch stems. The conversation turned to deer, and the importance of carrying out any underplanting operations soon before deer began to pose serious problems. This, I must admit, seemed rather short-sighted; one cannot rely on carrying out such operations in a “deer free window”, but must actively tackle the issue of deer control when it arises. I do feel that deer should be viewed as an (income) opportunity rather than a constraint, if only we can develop hunting to the extent seen on the Continent.

Also during the discussion in this stand the perennial issue of large dimension timber, particularly what would currently be considered over-sized Sitka, was raised. To my mind, the most interesting point to arise from this was a clear and concise summary of what sawmillers value in a log; most important of all is straightness, followed by knottiness, and only then is diameter considered. This is an important order of priorities to remember when thinning!

Interesting discussions with various members of the group continued over lunch, which was also notable for Phil’s generosity in sharing his home-grown fruit!

After lunch we looked at some older stands where thinning had developed further in the ten years Phil and Huw have been managing the forest. Some of these stands had been thinned 5 times and the Graduated Density principles were being applied to target dimension selective felling across alternate racks. Underplanting and natural regeneration were discussed in more detail at a later stop, but an issue raised in the first stand we visited which interested me greatly was the effect of thinning for quality and target diameter harvesting on stand structure and rates of growth. The suggestion was that the removal of scattered poor quality trees would promote the growth of trees immediately adjacent but not that of unthinned clumps of better quality trees. The faster growing trees in thinned areas would then achieve their target diameter sooner, and so the effect would be reinforced in subsequent thinnings. Certainly the resulting stand was quite heterogeneous in structure, with some conspicuously darker unthinned areas. This must have some interesting repercussions for stand yield and for the quality of timber produced by trees growing at different rates, and may be worthy of research attention.

We looked briefly at some small areas of lodgepole pine which, despite their very poor form,
are being thinned and nurtured to encourage cone production, as the seed of this species has a high calorific value and is important as a foodstuff for the forest’s resident red squirrels, which ongoing surveys seem to suggest are increasing in number. For a forester, alas, it is rather galling to contemplate favouring such poor quality trees, but there are evidently considerable conservation gains. In the very small group of pine we visited first it seemed that more could have been achieved by thinning the dense surrounding spruce rather than by felling to waste amongst the pine themselves.

Our final stop was in a well-thinned stand where enrichment planting with western red cedar and Norway spruce had been attempted in small canopy gaps. Some of the young trees seemed rather sickly, but Huw assured us that in his experience they would make a good recovery in the next year. Some concerns were expressed about the difficulties of persuading contractors to abide by underplanting prescriptions. Most of the discussion concentrated on thinning practice, the regeneration of the stand and its structure in twenty years’ time. Given that target diameter harvesting will account for the vast majority of overstorey trees within the next twenty years, it was suggested that the result in the short term may be a more or less regular shelterwood. There was much discussion of the use of light to regulate spruce regeneration and to obviate the need for large scale respacing; I expressed the belief that, if it regenerated at all, Sitka would regenerate sufficiently densely over most of the area to make respacing a necessity, but I will be quite happy to be proved wrong! Spruce coning and natural regeneration currently seem to be rather sparse. It was suggested that the ultimate aim of a CCF structure would result in a stand in which interventions in the small size classes would not be necessary, and harvesting only of target diameter trees would yield 85 % log and bar material; I observed that, quite apart from being rather optimistic, this was not the ratio of large- to small-dimension material that the British timber processing industry currently demanded! Again, however, I will be happy to be proved wrong, and I am extremely pleased that Huw and Phil are pushing forward their approach to management so that we may have some hard facts on the matter in another few decades. We did debate the relative merits of CCF and the normal forest, and I think that this is a debate which should be pursued further and strictly objectively so that we can make well-informed decisions about appropriate methods of forest management. Phil talked us through the thinning exercises they hope to run in a marked plot in the stand, and I believe that such exercises are a very important element in the training of professional foresters and contractors.

My overall impressions of the day were that Coed Bryn Arau Duon enjoys some impressive roading infrastructure, that thinning has quite rightly been attempted wherever possible, and that the approach to thinning is an interesting one. The next twenty years will be very interesting for the forest in terms of the development of structure and regeneration, and I look forward to returning to see how things have changed! I know that a system of monitoring is in place in Bryn Arau Duon, and I hope that this will constitute a valuable record in the future. I would like to thank Huw and Phil again for being excellent hosts and for treating us to an extremely stimulating and enjoyable day.

Owen Davies  
Forest Research, Roslin  
owen.davies@forestry.gsi.gov.uk

Owen is a graduate of Bangor University with a BSc and PhD in Forestry, and worked for the university delivering silvicultural training courses throughout Wales. He is now a silviculturist with Forest Research, the research agency of the Forestry Commission, with responsibility for research on conifer natural regeneration and for advisory services on continuous cover silviculture to managers and policy makers. Members should feel free to contact him regarding the support Forest Research can offer to inform their woodland management.  
owen.davies@forestry.gsi.gov.uk
CCFG Scottish Site Meeting at Glenmore

On 3rd September, 2009

By David Jardine and Colin Edwards

On an atrociously wet day around 30 members of the CCFG met at Forestry Commission Scotland’s Glenmore Forest Park for the Scottish site meeting. Following an introduction at the Allt Mor car-park where the forest history of the site was presented by the Inverness, Ross & Skye Forest District Manager, David Jardine, the group moved to the adjoining open ground to a corn-kiln, which indicated the interrupted history of forest cover in the area. This area had been cleared of spruce in 1998 and regeneration of native Scots Pine was now occurring at the edges of this large group felling. Fences had been removed from Glenmore Forest at the turn of the 21st century (to help protect the remnant capercaillie population) and deer culling increased. The deer population (Red and Roe) is now at around 8 deer/km².

The unmanaged stand at Creag Loigste, showing the self thinned planted cohort around the older ‘granny’ trees.

Lunch was taken at Glenmore Visitor Centre where a welcome respite from the rain was gained, along with hot drinks and warmth. The next stop was at Badaguish where Colin Edwards of Forest Research presented early results from a late stage thinning conversion experiment in a Scots Pine plantation. It was established to help inform Forest managers who are under increasing pressure to adopt management strategies that do not involve clear felling and replanting. One of the policies of increasing importance affecting pinewood management, is the ‘naturalisation’ of plantation stands towards a stand structure closer to that found in undisturbed native Scots pine woods. This normally entails increasing the range of dbh’s within the stand, rather than ‘normalising’ them typical of stands thinned for timber production and future clearfelling. Plantation woods, such as found at Glenmore, are typical of the stands of different successional stages. The management regime practiced meant that this was a uniform stand with restricted deadwood: it had a few remaining 19th century ‘granny’ trees but was mainly planted Scots Pine (p1932) which had received several thinnings and was typical of a highland pine plantation on a native woodland site. Nearby the group were asked to suggest the origin of a stand with old granny trees and a cohort of younger trees in the stem exclusion phase, with significant amounts of standing deadwood, all typical of a late understorey reinitiation phase of development. While this stand looked as if it may have resulted from a pulse of natural regeneration, it was in fact underplanted at the same time as the previous stand and had never been managed as a consequence of poor access. This led to a useful discussion about the self-thinning processes and the development of natural stand structures within planted woodlands.

CCFG members rendezvous in the rain at Glenmore
type of stand being considered for naturalisation, although this stand is older (77 years) than many others under consideration.

The experiment (Queens 26) was started in 2002, in a P26 Scots pine crop in compartment 3028, Badaguish, Queens Forest, Inverness FD. Six treatment plots, each of one hectare area, were established and collection of initial baseline assessments completed in 2003. A second assessment was completed in summer 2008, and another thinning operation is planned for 2010/2011. Forest Research are measuring the changes to the stand structure, diameter distribution, light environment and seedling recruitment; long term monitoring of the vegetation change is being undertaken by Ecology Division.

![Thinning experiment at Badaguish, where different thinning regimes are being trialled with a view to developing different stand structures from plantation origin Scots Pine](image)

Six treatments are being compared; a non-thin control, a crown thinning to 30 m² ha⁻¹ target basal area, two Intermediate thinning regimes and two variable density thinning (VDT) regimes both with 20 m² ha⁻¹ and 30 m² ha⁻¹ target basal areas.

Early indications reflect expected changes in dbh distribution for each treatment type. Intermediate thinning has not changed the range or variability of the stand, but has increased both the maximum and mean dbh. VDT has increased the mean tree size, although smaller dbh’s have been retained despite some losses through natural mortality. Contrary to what was expected there has been a reduction in structural variability in the stand; but several thinning operations have still to be applied before the final target basal area and stand structure is reached. The control plot has undergone self-thinning through density dependant mortality. It has been predominately small dbh trees that have died so far. Crown thinning has had the greatest initial effect; increasing both range and mean diameter and increasing variability within the stand while retaining the smallest diameter trees.

The final stop was in the 1930 regeneration experiment on the Sluggan road, where examples of different stand structures resulting from the various establishment techniques (vegetation cutting and pulling, burning, ‘simulated ploughing’ and control) were viewed. The reserve was set aside in 1962 to “maintain a proportion of the Glenmore native pinewood as a reserve in which large scale artificial alteration of site factors would be prohibited and in which the course of natural changes could be followed”. Limiting human influence on the forest e.g. thinnings and fellings and allowing natural processes of stand development to take their course were seen as the main management objectives. The reserve contained five experiments established from 1930 – 1951, which collectively tested small scale soil and vegetation manipulations to encourage natural regeneration. The main experiment, Queens 10 established in 1930, was closed in 1960 but retained for future reference. Part of the site was identified as a long term monitoring area, with age structure analysis and tree mensurational data collected during 1997-1999.

The ground vegetation is dominated by Calluna vulgaris (heather), Vaccinium myrtillus (Bluberry), Vaccinium vitis - idea (cowberry) Goodyera repens (Creeping Lady's Tresses) and patches of Empetrum nigrum (crowberry). There is also a dense layer of moss over the study area composing the following species: Hylocomium trichocaulon, Hylocomium splendens, Hynnum scherberi and Hynnum crista - castrensis. The soil is composed of a thick peaty/humus layer under which a narrow dark brown horizon lies. Beneath this line lies a compacted and leached layer of sand and gravel. The rock beneath the soil is a deep layer of Fluvio-glacial deposits that cover Central Highland Granulites.

Eight treatments were applied to plots in December 1930 (Table 1 below).
Table 1. The list of original treatments applied to the experiment in 1930, and treatment types used in the analysis. Three of the original treatments were re-applied to a proportion of the plots in 1936 and again in 1939 in anticipation of good seed falls. *(Adapted from Edwards and Rhodes, 2006).*

<table>
<thead>
<tr>
<th>Original treatment description and date(s) of application</th>
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<tbody>
<tr>
<td>Control – no disturbance</td>
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<tr>
<td><strong>Brash cover</strong> - Heather hand pulled and imported pine brash spread over plot; December 1930</td>
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</tr>
<tr>
<td><strong>Patch burning</strong> - Heather hand pulled and burnt with pine brash in 1.83 m² patches at 4.57 m centres; December 1930</td>
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<tr>
<td><strong>Patch cultivation</strong> - Patches 1.83 m square, at 4.57 m centres; hand cultivated to expose the mineral soil in December 1930 Alternate patches re-dug; May 1939</td>
<td></td>
</tr>
<tr>
<td><strong>Patch cultivation</strong> - Patches 1.83 m square at 4.57 m centres; hand cultivated to expose the mineral soil in December 1930 All patches re-dug; March 1936 Alternate patches re-dug; May 1939</td>
<td></td>
</tr>
<tr>
<td><strong>Strip cultivation</strong> - Strips 76.2 cm wide, 91.4 cm apart; hand cultivated to expose the mineral soil in December 1930 Alternate strips re-dug; May 1939</td>
<td></td>
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<tr>
<td><strong>Strip cultivation</strong> - Strips 76.2 cm wide, 91.4 cm apart; hand cultivated to expose the mineral soil in December 1930 All strips re-dug; March 1936 Alternate strips re-dug; May 1939</td>
<td></td>
</tr>
<tr>
<td><strong>Burning plus strip cultivation</strong> - Surface vegetation burnt; strips 76.2 cm wide, 91.4 cm apart then hand cultivated to expose the mineral soil in December 1930 Alternate strips re-dug; May 1939</td>
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</tbody>
</table>

Table 2. Comparison of mean numbers of Scots pine seedlings (<1.3 m height), saplings (>1.3 m height, <7 cm dbh) and young trees (>1.3 m height and >7 cm dbh) counted in treatment plots in 1943, 1959 and 1999. *(Adapted from Edwards and Rhodes, 2006).*

<table>
<thead>
<tr>
<th>Experiment treatment</th>
<th>1943 assessment</th>
<th>1959 assessment</th>
<th>1999 assessments</th>
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<tbody>
<tr>
<td></td>
<td>Mean seedlings ha⁻¹ (StDev)</td>
<td>Mean seedlings ha⁻¹ (StDev)</td>
<td>Mean seedlings ha⁻¹ (StDev)</td>
<td>Mean saplings ha⁻¹ (StDev)</td>
</tr>
<tr>
<td>Control</td>
<td>0.0</td>
<td>200.0 (126.5)</td>
<td>54.2 (84.3)</td>
<td>83.3 (70.1)</td>
</tr>
<tr>
<td>Vegetation manipulation</td>
<td>143.7 (287.5)</td>
<td>100.0 (93.5)</td>
<td>68.7 (62.5)</td>
<td>93.7 (82.6)</td>
</tr>
<tr>
<td>Patch cultivation</td>
<td>2 312.5 (1 325.8)</td>
<td>287.5 (300.5)</td>
<td>50.0 (70.7)</td>
<td>100.0 (14.1)</td>
</tr>
<tr>
<td>Strip cultivation</td>
<td>4 931.3 (3 393.3)</td>
<td>2 325.0 (1 673.8)</td>
<td>306.2 (302.6)</td>
<td>853.1 (590.0)</td>
</tr>
<tr>
<td>Significance P</td>
<td>P = 0.04</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>
Assessments indicate that the best treatment for encouraging the establishment of seedling and sapling natural regeneration was strip cultivation in canopy gaps between mature trees, with protection from browsing by fencing (Table 2 above). Lower rates of regeneration recruitment were achieved in all other plots, but ultimately the stand density will be lower. It was suggested the creation of vegetation free sites for seed germination and growth was the greatest single factor in encouraging recruitment, however the influence of other factors, such as light and soil moisture availability, have not been tested. Examples of group regeneration and self thinning within these were viewed, along with examples of natural mortality of the ‘granny’ trees and recent snow break in the younger trees. Discussions ranged over the possibility of developing increased stand structures using a collection of these techniques in a single stand to potential for timber to be removed from the best treatments.

Despite the rain, an interesting day was had, exploring the wide range of topics associated with stand development and management in native pinewoods.

*Colin Edwards*
*Forest Research*

*David Jardine*
*Forestry Commission Scotland*

Colin Edwards is based at Forest Research where he is programme leader for the management of upland native woodlands. Colin is also Co-ordinator for CCFG Scotland

David Jardine is Forest Manager of Inverness Forest District, Forestry Commission Scotland
Understanding daylight and the manner in which it affects the growth of trees is not a simple matter. The way in which people perceive the subject is often somewhat vague, and knowledge of the basics rather patchy. When asked about the need for a meeting on the subject, a few people replied that we already knew everything that we need to know, and that there is nothing more to be said on the subject. However, it is not uncommon to hear foresters say that the amount or quality of light in the British Isles makes silviculture here very different from that in other countries (even countries as close as Belgium or the northern parts of France), which does not seem logical. Some people also hold the view that we can not obtain natural regeneration of species such as oak, or even Sitka spruce, without a very drastic reduction in stand density or clear felling.

In order to explore these matters, and to try to sort out what is true and what is myth, CCFG hosted a one-day meeting at Westonbirt Arboretum on 29th September 2009. The meeting was attended by more than 50 people, including the speakers and representatives of two companies who supply light measuring equipment; and the consensus appears to have been that the meeting was interesting, and well worth attending.

The proceedings commenced with a short introductory paper, in which I asked a number of questions and attempted to set the scene for the papers which followed; and we were fortunate to have three excellent speakers, each of whom considered different aspects of the subject.

Paul Burgess, from Cranfield University, has been extensively involved with work on systems which combine trees with agriculture. He gave a very clear exposition of the basics of daylight; including the relevance of the angle of the sun (or any other source of light), the effects of latitude at different times of the year, and the effects of cloud cover. One of his graphs showed that, in June and July, London receives as much potential solar radiation as Cairo, and slightly more than Kampala, on the equator; which I think was a slight surprise to some people.

Maurizio Mencuccini, from the University of Edinburgh, then considered the amount of light required for photosynthesis and the interaction between this and other factors such as moisture supply, atmospheric humidity, and temperature. In many respects this is a more complex matter. Different plant species respond differently, and some can adapt more efficiently than others to low amounts of light. The effect of a given quantity of daylight will therefore vary according to several other variables.

Mathias Disney, from University College London, took us into the measurement and modelling of light at different levels within a woodland canopy, using the latest laser technology, and indicating how this might be used to model the effects of different canopy densities and structures.
After lunch we looked at light levels under the canopy of a single large beech tree, an area of coppice with standards, and a patch of neglected coppice, using instruments supplied by Skye Instruments, before a final discussion session chaired by Andy Poore and an assessment by Graham Gill of the need for further studies, publications, or training.

The fact that we cannot answer all these questions is perhaps inevitable. However, a better understanding of the basics should put us in a better position to understand what happens in the forest and how our management might affect this. Light is one of the basic tools in the manager’s portfolio, and it is perhaps comforting to know that there will still be a need for experienced practitioners, who can interpret what they see on the ground.

The proceedings of the conference have been lucidly transcribed by our administrator, Gill Pemberton, based on a recording taken at the conference, and a selection of illustrations from the speakers’ Powerpoint presentations have been included and placed on the CCFG website. It is hoped that this will be helpful to anyone who has the opportunity to read them. (www.ccfg.org.uk/conferences/daylight.html)

Rodney Helliwell
E-mail: mail@rodneyhelliwell.com

Rodney Helliwell, FICFor, has had a varied career in woodland management, research, nature conservation, arboriculture, and landscape design, and since 1978 has worked as an independent consultant. He was a founder member of Pro Silva and of the Continuous Cover Forestry Group.

Overall it was a lively and interesting meeting, even though some questions inevitably remain unanswered. It would appear that we have the knowledge to be able to predict the amount of light under different types and densities of forest canopy at different times of the day and at different times of the year, with or without cloud cover of varying thickness; but it is still difficult or impossible to attempt to predict the effects of all the various interactions that can occur between the amount of light and other factors. And I am still not clear as to how much benefit a short burst of direct sunlight is likely to be to a young tree which, for more than 90% of the average day, receives only diffuse light from other parts of the sky, or light which has been deflected by the foliage of surrounding trees. Do different tree species respond differently in this respect, and to what extent will their response depend on temperature, availability of soil moisture, windspeed, atmospheric humidity, and the nutritional status of the tree?
In order to understand the way in which the amount of photosynthetically active light changes with cloud conditions, I have measured the amount of light, using a Skye Instruments ‘Quantum Sensor’, on a number of occasions during February and March 2010, at various times of day and under different cloud conditions.

There is a large amount of variation, depending on the time of year, time of day, and the amount and distribution of cloud in the sky, in addition to the variation between different locations; close to or distant from trees or buildings. However, one fact does appear to emerge very strongly, and this is that on partly cloudy days there can be considerably more effective light within a glade or beneath a partial canopy or on the north side of a tall building than there is at the same point on a day with a completely clear sky. This appears to be because, although on a clear day there is more direct sunlight, there is less diffuse light from other parts of the sky.

This phenomenon is mentioned, briefly, by Monteith and Unsworth (1990), who note that “The formation of a small amount of cloud in an otherwise clear sky always increases the diffuse flux, but the direct component remains unchanged provided neither the sun’s disc nor its aureole are obscured. With a few isolated cumulus, total irradiation can therefore exceed the flux beneath a cloudless sky by 5 to 10%. On a day of broken cloud the distribution of radiation is strongly bimodal: the irradiance is very weak when the sun is completely occluded and strong when it is exposed ………. This effect is a consequence of strong forward scattering by the small concentration of water droplets at the edge of a cloud.”

My results do not disagree with this; and it would have been surprising if they had. However, I think I have gained a slightly better understanding of the way in which diffused light behaves. I had (wrongly) assumed that there would be less diffused light in a small clearing on a cloudy day with between, let us say, 60 and 90% cloud cover than on a day with a clear blue sky, but the reverse seems to be the case, unless the sky is overcast by very thick cloud.

A summary, based on the mean of five readings at noon on days with less than 5% cloud (“clear”), five readings on days with more than 5% cloud (“cloudy”), and five readings on days when the location of the sun was impossible to discern (“overcast”) is given below:

<table>
<thead>
<tr>
<th>Location</th>
<th>Clear</th>
<th>Cloudy</th>
<th>Overcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn</td>
<td>827</td>
<td>751</td>
<td>205</td>
</tr>
<tr>
<td>Glade</td>
<td>143</td>
<td>234</td>
<td>127</td>
</tr>
<tr>
<td>Close to north side of house,</td>
<td>65</td>
<td>99</td>
<td>85</td>
</tr>
<tr>
<td>with some trees present</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is considerable variation about these means, but the general pattern seems to be consistent.

What this appears to be telling us is that, in locations where there is little or only occasional direct sunlight, there will be more light under partially cloudy conditions than under a clear sky, and even completely overcast conditions may be better than a clear sky if the cloud cover is not too thick. Obviously, there is more daylight in the middle of an open lawn than in an area with many trees, even on cloudy days, as there is more sky visible from that point, but for a small tree which is growing in a particular gap or under a partial canopy, a moderately cloudy day is likely to be a better growing day than one with a completely clear sky.

This may seem surprising, although it accords with Fig.14 (attributable to Dengel 2009) in Maurizio Mencuccini’s presentation at the CCFG conference on daylight, September 2009, which shows light levels under sunny, cloudy, and overcast conditions, and which shows there to be more diffused light above the tree canopy on cloudy and overcast days than on days with a clear sky. This appears to emphasise the importance of diffused light as a source of energy for photosynthesis within woodland, particularly in cloudy regions.

The number of readings involved so far is not very large, bearing in mind the variability involved, but the effect appears to be consistent and predictable; and I intend to carry on taking readings, as and when I can, over the next few months.

References
CCFG Visit to Slovenia and 20th anniversary of the foundation of ProSilva

By Phil Morgan, FIFor
CCFG Chairman

CCFG visited Slovenia and attended the 20th anniversary of the inauguration of ProSilva at Logarska dolina in September last year. The Group was represented by Phil Morgan, Rik Pakenham and Jim Ralph and was accompanied by Phil’s wife Catriona. Logarska dolina is high in the Steiner Alps close to the border with Austria in one of the most beautiful parts of Europe and in a country where clearfelling has been banned by law since 1949. We are thankful to Woodland Heritage who supported CCFG on this occasion.

The ProSilva Annual General Meeting was held before the conference and tour at the Hotel Plesnik that lies at the bottom of a magnificent alpine valley surrounded by 2,000 metre peaks with forested slopes of beech and pine leading to alpine pasture above the tree line. Two of the signatories of the foundation of ProSilva, the declaration of Robanov kot on September 1989, Brice de Turckheim from France and Bela Varga from Hungary, were honoured with lifetime membership awards; recognition of 20 years of dedicated service; from both these outstanding individuals was a very moving experience leaving hardly a dry eye in the room. We then welcomed two new countries to the group, Portugal and Norway. Portugal have been attending ProSilva meetings for many years but only because of the perseverance and enthusiasm of one individual, João Paulo Carvalho, but now they have formed a group and are officially part of the wider pan-European organisation promoting better understanding of Close to Nature Forestry. Norway had submitted their candidacy at last year’s meeting at Freudenstadt in the Black Forest and officially joined the group on this occasion. ProSilva Norway has a constitution grouping together a number of enlightened individuals working within quite a hostile forestry environment back home. Phil Morgan was invited to travel to Norway last year to help in forming a group and to explore CCF principles in Norway. They were now very pleased to be part of a pan-European organisation and grateful for that support. A representative from the New England Forestry Foundation (NEFF) in the USA attended the conference with a view to joining ProSilva and widening links across the Atlantic, (the NEFF has since submitted a formal application to join ProSilva and will be incorporated at the board meeting in Holland this year).

The theme of the conference was Linking Practice, Science and Educational Outreach for Advancing Close-to-Nature Forest Management. The indoor conference on day one was a combination of scientists, managers, educators and high powered international organisation staff presenting their papers with panache and not without some hard hitting messages for this small, friendly organisation of silvicultural enthusiasts. How is sustainable and adaptive management supported by science? Jürgen Bauhus from Freiburg University sought to find ways of integrating knowledge, of engaging with researchers, to change paradigms and ultimately to develop truly adaptive management approaches that will not necessarily be unique to close-to-nature forestry. How does ProSilva influence and at what level? Will ProSilva be at the XIII World Forestry Congress in Buenos Aires or at the Development of Forest Sciences curricula in Europe Conference? Tamás Marghescu, retired from IUCN, gave ProSilva a hard time and challenged how effective we are at communicating a message if limited to speaking to ourselves. Bo Larsen from Denmark lightened the mood with his amusing and irreverent style by questioning some of our assumptions and whether ‘Forest management is more than a technical, scientific and managerial matter – it is a social issue!’ And he went on through a review of Danish Forest Development Types to explain how meaningless definitions can be if taken out of context and how
they only become meaningful if a process of stakeholder ownership is gone through. All presentations from this conference and previous conferences can be downloaded from the CCFG website:

www.ccfg.org.uk/resources/resources.html

Slovenia is the third most forested country in Europe with around half the country covered by forests. The choice of field visits covered all the forest and regional types in Slovenia and by dividing up the CCFG party managed to attend most over the two days following the conference. Some of the days were so full of activity that long days were spent on the bus but always passing through magnificent scenery and landscapes.

Group shelterwood is the most usual silvicultural system used in heavily stocked stands often established from restocking in the 1890s and being transformed to continuous cover. Numerous examples were shown with different mixtures of Norway spruce, silver fir, Scots pine and beech and oak. All these forests are managed and monitored and all are still in a phase of capital accumulation in spite of the high growing stocks. Only the farm woodlands appear to be managed at equilibrium basal area and avoid the strong differentiation between stand types and demonstrate a more irregular structure. Slovenia was part of the Austro Hungarian Empire and owes much of its forest history to the various dukes and princes who acquired land and depopulated large areas in order to develop hunting forests. These have now provided the vast forests of South West Slovenia of Kočeveski Rog in the Dinaric Alps with natural systems and higher mammals such as wolf, lynx and bear. Karst limestone has taken its name from the collapsed limestone plateaus of Kras and Istria that were deforested due to social pressure and the proximity to larger population centres on the Mediterranean coast and now reforested and undergoing transformation to continuous cover. The karst springs and underground and temporary lakes and rivers create a surreal landscape between Ljubljana and the coast. The tallest Norway spruce in Europe, measured in 2006 as 61.8 metres, is growing on a small farm woodland at Sgerm in the Pohorje Mountains. More exceptional than this remarkable tree, is the stand in which it grows, the best example of selection forestry on the whole trip. We were being lead down a farm track to see a stand of silver fir with a carpet of uniform regeneration below a very elevated uniform canopy that could only become a shelterwood. Only to see on the other side of the track the very best farm forestry selection forest in the whole of Slovenia, showing how the small woodland owner is the true master, always making careful use of the limited timber resource from his farm, wishing to optimise returns and limit effort and costs, and also understanding the benefits to water and to the soils his husbandry provides. This was a truly magnificent sight, crowned by the magnificent 62 metre spruce, and it was certainly worth the entire trip.

CCFG visited Slovenia in 1995 and it was a real pleasure to meet with old friends again some of whom still kept the presents we brought to our hosts all those years ago. Notably a whisky flask we gave to Katarina Celic inscribed to commemorate the visit and still now in perfect working order but replenished with bilberry spirit.

ProSilva brings together practicing and academic foresters from all over Europe to share in their experiences of quite different environmental and economic conditions from countries with different forest histories; it is that diversity which unites them.
by acknowledging a common uniting theme to their management, seeking not to emulate but managing with nature in cost effective ways for the benefits of society and the environment. All are convinced that our silviculture has more to offer at this time when effective carbon management is now recognised as supremely important. We left Slovenia inspired again and taking with us fond memories of some remarkable people who have been campaigning for better understanding of Close to Nature Forestry for a very long time and who practice Continuous Cover in a myriad of different forms across Europe. We are particularly grateful to Prof. Dr. Jurij Diaci and all of his team from the University of Ljubljana who put so much work into organising the conference and visits and who made the 20th anniversary such a success.

Philippe Morgan,
Chairman CCFG

Challenging Times
By Phil Morgan

A student member from Aberdeen has contacted the Chairman asking what members of the group may expect to get as benefits. I have still not replied because, rather than an individual response to the person who asked the question, I have chosen to reply through the Newsletter to raise the question amongst the membership. (Student members are charged a membership fee of £0.00; ordinary members are charged £15.00 annual membership).

CCFG promotes Principles of Continuous Cover Forestry by means of the following services it provides:

• CCFG provide the CCFG website and the Newsletter.
• CCFG provide affiliation to ProSilva, the pan-European organisation that promotes Close to Nature Forest Management.
• CCG organise field meetings right across Britain and the national committees provide their own national focus to the CCFG members of England, Scotland and Wales.
• CCG organise an international Field Visit most years.
• CCFG organise a major educational event every year, this was the scientific meeting held in 2009 and the training seminar 2010.
• CCFG respond to consultation in order to make the argument for structural irregularity in forests in Britain.
• CCFG is represented on various regional and national committees.
• CCFG provide information on scientific works relating to CCF and about CCF training.

CCFG provides a network of individuals sharing knowledge to better understand Continuous Cover and Close to Nature Forestry.

All this work is provided because of committed and enthusiastic volunteers giving of their time to promote Continuous Cover Forestry in Britain. The group hires the services of a part time administrator, Gillian Pemberton, who supports the committee.

We now have a quality of website, quality events, a quality Newsletter and widespread representation on regional and national committees. Many of these activities are directly and indirectly helped for by our greatest supporters, Woodland Heritage.

The benchmark for the Newsletter was set by Ted Wilson in Newsletter 29 where the amount and quality of the material and the interaction amongst members exceeded anything published previously. 2009 also saw the first scientific conference held at Westonbirt Arboretum, vigorous representation for greater understanding and adoption of CCF principles during the Wales Woodland Strategy review, a delegation to Slovenia to represent CCFG at the ProSilva 20th anniversary conference in Slovenia and successful field meetings in all three nations.

There are still many more things that need to be done as well as making sure that our core activities are delivered to the membership. CCFG functions effectively as a small group of GB foresters promoting CCF principles who are able to share in
their knowledge and are able to influence in some measure forest policy in Britain. These are however changing times and the pace of change is accelerating so that the role we see for ourselves may have to be stepped up. We now have tools at our disposal to be more effective at interacting amongst ourselves and with others such as the new website, the Newsletter, meetings and conferences. If we are to move ahead members of the group must continue to support CCFG in the way they have traditionally by attending meetings, going on foreign tours and attending conferences. There is also now a new role for members who can contribute and become involved to any extent they like by making use of the new advances in communication technology, by sharing information within the group and in contributing to responses to policy and scientific developments the group makes. This is new territory that needs to be managed via the website and by articles in the Newsletter and is an important development if the group is to function as a small independent organisation charging the modest subscription it does. The group needs to be effective in promoting the views of its members with only the support of our part-time administrator in these increasingly demanding and difficult times.

The website now has an RSS feature so that you can monitor new developments to the site. This means that we need to be up to date with news to demonstrate that we are a driving and dynamic organisation. Responses to consultation are very important because CCF is now increasingly being considered as a realistic option as a means towards mitigating climate change yet the principles we advocate are still poorly understood. Members sometimes write in with old papers they would like to discuss which can be circulated or where individuals can be put in contact so that they talk amongst themselves.

The list of things to do is a long one. If you are a member of CCFG and if you have ideas for a field visit, or want to go on a foreign tour, or attend a high powered training course, or go to a conference that addresses questions you pose yourself and are not easily answered, or want to make a monthly literature search to publish in the Newsletter, or wish to respond to a consultation, or draft a reply to the Read Report, Combating Climate Change - A role for UK Forests, or set up a blog on the website - now is the time to speak to the administrator. Phone or email Gill Pemberton and let us know what you think and we will find something for you to do.

CCFG is run by volunteers which is why the group is still independent. If we join with others in order to gain critical mass we will lose the independence and identity we value so much, however amicable a merger may be. But in order to function as a small independent group we need the commitment of our membership and a willingness to contribute. More volunteers are needed who are willing to lend their weight to the organisation and to promote CCF Principles so as to make the group more effective and of greater benefit to the membership.

The next Committee meeting will be held on 12th May, all who wish to attend may do so, (see website for further details).

Philippe Morgan
Chairman

Response to Arne Pommerening

Rodney Helliwell gives his thoughts on Arne Pommerening’s article on ‘Silvicultural principles of continuous cover forestry’ which was published in the last newsletter (Issue 29)

I think it is necessary to make some response to Arne Pommerening’s comments in Issue 29 (pp 21-22) on the topic of “Silvicultural principles of continuous cover forestry”, as the topic is of central importance to the development and progress of CCF in the UK. As outlined in my review of the “guide to best practice” (Davies, Haufe, and Pommerening 2008) in the same Issue, CCF is concerned with management which, in the words of the Continuous Cover Forestry Group, will generally lead to the development of a permanently irregular structure at compartment level; whereas Davies et al. (and Pommerening in his comments) seek to deal at length with stands which do not appear to come within this definition.

There was no attempt in my review to divide the forestry profession into dogmatic factions. A professional forester is free to manage forests in whatever way he or she thinks best, but to describe uniform shelterwood as CCF is not helpful, as it employs a different approach; and if the term CCF is applied to that system as well as to permanently irregular stands there will be little point in using the
term, as it will have lost its meaning. Similarly I was not attempting to split the forestry community, or to bring in “political considerations” (whatever they may be) but I did attempt to clarify what CCF involves.

With regard to the topic of “frame tree based silviculture”, I have no disagreement with the fact that some trees are important for stand stability, timber value, or other reasons, and this needs to be considered at each and every marking of trees for removal, but any semi-permanent marking of individual trees as “frame trees” appears to be both unnecessary and unhelpful. There might (perhaps) be a case for doing so in the early stages of conversion of an even-aged stand towards an irregular structure (although I would not regard it necessary), but at any later stage it is unlikely to be helpful to select and mark trees in this way. As a concept it may have some merit, so long as trees are not permanently marked in an attempt to influence the marking at subsequent interventions. If those trees are still a high priority for retention at the next intervention, that should be self-evident, but if they are not, then the marker should be free to remove them.

I would also agree that removal of trees of medium size will be necessary. There is no disagreement on that point. My comment about re-spacing was intended to refer to smaller trees of no timber value (which I thought would be understood by readers), which under ideal CCF conditions should be able to sort themselves out.

Lastly, Pomerening goes on to say that the need for age and area to be substituted by other variables is evident and is sufficiently highlighted in their “best practice guide” and does not need to be explained in great detail. I do not agree on that point, as I did not find it to be sufficiently emphasised or explained, and it is central to CCF; and the use of terms such as “final harvest” is inappropriate. So, again, I would seriously question the title and purpose of this publication.

Rodney Helliwell, 5th March 2009

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**Administrator**

I have been asked to introduce myself to you. Firstly I would like to say how pleased I am to be working for the CCFG, and I hope to get to know a few more of you over time. Work is much more lively when populated with faces.

I am not a forester, although in the distant past I did a Geography Degree with one of my main subjects being plant and animal geography and soils. However, after graduating I joined the Health Service as an administrator and for the next 15 years worked in St. Mary’s Hospital and The Westminster, and at other locations in London. I left London and the Health Service when I married, and have since enjoyed a wide variety of experiences from part-time jobs.

Until recently I was administrator for the Scottish Ecological Design Association, or SEDA, which was set up (in 1991, as was the CCFG) to develop and share knowledge of ecological design in the built environment. In the 90’s it was still about pioneering individuals experimenting with materials and design features to minimise resource use. Now the building regulations are increasingly taking on board air tightness, insulation and carbon footprint measurements so some of the principles are gradually entering the mainstream. Use of timber and detailing the design for what is available locally was always a much-debated topic amongst members, often frustrating for both the supplier and designer. In recent years the FC Scotland have been active in working to build closer links between the two.

I recently attended a lecture by Peter Head, a Director of Arups, who have a project on ‘Drivers for Change in the World’ – how to move from a society which is based on an industrial (open system) model to one designed for sustainability (a closed system model). Arups have contracts on this theme in many parts of the world, including China and the East. Their approach was to base their model on the 10 principles of Biomimicry (as proposed by Janine Benyus in her book *Biomimicry: innovation inspired by nature*, 1997) which state that biosystems:

- Use waste as a resource
- Diversify and co-operate
- Gather and use energy efficiently
- Optimise not maximise
- Use materials sparingly
• Clean up, not pollute
• Do not draw down resources
• Remain in balance with the biosphere
• Run on information
• Use local resources.

And use these principles to guide their research into how urban areas, manufacturing, food production and energy and water supplies could be transformed.

Maybe we are beginning to see a ‘Close to Nature’ discipline emerging for managing human activities.

Gill Pemberton
April, 2010
administrator@ccfg.org.uk

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New Members

A warm welcome to all our new members. The following have joined since the beginning of 2010:

David Brown & Ruth Pybus, Denbighshire
John Fulcher, Silvicultural Systems, Suffolk
G. Evans, Exeter
Graham Smith, Loxhole Sawmill, Dunstable
Craig Pinder, Weymouth
Rebecca Gawthorpe, student, Myerscough College, Preston
Claire Wightman, student, Aberdeen
Tanya Ogilvy, forest ecologist, Ross-shire
Mark Jeffery, Skipton

Simon Lockwood, Central Lowland Native Woodlands
Duncan Ireland, Forest Research, Dumfriesshire
Tom Hyde, student, Thetford
Frank Tiramani, student, Reigate
Chris Fletcher, forester, Derbyshire
George Back, Paddockhurst Estate, East Grinstead
Richard Paton, Forestry Commission SW England
Rod Costa, Hatfield Park
David Saunders, Foxwood Forestry, Lewes

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John McHardy wins
2009 Peter Savill Award

Congratulations to John McHardy, who was 2009 winner of the Peter Savill Award. John was practicing CCF at Longleat well before it became topical, and is a long standing member of the CCFG.

Woodland Heritage set up the Peter Savill Award in 2007 to recognise the contribution of an individual who has significantly benefitted British forestry in silviculture, research, marketing, wood processing or education.
EVENTS PROGRAMME 2010

Timber Harvesting Techniques in Stands managed under Continuous Cover Forestry Principles
Wed 12 & Thurs 13 May
Stourton, Wiltshire

This course will be lead by Professor Hanns Höfte, and will include talks, practical work and visits to local estates. Fully booked

Visit to Wakefield Estate, Northamptonshire
2010 English Site Visit
Tues 6 July

During this visit we shall be looking at the transformation of even aged ash/oak stands to uneven aged structures. In the morning we shall be looking at the general principles of management, and reviewing the results of the heavy thinning undertaken in the early to mid 1980s with a view to looking at the opportunities, constraints and threats currently exhibiting on the system. In the afternoon, CCF members will look at examples of how the transformation of the original even-aged stands of Continuous Cover management is being undertaken and how various trial management areas are succeeding. Price £10.

CCFG Visit to Romania
Sat 10 – Thurs 15 July

The visit will be based on Timisoara, a region in the west of the country, and so we shall be travelling in a most beautiful area, mainly in the Semenic and Carpathian mountain ranges. The visit is being hosted by Romanian friends from Pro Silva, and we shall be studying how they manage their forests under CCF conditions. Cost: c. £500, excluding flight costs. Assistance for a limited number of students wishing to join this trip may be available from Woodland Heritage

Implementing CCF in Woodlands with high Visitor pressure
2010 Scottish Site Visit
Thurs 2 Sept

In the morning we shall visit Beecraigs Country Park, near Linlithgow, and in the afternoon, Callendar Woods. The day will focus on the role of appropriate silvicultural practices in an urban setting where there are numerous woodland management issues to be tackled, but one in which CCF management is what the public like to see and can offer a manageable, good quality successional crop.

2010 Welsh Visit
Wed 6 Oct

Details to follow

For more information, or to book a place on one of these visits, please contact Gill Pemberton administrator@ccfg.org.uk, Tel 01361 840 230.

Leaflets for most events can also be downloaded from the CCFG web site:

www.ccfg.org.uk/events
CCFG Committees

We are very pleased to welcome Jim Colchester, Woodland Manager for Buccleuch Woodlands, who has recently joined the CCFG Scotland committee.

CCFG GB Committee

Philippe (Phil) Morgan  
CCFG Chairman and Co-ordinator (Wales)  
Email: chairman@ccfg.org.uk

Rik Pakenham  
Co-ordinator (England)  
Email: eforest@psa-online.com

Colin Edwards  
Co-ordinator (Scotland)  
Email: colin.edwards@forestry.gsi.gov.uk

Gill Pemberton  
Administrator

CCFG Scotland Committee:  
Bill Mason, Chair  
Charlie Taylor  
Jim Colchester  
Colin Edwards, Co-ordinator

CCFG Wales Committee:  
Philippe Morgan, Co-ordinator  
Jim Ralph  
Huw Denman  
Dave Ellerby  
Martin Price

CCFG England Committee:  
Rik Pakenham, Co-ordinator  
Mike Seville  
Andy Poore  
Sharon Rodhouse  
Gary Kerr

The next issue …

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The next issue of the newsletter is scheduled for publication in the autumn. Members are invited to contribute articles, photographs and news items to make the newsletter as lively as possible.