

Edition 12 / Winter 2020

The Full

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CIRCLE

The journal of The Association of Scottish Hardwood Sawmillers

ELMS - WHERE ARE THEY NOW?

Written by Euan Bowditch

JAMES SMITH CABINETMAKER

Written by James Smith

LOW IMPACT FOREST MANAGEMENT

Written by Simon Lockwood



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The Full CIRCLE

The journal of The Association of Scottish Hardwood Sawmillers

Starting work on an issue of The Full Circle is like setting off on a journey where you know your rough destination (a finished journal) but you know that on the way you'll encounter interesting people with unusual stories. So it's been with this issue. ASHS, the SFMA and the small-scale home-grown timber sector is a broad church full of innovative people unified by the idea of using our own resources to make quality products.

This period has confirmed my theory that ASHS members work in an alternative economy. Most members are run off their feet with full order books, at least until the end of the year. I hope that this is part of a development in Scotland's economy, that results in thousands of small, local businesses serving their localities, providing quality products and creating jobs and money, especially in rural areas.

As well as a lot of uncertainty about the future, there's a sense of change in the air, and that's reflected in some of the articles covering subjects we haven't touched upon before and in the many new contributors. People talk about developing a woodland culture in Scotland and I hope that the Full Circle will continue to play its part in encouraging that woodland culture, as Steve McLean, the magazine's founder, envisaged.

As usual, many thanks to all of our contributors as well as our funders and members who enable the Full Circle to continue being published.

All the best, Nick
ASHS COORDINATOR



PRODUCTION
EDITOR &
COORDINATOR
Nick Marshall



DESIGNER
Stephanie Christie



2015

2016

2017

2018

2019



2020

You can view all of our previous editions on our website...



DEADLINE DATE FOR EDITION 13

Sunday 31st January

CONTACT US... Email - editor@ashs.uk Mobile - 07906129627

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ASHS NEWS

Hi All. This has certainly been a different year for us all, I think we will all have had our ups and downs with Covid-19.

For me it certainly has, work wise with the Mobile Sawmill has been really busy more so than other years, which has been good as I have not had any shows to attend this year which gave me a lot of time to focus on the contract work. Also as most of you know I am the Agent for Wood-Mizer. Sales-wise we have had a good year and we never expected that in March when we went into lockdown. On behalf of Myself and Wood-Mizer UK, we would like to thank all our customers for your valued support of us and bearing with us through all this.

Unfortunately, due to Covid-19 restrictions, we were not able to hold the first Working woods course in Scotland at the end of October. It was not practical to do it then, but we will hopefully be able to hold it in March next year and hopefully it'll become an annual event. Just to add to this I would like to thank Gavin Munro, Jim Birley, and Nick Marshall for all their hard work to get it organised.

I hope all our members have been managing through all these times and are still trading, we would be interested on some feedback on this, maybe to put into the next journal?

Work Programme

Willie Dobie and Nick Marshall have been able to work on getting the Strength Grading booklets put together so we can look forward to seeing them in the near future. Also there will be a solar kiln booklet coming out. We're supporting several members to go through VSG training and hope to have a Scotland-wide network of graders-for-hire soon. We're working on our first promotional video about the creation of floorboards and we'll be reprinting promotional leaflets and cards as our current stock is running out. As usual, there'll be two issues of the Full Circle (copy deadline for the next issue is end of January 2021). The whisky barrel project (booklet and visit to Strathspey Cooperage) was delayed this year, but we hopefully can do it next year when things calm down. Meanwhile, several mills are already cutting oak for barrel staves and we'll report on this in a future issue of the Full Circle.



New members

We have had 10 new members this year, which doesn't sound like a lot but to our membership is good that we are still growing. One of the new members on board now may well be able to help some of our members on dealing with slabwood and sawdust (see New member - GMG Biofuels article on P29). Another member just coming on board sells a bagging machine for netting logs, watch this space. New members are from all over Scotland - Fintry, Killearn, Fife, Ayrshire, Aberdeenshire, Dumfriesshire, Inverness, East Lothian, Lochaber and West Lothian (Central Scotland Sawmill, who have taken over Jonathan Robinson's mill).

So all the best for the rest of 2020 and enjoy the Magazine and thank you to all of the magazine contributors as well as Jim Birley, Willie Dobie, Davie Smith, Mark Council Stephanie Christie, Nick Marshall and many others.



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Written by,

Keith Threadgall

ASHS Chairman

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The logo design that ultimately, received unanimous approval from SFMA committee is a clear, simple and versatile graphic device. Geometric, abstract, harmonious. Circles flow into squares - suggesting movement and transformation, and the act of turning wood “in the round” into furniture. The new logo is intended to become regarded as a stamp of quality assurance by our clientele -- akin to the classic, British Standards “Kite Mark”.

The new SFMA branding suite, consisting of the new logo and associated brand colour scheme, has been released to Professional Members and they have been encouraged to display the new logo on their individual websites, publicity, correspondence etc.

- Stuart Clachan



SFMA NEWS

Fresh, new brand identity created

The Scottish Furniture Makers Association promotes and supports furniture design and making across the country and communicates our collective practice and values.

Hillside Agency in Leith were engaged to guide SFMA through a collaborative re-branding process to develop a new logo and graphic identity for all online and print material. Because the association’s membership is wonderfully diverse, it was decided that the new branding should avoid focusing on any particular genre or style, and instead communicate our collective practice and values: process; design creativity; craft tradition; sustainability; precision; innovation; technical quality; beauty; authenticity; provenance

- Cooped chest - Jonathan Rose



The New Normal

City Art Centre Edinburgh
27 March - 24 April 2021

To mark the 20th anniversary of the Scottish Furniture Makers Association's founding, a themed, curated show for our members is being held at the prestigious City Art Centre in the heart of Edinburgh. Taking place in the Spring of 2021, The New Normal shall address how domestic interiors are being reassessed and are changing in light of the Covid-19 pandemic, the Climate Emergency and the Housing Crisis.

Dramatic change has come quickly, with Covid Lockdown transforming our neighbourhoods and the way in which we live in our homes - which are now working harder for their occupants as multi-generational sanctuaries, dormitories, kindergartens, offices, classrooms, gyms, cinemas, restaurants etc.



- Tales from the East - Mike Whittall

SFMA's annual, open shows have always been about the creation and presentation of highly-considered, beautifully designed and crafted furniture. They have equally been about promotion and selling. The association will be utilising the services of a professional producer, a PR expert, graphic designers, a photographer and a stylist to ensure that The New Normal provides our members with an excellent commercial platform.



- Stuart Clachan

To reinforce the idea that this exhibition is a series of curated, domestic interior spaces, members' furniture will be displayed alongside selected contemporary artworks and exquisitely, hand-crafted objects (ceramics, glassware etc) produced by members of Visual Arts Scotland. The New Normal is a collaborative project that will be a timely, unique and memorable showcase of the best of contemporary applied and fine art in Scotland. The relationship between the two organisations was established via SFMA's annual National Furniture Awards and SFMA will have the opportunity to award annual prizes for Craft Excellence and for Design Innovation at this show.

www.edinburghmuseums.org.uk/venue/city-art-centre
www.visualartsscotland.org



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Scottish Forestry Coilltearachd na h-Alba

SCOTTISH FORESTRY UPDATE

I am Head of Business Development within Scottish Forestry. I head up the team of experts on all aspects of commercial forestry - from seed collection to sawmilling and panel-making, this also includes timber transport and careers as well as encouraging people to join the sector through work with schools and early learning. We provide advice to ministers and support to the sector.

Derek Nelson and Andy Leitch (both well-known to ASHS) used to work in the team. Derek has now retired and his replacement will be in post at the beginning of January, hence I now have the opportunity to write an article for Full Circle this time. Andy has gone on to be deputy Chief Executive of CONFOR and at the time of writing we are advertising for his post and for a replacement for Josh Roberts who has moved to FLS to work with tree nurseries on the Tree Tape project. The other current team members include Bonny Maggio and Sandy York, who work on skills and education, particularly early years education and forest kindergartens.

One of the particular highlights of ASHS' planned work for me this year is the Working Woods Scotland course. Scottish Forestry is a strong supporter having seen that the Woodland Heritage courses run in England have been a great success there. Having a course that covers woodland management, valuation, felling and selling of timber and also conversion at a sawmill is a great benefit to those that have a chance to attend. It will be good to see another one established and adapted to the conditions in Scotland. Although delayed at the moment due to Covid, I hope the situation will have changed by March 2020 to allow it to take place. If possible I would like to see this become an annual ASHS event and I am sure that it will have a positive impact on hardwood sawmilling in Scotland.

Although our news is currently dominated by concerns about Covid and Brexit the situation for the forestry sector is a lot more encouraging. The Scottish Government announced in the latest Programme for Government that it planned to increase the annual target for new woodland creation to 18,000 ha by 2024. We are working closely with tree nurseries to scale up production. However, the Programme also recognised the importance of timber in construction because of its role in fixing carbon. Hardwoods are an important part of this since they can store carbon for hundreds of years. Our support for ASHS is one way to increase the use of hardwoods in higher value uses than firewood.

The wider commercial forestry sector hasn't suffered from the impact of Covid as much as other sectors of the economy, since mills have been able to continue operating and there was a strong demand from DIY and small-scale home construction. The fencing market in particular became very strong over the summer and the construction industry has also restarted. In general, order books are full up to Christmas but uncertain after then, due to uncertainty over the wider impacts of Covid and Brexit.

A major government emphasis at the moment is on the rural economy and rural jobs, especially in remote rural areas. Is there scope for ASHS members to take on young people to aim to become long-term employees? If you have ever considered expanding then this might be the time because there is likely to be a pool of great talent available and more support.

As part of my job I sit on the Industry Leadership Group (ILG) which is a government/industry collaborative group to help the forestry industry develop. Guy Watt, who started the sawmill surveys and has long had an interest in ASHS is now chair of the Industry Leadership Group. The ILG has a Skills Group which is considering ways to develop land management and conservation skills across the sector. If there are any particular skills gaps that ASHS members are concerned about then please let me know.



I would also like to remind you that although the Harvesting and Processing Grant is closed for this year it likely to reopen next year again. The rules are likely to be the same as this year, and it's important that you are ready beforehand as the window for applications is narrow. Think what you equipment will need and register your business to get a Business Registration Number in advance. Details of the grant can be found online. *



Written by,

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* <https://www.ruralpayments.org/topics/all-schemes/forestry-grant-scheme/harvesting-and-processing/>

HARVESTING AND MARKETING OF LARGE DOUGLAS FIR AT WADES BRIDGE



Forestry and
Land Scotland

Coilltearachd agus
Fearann Alba

The sale of large diameter timber is always a special event as it invariably entails complex harvesting operations and added marketing focus to realise the value of trees which are beyond the scale of timber that Forestry and Land Scotland (FLS) normally markets.

I first became aware of plans to harvest at Wades Bridge in 2019 via my colleagues in North Region who were in the preliminary stages of considering how to tackle the site. Planted in 1924 in a narrow, steep-sided glen, the site could best be described as a “challenging project”, not least because the Glen’s own micro-climate had helped the Douglas Fir and pockets of Sitka Spruce to grow and develop into some stunning specimens with good form.

I jumped at the chance to view the site with local forester, Chris Nixon but the journey to Wades Bridge from south of Perth was a challenge in itself. After driving through some stunning scenery to arrive at Shiel Bridge, it was then a narrow single track road to Rattagan which snakes its way over to Glen Elg and Arnisdale. However, at the bottom of the Glen is a fine example of a General Wades bridge, which although now hidden from the public road is a real point of interest in its own right.

From my initial site visit to Wades Bridge, it was evident that there would be a lot of interest in the Douglas Fir from a wide range of customers. From what I have experienced in my role as Niche Marketing and Hardwood Development Advisor with FLS, the specialist timber market is always seeking large diameter Larch, Western Red Cedar and of course Douglas Fir.

For the Douglas Fir at Wades Bridge there are some impressive statistics with some trees stretching to almost 40 meters in height and individual trees weighing in the region of 9 tonnes: these are not our normal trees!

Having seen the trees and appreciating how special they were, I did wonder whether the Douglas Fir could be retained but our North Region Forest Planners felt that felling now was necessary to avoid the scenario of recovering enormous windblown trees from a steep site.

With all FLS harvesting sites, a high degree of pre-operations planning is put into effect, ensuring that site constraints are identified, appropriate procedures can be applied to ensure safety, and environmental factors are addressed. However, with Wades Bridge there was the additional matter of requiring a cable crane and supportive machinery that would be necessary both to counter the steep ground where the trees were growing, and to deal with the enormous logs which would be generated from harvesting.

With some very testing terrain and enormous timber, ensuring a smooth-running harvesting operation on sites like Wades Bridge depends entirely on having the skills, experience and necessary machinery. These requirements have been met over the past few years by Mull based cable-crane contractor Calum Duffy, whose team has been an integral part of FLS’s specialised programme of working on particularly steep sites and who has worked on our A82 project on the North shore of Loch Ness.

Up until the early part of 2020, work at Wades Bridge looked to be on scheduled until the national COVID-19 “lockdown” came into effect in late March and like all non-essential work, came to an abrupt halt. For FLS, the “lockdown” period entailed a high level of activity in producing small round wood for electricity generation and producing pallet wood for Scotland’s supply network which was at full capacity during this period.

But by May, ‘normal’ business was beginning to reappear in my in-box, including some from Chris Nixon in relation to Wades Bridge, which served as a welcome indication that some sense of normality was creeping back into work. It also meant that I could get back to thinking about how to market some exceptional timber!



The shape of the market was a real unknown, so I started by making contact with some of FLS's more regular customers to gauge the appetite for very large timber at that point in time. Much to my relief, the majority of responses I received were positive and the state of people's order books was such that there was definitely a demand for stock. That means sales for timber growers - and that is always good to hear!

The next step was to decide how to present and market the 300 tonnes of large Douglas Fir which had been measured at Wades Bridge as part of a wider sale of timber products coming out of the felling site.

For particularly large timber, a sales volume of 300 tonnes is significant and presents a challenge for the harvesting team in terms of occupying valuable site space, which in turn could impact on haulage uplift for the smaller logs which were being sold on a separate sales contract.

Furthermore, in order to make the sale attractive for smaller processors, I needed to break the sales volume into smaller parcels, which again adds pressure on available space. Fortunately, unlike many cable-crane sites, Wades Bridge had extra provision for stacking by means of recent upgrades to the forest road network.



So, with that concern addressed, the next issue was how to sell the timber? Incorporating the sale within one of the scheduled FLS E-sales would not have reflected the unique nature of the Douglas Fir, so an E-sale "Spot Sale" was chosen as the option that would best suit potential customers. (The "Spot Sale" serves as a standalone sale event which is presented on the FLS timber sales internet and gives customers a very specific sale to view and place bids against.)

All the advertised sales parcels ended up being bought by a single customer, which from the harvesting perspective made it easier to coordinate rather than having to work with a number of customers who have differing priorities. On the back of this successful sale, a cutting specification was given to Calum Duffy, who personally undertakes the large tree felling, with a requirement for the production of 12m logs with a minimum top diameter of 32 cm underbark.



Work started in earnest in August - and it was a sight to see. Watching the harvesting operation from a safe distance generated a sense of anticipation as the high-pitched noise of the chainsaw is replaced by the swoosh of air flowing through a fast moving tree canopy, to be followed by a deep thud of heavy timber hitting the ground.

The drama continues with the crable-crane taking the strain of a choked log from down in the Glen as immense forces come to bear on lifting another log to its expectant audience of heavy machinery.

Such is the weight of these individual logs that the forwarder which normally serves for secondary handling is parked up and a heavy 360 excavator with timber grapple is employed to drag each large log once it has been released from the cable-crane.

The Douglas Fir at Wades Bridge are exceptional and in one way there is a sense of loss that these gentle giants have gone but they will be replaced as the forest cycle is in perpetual motion. Equally the beams, cladding and other products created from the mighty logs have a unique lineage which will give people a sense of pride in saying, "yes, this timber came from Wades Bridge!"

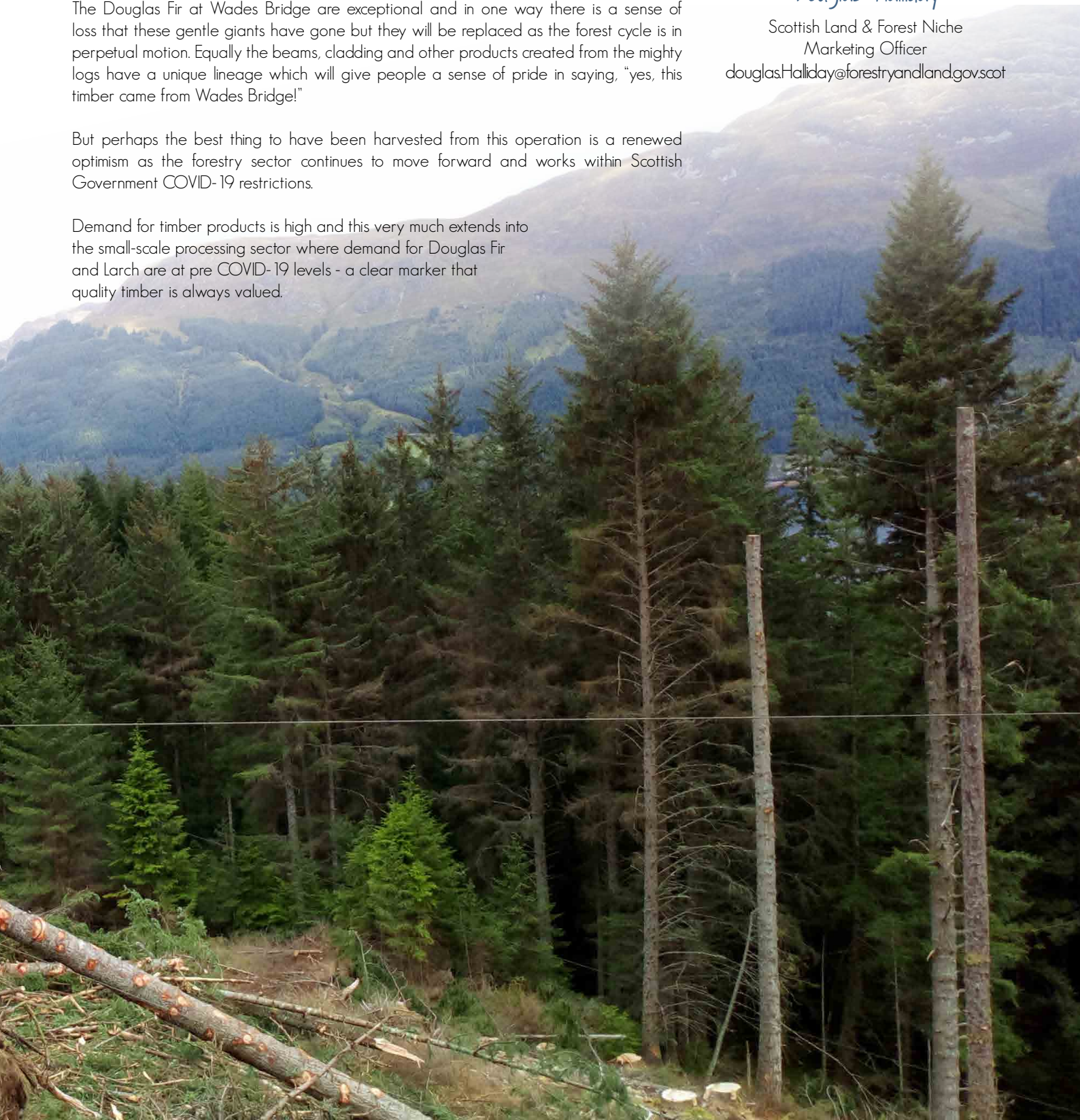
But perhaps the best thing to have been harvested from this operation is a renewed optimism as the forestry sector continues to move forward and works within Scottish Government COVID-19 restrictions.

Demand for timber products is high and this very much extends into the small-scale processing sector where demand for Douglas Fir and Larch are at pre COVID-19 levels - a clear marker that quality timber is always valued.



Written by,
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CRAGGACH SOLAR KILN UPDATE

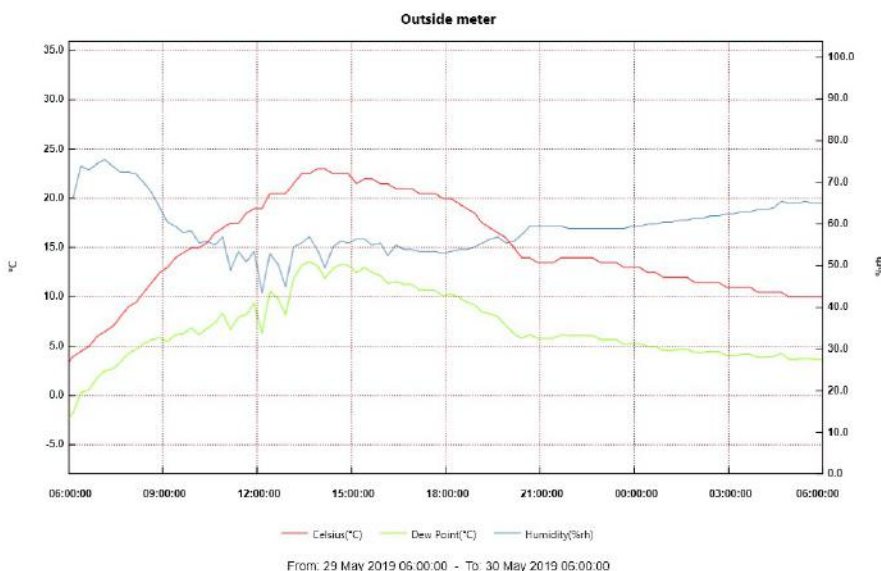
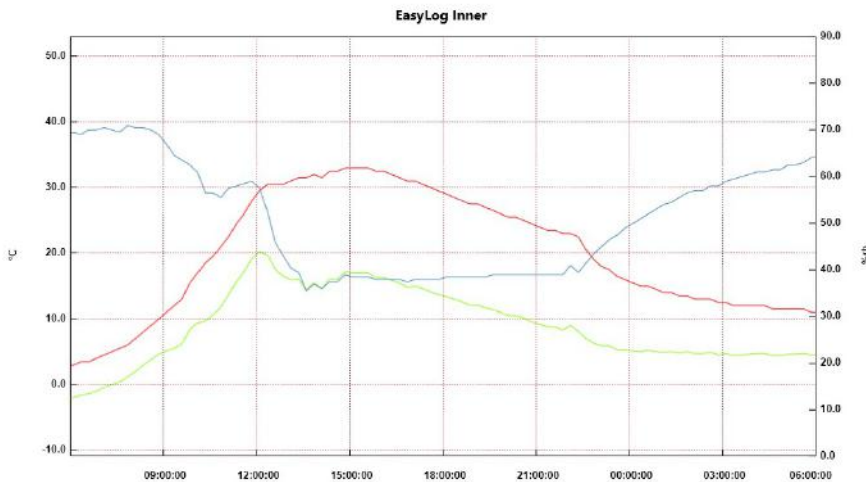
The kiln was commissioned at the start of the outstanding summer of 2018. Under the ideal conditions of almost constant sunshine and high temperatures any shortcomings in the efficiency of the kiln were not noticeable. Under the more normal weather of 2019/20 the kilning time extended from the 2018 period of 3/4 weeks to 5/6 weeks. This stimulated thinking on how to enhance efficiency.

Two potential areas for improvement were apparent

1. There were times when the inside of the well-insulated kiln was above the set temperature to run the fans but the sun was no longer shining. This led to the battery being drained by the fans leaving no power available to operate the vents. If the vents were open, they might remain so overnight or during spells of dull and wet weather. Clearly this would lead to rapid cooling of the kiln and the ingress of moist air.

This was solved by providing an alternative power supply for the vents. This is currently achieved with a separate 75AH battery, with deep discharge requirement, which is recharged monthly. There is the potential to install another solar panel and controller to serve the vent battery to avoid the chore of recharging.

2. The other problem was that the vents could be in the closed position at the end of the day because the % saturation in the kiln was below the set point on the humidistat. During the night the kiln temperature fell leading to an increase in % saturation that could reach a point above the humidistat setting. Hence the vents opened and led to cooling and ingress of moist air.



The solution to this was to insert a thermostat that ensured the vents closed if the kiln temperature fell to below a set temperature. 25 degrees centigrade has been our working setting.

These innovations have not been operational for long enough to assess their value and a detailed study of kiln dynamics may indicate other possible modifications.

The two attached graphs show indoor and outdoor recording of Temperature, Humidity and Dew point over a 24-hour period.

Further research:

Loggers recording temperature and humidity inside and outside the kiln have been used to help us understand kiln dynamics. These are of limited value because we have no record of when the vents are open or closed and no record of the day to day changes in the moisture content of the drying timber. We believe there is a case for a research institute to undertake a detailed study.

Written by,
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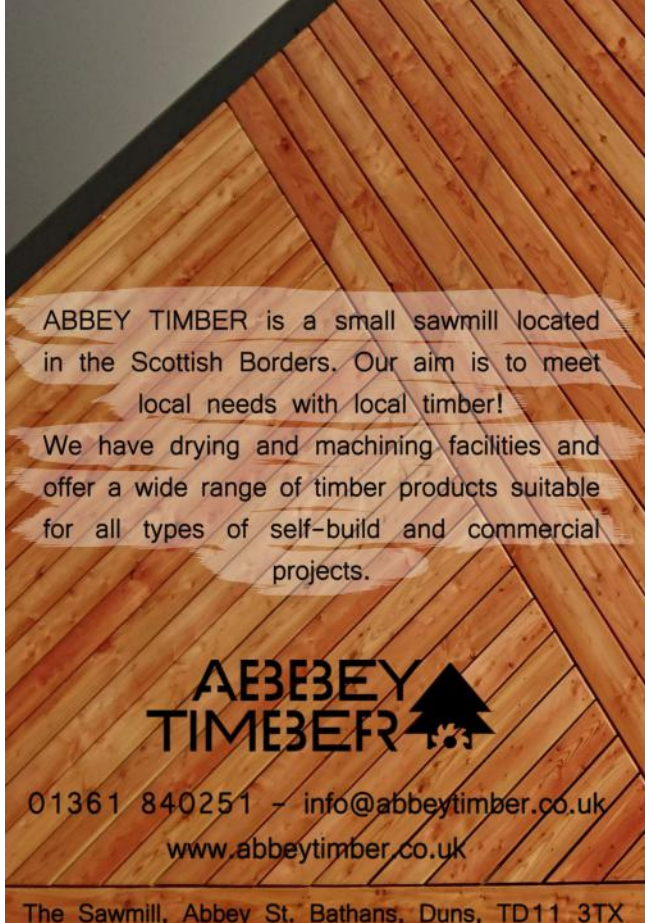


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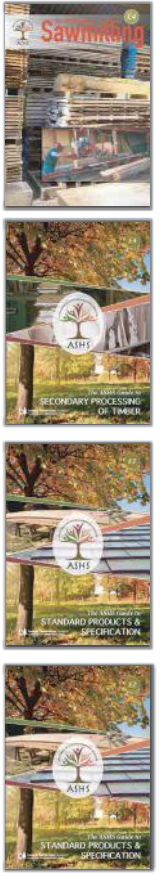
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LAND USE IN SCOTLAND CONFERENCE - SPRING 2021

Last October I watched George Monbiot's Channel 4 documentary 'Apocalypse Cow' and read 'Wilding' by Isabella Tree. The combination of these two left a big impression on me and I found myself looking at the countryside with a more critical eye. Whereas previously I enjoyed the rolling fields of Midlothian, dotted with trees, I now notice the monoculture, the lack of wildlife and the scarcity of woods. This led me to thinking about the possibility of running a conference on Scotland's approach to land use. After all, we design the landscape.

Initially we were hoping to run a one day conference as a fringe event to COP26 in Glasgow this autumn, but after the coronavirus pandemic delayed the climate change event we decided to hold a series of six online "conversations" over the course of two months in Spring 2021. In fact the pandemic gave extra urgency to the event. These will cover a range of topics and the landscape's relationship to them. Rather than work under the conventional headings of farming, renewable energy, forestry and ownership, we opted to focus on six themes related to land use in Scotland including: how to make a sustainable transition in response to the climate emergency; how to tackle inequality; how to break down barriers between entrenched sectors that have an interest in the land; how to think holistically, while drawing on grassroots knowledge, different disciplines, and emerging science.

The goal is to bring together a broad cross-section of individuals and organisations with an interest or a stake in the future of land use in Scotland, from sectors including farming and estate management, forestry, renewable energy, tourism, regulation and government. By going back to basics, analysing the evidence and discussing new ways of building bridges between different sectors we hope to move ahead of the existing entrenched positions and open up new ways of thinking about land use.

Themes for the six conversations:

- 1 The Land: Past, Present and Future**
- 2 Soil & Growth**
- 3 Ecosystems & Energy**
- 4 Natural Benefits**
- 5 New Rural Economy**
- 6 A Story for the Future**



Each conversation will have a panel of about six experts - both academic and practitioners - from various fields. After they have spoken the floor will be opened up to questions from the audience via the usual "chat box". The event will be open to the public and we hope every sector will be represented at each conversation. One conversation will have an ASHS member on the panel and I hope and anticipate that ASHS members will attend several conversations.

David Seel (co-organiser) and I have spoken to a cross section of people involved with land and have been surprised how many disparate groups exist with little or no dialogue between them. Scotland is ahead of England with the Scottish Land Commission and Land Rights and Responsibilities Statement both established in the wake of the Land Reform (Scotland) Act 2016. Part of the current problem is undoubtedly the heritage of the disparity of land ownership in Scotland, but this event will be concentrating on land use and land management, not ownership. A lot of scientific research has been done in this area, but has not found its way into the public domain, and to date it has been presented in a piecemeal way. As far as we are aware, the event will be the first time that all issues affecting Scotland's rural acres will have been addressed at the same time in a holistic way.



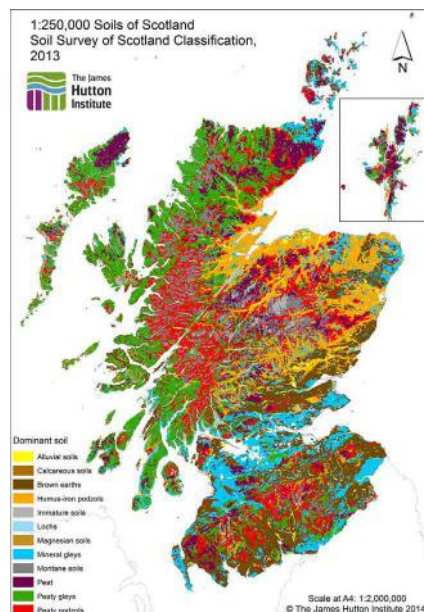
There are a surprising number of landowners wanting to do things differently including Anders Polvsen at Glenfeshie, Ninian Stuart at Falkland and the Ramseys at Bamff. They are all aware of their obligations to combatting climate change, increasing biodiversity and involving the local community. For some the emphasis is on rewilding (Glenfeshie) and for others it is on local community (Falkland). Jeremy Leggett (former scientific director at Greenpeace) is teaming up with and investing in local timber frame manufacturer Makar for new eco-tourist and affordable starter homes at Bunloit, an estate he recently purchased on the north shore of Loch Ness. With this investment Makar are building a new larger factory on an old airfield near Inverness. The eco-building on Bunloit has the wider aim of deep emissions reduction and Build-Back-Better reconstruction in Scotland. We will also be drawing on the work being done by organisations such as the Hutton Institute, the Soil Association and Nourish to promote more sustainable agricultural uses of the land, as well as addressing the renewable energy sector, large sporting estates, tourism and the timber industry - all competing for the same resources.

Magnus Davidson from the University of the Highlands and Islands Environmental Research Institute aims to rethink what a 21st Century rural Scotland looks like. His vision sets out a region that works for both people and nature, and reverses centuries of depopulation and ecological degradation - a restored, repopled, and rewilded landscape incorporates the vast renewable potential of rural Scotland, leading to sustainable industries and communities, rooted in the unique social and cultural traditions of our rural areas.

One exciting example of interdisciplinary thinking from Mór Hydro Ltd. is to re-saturate Highland peat bogs by blocking drains put in for grouse shooting, and use the water source for hydro power. This win-win situation improves vital carbon storage, improves biodiversity and potentially brings greater revenue to the estate owners. The response to this interdisciplinary approach has been incredibly positive. Geoff Squire is leading a group of scientists from the Hutton Institute who will act as scientific consultants and fact checkers for each conversation. We also have speakers from academia, landowners small and large, community run land, policymakers and NGOs as well as poets and writers. Scottish National Heritage, The Scottish Land Commission, Scottish Land & Estates, The Landworkers' Alliance, Reforesting Scotland, The Crofting Commission and Sustrans are among the organisations that have already agreed to participate.

Mapping

We are working with the Hutton Institute to provide a series of online, interactive maps showing the distribution of land uses in the past, present and future, inspired by Ian McHarg's planning maps. Each layer will represent a different land use and can be turned on or off and overlaid. The data for the map of the future will be provided by scientists asked to make projections of what Scotland could look like drawing on a range of scenarios for a sustainable and more self-sufficient future. They will be making assumptions about demographics, consumption habits and culture, energy use, economics and agriculture. So, for example, where food is concerned, they may assume meat consumption will decline, that a smaller percentage of fruit and vegetables will come from abroad,



with a larger proportion of crops grown in vertical farms. We envisage the difference between the current maps and the visionary maps of the future will challenge peoples preconceptions and be a catalyst for discussion.

Outcomes

The aim of the conference is not to come up with definite solutions but provide a body of work to help inform future land-use decisions. This will take the form of a report summarising the outcomes of all six conversations alongside the maps. The report will be presented to all 129 MSPs and other policymakers, while also being made available to all participants, and the public. We hope to spur Scotland-based charities and NGOs to engage with the broader issues around changing land use. I also anticipate that new connections will be made. It would be good if conversations could continue casually after the event. At the very least, all participants will have a list of everyone attending if they wish to carry on a conversation. We hope to end the turf wars over land and open people's minds and encourage them to think about land use in new and exciting ways. For more information please follow the SEDA events page on their website. I will be sending invitations to all ASHS members nearer the time.



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DEER AND TREES IN SCOTLAND

Government in the UK is increasingly made aware of the developing 'climate crisis' and of the wider implications of climate change. In response to this both UK and Regional Governments have set ambitious targets for environmental measures designed for carbon capture, including a very significant aspiration for increased woodland cover in all parts of the country over the next few years and decades. Thus, for example in England, central government has made a commitment to plant 11 million trees in the period 2017-22 (equating to an area of about 1,273 hectares) with a longer term aim of increasing the area of woodland in England to 12% of land by 2060. The Scottish Government's Draft Climate Change Plan, published in January 2017, proposes specific targets for future woodland expansion to cover 21% of Scotland by 2032; to deliver this, the draft plan acknowledges that the rate of new afforestation needs to rise to 15,000 hectares per year of new planting by 2024.

Such ambitions will have an enormous impact on deer populations and future management needs, in both the short- and the longer term. In the shorter term, in order to protect these developing woodlands, there will be a need to reduce deer numbers (or at least browsing pressure) in new plantations over a considerable period of years until they are properly established. This will either imply a sustained reduction in deer densities over a prolonged period (perhaps difficult to maintain in a wider environment where there are inevitably source-sink movements at the landscape scale with a strong tendency for continuing infill of areas of lower density²), or alternatively a need for extensive fencing of newly-stocked areas, with the effect of displacing resident deer and thus potentially increasing densities and impacts in other adjacent areas. Deer are by preference woodland creatures as we all know. So, further down the line, when all these new woodlands are opened once again to deer access, we have created thousands of hectares of new habitat, which may well, in turn, increase productivity and will certainly accommodate increasing numbers of deer across the landscape, increasing the future need for management. This has two obvious implications.

Within many countries of Europe - and the UK is no exception in this regard- much of the management of deer numbers and impacts through culling is undertaken by those who are in effect volunteers, or recreational stalkers; yet any management model based largely on volunteers in this way is inevitably fragile. In many countries worldwide due to increased urbanisation of populations and changing attitudes to hunting, the number of deer stalkers overall is in decline. Alongside this trend there is in addition a marked increase in age of those who do hunt. [As one example, the average age of hunters in the Czech Republic is around 60 while in Japan the situation is even more acute with the average age of registered hunters now well over 70!]. If fewer young people are training as hunters so that overall numbers of hunters are declining and, simultaneously, average age is increasing, then in practice management capacity is getting smaller and smaller.

Yet we know that at the same time, deer populations are expanding rapidly in both numbers and distribution across most of Europe³ - and within the UK just as it is in other European countries (even without these new initiatives proposed for further woodland expansion). The need for active management is increasing while the number of stalkers is in decline and thus in many countries where control of deer populations depends on the efforts of recreational stalkers there is projected to be a growing mismatch before too long between management need and management capacity.

This is potentially a serious problem. Norway currently has the highest proportion of active hunters per head of population of any country in Europe (estimated at c 5% in 2006/07). Yet, with expanding populations of deer and other ungulates, an increasingly older human demographic and increasing urbanisation of



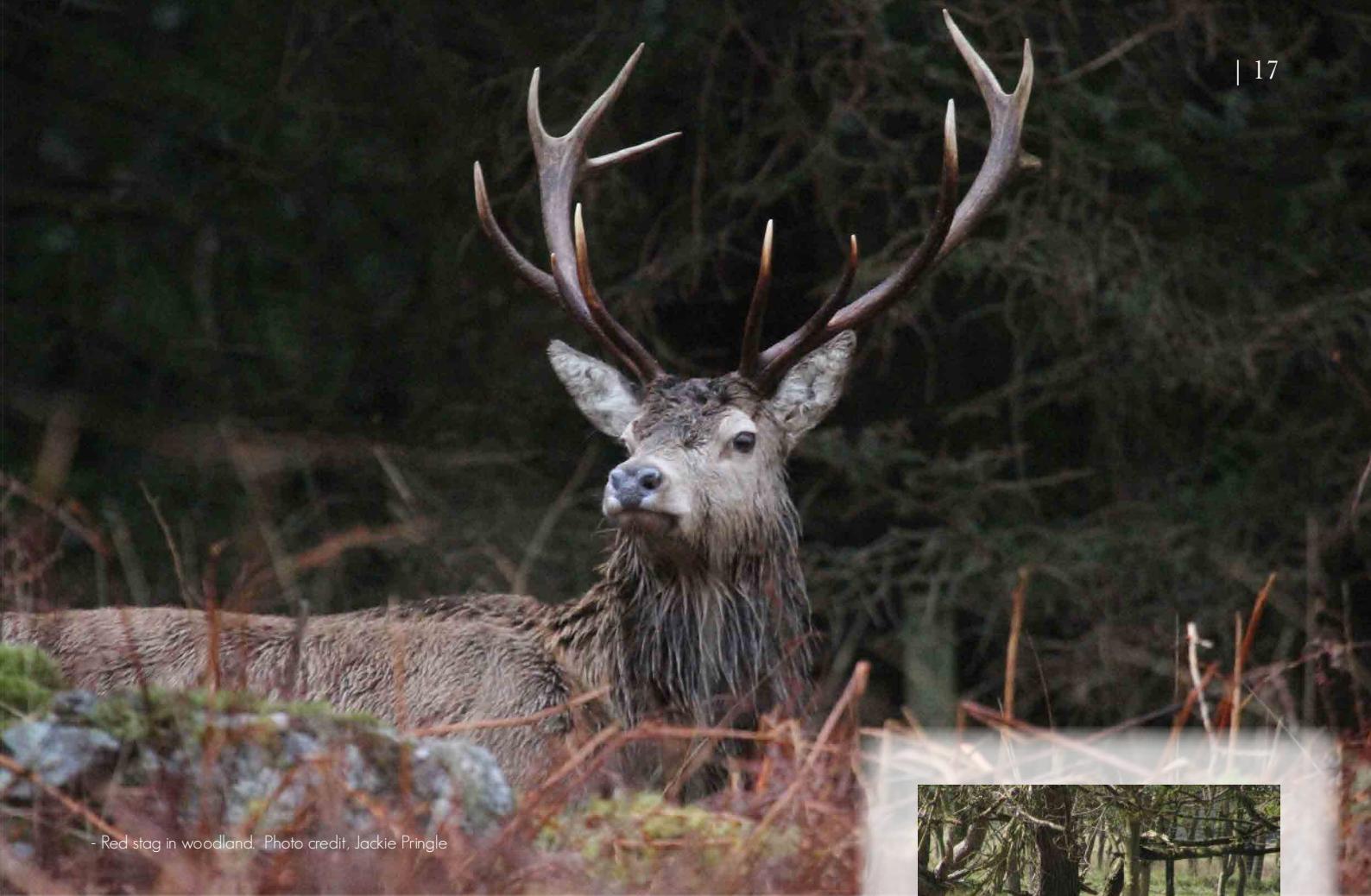
- Woodland red deer hind & calf



- A group of red deer in a woodland clearing. Red deer in woodland tend to associate in smaller groups than in open moorland habitats but can cause substantial damage to new plantings by browsing and bark-stripping

Below - Roe buck at woodland edge. Roe bucks are territorial during the summer mating season and can cause damage through thrashing of the pliable stems of young saplings as well as through browsing and bark-stripping.





- Red stag in woodland. Photo credit, Jackie Pringle

human populations, the Norwegian Government has become concerned about a possible mismatch in the near future between management need and management capacity - currently predicted to come to a head in about 30 years. We ourselves may be backing ourselves into a similar corner.

There is an additional complication. This increased need for present and future management is occurring within a wider context where there is a growing resistance among the general public for lethal control of deer and this in turn may have implications with achieving effective management of wildlife populations. While, of course, there are other tools available in the deer manager's toolkit for reducing impacts from a given population of deer - changes in forest design and 'hygiene' for example (allowing the development of some understorey of 'weed' species which offer preferred alternative forage to browsers), planting of less palatable tree species, fencing of different styles, individual tree protection with tree guards and diversionary feeding, not all of these are necessarily appropriate or practical in every situation - especially in development of hardwood forests - and control of numbers will always play a role in management. I am already on record in distinguishing different approaches available for control of deer populations and control of their impacts⁴, but even purely in regard to those impacts, there will usually remain a need for some degree of lethal control. It is imperative that we educate that wider public to accept that such lethal control remains the most realistic and effective method available to us of managing deer numbers and their impacts (as well as producing an excellent, healthy and palatable food resource). If we are to contain expanding populations or manage effectively that increased population, there is a need for control not contraception!



- Fallow bucks resting in heavily grazed woodland

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WOOD-MIZER GOING WIDE WITH LX250 AND MB200 SLABMIZER

It's a great idea to cut wide! There's always been a need to saw larger and heavier logs, especially these days when clients are looking for unique designs of custom furniture like big dining tables, high-quality kitchen tops or beautiful garden benches. Wood-Mizer is answering all these demands by offering carpenters a perfect set of two machines that will do this job well - the LX250 sawmill which will cut a wide slab off a large log and the MB200 SlabMizer which will rework its surface to a perfectly flat finish.

The LX250 Extra-Wide Twin Rail Sawmill has been made for cutting massive and wide logs reaching 140cm diameter. As the name suggests, it belongs to the LX series of sawmills which means it features a rigid sawhead with a double mast and heavy-duty twin rail bed construction. Thanks to two parallel electric motors which feed the mast along the rails, the operator will be surprised to see how easy and smooth milling of large logs can be. The bed is modular and its standard length of 5.5m can be further extended for longer logs. Every log placed on the bed is held securely by three side supports, two manual clamps and several raised cross bed sections - helpful in loading heavy logs with a forklift. Worth mentioning is a convenient operator panel equipped with all necessary controls and the automatic board thickness networks. Wood-Mizer sawmills have always been recognized for high precision cutting and it's not any different this time either. The LX250 makes accurate cuts thanks to 32-35cm wide and 547cm long blades.

height of this table is easy to regulate by eight levelling legs. The most essential job is done by a cutting head consisting of five four-sided knives or a sander attachment for fine finishing. Operating the MB200 SlabMizer has been made as convenient as possible, with a control station at your disposal with powered controls, variable feed speed and a joystick for head positioning. In order to keep the place around clean from dust and debris, the Slab Flattener features an extraction port on top of the cutter head which can be connected to the dust extraction system of your workshop.



Wood-Mizer is proving again that in their offer you can find the machinery meant for a variety of applications - from sawing large logs to making precise reworks in your home garage. Here a set of two machines, the LX250 sawmill and the MB200 Slab Flattener work very well hand in hand providing satisfaction to all enthusiasts of wood-working projects.



The other machine complementing the LX250 is, as mentioned above, the MB200 SlabMizer. Suppose if you would like to flatten and sand large slabs which you get from the LX250, you'd need to switch on the other device in your workshop - the Slab Flattener MB200. It has been designed to surface and flatten all wood slabs, boards, burls and other materials at a minimal work input. If you compare it to a traditional router or planer, you'll understand that MB200 is a much more powerful tool capable of working on a slab of a maximum 1420mm width, 3962mm length and 203mm thickness. Such a big work piece must be secured on a heavy-duty steel frame table by four adjustable clamps and the



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MYRIAD USES FOR LOGOSOL MACHINERY

Surrounded by beautiful woodlands and the busy Abbey Timber sawmill, Timber Opportunities have the perfect base for selling Logosol machinery in the north of England and south of Scotland. Laure Dobie and Carwyn Savins sell the whole range of Logosol's small-to-medium scale sawmilling and wood-working machinery, from chainsaw jigs to framesaws.

Working alongside Abbey Timber, which started with a nucleus of Logosol machinery, Laure and Carwyn see the machines being put to good use on a daily basis.

Their Logosol PH360/260 four-sided planer happily whirrs away, putting a healthy margin on rough-sawn timber. Logosol has a vast selection of standard knives that match the majority of orders, and specialised knives can be made for the more imaginative customers.

At the other end of the Logosol product range, Carwyn has found a novel use for the F2 chainsaw mill. He has been becoming a handy timber-framer helping Abbey Timber's owners, Willie and Charlotte Dobie, to build a home from their own timber. The chainsawmill proved to be the perfect solution for cutting slots into the posts so that they fitted onto the post bases. Carwyn carried it up to the site without even breaking sweat, and easily adjusted the height of the rail to suit each post.

The PK1500 stack cutter also enjoyed a new job recently, slicing up a colossal spruce log into rounds for a local farmer, so he could process it into firewood. Having the equipment deal with logs that are too big to mill transport - let alone mill conventionally - is such a valuable asset that Abbey Timber is planning to invest in a Big Mill wide-slabber in the near future.

- View of Abbey Timber sawmill from the Dobie's house site



- A novel job for the Logosol F2 chainsaw mill - cutting slots into posts for the Dobie's house building project, to fit them onto the post bases. It was quick, accurate, and straight-forward. As well as being used in the sawmill (as the photos show), it was also easily carried up to the house-site and set up there to do the process in-situ.



- Another unusual adaptation: using the Logosol PK1500 stack cutter to tackle a large spruce log for a farmer, who wanted it in manageable rounds so he could chop it up for his firewood supply.



- Wood planed on the Logosol 4-sided planers, ready and waiting in perfect dimensions to be made into a timber-frame house by Groscope, a social housing project in Hull that provides affordable housing for homeless and vulnerable people. It also helps them to learn skills by encouraging them to be involved in the building/renovating process.

In the wider world, Timber Opportunities has seen an increase in people investing into Logosol machinery during lockdown, particularly our lightweight, portable and strong small-scale machines. If you would also be interested in knowing more, please contact us on the details below.



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THE SKYE IS THE LIMIT

Magnus Burd is a 26 year old tree surgeon who lives and works on the Isle of Skye.

The Isle of Skye is one of the largest islands in the Hebrides of Scotland and possibly one of the most well-endowed when it comes to trees, in particular mature ones. Where there were once three commercial sawmills on Skye there are now none, save a handful of hobbyists.

Skye is certainly not well known for its broadleaf forests, the few of which are based on various Clan estates such as Macdonald, Macleod or hotels, Uig Hotel and The Cuillin Hills Hotel to name but a couple, which were formerly hunting lodges. The island is scarce on trees and those who know how to work them.

As a youngster, Magnus always loved climbing trees and as he began to work in his early teens, he remained tethered to the outdoors. He got his first chainsaw ticket at 17 years old and although he worked many jobs, he always steered towards tree work. Since then Magnus has developed a small business around tree surgery. What he could not learn from older professionals in the area, he learned on the job or from watching people from all around the world via Facebook, Instagram and YouTube.

As jobs became increasingly larger and more technical, he invested in equipment to match the demand. This started out as merely firewood processing to clear sites where dozens of trees had been felled, particularly large sitka spruce, similar to those found on the edge of mature plantations where they have less competition and grow quite stocky.

One wet winters day, Magnus was working with a colleague, who was visiting from Edinburgh, when rain put paid to their work. Magnus' colleague had recently purchased a Panther Alaskan Mill, which he ran on his Stihl 880 Magnum and had by chance taken the set up with him. At a loose end, Magnus remembered an old Elm tree he had had felled a couple of years prior and having seen a few clips of sawmilling before, they thought they might try and have a go at slabbing one of the sections. Suffice to say this is where the sawmill bug captured Magnus and he was sold. The old Elm tree used was a Burr Elm, planted approximately around the time of WW1. Post war, there was little tree management with regards to planting and maintenance, possibly due to the lack of experienced foresters returning home. This is a sobering thought.

Although this was Magnus' first attempt at any kind of milling and a lot of practice was needed, the attempt still produced some beautiful slabs. The quality of the slabs was enough for Magnus to have kept some in storage to adorn his own home in time, and some he sold to help pay for his wedding.

Magnus comments

"It has been great to produce valuable timber cuts, which have been put to great use by various clients. Transformed into dining tables, kitchen work tops and memorial benches. I even had a drinks shelf made as a gift for my best man."

Whilst he found the larger Alaskan mill was great for working wide timber, it was troublesome on timber smaller than 50cm diameter. To combat this, Magnus purchased a Panther cub mill to fit to his Husqvarna 365. This paid for itself on day one as he regularly worked in areas that were inaccessible for machinery, meaning timber would have to be cut into log size to be carried out. This canny purchase ensured he could mill on site to create transportable slabs.

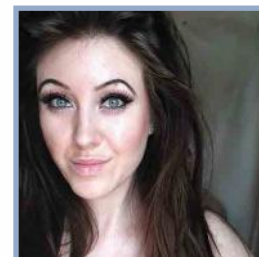
One night whilst scouring the internet, Magnus was attracted to a series of videos, featuring a couple building their own home from timber they had milled on a bandsaw. The build was traditional, a post and beam construction. He was in awe of this Woodmizer LT15 ripping through large fir logs in one third of the time that his current chainsaw would. He began watching more videos and discovering different sawmill makes.

Having lived semi isolated, Magnus had never seen a bandsaw at work and the gears in his head were heating up at the rate they were turning. He spent the best part of a year looking through figures online and catalogues for Woodmizer, Logosol, Norwood Sawmills and Woodland Mills.





stability of trees in our environment is a constant that has never changed. Seeing the respect given to them by the beautiful craft of milling and the transformation into furniture and houses, allows them to live on and continue to be a part of the world they started out in.



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This investment needed time and research. Whilst Woodmizer seemed to have good marketing in the USA and UK, Logosol held its own on mainland Europe, along with Norwood Sawmills seeming to be a popular choice in North America and Canada.

YouTube was an incredibly helpful research tool as Magnus found himself watching 'real' people working and talking about their machines giving a better insight than the companies own marketing.

Magnus eventually settled on a Norwood Sawmills LumberPro HD36. Pound for pound, it offered quality, simplicity and user friendliness at a fair price. After delivery, he set it up and ran some test logs through it, followed by some fine tuning. Magnus didn't waste any time putting the mill to use on wood that he had been hoarding from jobs over the years.

Compared to an Alaskan mill, milling was a breeze, giving fast and accurate cuts. It could handle about 80% of his stored timber and for anything too big or small, he would return to using the Alaskan. Whilst having produced some boards, rails and beams, the biggest interest Magnus has is still hardwood slabs. Where any hardwood would have previously ended up as firewood, he has since been able to produce bespoke timber for clients, from locally sourced trees.

Magnus comments

“It has been a fantastic asset to my business, as I often tell people I can offer every service in a trees life cycle. This means from planting, pruning, felling, transporting and either processing for firewood or offering milled and useable timber. Whilst I haven't the joinery skills to advance on this, I hope to create my own pole-barn workshop in 2021, from a clear fell site we are currently working and mill my very own post and beam kit.”

As milling goes from strength to strength across the world, it is an incredible prospect to consider that the generations of tomorrow will be milling the trees planted and maintained by the foresters of today. Imagine what a story those trees could tell, if only they were able to convey it to future generations. From world wars to floods and pandemics, the



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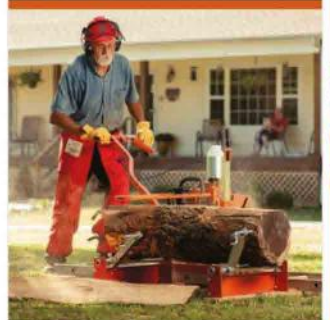


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FOREST POLICY GROUP

The Forest Policy Group is an independent thinktank dedicated to diversifying and strengthening Scotland's forest industry with benefits for nature and people. We believe that forestry could and should contribute much more to the economy than it presently does, and through small to medium scale enterprises. We need much more resilient and sustainable forestry to achieve this partly to ensure that we still have forests through the coming decades of climate change, and partly to produce the range of forest products, including hardwoods, that support thriving local businesses.

For a century, Scottish forestry has focussed on fast growing softwoods (mainly Sitka spruce) to the neglect of other species. Our wood processing sector has become highly centralised (often distant from the forest) while many smaller local sawmills and other forestry businesses have been lost. Scotland's uniquely skewed pattern of land ownership means that most ordinary people are denied opportunities to own or manage small areas of forest.

FPG believes that we should be much more ambitious about forestry and what we expect it to provide - more (and higher quality) products, a diverse forest resource (more resilient to change and adaptable to our needs), and a thriving infrastructure of forestry businesses and livelihoods at all scales. Opening forestry up to the involvement and inventiveness of many more people is a crucial part of how we will make this transformation.

Forestry benefits from financial support in the form of grants and tax exemptions. FPG believes that it is the public benefits of the industry which justify public support.

The Forest Policy Group's convenes occasional roundtable discussions to review policy and share ideas and experiences. Contributors include foresters, conservationists, sawmillers and others



with a knowledge of aspects of Scottish forestry and an interest in helping it deliver more jobs, businesses, quality products and a better environment.

ASHS is represented on the FPG and ASHS members will benefit from the policies it promotes, from encouraging planting of more diverse species to targeted grants to support small wood-processing businesses.

The FPG carries out a range of consultancy and research to inform its work. Recent work includes reports to Scottish Forestry on the contribution of small wood-based businesses to the economy, and profiles of small rural wood-based businesses, including ASHS members.



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BUILDING A WOODEN SKIFF AT CLACHAN WOOD

Stuart Clachan always had a hankering to make furniture, but boat-building is more recent.

He trained and worked as a design engineer for several years until, in his mid-30s, he took a leap of faith and went to the Chippendale School of Furniture. He set up a workshop in an old potato shed on his in-laws' farm and installed a table-saw, planer, radial arm saw and bandsaw, followed by several other machines over the coming years. He got logs from trees cut on neighbouring farms, sawn originally by the Howats (former ASHS members), and, since they stopped milling, by Keith Threadgall on his mobile Woodmizer. He takes on temporary workers when needed and hires a forklift from a neighbour with a plant hire business to move logs around - otherwise he is self-employed along with his wife.

Soon after starting, he installed a dust extraction system (which has been important, especially with CNC work) and a Sauno kiln. In fact, he rarely uses the kiln except for elm, which is difficult to dry, and he mostly uses air-dried timber. He bought a CNC router about 5 years ago and now produces furniture, kitchens and interiors, using a mixture of solid wood and birch ply. He makes furniture to order and also subcontracts from a larger firm that sells high-spec office furniture to standard designs.



He's a keen rower and has been rowing skiffs with a club in Maidens on the Ayrshire coast for several years. Sea-going skiffs are generally based on the St Ayles Skiff, designed by Ian Oughtred and the kits are made by Alec Jordan. They are 7m long and take 4 rowers plus a cox. Stuart and a friend (who makes kayaks) decided to build their own smaller skiff for 2 people for fun rowing and suitable competitions. They couldn't find a design they liked, so Stuart designed the boat using his engineering CAD skills. Getting it right took three attempts, with a model of each design produced on a 3D printer, tested on water and refinements made for the following design.



Stuart ended up doing most of the construction, in a shed on the farm. It took him about a year (September 2018 to September 2019) working mostly at nights. He used Ash for the hog and stems (one at each end) and the keel, as well as the exterior gunwhales. The interior gunwhales, bow, stern and seats are in elm apart from the cox's seat which is a piece of meranti from an old fire-surround. The timber was chosen largely because it was available and well-seasoned. The hull is marine ply, chosen because it is strong and light and relatively easy to work. However, it only comes in 2.4m long sheets, which meant many joints to cover the 5m length of the boat. The boat is clinker-built (with overlapping boards rather than a smooth hull) which means cutting the ply into boards and shaping and bending each board to fit with its neighbours before fixing it to the frames. All joints had to be scarfed for maximum strength. The oars are made from Douglas fir, a common choice although good quality spruce is sometimes used instead. They had to be adjusted (cut down) because they were too long and heavy at first making them difficult to pull in windy weather.



The first outing was at the Loch Tummel Freshwater Sprints in October 2019 where they have a race for "Picnic Class boats" (the regulations for these being they should be less than 5m long, have seats for 2 rowers and a cox and room for a picnic basket). In this race only one rower could take part and although it came last it was great fun and generated a lot of interest with other rowing enthusiasts. Since then, he's taken it out to sea many times, and it's proved seaworthy under quite choppy conditions. It's been a great boon after lockdown restrictions lifted in June since you can maintain a 2m spacing with one rower plus cox (although it's hard work for the rower). The boat is very light and can be lifted by two people, although one person can launch it from a trailer.





Stuart is making a kit for his friend to build his own boat, and then plans to produce kits for other people as a diversification of his furniture making business.

"I quite enjoyed the process even although it took much longer than anticipated. When I started the build I used timber that I had left from various jobs over the years as I thought it might not work out and the boat would be designated as a prototype. As the build progressed however it started to look like it might be a nice wee boat but I didn't have any more money to put into the project so continued with the odds and ends! It was a challenge given that I have never built a boat before but with the help of Geoff Turner and a book about building clinker boats, along with some good old trial and error I am pleased with the result and enjoy taking it out on the water whenever possible. The last thing we did was name the boat and the best suggestion came from my daughter and it was called the ***"Salty Rocket"***



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All photos by Stuart Clachan



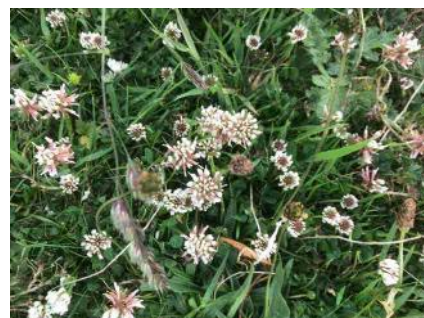
LOW IMPACT FOREST MANAGEMENT

Simon Lockwood of Lockwood Forestry is based near Lauder in the Scottish Borders. He is a woodland ecologist, management consultant and timber contractor, who also undertakes small-scale harvesting contracts and sawmilling. He was interviewed in an exposed Sitka spruce shelterbelt which he thins lightly and regularly (5% every 3 years, via single tree selection) and where the trees are 18-20m tall with no signs of wind-throw.

His interest in forestry is from an ecological rather than purely economic background. A level of ecological understanding will determine much that is undertaken in individual woodlands that we work in. "It's always intriguing to see what happens when more light is introduced. Grasses, flowering woodland plants and shrubs often erupt from no-where, carpeting the woodland floor. These host a whole new bunch of creatures that need the wooded environment created. Making what we do eminently more rewarding. Even without a full and measured understanding, it must be right to do what we can to increase habitat, surely that's right. Minimum impact. Surely that's right also. The farming industry has changed its approach to soil management, dramatically. Forestry must do the same. Holistic soil management is needed before its forced upon the commercial forestry sector. Continued degradation isn't sustainable at any level. Waiting for a dramatic drop in annual increment to trigger concern will mean firefighting tactics are implemented to deal with an ecological foundation that is still not fully understood, the soil. Can't really see this approach working."

He wants to get woodlands into a good condition to produce good amounts of quality timber and maintain a healthy woodland ecosystem, while still being able to make money for the owner and the contractor. Most forestry in Scotland is based on short-term profit-maximisation and doing things at the lowest cost rather than the best way for either the woodland ecosystem or for long-term jobs and the rural economy.

During his time at as area manager for Scottish Native Woods, he developed an approach to woodland management that succeeded in improving woodland habitats while extracting timber profitably and improving the timber crop for future markets through selective thinning, pruning and harvesting.





Much depends on well-trained chainsaw operators and modern, small-scale harvesting equipment. His two key machines are an Alstor mini-forwarder and a Holder articulated 4WD compact forestry tractor with a winch that can be used for skidding. They will make a job profitable when conventional contractors with large-scale machines have to charge the owner to harvest their woods due to the high cost of transporting machines to site. It's not just a matter of the size of the woodland, but the amount of timber coming out and the condition that the woodland (and especially the ground) is left in.

He often works in very small woods but recently thinned an entire estate in Fife using his small-scale machines and it made very good economic sense for all concerned, short and longer term. Most of the woodlands were earmarked for clear fell. Thinning improved light levels for wildlife and game and allowed natural woodland ecological systems to develop, removed poor quality timber that could be used in estate biomass heating, maintained visual amenities plus allowed remaining trees to further develop. Future harvesting would continue the thinning cycle, yielding ever better-quality stems. "As we move through the thinning cycle, cost is reduced while timber value increases. Surely a win win."



The ideal size of job for his equipment is from 4-300 tonnes. The Alstor carries a maximum load of 2.5 tonnes and can extract up to 50 tonnes a day. It's 1.5m wide, so small enough to move between trees so there's no need for thinning racks except with very early thinnings. This means that stands can be thinned selectively so that the wind doesn't get in (along thinning racks) and also with repeated light thinnings rather than infrequent heavy thinnings. The result of that is that there's much less tendency to windblow and so the trees can stand for longer. Longer rotations mean more valuable sawlogs of larger girth (higher value and more use for smaller local sawmilling, rather than taken away to the big mills) and better habitats for wildlife. The conventional approach in industry is to minimise employees to cut costs, but employing more well-trained chainsaw and machine operators, means more money into the local economy rather than to distant manufacturers, finance companies and fuel suppliers.

Of course, one thing that's been very helpful is a good market for firewood, which means thinnings can now be sold for about £50/tonne at roadside, which makes thinning profitable for owners. He thins a lot of shelterbelts for farmers. Most forest managers will just recommend clear felling and replanting which is a disaster for the farmer, because they get little money for their timber (due to high harvesting costs) and they also have to wait a further 20 years to get the benefit of the shelterbelt for their crops and livestock. Using the Alstor allows you to do a selective light thinning, producing small logs for the farmer's firewood or local firewood contractors. The shelterbelt still provides shelter and grows on to produce more valuable sawlogs, and if it's wide enough they can thin progressively to allow regeneration or replanting in stages, thus continuing the sheltering and buffering functions.

Sometimes, with a conifer woodland, he ring-barks the trees to be thinned (using a hatchet or chainsaw) a few months before harvesting, so they dry on the stump, making them much lighter and easier to handle, and ready to be burnt as firewood almost immediately. In-wood processing in certain locations, with good access is a European model. "Why haul wet timber about the country when much fewer Kilowatts and certainly fewer calories can be consumed to produce good quality fabulously dry biomass."

This small-scale working is especially useful for sensitive sites such as SSSI's, and he has extracted timber from a lot of them - there's very little sign that logs have been extracted once the work is done. He can work on steep slopes and difficult terrain. The one thing he asks is that chainsaw operators don't leave high stumps, which are a problem even for bigger forwarders. The only serious shortcoming of the Alstor is that it's not heavy enough to pull down hung up spruce trees in unthinned stands - he has to get out the winch for hung up trees and that wastes time. The Holder pulls up to 5 tonnes so it handles everything it needs to.

He also has a Woodmizer LT15 for sawing up many of the better logs that come out of the woodlands he manages, as well as some from tree surgeons and other small-scale fellings. He cuts logs mainly for construction timber - beams, purlins, cladding and the like - mainly from spruce, but also larch, Douglas fir and oak. He transports small amounts of wood with a Landrover and double-axle trailer, an MBTrac 4WD truck and trailer for larger amounts. On a big job, he'll occasionally hire 26 tonne forestry lorries.

Compact extraction machines

There are a lot of different small-scale harvesting machines about, some better than others. I've used many and I like the Alstor but it's expensive. The new Kinetic compact forwarder (3 tonne capacity) is very like a slightly bigger version of the Alstor, but cheaper. Although neither are ROPS/FOPS approved yet so it's difficult to get grants for them. The Vimek forwarder is a bigger and heavier machine (6t), suited to more level sites with less challenging terrain due to the system of drive. Priced at 2.5x an Alstor is also very expensive needing more suitable work to make economic. The Malwa is like the Vimek but better engineered I would say, having a more positive drive system for its three axles. The Log Bullet is a relatively new entrant and is very low cost, but I wouldn't be certain it could sustain extended periods in the forest environment due to its light construction.

Smaller forwarders are perfect for low impact forestry as they are usually nimble and can deliver good levels of output in the right hands.

Making them commercially viable is not all about doing lots of jobs. It's equally about care and maintenance. I fix a few machines for contractors, damage and excessive wear can be the blight of small scale, making operations fall into a loss.

For skidders, you have Alpine tractors, which are quite widely used but are not suitable for very rough terrain (although most have a winch which gives much greater flexibility albeit extraction is slower). At a smaller scale, there is the Iron Horse and a French radio-controlled skidder that both have a place to extract usable logs. I also use the MB Trac for heavy winching and skidding with a log capacity of up to 4t.

Simon works all over the UK - including Forest of Dean, Essex, Yorkshire, Cumbria and all over Scotland including the far north and west. There are more small-scale harvesting machines in England - probably only half a dozen in Scotland and only 2 or 3 small scale harvesting contractors. It's an area that's ready for many more contractors to set up - the economics are right and it's so much better for the environment as well as for the long term ability of woodlands to produce good quality sawlogs which are so important for small sawmills like ASHS members.



“It can be a hard physically sometimes, but it's very rewarding to know that you're doing your bit for the woodland environment. A driver much wider than income alone, initially, can often generate greater benefits and frequently come full circle to provide further income. Greatly beneficial to woodland owners and contractors alike. Sounds like a perfect world....”

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GMG BIOFUELS

A new member in Sutherland

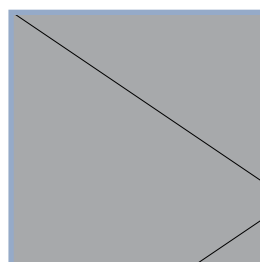
Malcolm Morrison runs GMG Biofuels but that's only a small part of his story. He owns a beef and sheep farm in Sutherland, with associated forestry, Christmas tree, wood-chip and firewood businesses. The business supplies firewood logs across North Scotland and has a 5MW boiler supplying heat for drying wood and warming lambing sheds.

With good staff running the business in Sutherland, he can devote time to running his other businesses from a base in Thornhill, near Dumfries, including agricultural banking, a wood-pellet making business in Brimingham and a wood-chip fired boiler supplying heat for vegetable processing near Boston, Lincolnshire. It's a diverse set of businesses, but with a common theme of using farmland and forest to produce food, heat and timber products.

He has just bought a Woodmizer LT70 bandsaw to add value to the sawlogs coming from his 400 acres of forest. It's being set up by Keith Threadgall with a view to starting cutting late autumn 2020 and selling timber in 2021. The aim is to manufacture sheds, garden furniture and components for houses and other buildings from the spruce, larch and pine grown in Sutherland. If there is sufficient demand, he plans to set up a small retail outlet for timber products in Caithness, handier for Wick and Thurso than the more remote mill.

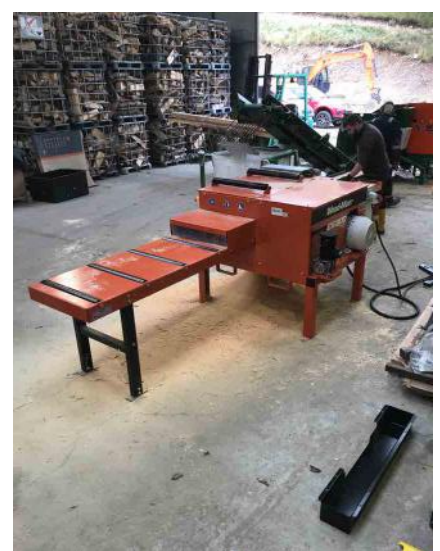
The business has faced its fair share of problems, many of which will be familiar to ASHS members - neighbours worried about what's happening next door, changing regulations, planners being inflexible and not understanding what businesses do, inflexibility and bureaucracy of grant-giving bodies and timber growers requiring payment for timber upfront. But it's benefitted from being integrated, with one part of the business helping the others. The sawmill in particular will produce sawdust for bedding in the lambing sheds and large amounts of slabs and offcuts which will be chipped for the biomass boiler. All this means local employment in an area where there is very little, and where most raw materials are shipped off to other parts of the country for processing and manufacture.

Malcolm joined ASHS earlier this year hoping to learn from more seasoned sawmillers and although this has been delayed by Covid restrictions, he's planning to contact other ASHS members for advice in due course as well as attending the delayed Working Woods Scotland course in March. His entrepreneurial skill and experience in setting up and managing small/medium sized businesses is a potential resource for ASHS members needing help with improving efficiency and overcoming business management and staffing problems. And he has an in-depth knowledge of rural finance which is often a real issue for expanding sawmills. He's always keen to learn more from anyone and says



"If you're the smartest person in the room, you're probably in the wrong room."

Written by,
Malcolm Morrison



JAMES SMITH - CABINET-MAKER

My first real job in woodwork was making tables, there were two of us and we made ten tables every week, mostly in English Cherry with hand planed tops made out of three boards, that meant 30 boards of Cherry hand planed every week, English Cherry is not the easiest to hand plane as its full of knots and varying grain directions, it taught me a lot about hand tools and basic woodworking techniques. Eventually they moved me on to cabinets - making reproduction antique dressers, bookcases, chests of drawers. The nice thing about it was they almost always had hand cut dovetailed drawers, and there was always a tight time allowed, so I got good at cutting dovetails quickly, a skill that I'm very grateful for now.

I moved on to another company where they made a lot of kitchens and large scale joinery projects, I learnt a different style of woodworking, often on renovation sites in and around London, again very useful skills but I always felt that they took the fun out of woodwork, turning it into almost a factory job. There used to be a reluctance to use hand tools at all, things were supposed to be finished straight off the machines, well they had a point I suppose, if you want to make money the cutting joints with a handsaw probably isn't the best way to go about it but I really missed the craft side of it.

I remember reading "The Fine Art of Cabinetmaking" by James Krenov and also "Cabinetmaking - The Professional Approach" by Alan Peters. These books really opened my eyes to a whole new world of furniture making, I think that was the starting point really. Krenov talked about making your own planes and I bought David Finck's book, he was a student of Krenov's and his book is really excellent. I made one of these planes, it wasn't bad for a first attempt but didn't actually perform that well, the second one I made completely changed the way I work.

I had to set up on my own but didn't know how, I remember the thought of buying all those machines seemed like an insurmountable obstacle, in the end I took a business loan and took the plunge, I spent as little as possible, no dust extraction for about 5 years but we got by and the debt was repaid without too much difficulty. I stayed in that workshop in Oxfordshire for ten years and made some nice pieces but it was too small and the rent was too high. If you like the outdoors then Oxfordshire isn't really that interesting, its flat and featureless, we came to Scotland whenever possible.

When we finally finished renovating our house we put it on the market and moved the workshop from Oxfordshire to the Borders in May 2019 We love the area and feel like we've finally escaped the rat race. There was a lot of work to do again on very little money but the workshop is well equipped and a great space to work in, I don't exactly have views of the rolling countryside but at least I know it's out there.

I make furniture that uses combinations of predominately British and European species, in solid wood and veneer. I do occasionally use exotic species, I just made a pair of bedside cabinets in Ziricote which were quite stunning. My favourites are Oak - especially Brown Oak which I seem to keep returning to, Sycamore, Ash, Walnut, I've used Plum and Swiss Pear recently. My designs are contemporary but they usually feature traditional details like dovetailed drawers, I like that link to the great makers of the past.



I use technology but only where its genuinely useful, some aspects seem to be more restrictive than useful. All my designs start life as a CAD file, I find that 3D modelling software allows you to really grasp the proportions and alter them until it looks right, it really is unrivalled in this respect, but when it comes to drawing free flowing curves its almost restrictive, you find yourself reluctant to draw a complicated curve as its too time consuming and inevitably opt for a standard radius supplied by the machine. At this point it's time to move to a full sized hand drawing. Any job that features curves or complicated angles gets drawn full size on 3mm MDF and the curves are drawn freehand over and over until I'm happy with them. This can take a lot of time but I think it shows in the end result, the furniture has a more natural feel.



My aim is to design furniture which stands alone, well balanced and proportioned using the grain of the wood to create something harmonious, I'm less interested in waved surfaces created on a CNC machine, I can appreciate their beauty but its a different thing. When I lived in Oxfordshire I'd visit Celebration of Craftsmanship in Cheltenham every year and marvel at the creations there, but I was always impressed by the furniture that was made precisely using hand tools, I think you can tell when a CNC machine has been involved. I'm sure all owners of CNC machines will vehemently disagree with me.

Since moving I've been busy with a few projects from the South and I've picked up some local ones but I'm yet to really get going in this area, a new website and some advertising will be coming soon. Recent projects include two king sized beds in local Scottish Ash and a nice commission for a dressing table in Brown Oak for a client in Edinburgh. I've also got two more Ziricote bedside tables to make. I'm curious about selling online, I'm starting to experiment with small batches of items for sale on the internet, we'll see how it goes.

Things are looking reasonably good as we come out of lockdown and get back to real life, I have plans for some interesting pieces, at the moment as the only breadwinner I am very much in the business of earning a living from my craft, so take on all kinds of jobs to keep the roof over our heads, including painted fitted furniture - just for now anyway. One day I'll be free of painted fitted furniture, not sure when though, maybe when I'm about 63 and thinking of retirement.



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TREES AND TIMBER ON THE ISLE OF EIGG – AN UPDATE

Long-time readers of the Full Circle will remember an article in the Spring 2017 issue (No 5) by Maggie Fyffe describing the island community buyout in 1997, the work of the Isle of Eigg Heritage Trust and how the community has worked tirelessly to develop a variety of projects since then. From small projects to larger ones, including the installation of the island's renewable energy grid, it has been a busy couple of decades.

Included in IEHT's role is the management of 247ha of forest land on the island and the last three years has seen progress in their woodlands, as well as other ambitious building projects.

Not long after the article went to print in 2017, Eigg's Long-Term Forest Plan was signed off by Scottish Forestry. Aims and objectives for the following 20 years, included a phased programme of timber harvesting of the Sitka Spruce plantation, located towards the middle of the island. Planted in 1983, the crop has reached a mature height and the community has worked hard on a solution to make sustainable use of the forest and integrate it with other aspects of the island economy.

The first phase was carried out last autumn, with IEHT bringing together an experienced team, with support from Community Woodlands Association; Glencoe Timber Ltd, Knoydart Forest Trust (Wood Knoydart) and Troon Tug Co. to manage the process from harvest through to transport to Glennon Brothers

Sawmill in Troon. The success of the project was widely felt by Eigg's community and included retention of enough firewood to supply the island for 3-5 years.

Firewood is a key income generator for IEHT. With the help of a Climate Challenge Fund grant, IEHT worked to revitalise their wood fuel enterprise, constructing a large forestry shed and buying kit including a Valtra A93 tractor, a log trailer and bulk firewood bags. Several people on the island had chainsaw tickets but training was supplemented with the help of Highlands & Islands Enterprise and the Scottish School of Forestry, to enable safe





and competent use of all the equipment. The forestry team now consists of two permanent part-time workers plus a third occasional worker. The new infrastructure and equipment have helped to scale up the enterprise allowing for a reliable and continuous supply of renewable heating fuel for the island. This winter, for the first time, there is enough seasoned firewood in stock to see the island (85% of houses burn solid fuel) through the winter.

The forest plan also saw the Trust draw up management plans for 13 very diverse woodlands across the island, including mature policy woodlands, hazel scrub, young conifer plantations and a lot of mixed broadleaved woodland plus a small arboretum of exotic species. In the short to medium term, the woodlands will be selectively thinned and restocked with a more diverse range of mainly broadleaved



species. In the longer term, the hope is to expand the area of woodlands and manage them to produce timber for use on the island as building timber and for other purposes. The more diverse woodlands will also emphasise access and are already well used by the community and the 11,000 visitors who come to the island each year.

With work on the strategic expansion of the An Lamhrig community building at the pier about to begin, the possibility of using locally-harvested wood is a source of major pride. Built in 1998, when there were 65 residents and about 5,000 visitors a year, the building is now bursting at the seams, with a population increase of 70%, 100 residents (and rising) and visitor numbers that have doubled. The need for a much bigger building with better facilities, set an expansion project in motion, that aims to make good use of Eigg-grown timber. A storm in 2009/10 brought down a lot of mature broadleaves in a policy woodland, which the on-island team - with the help of Glencoe Timber - have been able to extract and will convert using a hired-in mobile sawmill. The plan is to make use of the timber in the build of the new community hub and (if there is enough) for other projects as well with IEHT also working on a project to build two new homes for affordable rent.

Another key part of Eigg's woodland development is the tree nursery run by Tasha Fyffe, which produced 8,000 trees in its first year (2018/19) and 13,000 in its second year. The trees are mostly broadleaves, grown from seed harvested on Eigg and plans are currently being developed to expand production up to 20-25,000 trees per year. The ambition is to restock Eigg's woodlands with as many home-grown trees as possible, to promote biodiversity and protect the island's biosecurity. The nursery has just fulfilled the stock requirements for a woodland creation project on the island and is now working towards the initial requirements needed to restock following last autumn's Sitka felling project. The hope is to develop an enterprise that can support on-Eigg planting requirements, as well as the possibility of exporting trees to other planting projects within the local provenance zone, thus bringing money into the island.

Islanders have come to realise (especially given the uncertainties caused by this year's Covid pandemic) that the reliance of the island's economy on tourism is something that needs focus. The islanders are now looking at trees and timber as a way of diversifying the economy, both by reducing the amount of capital that leaves the island to pay for goods brought in, and by bringing money into the island by selling products elsewhere. It will be a long road to self-reliance, but, after centuries of decline, Eigg is certainly moving in the right direction.



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Photos: Owain Wyn-Jones, Becca Long

ELMS – WHERE ARE THEY NOW?

As a child, I do not remember elm trees; mostly oaks, ash and beeches come to mind in the mixed broadleaf woodlands of south-east England. Apparently, the elms were long gone by the time I was climbing trees and balancing on branches. So, it was not until I was 25 years old and managing significant areas of Atlanta's urban forest for an NGO (Trees Atlanta) that I encountered elm trees. These were mostly Chinese elm (*Ulmus parvifolia*) and the elm's cousin Japanese zelkova (*Zelkova serrata*), along with the winged elm (*Ulmus alata*), and slippery elm (*Ulmus rubra*). I do not remember seeing chestnut elms (*Ulmus castaneifolia*), but was assured they were somewhere in the colossal urban forest (49% tree cover). I was fascinated by the winged elm with the cork sweep coming away from the branches, small and unassuming compared to the erect and conical Chinese elm. There was no Dutch elm disease to be seen, but no mature elms either; the population was mostly between 5 - 30 years-old. They did not share the upper canopy with the numerous species of oak that graced the cityscape.

Fast forward a few years, through the invariable confusing undercurrent of life, and I am finishing off my PhD at UHL on woodland expansion; and I land a small tender from Highland Forestry Forum and the (then named) Forestry Commission Scotland to investigate the current status of elm in the Highlands and Islands. All of sudden, I started seeing elms everywhere, as my mind had adapted to looking closely for individual trees, as it always did when I worked as an arborist. Everywhere I go now, even five years on from the start of the project, I am seeking out those hidden-in-plain-sight elms. I spent a year engaging landowners, accessing local knowledge and speaking to professionals about what they knew of elm and its story within the Highlands and Islands. Some ASHS members may remember a survey doing the rounds asking for processing information on the elm; that was me. I performed a mixture of GIS interrogation of the Native Woodland Survey of Scotland, a questionnaire to capture the knowledge and perception of environmental professionals around Scotland, surveying processors and interviewing key people with elm knowledge.

Currently we know that there is only one truly native elm, the wych elm (*Ulmus glabra*), that is found mostly in Scotland and northern England, though its natural range extends northward into Sweden, Finland and Russia and southerly into the Mediterranean. The English elm (*Ulmus procera*), thought at one time to be a native and separate species is really

- Dead elm Loch Ness (photo 3)



- Dead elm from a far in Moray



- Galleries in a fallen elm Inverness-shire

a very diverse and old clone of European elm (*Ulmus minor*), first introduced during the Roman occupation. The Highland and Islands is a unique area in regard to elm, as it is a relatively new frontier for the disease in comparison to the rest of the UK. Much of the area is infected - as far north as Golspie and west as Ullapool - but these infections have only arrived within the last year. Dutch elm disease (DED) has been traveling northward and westward through the Highlands for the last twenty years; as far as I can ascertain, following the main road systems, such as the A9 and A96. It may seem to many as a matter of time before DED reaches every part of the UK and you may be right, but there is hope! Populations of wych elm still survive untouched in the north-west of the Highlands, as well as the Islands including Orkney, Skye, Raasay, Rum and Canna. They continue to persist within infected zones, even in highly infected areas such as the Black Isle. I know from colleagues that they continue to survive in southern and central Scotland, and students from the Scottish School of Forestry have encountered healthy mature elms during clearance work that survive alongside elms that have succumbed to DED. These are the populations and individuals that need further research and propagation, to establish whether they have some level of field or genetic resistance.

When I engaged most people about the elm and its place in the landscape

there was a resounding sentiment about the loss of a key species within native woodlands, irreplaceable for biodiversity and landscape amenity. Many people also highlighted the versatility of the elm for timber products, from ship building to guttering and beautiful bespoke furniture. The species seemed inextricably linked to DED for most owners and managers, as this has been the main headline for the last sixty years. Even before the main outbreak, there was a first wave around 1910, which may have been the results of significant movement of timber and supplies around Europe. The fungal disease is a vascular wilt that basically chokes the tree by causing it to plug the xylem with a gum extension of the cell-wall trying to block the progression of the disease; this prevents the transportation of water and other nutrients throughout the tree. Now, one of the most familiar sites of these transformed elmscapes are skeletal structures and white bone-like branches standing lifeless amongst the other trees and hedgerows. It is not hard, therefore, to see why most people, even tree experts, view the elm as lost or a lost cause.

Statistically, elm is only a minor component of the native woodland in Scotland; around 0.13%, which equates to 1,875 ha, 338 ha of which resides in the Highlands, with south Scotland having the largest area. However, results also show that the Highlands have a higher rate of woodlands with elm dominance and greater percentage of mature trees: around 60% in comparison to the Scottish average of 35%. Hotspots for elm in the Highlands are to be found in and around the Moray Firth area, Ardnamurchen, Fort William, Loch Ness and Cromarty. These hotspots can potentially guide further research to find surviving elm in the infected zones and examine more closely the common environment factors that favour surviving specimens.

Due to the survey distributed through ASHS, I know not many hardwood processors mill elm; I had four respondents who milled elm whenever it became available, with diseased timber and burrs being especially valuable. I heard of one elm tree in the Black Isle selling for over £13,000 in 2013. Timber was often sourced from windblown trees, those preserved over time by rivers and trees with DED. The value ranged between 120 - 200 m³, but uncertainty in supply prevented further investment and milling of elm. One



- Mature healthy elm Loch Ness, a few metres from the one in photo 3

- Sawn piece with decorative elm burr

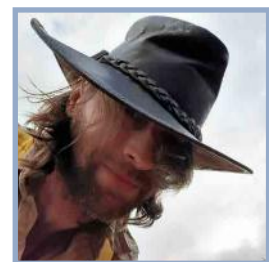
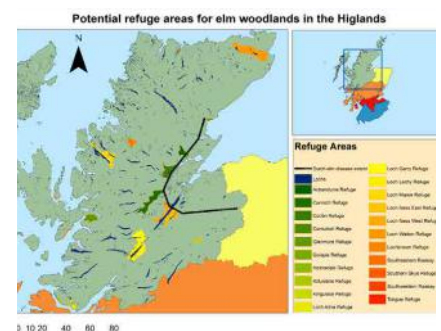


concern for the spread of the fungus was the leap-frog effect of the Scolytus beetle that transports the fungus across the landscape, often connected with the transport of firewood and other elm timber, especially if these were not debarked. This vector for the disease has been discovered as a main cause in the USA and New Zealand, and it is originally thought that the more aggressive ophiostoma novo-ulmi fungus arrived from the USA via timber transport in the 1960s. Local authorities such as the Isle of Man have a strict policy of sanitising and burning any infected tree in the place from which it has been removed.

One of the major recommendations to come out of the 2016 report was the potential management responses with regard to elm and DED. Refuges for the Highlands were proposed, not only in areas with no infection but also those highly infected with surviving specimens. This provides an opportunity for relative real-time monitoring to develop our understanding of both areas and work toward a resilient future by collecting data, tracking the pathways of the disease and learning more about the biodiversity and species interactions. Twenty-one refuges across the Highlands and Islands were proposed, covering 17,700 ha, which included 123 ha of elm, with the main aim being to raise the profile of elm and highlight that the Highlands has these important areas. The report inspired a small scoping project in partnership with the Woodland Trust in 2019 to look at potential refuges that overlap with their sites, with the potential for citizen science to identify healthy elms and collect samples, as well as testing a variety of DNA extraction methods on healthy and DED infected specimens to see which method produced the cleanest DNA. This study would aim to be a precursor to a larger landscape-wide project that would identify resistance genetic markers in survivor elms and lead to a breeding programme for restoration of the native elm (*Ulmus glabra*).

Currently, there is a re-emergence of interest in elm, as a report was produced late 2019 about elms by the Future Trees Trust. The Conservation Foundation has been grafting away for years running several projects and is now a vehicle for bringing together the disparate work on elm that has been developed in different corners of the UK. Our focus now in the form of the Native Elm Group (University of the Highlands and Islands, Royal Botanical Gardens Edinburgh and Woodland Trust) is to find out more about the elms throughout Scotland, identify these survivors and fund projects to explore the genetic resistance and start breeding programmes. This is where local and specialised knowledge plays a crucial role and we need experts and professionals - such as the members of ASHS - to help us identify survivors, so we can build a database that will track both the spread of DED and potentially resistant trees going unnoticed in the landscape. This knowledge will be key to any restoration efforts and future projects.

- Initial elm refuge map - link to PDF below



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CRAOBH WOODWORK

I had been working as a joiner in the building trade for more than 25 years when I decided that I would like to do something completely different, by combining my skills in carpentry and my lifelong passion for working with wood, and set up my business, 'Craobh Woodwork'.

In 2019, I was awarded funding from the Scottish Rural Development Fund (LEADER) to finally start up Craobh (Gaelic for tree) properly, where I could realise my dream of producing bespoke, handcrafted items using reclaimed, local timber. I am originally from Glasgow but my parents are from Raasay and Tiree and have spent most of my life in the Highlands, and living in Inverness, so I wanted to obtain local premises in a rural setting which I could transform into a fit-for-purpose workshop. The Old School Depot in Culbokie was available for lease, and in December 2019, I moved into the building and began to convert the large, empty unit into the workshop I had been planning for.

The LEADER funding, as well as my own savings, was used to build up the machinery and equipment needed to produce a range of items, from small pieces such as chopping boards to large pieces of bespoke furniture. I had decided to build my own kiln onsite, which required the purchase of a large shipping container. Once insulated and fitted out, I could dry out large slabs of timber, which I was able to source locally and mill with my Lucas Milling machine that was also purchased



when I was awarded my funding. I managed to buy all my workshop machinery second hand from WS Wood Machinery in Glasgow fully kitting out the workshop from pillar drill to wide belt sander.

I was lucky to have family members and friends who worked in a range of trades who were able to help me set up the workshop in the way I had envisaged. There were many hurdles to cross before actual production, but I worked hard through the winter to get to the point where I could start making the items. Sourcing wood has not been too difficult as I was lucky to have contacts in the tree business, who can sell the wood at a reasonable price, or I can mill windblown trees on site.

The product list started with chopping boards and mirrors - I knew there was an immediate demand as I had previously made boards to sell in the successful gift shop 'Isle of Skye Candles'. 5 years ago, demand was so high for the boards that I was unable to meet it.

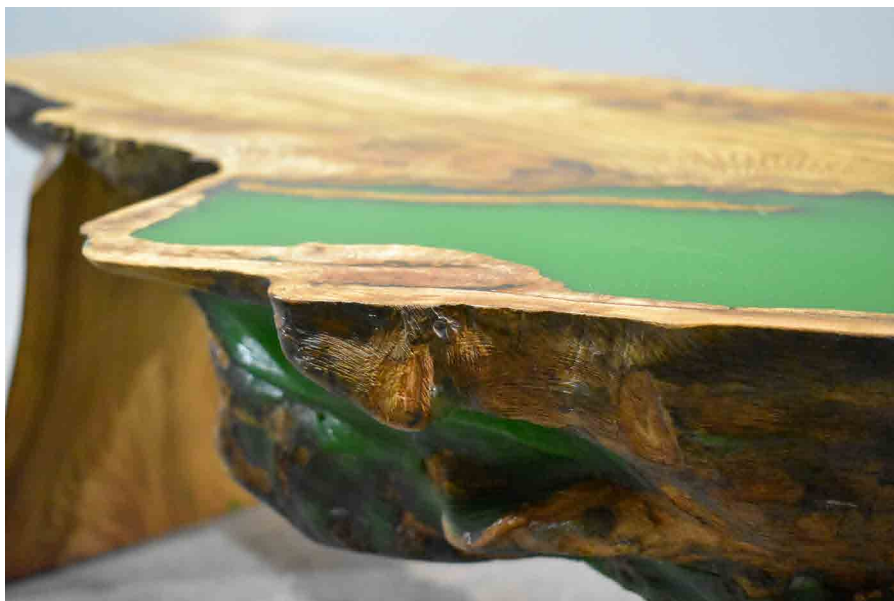


Since then, I have expanded the list of bespoke, self-designed pieces and the new workshop space offers room to create larger items like river tables, worktops and desks. My brother, Gordon, is a welder based in Glasgow, who was keen to get involved and spent lockdown making impressive steel table bases for some of the wooden table-tops, giving them completely unique and modern edge.



The timing of the launch of Craobh Woodwork, which coincided with the challenges of the pandemic in 2020 have certainly been hard, but on the plus side I have had more time to focus on producing and marketing, and the opportunity to design a range of other items I might not have had the time to do otherwise. I am now concentrating on the best way to launch the company properly at a more appropriate time, and luckily my online sales continue to increase.

It has not been an easy process, but I am now doing something which makes me happy and there is a clear demand for the items I produce. The fact that the wood is effectively recycled meaning that there is virtually no waste, gives me piece of mind that there is no environmental impact and natural resources are being given a new purpose in people's homes.



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MOBILE CONTRACT SAWMILLING IN SCOTLAND

Six tips on contract sawmilling from an experienced Scottish sawmiller

Keith Threadgall has been working with timber all his work-life. He started working in a forest felling trees “I used to work as a chainsaw operator in the woods some 30 years ago.” tells Keith, a contract sawmiller from Scotland. In late 90s he was approached by a friend to join an organization that worked with local carpenters and woodworkers. “I was asked to operate a mobile sawmill that they had, they needed to mill their own hardwood timber at the time. I started working on a Wood-Mizer sawmill back in 1999.” he adds. Once the company was able to supply enough hardwood timber for customers and their own needs, it was decided to do some contract - mobile sawmilling. Keith started visiting people in the local area that needed their logs to be turned into timber: “For me it started from there.” remembers Keith.

Now Keith runs his own mobile sawmill hire company based in South Scotland, doing milling for customers all around Scotland. “I have been sawmilling for over 20 years.” says Keith. He is well known in the area as a hardworking and reliable mobile sawmill for hire. His knowledge of Wood-Mizer sawmills and years of experience have led him to become a Wood-Mizer agent for Scotland and North East England. He became Wood-Mizer representative in 2011.

Tip 1 – Learn your market and your customers

When doing mobile contract sawmilling, he visits a lot of farmers, estate owners and other people who need some milling. Farmers and estate owners usually require soft wood timber for building sheds, fencing, cladding and other things. He recalls that a lot of his usual customers are timber framers who require custom timber, they usually want to mill their own oak logs.

Tip 2 – Plan your trips in detail, visit multiple customers in one area

A big part of rural Scotland is very hard to access. Frequently Keith must leave home for longer periods of time, as it takes him up to five hours to reach some parts of Northern Scotland - a lot of roads are just single-track. “Often what I would do is to travel a day earlier and stay in a Bed and Breakfast near the milling location.” says Keith. “To make it worth my while I usually try to coordinate milling in the same area for different customers, to spend less time traveling. Sometimes people are OK with me arriving in the afternoon because they need time in the morning to prepare for my visit. That works quite well in my favor.” adds Keith.

Tip 3 – Take spare parts, tools and other consumable with you

Usually Keith travels alone, he makes sure that he has enough spare parts and blades with him. “I usually travel by myself and if any assistance or special machinery is needed,





I leave this to be organized by the customer. I always take with me fuel for the sawmill, blades, spare parts, chain saws and tools, obviously," shares Keith. "Depending on the job I usually take four to six blades for a day of milling, that gives me around one to two hours of milling per one blade. If I go for 3-4 days, then I take at least 20 resharpened blades and at least a box of new blades with me, just as a back-up. As for spare parts I usually take with me B57 drive belts, blade guide rollers, nuts and bolts for adjusting your blade guide alignment, fuel filters, etc. Basically, things that are usually not available in remote areas." Keith says.

Tip 4 – Give your customer exact dates and always be on time

Mobile sawmilling is not very competitive in Scotland "When I started sawmilling up in the borders, there used to be a Scottish agent at the time who had done contract sawmilling as well. He was based in Perthshire, central Scotland. Apart from us there might be another one or two sawmillers driving around," tells Keith. Being available to customers, has helped him get more business: "A lot of it comes down to hard work and dedication, being able to plan ahead - give exact dates when you can visit your customers. This allows them to organize labor, machinery, space and timber for milling. A lot of contract sawmillers just say that they will have time in a few weeks but don't give a specific date." said Keith.



Tip 5 – Don't hold back, share your experience, sell sawmills

In his interview Keith told us that there are a lot of people who are actively looking for used sawmilling equipment. Many of his customers express interest in buying a sawmill and would love to run them as a side-business to their current operation. He mentioned, "There are a lot of people looking for used equipment with low hours. I have been keeping my sawmills for a year or two and then selling them. I find that there is a price bracket where people will buy a sawmill and keep it as a part time operation."

Tip 6 – Resharpen your own blades – it's worth the effort

Instead of sending them away, Keith likes to do his own blade resharpening. He owns an automatic blade sharpener - BMS250 and a manual blade tooth setter BMT150. He adds: "I think that it is very important to do resharpening yourself, this way you get a lot more understanding about the blades and what you are cutting."

Softwood is usually milled during the summer, while hardwood is left for winter months, as it is being felled in autumn in Scotland and the UK.

"I like cutting in summer because it is a bit warmer than winter, but I enjoy working with hardwood – it is more fun, there are a lot more challenges." says Keith.



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2015

2016

2017

2018

2019

2020

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