

*Diary of Peter Quelch, woodland adviser*

## **Ancient Wood Pasture in Sutherland**

### **A training event for North Highland Forest Trust, 11-13 October 2007**

The aim of the event was to familiarise the approx 20 mainly local participants with a small number of good quality wood pasture sites in East Sutherland and one site in Assynt over 3 days. No formal surveying was done at this stage, but instead a look over the sites with local and national experts to pick up a feeling for the sorts of features and locations of typical wood pastures. Surveying these sites and further sites in Sutherland in more detail for archaeology and historic woodland features will come at a later stage in the project.

This diary summarises some of the interest seen in the six sites we visited.

#### **Little Rogart Park**

The park is enclosed quite distinctly and separately from the adjacent woods and fields which we didn't have time to explore. It appears to be a stock holding park created by the estate in the early 19<sup>th</sup> C for the estate's own use and so is separate from the surrounding croft lands. It is surrounded by a typical low stone dyke laid out in the classic oval shape, so saving on walling costs. The first Ed OS map shows a woodland in the south east part in the mid 19<sup>th</sup> C, but little of this woodland remains. However there is a scatter of old oak and birch trees which now constitute a sort of wood pasture in a well grazed setting. There is of course no tree regeneration surviving in this situation.



**Rogart park from entrance gate**

The group looked first at the prominent oak on the hillock to the right of the entrance track and found that it was a singled double stem indicating previous coppice and so probably pre-dating any 19<sup>th</sup>C planting within the park. Nearby was another massive oak stool which had

blown over and also seemed to be older than the park. However other oaks and birch did indeed look to be more recent and perhaps were planted when the park was created.

We decided to look more closely at a lone oak on the far side of the park, and on the walk over to this oak came across a variety of archaeology, clearly visible in the short turf (which by the way held a richness of wax cap fungi indicative of unimproved traditional pastures). The archaeology included a prehistoric roundhouse, trackways, old field systems with rigg, and finally at the tree we were targeting, a ruined long-house with adjacent rigg field.



**Lone oak pollard on west side of park showing relation to old field system and old dyke**

The tree itself sat on an older boundary wall now captured within the park and had strong evidence of previous pollarding. This find neatly confirmed my point discussed earlier in a slide talk that very often trees in open wood pastures are not woodland trees as such but are often closely associated with archaeology. In particular the veteran trees of today have often come to us as remnants from more or less an 18<sup>th</sup> C pre-enclosure landscape. This tree certainly seems to have done that, as it is so clearly associated with the adjacent settlement.

Even on the walk back we found another amazing but dead hollow oak ex-pollard on another part of the same old sinuous wall which is now enclosed within the park. We also saw large hazel and alder stools at the low part of the park just outside the park wall but which would have been part of these old crofts at one time. The woodland across the burn had aspen, juniper, blackthorn and other interesting trees.

We talked about the archaeology term 'palimpsest' which this park demonstrates excellently – ie that a historic landscape consists of many layers of varying antiquity all superimposed one on top of the other. The interesting thing for woodland archaeologists is that often some evidence remains from each stage and these can be recognised and teased out so giving a picture of how this land has developed over time.

Future surveys of this park and adjacent woodlands could map and describe all its trees and so tease out this picture, ideally relating the surviving trees to the physical archaeology. Actually this would be true for all the sites, but in other more wooded sites the trees surveyed would need to be more selected so that only the veteran trees, those linked directly to archaeology, or those which helped tell a story would be recorded individually.

Finally we also discussed practical action to help protect selected historic trees. This walk had shown how vulnerable the ancient trees are to being blown over when they have not been re-

pollarded at the traditional height. The high quality historic tree we found at the longhouse seems OK now but earlier we had seen similar trees blown over (when any archaeology would be severely disturbed). There seems a good case to try some re-pollarding on a range of trees starting with the less historic to get experience first. The re-pollarding will not always be successful as the shock may kill some trees, however even a standing dead pollard has habitat value and at least it will not blow over. The success rate will be less for birch but oak, ash, hazel, elm, willows etc always have a better chance.

### **Morvich Oakwood**

The visit to Morvich showed a more complex situation and not so easily resolved. As soon as we got out of the mixed policy woods above the farm and entered the oakwood we started to find small numbers of oaks with signs of previous pollarding and of having once been open grown.

This was a good place to discuss how to score evidence for previous pollarding, though a scoring system that I use subjectively has not yet been written down. Of course pollard scores here were lowered due to the very long lapse of over 150 years since last being cut: (see photo on right – good evidence of past pollarding at about 1.8m but long lapsed so score of 6/10). An island between branches of the burn contained many old oaks with this sort of evidence. The matrix of straighter grown oaks seem to have been planted in the mid 19thC and are now mature but of quite different character to the previous oaks. Noticeably the lungwort old-growth indicator lichen was only commonly seen on the earlier cohort of oaks, not on the 'recently' planted ones.



The higher reaches of the wood showed more such evidence and although we did not visit them we could see veteran open grown oaks and alders well above where we were, which is also where the archaeology of abandoned settlements lies. Driving east later showed that there are indeed stands of oak on this hill which have not been inter-planted and are still in a wood pasture structure with evidence of pollarding or at least open grown trees. There is much scope for surveying these various tree types and then relating the findings to the extensive archaeology on this site, for which Jonathan Wordsworth already has much detail in a case study on his website:

<http://www.scottisharchaeology.org.uk/advice/downloads/CaseStudy5.pdf>

A useful discussion ensued on future management and many participants while recognising the woodland history events which had given rise to current woodland structures nevertheless felt that the whole site should be allowed to develop naturally from now on and that in due course the actions of wind would to some extent level out the within-stand differences. If some tree regeneration was successful in gaps then the wood would over time continue to develop more naturally. It would be interesting next time to look at stands on this hill with current wood

pasture structure, and see if people still favoured this naturalisation vision, as against preserving a historic landscape as discussed at Rogart park.

One thing that came out of the discussion with the farmer was how much he stressed the need to control bracken to improve the grazing value. When asked about the value of the woodlands for shelter he made the telling observation that if stock were in good condition they did not need the shelter so much. It was more important to keep them well fed. This is interesting in relation to the traditional pre-improvement use of woods and wood pastures for livestock shelter in an era when winter fodder was primitive and hard to come by, so of course by late winter stock were always in poor condition and so really needed the woodland shelter.

### **Glenleraig, Assynt**

At Glenleraig the group met with Robin Noble and Ian Evans who led us round a sequence of old birch/oak/hazel woodland closely associated with the now derelict township of Glenleraig adjacent. At one point the woods extended to beside an old corn mill, woodland dykes were everywhere and seemed to separate patches of woodland from patches of corn growing land and high level shieling land, sometimes with rigg and furr. The feeling was very much of a mosaic of 18thC farming townships with worked native woodland playing a part of that mosaic.



**View of Glenleraig woods from the ruined village beside the public road**

Again, especially in the older trees there was preserved evidence of previous pollarding in most native species, including birch. What is not known is whether all pollarding died out when the farms were cleared in about 1812 or whether some traditional practices continued somehow. The latter seems likely as in general many culturally modified trees were clearly modified not so long ago, sometimes well into the 20<sup>th</sup> C, so old folk practices die hard.



**L: woodbank dividing old mixed birch woodland from corn growing land R: gateway in another woodbank**

Robin pointed out several candidate pollards in birch cut higher than the usual maximum of 2m or so. In my scoring system apparent pollard bollings at high level would score less as they seem to be outside the normal range. It should be noted that this score is only a likelihood of having once been pollarded; a probability score, and there is little way the past pollarding can be proved one way or another. As Robin stressed however a positive indication of past pollarding is when large numbers of trees in the same stand have been treated in the same way. Particular trees stood out, such as a hazel low pollard - impressive even though now on its side! A massive alder stub pollard of 3.8m girth which has survived on its own. A fused hazel/alder mixture stool and so on.



**L: group examining fallen hazel pollard**

**R: 'bolling' of a possible birch high pollard**

One tree that seemed unusual was the rowan with a mass of attractive *Lobaria virens* at its fork. I said at the time that the weaving or interlacing of branches was usually indicative of past cutting – but not necessarily so in rowan it seems. When surveying in the Old Wood of Drum the very next week I saw two such examples in rowan, even more interlaced and apparently naturally. Crossing over of branches especially just above a pollard bolling (level of past cutting) is however a good indication of past cutting and I noticed a particularly clear example in a low birch pollard at Glenleraig (photo below) Wood pastures do contain a large proportion of unusual and sometimes freakish trees not seen normally in woodlands, eg tree species mixtures on one stool, air trees (usually rowan) growing in hollows, phoenix trees arising from fallen stems, layered trees, crossed over and fused branches and fused coppice

stems etc. They survive because of the longevity of the site but also the high light levels and lack of competition from neighbouring trees and shrubs compared to normal woodland.



L: cross-over branch arising from bolling of low birch pollard R: *Lobaria virens* lichen on fork of a rowan with natural interwoven branches (behind the stem to left)



L: birch stub tree in front of old corn-mill ruin

R: Robin Noble

### **Gearrchoille community woodland, Ardgay**

We met up with a local representative of the community group and her enthusiastic young daughter. We had a most interesting visit to what turns out to be a fascinating historic woodland. It is hardly wood pasture structure now as stock have been excluded for some decades and there has been prolific growth of mainly birch turning it into a woodland, compared to the small unfenced area where you enter which is still open. However trees from its past can still be easily seen of course. Also the point with wood pasture is that it is not too late to nudge the structure back towards a more open one, if the owners wanted, by re-introducing controlled grazing, and/or thinning out some of the new growth. The advantage is that there are now lots of young trees as future replacements.

The wide avenue used as a historic drove road has the remains of a sort of hedge along it with birch stools on the wood-bank on each side, but occasionally with oak stub trees or low pollards, some of them (such as the one just before the stile, photo below) of massive dimensions. It is hard to age these of course but they do appear over 200 years old, and have themselves come from multi-stem stools which must be older than the current stems. Any ring counts from old stumps etc would be useful in helping date them. The wood-banks of the drove road continue through the wood, where they are less obvious but could easily be surveyed accurately. A tree which we did not find but which Steve sent me a photo of later shows a very authentic oak pollard indeed. There are however many other examples of low grade oak pollards (which we are calling 'scroggs' in the meantime).



**L: double oak pollarded stub trees on woodbank on east side of drove road**

**R: typical downy birch stool**

A further type of wood pasture tree not often seen are the pronounced stools of downy birch on wet soil either repeatedly grazed or cut or both, giving rise to a sort of low birch stool but with distinct defined edges, due to the wetness and the past grazing. There were extensive wet patches in the woodland probably making it unattractive for farmland in the past. Above the wood is much better farmland separated by a dyke. Interestingly this dyke is not the first to make this separation and the current hazel hedge within the wood seems to run along an old field boundary pre-dating the straight enclosure dyke.



**hazel hedge below top dyke on old boundary**



L: oak pollard we did not see (SR) C: typical lapsed oak 'scrogg' pollard R: natural oak bundle around juniper

I mentioned above about wood pastures containing unusual trees and this wood has one very unusual tree. A bundle of oak seedlings perhaps from a squirrel or jay's acorn cache have come away naturally in the shelter and protection of a prickly juniper bush. Today it looks like a coppice stool but has very straight stems not the usual swept lower stems of coppice shoots. It fits the story of oak regeneration in wood pastures so well and I will send Frans Vera in Holland a photo to cheer him up as it fits his theory of oak regeneration perfectly (see his book: *Grazing Ecology and Forest History*, CABI, 2000)

### **Strath Carnaig**

On the way over from Bonar Bridge to the Mound, the slow way, we stopped at a wonderful example of high level enclosures for old farms, though did not have the archaeologists with us to interpret the landscape. Noticeably this was the only part of the upper valley with native woods on the burnside. Not far downstream was a ruined broch. Just down from that near Dalnamain was a nice example of alder wood pasture, not just burnside stools but old stub alder pollards in the riparian field itself. They were hollow, also lichen rich and participants saw the characteristic pinhead lichens which specialise on old wood pasture trees.



L: Striking semicircular enclosure in Strath Carnaig R: alder wood pasture at Dalnamain

## Little Ferry pinewoods



Finally we called rather late on Saturday at Littleferry links and saw the old open grown and often multi-stem pine trees. The old pines which include an occasional Corsican pine seem to be left over from a previous 18thC plantation, but are now surrounded by mid 20<sup>th</sup> C pine plantation. The area is rich in wildlife such as *Moneses uniflora* in the adjacent Balblair wood, and the *Cladonia* spp lichen heath in this wood is very fine. Part of this woodland complex is run as Loch Fleet NNR. The old pines perhaps derived from the early plantation, and then those which were not felled were perhaps grazed and used as stock shelter for much of the 19thC giving them the characteristic wood pasture pine form. There are a number of similar open grown pine stands in natural pinewoods around the country, though they are not often recognised as such. Very often they are exceptionally good habitat for various species groups.

PRQ  
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Peter Quelch Woodland Services  
6, Glengilp  
Ardrishaig  
Argyll  
PA30 8HT  
Tel 01546 602067  
Mob 07899 858 855  
Email [peter.quelch@btinternet.com](mailto:peter.quelch@btinternet.com)