

Woodland management in medieval Scotland

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ABSTRACT

This article will examine the evidence for woodland management in Scotland from the 12th to the 16th centuries and will try to draw some overall conclusions about that management and how effective it was. Although there are difficulties in using medieval documentary evidence in terms of its Latin and Scots vocabulary, it does show that woodland was being managed throughout this period by enclosing woods, excluding animals and allowing time for regrowth – in other words, by coppicing and possibly, in some instances, by coppicing on a formal rota. Pollarding, shredding and growing coppice with standards may also have taken place. Examples of woodland management will be looked at in more detail in Darnaway and Campsie Forests. Despite this management, there is no doubt that a shortage of timber did develop in Scotland in areas of heavy use, especially from the 14th century onwards. What appears to have happened was that the majority of users of the woods were the lord's tenants and men. Their requirements were not for large timbers but for small trees and underwood. Consequently, in many places where underwood survived it was cut before it could grow into timber and, despite efforts in the 15th century by lords, parliament and the king, young wood continued to be cut at the expense of future supplies of timber.

INTRODUCTION

In recent years, the history of woodland management in Scotland has benefitted enormously from a series of major studies which have thrown considerable light on the modern, medieval and prehistoric periods (Lindsay 1974; Smout 1997; 2003; Smout et al 2005; Tipping 1994; 2010; Crone & Mills 2012; Mills & Crone 2012). A variety of types of evidence has been used to illustrate aspects of the history of woodland management throughout these periods. Although Scotland lacks the kind of direct documentary evidence for woodland management in the medieval period which survives for England, France and several other European countries there is still sufficient written evidence to merit further study (Rackham 2001: 59–62; Duceppe-Lamarre 2006: 38–40, 214–29; Warde 2006a: eg 230–6). This article aims to illustrate the nature of that evidence and to take a step towards determining how woodland was managed – and

how effectively it was managed – in the medieval period. This documentary evidence relates mainly to that area of Scotland best described as lowland Scotland, the geographical area from Inverness to Galloway outside the Highlands and south of the Highland line.

BACKGROUND

It is important to remember that the words ‘wood’ and ‘timber’ are used in different senses. Timber is used for planks and beams. Wood is used to mean smaller items. While wood can mean wood, the material, and all sizes of growing wood and woodland, the word is also used to mean the rods and poles used for wattling, fencing, agricultural equipment, light construction and implements. Rods have been defined as being under 5cm in diameter and poles as over 5cm, but sizes can vary (Edlin 1948: 134–5; Rackham 1979: 59; Harmer & Howe 2003: 39). This smaller wood is

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described as underwood since it often grew under taller mature trees. In this article, underwood will be used to describe this smaller wood whether or not it grew under taller trees. While timber can mean larger wood used in construction, it also varies in size. Rackham has defined timber as being over 60cm in diameter, but he also refers to trees between 15cm and 25cm in diameter as timber (Rackham 2001: 10, 67, 232). Timber was structural wood and its size could vary. The distinction between large poles and small or young timbers must have very much depended on their use.

Basically, woodland management at any time comes down to ensuring that after wood or timber has been cut, young wood is able to grow again. When wood was harvested, the cutting could take place at ground level, at head height or up and down the trunk of a tree, practices known respectively as coppicing, pollarding and shredding. Where wood was harvested at ground level, steps needed to be taken to ensure that new growth was not cut by man nor eaten by animals – whether domesticated or wild. This protection could take the form of enclosures. Animals would be excluded for several years while shoots grew to a size where they could survive. Then the enclosure could be removed or altered so that grazing could start again. The practice of cutting wood and then letting it regrow from the stool or stump is called coppicing and in some instances it was conducted on a rotation round various parts of woods. The time between cuttings would be decided by the size of the wood or timber which was sought. This kind of coppicing on a rota is described as formal coppicing. Woods could also be managed as coppice with standards, where the standard trees either grew independently among the coppice or grew from a selected shoot from some of the coppice stools. It was also possible for wood to be cut selectively and then left to regrow without any formal rotation. In such cases, if there was grazing in the wood, it would need to have been carefully controlled to prevent shoots being destroyed. The practice of cutting wood where it could be found and then leaving it to regrow is called casual, opportunistic or informal coppicing.

POSSESSION AND USE OF WOODS

In Scotland in the 12th and 13th centuries, the lord controlled the wood and its uses. The possession of woods and the right to use woods, which enter the written record in the 12th century, no doubt respected what had gone before in various ways. However, from the 12th century onwards, when a lord received a charter of lands – whether or not it mentioned woods in the pertinents – he was either acquiring control of that land and everything on it, including the woods, or having that control confirmed. Where common rights or common woods are recorded, it would have been because the lord wanted them to continue or because he created them. The lord controlled the wood and the local inhabitants only had rights of use. At Stapleton near Annan, for example, in 1211 x 1233 Robert IV de Brus, on behalf of himself and his men, abandoned all the common rights (*communia*)¹ they held in the wood (*bosco*) of Stapleton so that Robert de Crosbie could enclose it in a park (Fraser *Annandale*, i: 5 no. 8). This resembled the situation in France in many ways, where most woods had been appropriated by the lords prior to the 11th century, but pre-existing common rights were maintained and common rights of use continued to be granted in sections of the lord's woods (Devèze 1965: 31, 38). Nor was there any division into overwood and underwood as happened in Denmark, where the lords controlled the overwood and the mature trees, and their men controlled the underwood (Fritzbøger 2004: 51, 56, 184–5). In Scotland however, although the lords were the main users of the mature trees and their men were the main users of the underwood, it was still the lord who controlled all of the wood.

The king could create hunting forests in which he or the lord to whom he gave forest rights could control all hunting and wood-cutting. Usually these lands were already in the hands of the king or the lord, but when the lands of another lord were included, or when some of the lands of the forest were granted to another lord, the holder of the forest rights did have some control over that lord's woods – as we see in 1189 x 1195 when William I could make arrangements for the

woods of the bishop of Moray in the royal forest around Elgin, Forres and Inverness (*RRS*, ii: no. 362).

There was no uniform legal right of access to timber or underwood in medieval Scotland (Crone & Watson 2003: 70) but in most holdings or fiefs the lord had to accommodate the needs of his men and tenants. This can be seen in the numerous grants of easements and rights to use wood which survive from the 12th and 13th centuries. An easement (*aisiamentum*) was the right of a set group of people, eg the inhabitants of a fief or settlement or the men of a lord, to carry out certain activities in an area of the lord's land. They are occasionally described as common easements (*communibus aisiamentis* – *Kelso Lib.*: no. 23). Lords granted these common rights of use to their own men, but it is usually the grants to other lords and their men which survive. Sometimes, of course, lords kept a wood entirely for their own use and did not allow common rights to be exercised there.

There are cases of the right to cut wood being granted for specific purposes – such as the 'wodeleve' planned in 1248x1264 for Alexander III's brewer to cut wood, presumably in Clackmannan Forest, to make a chamber in Clackmannan Castle (NRS RH6/54). The king also made general grants to the church of the right to cut wood in his forests throughout the country, but such general grants to cut wood are not really examples of common rights, though they may have been exercised alongside the common rights of others in whichever area the cathedral or abbey concerned was cutting wood. Some grants which related to a specific ecclesiastical holding and to neighbouring woods are, however, very much in the character of common rights – as in Galloway in 1165x1174 when Uhtred, lord of Galloway, granted Holm Cultram abbey a salt pan at Colvene, with easements of a nearby wood (*nemoris* – *RRS*, ii: no. 88). An example of the lord's own men having easements in one of the lord's woods can be seen at Mow in the Bowmont valley in 1186, where the men of Eschina de London shared easements in wood (*bosco*), plain and fuel with the men of Kelso Abbey living in the village of Mow (*Kelso Lib.*: no. 146). The

lord, or lady in this case, was controlling their access to the woods but clearly allowing for the needs of her tenants. The concern of the lord to provide for the needs of his own men was also met by reserving the rights of his men on lands which he had alienated. At Glengonnar, Lanarkshire, in the early 13th century, David Lindsay, lord of Crawford, allowed the burgesses of Crawford common easements (*commune ... aisiamentum*) for building from the wood (*nemoris*) of Glengonnar, even though the wood was on land which he had granted to Newbattle Abbey (*Newb. Reg.*: no. 149). The burgesses of Crawford were Lindsay's tenants and he was ensuring they continued to receive their common rights. Similarly, at Invervack in Atholl in 1289, John Comyn, lord of Badenoch, ensured that his men of Invertilt were allowed to collect rods from woods on land which had been granted to Coupar Angus Abbey (*C.A.Chrs.*: no. LXII). In 1391, at *Achquhorsk*,² north-east of Meldrum, Andrew Lesley ensured that his men could still get the timber (*miremia*) from the woods that he had granted to David Abercrombie (*A.B.Ill.*: 470, 540).

While only a fraction of these arrangements survive in the written record – about 100 have been encountered so far – similar arrangements must have extended across the country and carried on, presumably fairly unaltered, throughout the medieval period for as long as suitable woods were available. In many ways, they sound like the wood leave and servitudes that landowners were finding such a burden in the 18th century (Smout et al 2005: 141–2).

Many of the uses covered by these common rights required rods, poles and small timbers rather than large timbers. The ordinary men and tenants were by far and away the most numerous users of wood. The most common uses of wood specified in the 12th and 13th centuries were for fuel or for building (eg *Glas. Reg.*: no. 87; *Kelso Lib.*: no. 146; *Melr. Lib.*: no. 59), although it should be remembered that peat and turf were the most common fuels used in medieval Scotland. Logs (*ligna*) and dead wood were used for fuel in the 13th century rather than smaller rods and poles bound into bundles or faggots (*Inchaff.*

Chrs.: no. XVII; *Pais. Reg.*: 17–18, 216). No mention of faggots has been encountered before 1549 (Lesley *History*: 230). For agricultural equipment, rods (*virga*) were used in Atholl in 1289 to repair ploughs, harrows and various types of carts (*C.A.Chrs.*: no. LXII). Kelso Abbey also used rods to repair ploughs at Mow c 1300 (*Kelso Lib.*: 458). In the early 14th century, Restenneth Priory used timber and underwood (*meremium et subboscum*) to repair fences, ploughs, harrows and various types of carts and wagons (*RMS*, i: app i, no. 30). Wattle fences (*sepes*) which were used to enclose stock were also a major consumer of poles and rods throughout the medieval period. While these isolated references give a flavour of the main uses of wood, the detailed record from Strathavon, south of Tomintoul, for the late 16th century shows just how varied the agricultural uses to which wood was put were and how extensive the demand for young or immature wood was (Ross 2013: 10, 56–9).

For building purposes, underwood again was the main wood required. For high status structures such as castles, cathedrals, abbeys, tolbooths and town-houses larger timbers were required, but as Rackham has shown in England, quite sizeable dwellings were built with relatively small timbers that were under 23cm in diameter (Rackham 2001: 67). In Perth and Aberdeen it has also been noted that quite small timbers were used in house construction in the 12th and 13th centuries. Roof supports of only 8cm and 24cm were used (Murray 1980: 44). In Scotland, wattling was extensively used in housing throughout the medieval period. A large wattle house was recorded in 1170 beside the kirk of Old Kilpatrick (Duncan 1975: 362). In burghs generally in the 12th and 13th centuries, wattling was in great demand with 1,000 rods being required for just the walls of a small 12th-century house in Perth. The rods used in Perth for wattling were 1cm to 2cm in diameter and the poles were less than 6cm (Murray 2010: 132–3). Although stone was increasingly used in burghs (Murray 2010: 134–5), perhaps in order to reduce the risk of fire, wattles were still used for some walling and internal divisions and in backyards (Murray 1984: 312; Perry 2010: 71, 72). In the countryside also an increasing use

of stone has been noted from the 13th century onwards in excavations at Springwood Park, Eldbottle and Rattray, probably because of a shortage of both underwood and timber in these areas (Dixon 2002: 26–9; Hindmarch & Oram 2013: 179–280). Nonetheless, underwood, where available, was still used in large quantities and not just for internal divisions and roof cabers. At Cornton, just north of Stirling, two substantial turf and wattle houses built with crucks were recorded in the 16th century. The largest house needed 12 loads of wattles and a smaller house needed three loads (Sanderson 2002: 75). In the late 16th century in Strathavon, the houses of 15 settlements required more than 105,000 immature trees or timbers annually for joists, rafters, cabers and wattling – and a further 13,146 mature and immature timbers every seven years for the couples and their associated timbers (Ross 2013: 57–9). In the 18th century in Lochaber, a creel house required 2,000 of the ‘straightest and best young wood’ (Smout et al 2005: 95).

VOCABULARY

One of the problems in understanding the documentary material is the language used.³ The three most common Latin words for woods, *boscus*, *nemus* and *silva*, can all be quite correctly translated as wood or woodland, but work in England and Ireland has found that these words contain more specific meanings. *Nemus* usually meant a larger wooded area as did *silva*, but on occasions they were used to mean a smaller wood. *Boscus* on the other hand usually meant a smaller wood, coppice or underwood – though it could be used to mean a larger wood (Jäger 1983: 58, 60; O’Sullivan 1997: 136; Wager 1998: 216; Gelling & Cole 2000: 226). This mixture of meanings generally holds true for Scotland in the 12th and 13th centuries.

This can be illustrated by looking at the use of these words in relation to underwood, timber and pannage. When the products of underwood are mentioned (which is not often) they are nearly always linked to *boscus* (Table 3). However, when timber (*meremium*) or building materials (*materies*) are mentioned in the 12th to 14th

centuries, of 61 examples encountered, 47 relate to *nemus* or *foresta* and only 14 to *boscus*. Pannage is also relevant here since it was the right to graze pigs on acorns which are only produced in any quantity on mature oak trees over 50 years old. It is worth noting here that beech was not introduced to Scotland till the late 17th century and so did not provide mast for pannage in the medieval period (Rackham 2001: 27–8; Smout et al 2005: 70). Grants of pannage were made to abbeys and landholders in the 12th and 13th centuries but no new grants of pannage occurred after 1300, which does suggest either a shortage of mature oaks or a general decline in production of acorns due to climate change

(Fritzboøger 2004: 16). However, of 17 grants or occurrences of pannage which mention the kind of woodland involved most, as one would expect, relate to forests (Table 1). Three relate to *nemus*, four to *silva* and only two to *boscus*. While this is hardly conclusive, it does suggest that *nemus* and *silva* had a stronger association with mature trees than *boscus*, although it also shows that *boscus* could describe woods with mature trees.

Silva in medieval England and Ireland was used to mean a large area of wood or a wooded forest, but it was also used to describe an area of wood stocked with animals which could contain grassland and provide timber (Jäger 1983: 58; O’Sullivan 1997: 136; Wager 1998: 11, 137,

TABLE 1
Pannage and wood words in the 12th and 13th centuries

<i>Date</i>	<i>Place</i>	<i>Forest</i>	<i>Nemus</i>	<i>Boscus</i>	<i>Silva</i>	<i>Source</i>
1140 x 1152	Pentland and Moorfoot	F				Barrow 1999: no. 98
1141 x 1147	Stirling and Clackmannan	F	N			Barrow 1999: no. 147
1143 x 1147	Ettrick	F				Barrow 1999: no. 120
1161 x 1162	Clunie and Drimmie	F				<i>RRS</i> , i: no. 226
1161 x 1170	Galloway				S	Stringer 2000: 214
1161 x 1174	Galloway				S	CAC: <i>Holm Cultram Reg.</i> : 107
1165 x 1170	Airth	F		B		<i>RRS</i> , ii: no. 39
1175	Near Elgin and Forres	F				<i>Kinloss Recs.</i> : no. 1
1189 x 1195	Near Elgin	F		B		<i>RRS</i> , ii: no. 3362
12th century	Enclosure of woods Forest Law 1				S	Gilbert 1979: 291
1200	Strathearn		N			<i>Inchaff. Chrs.</i> : no. 16
1200	Strathearn				S	<i>Inchaff. Chrs.</i> : no. 17
1201 x 1218	Galloway	F	N			<i>Holy. Lib.</i> : no. 73
After 1201	Drimmie and Atholl	F				<i>C.A.Chrs.</i> : no. 13. Survives in 14th- or 15th-century transumpt
1208 x 1214	Renfrew	F				<i>Pais. Reg.</i> : 17
1264 x 1266	Ettrick	F				<i>ER</i> , i: 30
1288 x 1290	Ettrick	F				<i>ER</i> , i: 35

138). In England, *silva* was not much used after the 12th century; and in Scotland, in the 12th and 13th centuries, it is used much less frequently than *nemus* and *boscus*. In the 13th and 14th centuries in Scotland, *boscus* seems to be used more regularly than *nemus*, and this may reflect a change in the nature of woodland from the 12th to the 13th centuries, with larger areas of woodland dying out and smaller, more carefully managed woods predominating. However, the use of *silva* increased in the 15th century, which would seem to suggest an increase in larger areas of woodland, but this meaning would not fit with the evidence for wood shortages at that time and so it seems likely that it was being used with a different meaning. There is also a suspicion that *boscus* and *nemus* may have also changed their meanings in the 15th and 16th centuries but more research is required on this topic. The increasing use of Scots words and of *virgultum* and *silvicidium*, to be discussed later, also complicates the issue.

Words in the vernacular languages also distinguish, to some extent, between different types of wood. There is not space here to give the full evidence, but while Scots *wod(e)* seems to be used for all types of wood and woodland, *coille*, in Gaelic, seems to describe managed woods as well as larger woods; and Scots *s(c)haw* describes small woods and coppices. The place name *Hanyngschaw*, recorded in Douglasdale in 1348, does suggest that shaws could be enclosed or hained and the same document mentions the *boscus* of *Pollynfeyghschaw*, which links the Latin and Scots words associated with smaller managed woods (Fraser *Douglas*, iii: 316; NRS GD119/152). In the 16th century, shaw is used in two charters as a translation for *virgultum*, which meant a coppice (*RMS*, ii: nos 3159, 3875). Scots *haining* means enclosing ground by fences, hedges or walls and can refer to the walls or to the ground enclosed (*DOST*). In the 15th and 16th centuries, ‘hanyt woddis’ were woods which were enclosed to keep cattle out in order to ensure that they were well managed (*C.A.Rent.*, i: no. 308 and ii: no. 62).

Perhaps best known is Scots *rys(e)* or *ryce*. *DOST* links this to early middle English *rise* or *ris* and to Old English *hrís*, and gives the

meaning as a small branch or twig or a bush, brushwood or dense twiggy undergrowth. The point is that this growth came from coppicing. In England, the Old English *hrís* was used for a coppice wood and was later replaced with *spring* (Rackham 2001: 108). In Scotland, *rys* occurs in place names like *Ryselawe* (c 1300), modern Ryslaw near Fogo (*Cold. Corr.*: lxxxvi; Williamson 1942: 52) and in 1458 it is mentioned in parliament (*RPS* 1459/3/31). It is used in the 15th and 16th centuries to mean the rods which would be used in wattling, often in the phrase stake and rice. Given that the verb *ris(e)* can mean to grow or sprout up (*DOST* sub *ris(e)*. 17), it seems likely that while rice, or rise as it perhaps should be called, may not always have come from coppice woods, it frequently did so.

INDICATORS OF WOODLAND MANAGEMENT

While the above vocabulary can only give a guide as to whether a wood was managed or not, there are other indicators which offer a more certain identification, as in the list below.

1. Keeping or reserving a wood or placing a wood in defence
2. Prevention of destruction and waste
3. Banks and ditches around a wood
4. Exclusion of animals
5. Penalties for cutting wood
6. Produce of wood and trade in wood
7. Foresters or servants keeping a wood
8. Grants of forest rights limited to wooded areas

The reasons why these indicators point to a wood being managed will be evident from the background already given, but some further explanation is necessary.

1. It is usually fairly obvious when a wood was being placed under special protection. At Corehouse on the Clyde in 1206x1208, Kelso Abbey allowed the dean of Stobo to reserve (*reservare*) part of the woodland (*partem illius nemoris*) for the use of himself and his men and to exclude common rights of use previously exercised by neighbouring tenants (*Kelso Lib.*: no. 113; Coulton 1933: 209; Anderson 1967, i:

TABLE 2
Some managed woods in the 12th and 13th centuries

<i>Wood</i>	<i>Date</i>	<i>Lord/landholder</i>	<i>Indicators as on p 6</i>	<i>Source</i>
Stapleton	1211 x 1233	Robert Bruce	1, 3	Fraser <i>Annandale</i> , i: 5 no. 8
Liberton	1141 x 1147	King	6	Barrow 1999: no. 147
Jedburgh	1147 x 1151	King	1, 2?	Barrow 1999: no. 174
Coldingham	1153 x 1162	Coldingham Priory	1	Raine <i>ND</i> : no. XXX
Corehouse	1180 x 1203	Kelso Abbey	6	<i>Kelso Lib.</i> : no. 112
Gala and Leader	1180	King	5, 6, 7	<i>RRS</i> , ii: no. 236
Elgin, Forres and Inverness	1189 x 1195	King	6	<i>RRS</i> , ii: no. 362
Innerwick	1190	3 men/knights of Alan, son of Walter, steward	1, 6, 7	<i>Kelso Lib.</i> : no. 248
Jedburgh	1288–90	King	3, 6?	<i>ER</i> , i: 43–4
Corehouse	1206 x 1208	Kelso Abbey	1	<i>Kelso Lib.</i> : no. 113
Coldingham	1207 x 1212	Coldingham Priory	6, 7	Raine <i>ND</i> : no. CLXXXV
Gordon	1232 x 1258	Thomas Gordon of Gordon	6	<i>Kelso Lib.</i> : no. 122
Trustach	1233	Arbroath Abbey	8	<i>Arb. Lib.</i> : no. 129
Tulach	1233 x c 1242	Conan, son of Henry, earl of Atholl	6	<i>Lind. Cart.</i> : no. 73
Alloway, Corton, Carcluie	1236	King	2, 6	<i>Ayr Chrs.</i> : 10 no. 5
Glengonnar	1239 x 1241	David Lindsay	7	<i>Newb. Reg.</i> : no. 149
<i>Kelcamsy</i>	1240 x 1242	Scone Abbey	8	<i>Scone Lib.</i> : no. 76
Leslie	1248	Alformo son of Norman	8	<i>A.B.Coll.</i> : 548
Coldingham	1250	Coldingham Priory	1, 4	Raine <i>ND</i> : no. CXCII
Fintry	1251	Lindores Abbey	8	<i>Balm. Lib.</i> : no. 8
Mow	1251	Richard II de Lincoln	2, 7	<i>Kelso Lib.</i> : no. 149
Lindores	1265	Lindores Abbey	8	<i>Balm. Lib.</i> : no. 9
Lennox	1270 x c 1303	Earl of Lennox	7	<i>Lenn. Cart.</i> : p 49
Glenlichorn	1278	Robert, brother of the steward of Strathearn	7	<i>Lind. Cart.</i> : no. CXI
<i>Rosmaddirdyne</i>	1278	John Comyn	7	<i>Inchaff. Chrs.</i> : no. CVIII
Coille Bhrochain	1282	Ewan, son of Conan	2, 6, 7	<i>Fraser Papers</i> , i: no. 3
Invervack	1289	John Comyn	2	<i>C.A.Chrs.</i> : no. LXII
Paisley	1295	James Steward	1, 4	<i>Pais. Reg.</i> : 92–6

108). In 1190, Alan, son of Walter, the steward, confirmed a grant made by three of his knights of land, woodland (*nemore*) and pasture in the territory of Innerwick. Alan's tenants granted Kelso Abbey the right to build shielings and sheepfolds in the area and to take easements of wood for building and for fuel. The village of Spartleton and, no doubt, the men of Innerwick also had common rights of use in this area; and so Alan told the abbot that he may place 'in defence one part of the woodland for their easements' (*in defensione unam partem nemoris ad aisiam suam*). He was also entitled to place a forester there to keep the whole *nemus* if he wished and to stop others exercising their common rights (*Kelso Lib.*: no. 248; Gilbert 2012: 85–7). The phrase, *in defensione*, could mean simply that the abbey had been given the right to control activities in the area. However, *defensum* and *defensio* can be used to mean either general protection or a temporary enclosure of ploughland, meadow or wood or a fenced-off area (*Dictionary of Medieval Latin*: sub *defendere* and *defensum*; Niermeyer's *Medieval Latin Dictionary*: sub *defensum*). In the case at Innerwick, a temporarily fenced-off area seems to be the appropriate translation.

2. The significance of those instances where someone was told not to destroy a wood is not that they were forbidden to cut wood but that when they cut wood the woodland must continue to be a source of wood in the future. In other words, the cutting had to be limited and new growth after cutting had to be protected.

3. Woods or parts of woods could be surrounded with dykes or fences of some sort to keep animals out of the enclosed area so that new coppice shoots could grow. Near Jedburgh in 1147 x 1151, the beasts of Jedburgh Abbey were not allowed to graze in the royal wood (*nemus*) called *Quikhege*, which means quick or living hedge (Barrow 1999: no. 174). While a large bank with an external ditch would serve the same purpose as a hedge or a fence, it was probably more about marking possession of the wood than just protecting it (Rackham 2001: 63). This would seem to have been part of the function of the banks and ditches running across Bowden Moor, where there was a major dispute about possession and use of woodland (*nemus*)

between Kelso and Melrose abbeys in the 12th and early 13th centuries (Gilbert 2012: 91–4).⁴ Internal fences, constructed to keep animals out of newly cut areas, had to be temporary since animals would have to be allowed in to graze after six or seven years or so. Such temporary structures could have been earthen banks but were more likely to have been fences made from wattling, which was far easier to put up and remove (Langton 2014: 17). Dead hedges, piles of dead hazel or thorns, were also used. They are recorded in the 16th and 17th centuries in Scotland and in the 13th century onwards in England (Lindsay 1974: 278–9; Smout et al 2005: 158–61; Langton 2014: 16). In England, these temporary barriers were not always totally removed. Gates could be placed in them or the height could be lowered in places, or gaps could be created so that animals could enter by leaping or creeping (Langton 2014: 16, 17).

4. Although fences and hedges were the obvious means of keeping animals out of young growth, there was also an awareness that animals could be kept away from certain areas by careful herding (Smout et al 2005: 105). The first clause of the forest laws, which probably dates to the 12th century, required that animals grazing in a forest should be kept in a herd and not allowed to scatter or sleep in the forest overnight (Gilbert 1979: 105, 304). A similar arrangement applied in the pastures in and around the earl of Strathearn's wood of *Rosmaddirdyne* in 1278, when the herdsmen of Inchaffray Abbey had a clear responsibility to keep their beasts under control and not let them scatter (*Inchaff. Chrs.*: no. CVIII).

5. Inevitably, penalties had to be imposed on offenders and this can also be used as a sign that a wood was being maintained. Although the imposition of penalties on a particular offender, in a particular wood, for grazing animals in woods or cutting wood without permission is seldom if ever recorded in the medieval period, one feels that the case of John Liddel, who was caught at Carnwath in 1524 with 20 wands under his oxter and charged with common destruction of green wood, must have been foreshadowed many times in baron courts in the preceding centuries (*Carnwath Ct. Bk.*: 31). In 1180, Melrose Abbey

TABLE 3
The products of underwood

<i>Product as in source</i>	<i>Product in English</i>	<i>Name of Woodland</i>	<i>Date</i>	<i>Source</i>
<i>triginta carratas de busche</i>	30 cartloads of brushwood/underwood	Liberton	1141 x 1147	Barrow 1999: no. 147
<i>buschia quantum unum equus potest portare</i>	as much brushwood/underwood as one horse can carry	<i>boscus</i> of Mowhaugh	1165	<i>Melr. Lib.</i> : no. 134
<i>lignum siccum quod dicuntur mortuum boscum ad ardendum</i>	dry wood which is called dead wood for burning	<i>boscus</i> of Tulach	c 1235 x c 1242	<i>Lind. Cart.</i> : no. 73
<i>ligna que dicuntur wrawes de bule et de aulne</i>	logs which are called <i>wrawes</i> (knees or braces) of birch and alder	<i>boscus</i> of Tulach	c 1235 x c 1242	<i>Lind. Cart.</i> : no. 73
<i>centum longas virgas ad circulos faciendos</i>	100 long rods to make hoops	<i>boscus</i> of Tulach	c 1235 x c 1242	<i>Lind. Cart.</i> : no. 73
<i>centum tractus virgarum de corilo ad trahas ... faciendas anuatim</i>	100 loads of rods of hazel to make sleds	<i>boscus</i> of Tulach	c 1235 x c 1242	<i>Lind. Cart.</i> : no. 73
<i>quatuor quadrigatas de pelo et virgarum ad edificandum</i>	four cartloads of poles and rods for building	<i>boscus</i> of Old Cambus	1207 x 1211	Raine ND: no. CLXXXV
<i>palorum et virgarum</i>	poles and rods	<i>boscus</i> of Old Cambus	x 1222	Raine ND: no. CCXLV
<i>Stac et slac ... pro ovibus firmandis et virgas pro reparacione carucarum</i>	stakes and rods to secure sheep and rods to repair ploughs	<i>boscus</i> at some 'scrogges' in Attonburn	c 1300	<i>Kelso Lib.</i> : 458
<i>stoch et ramail tam de quercu quam de bule ad firmandum stagnum</i>	stakes and rods of oak and birch to firm the sides of a pond or lake	<i>boscus</i> of Gordon	1232 x 1258	<i>Kelso Lib.</i> : no. 122
<i>virgas ad aratra plaustra herceas et sepes faciendas</i>	rods to make ploughs, wagons, harrows and fences	Invervack	1289	<i>C.A.Chrs.</i> : no. 62
<i>meremium et subboscum ... pro ... carcis plaustris hercis</i>	timber and underwood for ploughs, carts and harrows	<i>foresta</i> of Plater	c 1322	<i>RMS</i> , i: app 1 no. 30

and Richard de Morville agreed on the penalty of tree money or tree geld (*trigild*) for anyone damaging wood in the royal forest of Gala and Leader (*RRS*, ii: no. 236). By the 15th century, cases of illegal wood-cutting in specific woods are recorded in central courts, baron courts and abbey courts, although individual fines are not recorded (*ADC*, ii: 238; *Prot. Bk. Young*: 29 no. 135; *C.A.Rent.*, i: no. 72).

The forest laws of the 12th and 13th centuries mention penalties of eight cows or £10 for freemen cutting wood without permission, but for a bondman the penalties were reduced to one cow, five shillings or 40 days imprisonment. The penalty of free forest, £10, was referred to by Coupar Angus Abbey, and a penalty of £10 per oak was imposed on the abbot of Melrose Abbey in Ettrick Forest but was remitted (*ER*, viii: 587). Parliament also set penalties for wood-cutting and there are numerous cases of these and similar fines being imposed by the justice ayres of James IV's reign (see below).

6. Where there are references to harvesting a wood for timber or for underwood one suspects that the wood concerned was being managed in some way, especially when several loads of wood were to be taken (Table 3).

The most striking feature of the list of woodland products is the variety of material coming from the wood of Tulach, which lay opposite Blair Atholl. This wood was in fact being exploited by the abbeys of both Lindores and Coupar Angus. In 1164 x 1198, Malcolm earl of Atholl granted Coupar Angus certain types of wood (*certis lignis*) for building and other easements throughout the woods (*nemora*) of Atholl (*C.A.Rent.*, i: 331 no. 27 – Date from *POMS*). In c1235 x c1242, Conan, a son of Henry earl of Atholl, limited the woods to Tulach and Glen Errochty (*C.A.Rent.*, i: 334 no. 37) and around the same time he also granted Lindores Abbey the right to take a variety of products, again collectively summarised as *ligna*, from Tulach wood (*Lind. Cart.*: no. LXXIII). It seems likely that the range of *ligna* sought by Coupar Angus would have been very similar to those *ligna* subsequently granted to Lindores. Conan's son Ewen confirmed his father's grant c1263 and so the wood had survived exploitation for

60 to 100 years. It seems likely that the wood of Tulach, containing birch, alder and hazel, must have been managed by some sort of coppicing because it had to meet a sustained level of demand from the abbeys as well as the needs of the local population. It also seems likely that it was being deliberately managed to produce underwood because when trees in mixed underwood are left longer than around 15 years, the lower-growing species like hazel start to be overshadowed by their neighbours (Rackham 2001: 72). The specialised nature of the produce, hazel rods for sleds, long rods for barrel hoops and knees of birch and alder, also points to planned use of the produce of the wood. This sound management could have been initiated either by the earls of Atholl in the 12th century or by Coupar Angus in the late 12th and early 13th century. It should be explained that *DOST* gives one of the meanings of Middle English *wraw(e)* as a nook or a corner and so in this context *wrawes* could mean the knees or braces of birch wood used in making boats (Stewart 2003: 91; Smout et al 2005: 83) rather than 'faggots' as previously suggested (Anderson 1967, i: 132).

It is surprising that only one record has so far been encountered of wood being sold commercially. In 1288–90 at Jedburgh, dead wood was sold for 26s 8d (*ER*, i: 43–4). The absence of records of commercial sales does not mean that they were not taking place. In various places it was actually necessary to ban the sale of wood which implies that such sales were fairly common. Loads of wood were certainly moving around the country as at Tulach, where Lindores Abbey arranged for their wood to be taken to the water, presumably to float it or ship it down the rivers Garry, Tummel and Tay towards Lindores.

There was also significant trade in wood to royal burghs and, while this does not prove that woods were being managed, it argues that there was a market for wood. As soon as a wood was worth something to its lord then it was much more likely to be managed. In 1165 x 1171, merchants were allowed to sell wood in the abbey's town at Kelso for fuel and building (*RRS*, ii: no. 64) and, in 1189 x 1195, William I's foresters were allowed to take wood to sell to the burgesses

TABLE 4
Forest rights limited to woods

<i>Date</i>	<i>Place</i>	<i>Rights limited to</i>	<i>Source</i>
1233	Trustach	<i>nemus</i>	<i>Arb. Lib.:</i> no. 129
1240 x 1242	<i>Kelcamsy</i>	<i>nemus</i>	<i>Scone Lib.:</i> no. 76
1248	Leslie	<i>boscus</i>	<i>A.B.Coll.:</i> 548
1251	Fintray	<i>boscus</i>	<i>Balm. Lib.:</i> no. 8
1265	Lindores	<i>boscus</i>	<i>Balm. Lib.:</i> no. 9
1493	Boyne	<i>in silvis et locis silvarum</i> – in woods and places of woods	<i>A.B.Ill.</i> , ii: 132–4
1505	Glencarvie and Glenconrie	<i>silvas et le boggis</i>	<i>RMS</i> , ii: no. 2812 and <i>NRS C2/14</i> no. 67
1509	Haldane	<i>silvas ac nemora et forestas ubicunque infra predictas terras et baroniam iacent</i> – woods and woodland and forests wherever within the foresaid lands and barony they lie	<i>RMS</i> , ii: no. 3288 and <i>NRS C2/15</i> no. 79
1510	Herries	<i>ubi silve sunt</i> – where there are woods	<i>RMS</i> , ii: no. 3446
1511	Hawick	<i>ubi silve et arbores crescentes existunt</i> – wherever woods and growing trees exist	Fraser <i>Buccleuch</i> : no. 119
1511	<i>Aldnakist</i> and <i>Lechory</i> in Glenkindie	<i>silvae</i>	<i>RMS</i> , ii: no. 3589
1511	Glenesk	<i>ubi silve et arbores crescentes existebant</i> – where woods and growing trees were in existence	<i>RMS</i> , ii: no. 3627
1511	Bothwell	<i>forestas et nemora ubi aliquae existunt</i> – forests and woodlands wherever they exist	<i>RMS</i> , ii: no. 3635

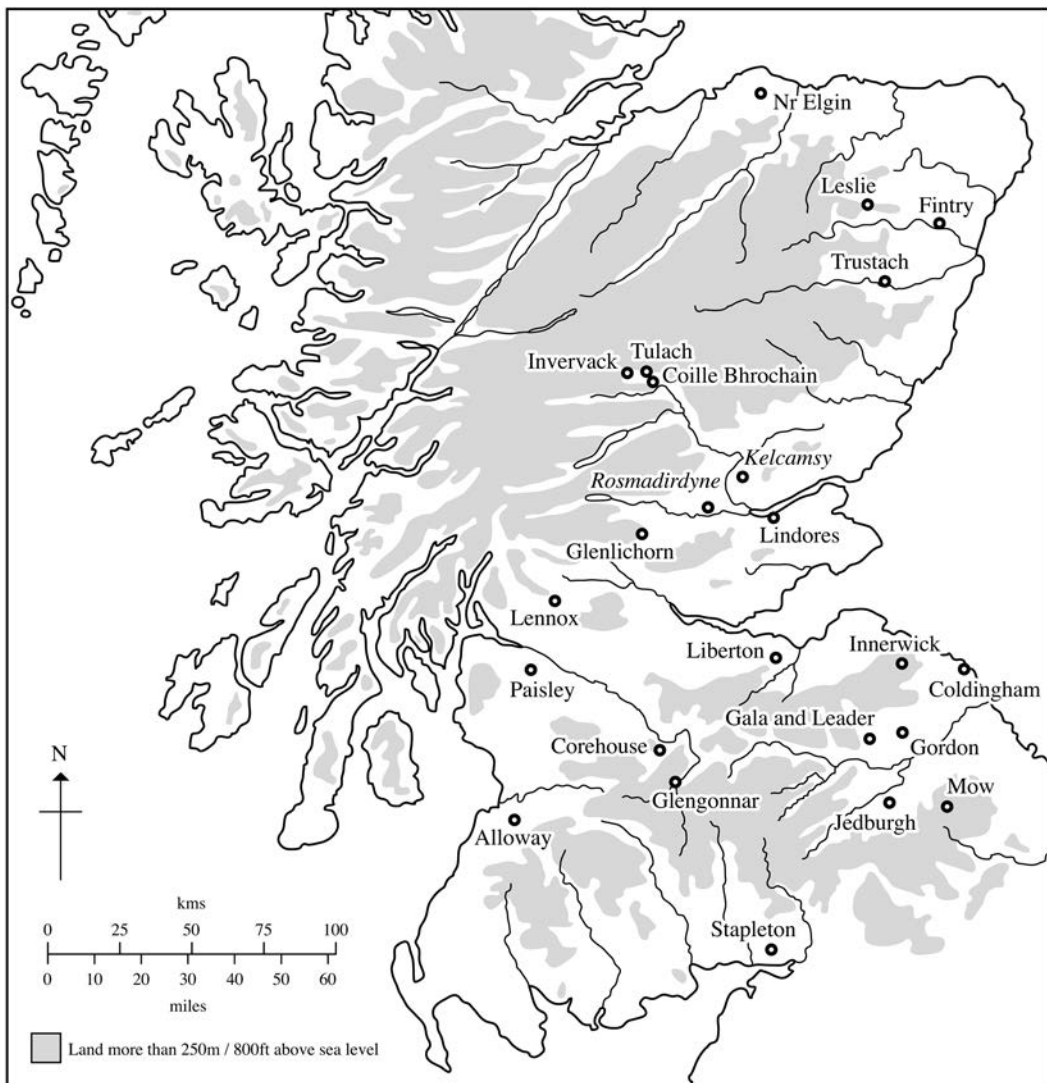
of Elgin, Forres and Inverness from the bishop of Moray's woods in the royal forest (*RRS*, ii: no. 362). In c 1205 x 1220, William I gave his protection to all those taking wood or building materials (*materiem*) to Perth (*RRS*, ii: no. 467) and, in 1318, Robert I protected those taking timber into Haddington (*RRS*, v: no. 132). Clause 35 of the burgh laws, which probably dates to the 13th century (Oram 2011: 272), also tried to protect loads of timber being brought to market. It stated that wood (*boscum*) being brought to a burgh to be sold could only be seized in order to pay the merchant's debts (*Burghs of Scotland* 1868, i: 17–18).

7. If a wood was being managed then the holder of the wood would require someone to oversee the use of the wood. Foresters are recorded supervising woods. This is especially significant for woodland management when they were working in a wood which was not part of a forest and where the lord appointing them had no forest rights. At Coille Bhrochain, for example, in 1282 Coupar Angus Abbey appointed a forester to look after the wood there (*Fraser Papers*, i: no. 3).

8. The intention of a landholder to manage woods on his lands can also be seen when he received a grant of forest rights that applied only to his woods (Table 4).

The king used a free forest grant to give a vassal control of hunting and wood-cutting on his lands. The main purpose of the grant was the control of hunting, but in some cases the grant did not apply to all of the vassal's lands but only to his woods. In such cases, the main purpose of the grant must have been to protect the wood since there would be no point in a lord controlling hunting only in his woods rather than across all the lands in his fief. Nonetheless, the

way these grants operated is not always clear. Where these rights related only to a *nemus* – as at Trustach near Banchory or *Kelcamsy*, probably at Campsie north of Scone – the main aim could still have been to control hunting since *nemus* described areas of woodland which contained woods and heath and pasture just like a hunting forest. However, in 1265, when Lindores Abbey received forest rights in the *boscus* of Lindores, which lay just to the south of Newburgh, it seems



ILLUS 1 Managed woods in the 12th and 13th centuries

likely that the main use of the free forest grant was to assist the management of the wood at Lindores.

WOODLAND MANAGEMENT IN THE 12TH AND 13TH CENTURIES

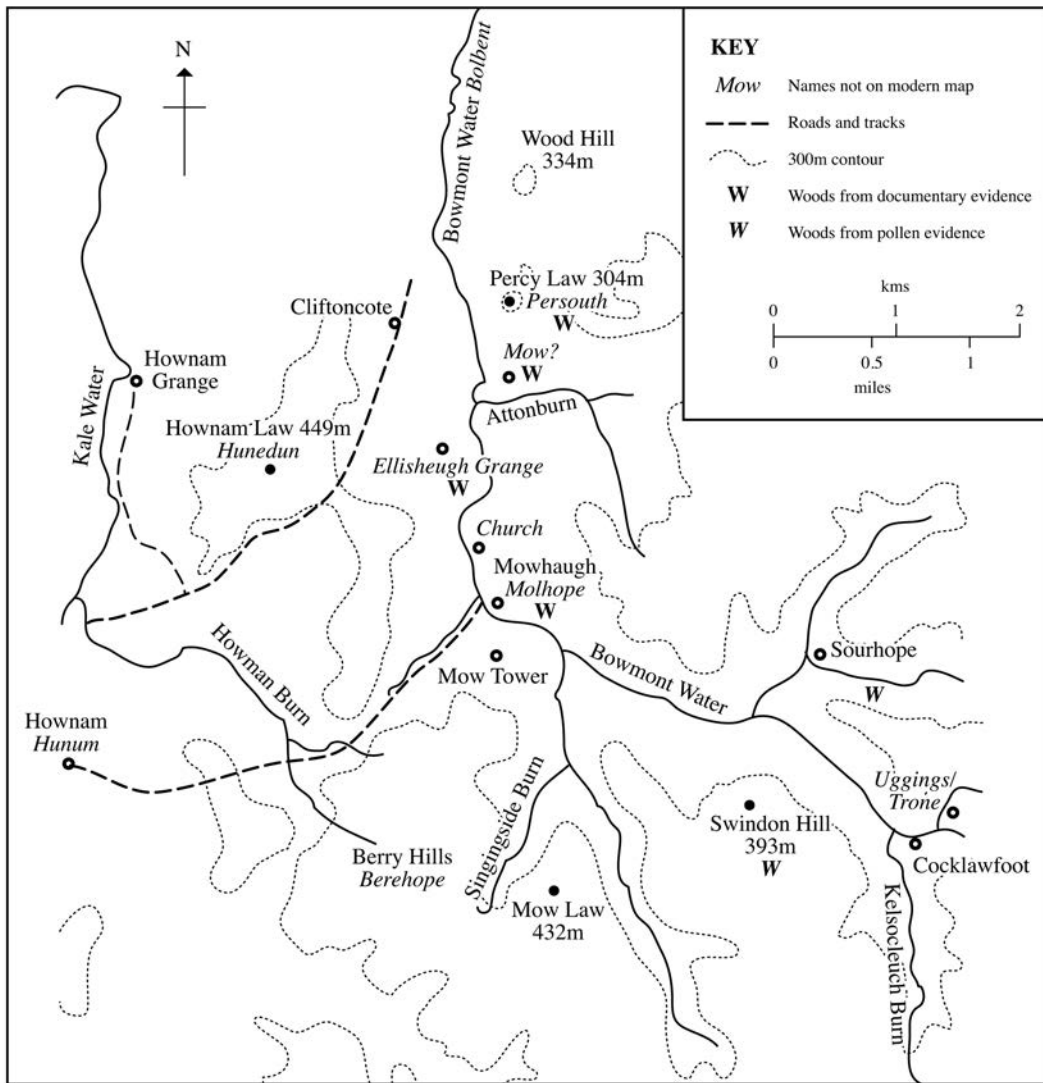
Plotting the occurrence of these indicators in the 12th and 13th centuries on a map shows a fairly widespread distribution in lowland Scotland of woodlands which were actively managed (Illus 1 and Table 2).

Royal, baronial and church forests have not been shown on this map unless there is evidence for the management of a wood within that forest. While forest rights did give the holder the right to control numerous activities within the area of the forest, it would be unrealistic to conclude that in the 12th century wood-cutting was controlled throughout, say, the whole of Annandale – in which the Bruce family held forest rights.

There seems little doubt that some woods at this time were being managed by coppicing of some sort. Temporary enclosure of parts of a wood as at Corehouse, Innerwick and Coldingham, limiting cutting from spring to summer as at Mowhaugh (*Melr. Lib.*: nos 135, 136), permanent enclosure as at Jedburgh in 1288 x 1290, keeping animals out of woods as at *Quikege*, and the removal of cart-loads of rods and poles as in Coldingham and Tulach all suggest management by coppicing. Moreover, at Coldingham in 1207 x 1211, when David de Quixwood came to remove four cartloads of rods and poles for building from the wood of Old Cambus, the prior's foresters directed him where to do this, presumably directing him to areas where there were rods and poles of a suitable age and keeping him away from areas recently cut (Raine *ND*: 44 no. 185). Temporary enclosure of a part of a wood and keeping animals out meant that young shoots were being protected. At Innerwick, where the enclosures of wood appear to have been temporary (*in defensione*) and geared to the production of underwood for easements, it is very likely that some kind of rota was planned. The same could also be true of Corehouse woods. Clearly this basic principle

of coppicing was understood but it is harder to determine whether woodland management practices went any further than this, to the creation of identifiable hagsgs or coups, to the creation of set rotas, or even to the creation of coppice with standards.

It is in Mow (Illus 2) that reference to another basic principle of sustainable management occurs. It is highlighted in the gradual restriction which one of the main families in the area placed on Kelso Abbey's rights to cut wood. Initially, in 1164 x 1196, Anselm de Mow allowed Kelso to take whatever was necessary for sheep folds, ie rods and poles (*Kelso Lib.*: no. 152). In 1180, his son-in-law, Richard I de Lincoln, probably limited this cutting to an annual event (*Kelso Lib.*: no. 158) and then in 1251, Richard II de Lincoln placed much greater limits on their use of his woods. He allowed the monks to take wood for sheep folds – but they had to do so by view of Richard's foresters without destroying the woods. After this initial cutting, the monks' servants could not cut wood for this or any other purpose until the folds again needed repaired. The grant continues by saying that 'during these first 20 to 30 years' (*hiis primis viginti vel triginta annis*) the monks could take nothing 'until the said wood (*nemus*) had regrown and was in a better state' (*Kelso Lib.*: no. 149). In this first period of 20 to 30 years, therefore, there were two cuttings, one at the start and another, once the wood had regrown, half-way through this first period, and then the wood would be given time to regrow before the second period of 20 to 30 years began. This was, therefore, an attempt to set up a rota of 10 to 15 years, the length of the rota being dictated by the length of time it took for the wood to regrow to the desired size for making wattling for sheep folds. The woods in question lay in the valleys (Gilbert 2012: 97) (Illus 2) and Richard Tipping's palynological study of the area has shown that around AD 1000 the valleys contained scattered woods of ash or birch in ungrazed ravines or perhaps in small managed woods with some hawthorn, willow and some shrubs of hazel (Tipping 2010: 80, 187). There were no oak trees in the valley and managed woods probably survived in soils less suited for



ILLUS 2 Bowmont Valley showing places mentioned in the text

agriculture (Tipping 2010: 199). In this context, the presence of hazel is significant. It is best coppiced on a short rotation of 12 to 15 years or less (Hiley 1954: 172; Lindsay 1974: 302; Rackham 1980: 206). It was used in medieval Scotland to make wattle fences (Crone & Barber 1987: 87) and was still being used in mid-20th-century England to make sheep hurdles, sections of wattle fencing with which to construct sheep folds (Hiley 1954: 172). Willow can also be used for the rods or withies

used in wattling and ash, which is best used for supplying the larger underwood suitable for tools, shafts and vehicle frames, could also be used for the poles or stakes for wattle fencing, although it does tend to rot when fixed in the ground (Edlin 1956: 180).

Whether this rota of 10 to 15 years applied within only one of Richard's woods or between several of them is not stated. The use of *nemus* is confusing since it is used to refer to all the woodland in the fief and the fief contained

several woods (Illus 2). The Bowmont valley was exploited for its grazing and it is puzzling that there is no mention of animals being kept out of the woods or of woods being enclosed after cutting. It could be that animals were carefully herded out of the woods. It could be that the woods lay in steep-sided ravines and so grazing in them was fairly light. It could be that the need for enclosure was understood by the local population and that there was no need for the lord to state that enclosure should be carried out or it could be that the woods were pollarded. All are possible, but Kelso in *c* 1300 recorded that it had the right to cut *stac* and *slac* (rods and poles) for sheep folds and larger rods for repairing ploughs at some *scrogges* in a wood (*bosco*) at Attonburn (*Kelso Lib.*: 458). The location of the Attonburn wood would have been well known and so the direction to *scrogges* let the monks know in which part of the wood they should cut the rods and poles which they needed. *DOST* defines Scots *scrog*(*g*) as brushwood, scrub or thickets of bushes and small trees, exactly what a young coppice would look like. This does not sound like pollards or even low cut pollards. What the example of Mow clearly shows is that the principle of regular cutting after giving wood time to regrow was understood.

In the 12th and 13th centuries in Scotland, the use of the Latin words *virgultum* and *silvicidium* also points to the practice of coppicing. One of the statutes of a council of the Scottish church, held between 1242 and 1249, stated that teinds should be collected from everything which renews itself, including *silva cedua* (*Statuta Ecclesia Scoticanae*, ii: 21; Watt 2000: 149). While *silva cedua*, cut wood, could refer to wood from pollards or shreadings, it came to mean coppice wood but it does not recur in Scotland till the 14th century. There are very few references to such teinds in Scotland and, of those which do survive, all bar one relate to exemptions from teinds of *virgultum*. *Virgultum* is one of these medieval Latin words which has several meanings. It is linked to *virga*, a rod or shoot ready to grow. Hence *virgultum* can mean amongst other things coppice, garden, nursery and even an orchard (*Dictionary of Medieval*

Latin: sub *virgultum*; Harvey 1981: 17, 52). The 14th-century translation into English of the 13th-century treatise *On the Property of Things* defines *virgultum* as ‘the place that yerdis (rods) groweth inne, groweth and springeth withouten medlynge of seed’, in other words, a coppice (Trevisa 1988: 1068). Examples of *virgultum* meaning a coppice have been found in England and Ireland from the 12th century onwards (Jäger 1983: 60; Wager 1998: 2).

David I, in 1124x1131, granted the church in Roxburgh Castle a teind of his *virgulti* from Teviotdale (Barrow 1999: no. 42). This sounds very much like a tithe of coppice wood to be used for fuel, especially since David, in 1124x1128, allowed a church in Great Paxton in Huntingdon to exchange the right to cut wood in its coppice (*virgultum*) in Little Paxton for various other lands and rights to wood (Barrow 1999: no. 28; *RRS*, i: no. 7). Papal grants of exemptions from teinds of coppice wood (*virgultum*) on lands newly broken in all seem to follow a formula which was applied throughout Europe. These grants are not adapted to Scottish circumstances and so cannot be taken as sufficient evidence on their own that coppicing was occurring in Scotland. In 1288, however, there was a dispute at Maryculter where the Knights Templar claimed exemption from various teinds, including teinds *de virgultis* which they owed to Kelso’s church at Culter. The lands from which the teinds were due had been broken in from the forest of Durris (*Abdn. Reg.*, ii: 288–93). The judges’ delegate agreed that the Knights Templar were exempt but in their decision they omitted *virgulta* and substituted ‘the profits ... collected from the royal forest’ (*bonis ... de foresta Regis collatis*). It is possible that these profits could be the result of coppicing in the forest but the substitution of *bonis* for *virgultis* argues either that *virgultum* was not used to describe coppices at this time or that there were no coppices on these lands.

Further evidence of coppicing comes from the excavations at Perth. While one site suggested that underwood for house construction was gathered from hedgerows, riverside pollards and regrowth of trees cut for other purposes, it has also been argued that the overall amount required was too great to be sourced from such

gleanings (Murray 2010: 133, 137). It is possible to test this by trying to estimate how much wood was required for house building in Perth. It is estimated that a small mid-12th-century building, building B4, needed about 1,000 rods and poles for wattle walling (Murray 2010: 133). The roof, which probably had a looser weave of wattling, along with the backland fencing and byre would seem to have required about the same amount, judging by the reconstruction in the excavation report (Murray 2010: 137, 155), making a total of 2,000 rods. This house was only half the length of most of the buildings and they must, therefore, have required almost double this amount of underwood to build. Allowing for some buildings having timber walls (Murray 2010: 134, eg building 18) and the varying size of buildings, it is possible to guess that, on average, the construction of a house in Perth in the 12th and early 13th centuries required about 3,500 rods and poles. It has also been estimated that there were 100 houses/tenements in Perth in the mid-12th century, increasing to 200 in the first half of the 13th century (Bowler & Perry 2004: 26, 56), after which the use of wattling decreased (Murray 2010: 131). On these guesstimates, 100 houses would have required 350,000 rods and poles to build. The amount of rods and poles which can be harvested from an area of woodland depends on a variety of factors: the density of the stools, the number of shoots per stool, the type of trees, the weather and other growing conditions. An area of good hazel coppice in the mid-20th century in the south of England was reckoned to produce around 25,000 rods per hectare (10,000 per acre) (*Utilisation of Hazel Coppice* 1956: 5). Figures of 7,000 rods per 0.4ha (1 acre) of mixed coppice from the north of England in the 1990s (Gardner 1993: 10) seem more appropriate for mixed, naturally sown coppice in medieval Scotland but even these figures would be lower on mountain or hill ground (Peter Quelch pers comm). When similar calculations were being worked for early Viking buildings in Dublin, they were based on a crop of 5,000 rods per 0.4ha (Monk & Sheehan 1998: 55), and that would seem a reasonable figure to use for Scotland. Therefore, 100,000 rods and poles would have come from 8ha (20 acres) of

coppice and so Perth would have needed 28ha (70 acres) of coppice to build 100 houses. The houses could have lasted about 20 to 25 years (Murray 2010: 141) and so there would have been a regular demand for underwood after initial construction. Of course, the houses were not all built at one time and would not all need repaired at one time, but supposing that theoretically they were repaired at the rate of ten per year, using wood that was ten years old, then, on a ten-year rota, 2.8ha (7 acres) of coppice would have been required annually, assuming existing wattling could not be re-used. Obviously these figures would need to be doubled to allow for a town of 200 tenements. While these figures are only a very rough guide and any of the assumptions on which they are based could be altered, and while there are no estimates for the amount of wood which could be collected from hedgerows etc, these figures do suggest that Perth, over the years, would have required more wood than could be produced from local gleanings. Coppicing of some sort, both around Perth and farther afield, would have been necessary to produce such amounts of wood. It is little wonder that in *c* 1205 x 1210 wood merchants in Perth were given special protection. It may not just have been the danger of fire in Perth which led to increased use of stone in building but an increasing difficulty in sourcing these amounts of underwood and coppice. Certainly, if a lord in this area had underwood to spare then there was a market for it.

Turning to other forms of management, there are some suggestions of pollarding in Gala and Leader Forest in 1180, where woods (*boscus*) used for grazing had to be managed without the use of fences (*sepes*) (RRS, ii: no. 236; *Melr. Lib.*: nos 101, 102; Gilbert 2012: 88–90). Part of the difficulty in identifying pollarding in medieval Scotland is our ignorance of the words used to describe the practice. The words used in England – such as Old English *coppedan* (Hooke 2010: 197) or Latin *robur*, which could mean living or dead pollards (Thomas 2010: 96) – have not yet been found in Scottish medieval sources. Pollarding did occur in Scotland as is shown by old pollards in parks at Dalkeith, Cadzow and Lochwood (Quelch 1997: 31, 35, fig 2; Dougall

& Dickson 1997: 79). It has been suggested that Scots *scrog*(g meant a low pollard (Dickson & Quelch pers comm). In Argyll, in the 18th century, it was used in this sense, but P A Sansum considered it was also ‘loosely synonymous’ with coppice (Sansum 2004: 127 n 8). Perhaps the difficulty lies in the height at which a high coppice stool, a coppard or a stub, as it is called (Quelch 1997: 32–3; Muir 2005: 17), became a pollard. A short pollard or stub was produced in England to prevent sheep rather than cattle or deer from reaching the tree foliage or shoots (Rotherham et al 2008: 125). They still occur in Scotland (Quelch 1997: 32) and place names like Stobswode (*Stobeswde*), north-west of Duns, in 1243 x 1254 (*Kelso Lib.*: no. 460), and Stobhall, north of Campsie, in 1367–8 (*ER*, ii: 298), point to their existence in medieval Scotland. *DOST* defines *stobe* or *stub* as the stump of a tree and quotes examples from the 16th century of a *stob* tree in a park and of *stobys* as rods of oak. *Stob* may, therefore, have been one of the words used for pollards, whether low or high, in medieval Scotland.

There is even less evidence for shredding. One possible example occurs when John Comyn’s men were asked to refrain from stripping (*denudatione*) the wood of Invervack (*C.A.Chrs.*: no. LXII). At Coille Bhrochain, the forester of Coupar Angus Abbey was allowed to take branches and dead wood for himself (*Fraser Papers*, i: no. 3), but neither of these examples can be considered conclusive.

So far we have been considering underwood but there is some evidence for the management of timber. Timbers both large and small could be produced by managing a wood as coppice with standards but there is little real evidence for this in the 12th and 13th centuries. In the example at Mow quoted above, where rods and poles were cut in a wood at some scrogs, it does sound as though the monks and their men were being directed to that part of the wood where they would find rods and poles, implying that the wood contained other – presumably larger – trees as well. At Sorrowlessfield in Gala and Leader Forest in 1208, when Patrick Earl of Dunbar granted Melrose Abbey pasture both within and outside the wood (*in bosco et extra boscum*),

he reserved the wood to himself including the trees (*salvo comiti et heredibus suis boscho tam in arboribus* – saving to the earl and his heirs the wood just as the trees) (*Melr. Lib.*: nos 101, 102). This sounds very much like coppice with standards but the record also makes clear that the monks and their men were not to build fences in the area. While it does not rule out the possibility of fences being built by Patrick, this does rather complicate matters (Gilbert 2012: 89–90). Very interestingly, however, a similar mixture of trees is referred to in Sorrowlessfield in 1400, when the earl of March granted Melrose

totum boscum sive nemus nostrum super solum sive terram vocatam le soroulesfeilde tam vetus quam viride (*Melr. Lib.* 506).

all our wood or woodland on the ground or land of Sorrowlessfield both old and green.

Viride is used here not as vert relating to all the vegetation of a forest, but as green wood or young wood as opposed to old wood or taller standard trees (*Dictionary of Medieval Latin*: sub *viridis*).

Hunting forests were perhaps the main mechanism by which timber could have been managed at this time. While the main aim of a forest was to preserve game for the lord, the vert, especially the wood and the trees which gave shelter and browse for the game, was also reserved and the forest laws, as we have seen, established offences against the vert. The king and his magnates did make generous grants to religious houses in the 12th and 13th centuries which usually included the right to take timber and wood for fuel and building in one or more of his forests. The grants to Scone and Coupar Angus Abbeys by Malcolm IV were remarkable in their generosity. Coupar Angus was allowed to take easements of logs, bark, pannage, charcoal and building material in all the royal forests in *Scotia*, Scotland north of the Forth, wherever they wanted and as much as they needed for their own use (*RRS*, i: no. 226). Scone received the right to building material, again in all the king’s woods (*nemoribus*) in *Scotia*, wherever they wanted and as much as they needed (*RRS*, i: no. 243). Such liberal grants were more common north of the Forth/Clyde line, no doubt reflecting a greater abundance of wood in that area in the

12th century. Usually these endowments were limited to certain woods and forests in a certain area. Sometimes limits were placed on these grants, which shows some signs of trying to manage the resources of the royal forests. When David I granted Dunfermline Abbey the right to take what they needed for fuel and building from his woods (*nemoribus*) between the Forth and the Tay, he stated that they had to take wood *sicut meipsi*, in the same way as the king and his men took wood (Barrow 1999: no. 33). While this phrase would give Dunfermline as much freedom as the king to take wood, it would also mean that if David's men had been directed which trees to cut, or if certain areas had been reserved, then the monks and their men would have had to follow suit. Similar freedoms or limitations on wood-cutting were placed on Selkirk, Kelso, Melrose and Jedburgh abbeys (Barrow 1999: nos 14, 33, 120, 174).

There is, therefore, clear evidence that woods were being managed in the 12th and 13th centuries to meet the wide range of demands being placed on them. While coppicing to produce underwood emerges most strongly from the evidence, other methods were also being used.

TWO CASE STUDIES

Before examining the position in the 14th to 16th centuries and trying to assess the effectiveness of woodland management, it is possible to obtain a slightly fuller picture of how woods were being managed throughout the medieval period by looking firstly at the royal forest of Darnaway and then at the forest of Campsie.

DARNAWAY FOREST

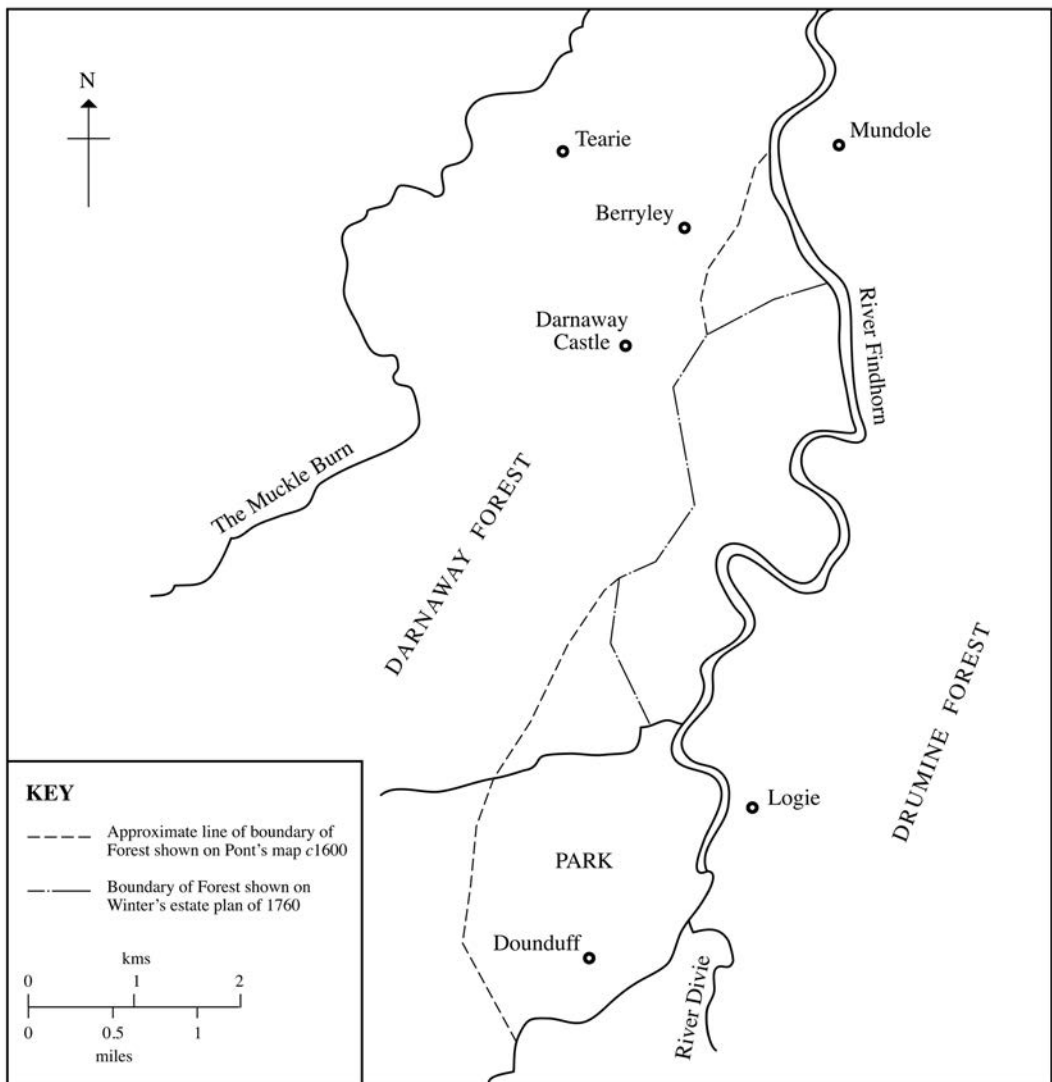
In 1226, Darnaway Forest emerged out of the large royal forest around Elgin, Forres and Inverness (*Moray Reg.*: no. 29). This was probably the forest where Kinloss Abbey in 1175, and perhaps from its foundation in 1151, had been granted easements in building wood, pannage, bark and fuel (*Kinloss Recs.*: 1; Watt & Shead 2001: 131). By William I's reign, the bishop of Moray held a wood (*boscus*) in the forest from which he could take timber and fuel and in which he could graze his pigs without paying pannage to the king. As we have already seen, the king's foresters were allowed to cut wood, presumably rods and poles and small timbers for construction, from the bishop's woods and sell them to the burgesses of Elgin, Forres and Inverness (*RRS*, ii: no. 362). Oak trees were taken from the forest in 1305 (*CDS*, ii: no. 1736), and in 1387 many were used in the construction of the hall of Darnaway Castle (Crone & Watson 2003: 80). A hunting park had been created in the forest by 1346 and timber trees were preserved within it (Fraser *Grant*, iii: 8 no. 13). By 1359, the resources of the forest were coming under pressure and the earl of Moray's men tried to prevent the men of the bishop of Moray from taking timber from the forest to construct and repair buildings (*RRS*, vi: nos 222, 495). The forest was held for most of the 14th and 15th centuries by the earls of Moray, but after the Douglas forfeiture in 1455 it returned to royal hands. From this point, the exchequer rolls show that the forest had been reduced in size since the 13th century and was coming under quite steady use. Lands had been cleared for agriculture and by 1370 – if not

TABLE 5
Exploitation of Darnaway Forest 1456–65

Year	Wood cut	Source
1456–7	300 boards cut for the king from trees in Darnaway park	<i>ER</i> , vi: 380
1457–8	Tiles, roofing and beams to repair the roof of the hall	<i>ER</i> , vi: 482
1462–3	200 boards for Leith	<i>ER</i> , vii: 237
1464–5	4 cartloads or 15,000 roofing shingles hewn by Andrew Lesouris, carpenter	<i>ER</i> , vii: 358

earlier – rent was being collected from them (*ER*, ii: 352). Grazing took place in the park in 1371 (*Moray Reg.*: 473 no. 22), and common grazing, recorded in the forest in 1498, must have been practised long before then (*RSS*, i: no. 246). Steady use of the wood of the forest continued in the 1450s and 1460s (Table 5), and by 1464–5 the pressure on the forest was such that the lords of council ordered that the forest should be closed, *fecerunt claudere* (*ER*, vii: 358). A similar phrase had been used in 1211 x 1233 when the

wood of Stapleton in Annandale was enclosed in a park; and so Darnaway was probably not just closed but enclosed (Fraser *Annandale*, i: 5 no. 8). The resultant dyke is probably the boundary shown *c* 1600 on Pont's map of Moray and Nairn (Illus 4) and plotted on Illustration 3. It should be noted here that the surviving wall round Darnaway Forest (Illus 5) matches the line of the boundary of the forest marked on Thomas Winter's plan of 1760 and not that of Pont's map, thus arguing that the surviving wall is not



ILLUS 3 Bounds of Darnaway Forest



ILLUS 4 Pont's map showing the boundary of Darnaway Forest and the park c 1600. Reproduced by permission of the National Library of Scotland

the wall constructed after 1465 (NLS Winter Darnaway Estate).

Enclosing the forest would obviously be aimed at keeping people and their animals out and so preserving new shoots from grazing damage. In 1467, James III went further and ordered the foresters not to cut beams/timber (*ligna*) in the forest nor to take out coppice wood (*silvicidium*) (ER, vii: 446). Rent which the foresters had paid for this privilege was no longer collected (ER, vii: 346, 358). After enclosure in 1465, there is no

record of timber being cut again until 1497 (TA, i: 325) and there is no further mention of coppice wood. However, the survival of the place name Braidshaw Moss on Pont's map, the existence of a park where coppices and thickets would have made ideal cover for deer, and the mention of the forest, park and shaws of Darnaway in 1602 and 1633 certainly suggest that coppicing of the wood could have continued (*Retours*, i: nos 7 & 15). We can see, therefore, that throughout the medieval period timber was being managed by



ILLUS 5 Wall round Darnaway Forest shown on 1760 estate plan

trying to control the amount cut. The foresters, it would appear, had been managing the underwood by coppicing it and then selling it to the local burghs. To deal with added pressure, enclosure was adopted – first by creating a park, probably in the early 14th century, and then by enclosing the whole forest in 1465.

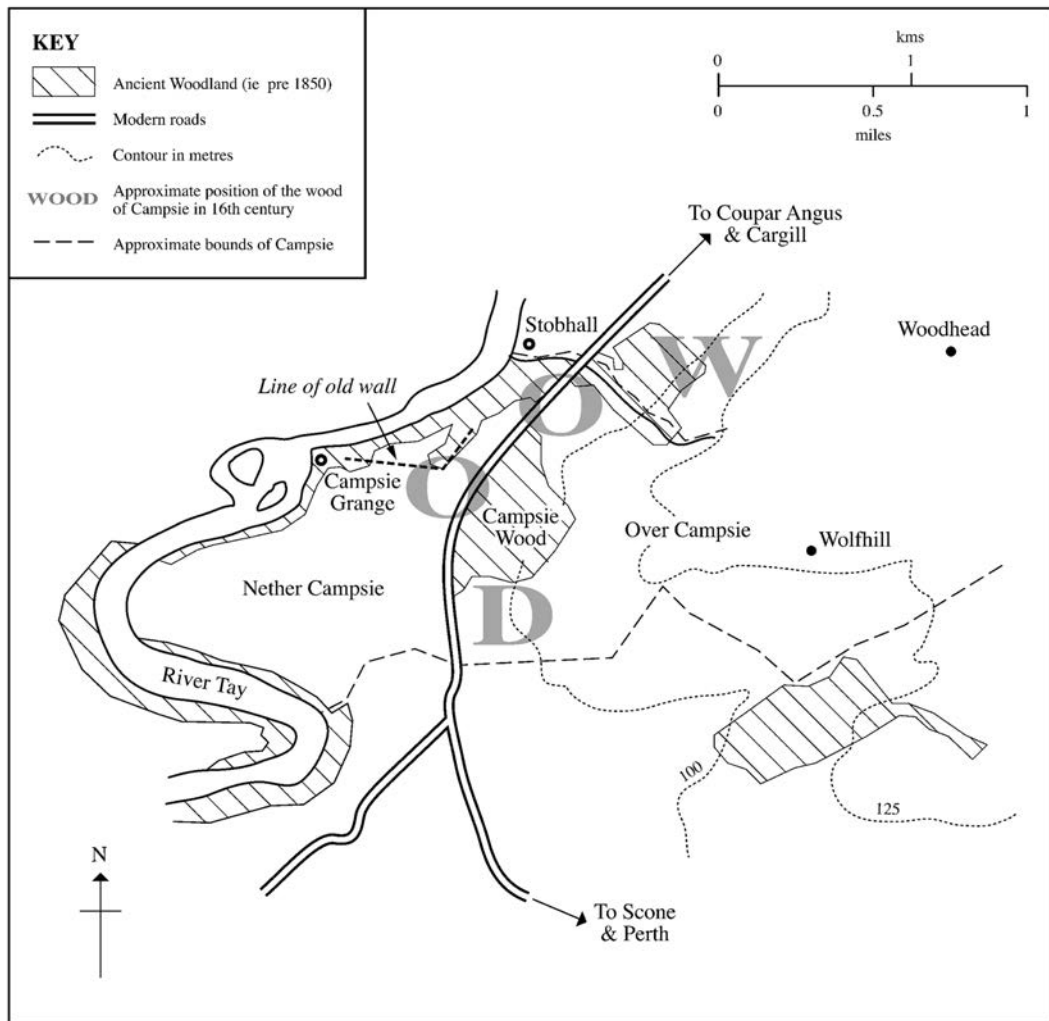
COUPAR ANGUS ABBEY AND CAMPSIE FOREST

In the 12th century, the area of Campsie to the north of Scone was a well-wooded hunting area. (Illus 6). In the reign of David I, Scone Abbey had been given the right to collect fencing materials from the wood (*claustrum in nemore*) between

Scone and Cargill (*RRS*, i: nos 57, 243) and it was not long before landholders started to seek extra protection for their woodlands in this area, presumably because of the huge demand for wood from the burgh of Perth and also because of a desire to protect their woods and game from their more immediate neighbours. In 1173 x 1178, William I granted his chase and waste of Campsie in free forest to the Cistercian abbey of Coupar Angus; and in 1189 x 1195 the Montfiquet family received forest rights in Cargill (*RRS*, ii: no. 334), to be followed in 1240 x 1242 by Scone Abbey which received forest rights in *Kelcamsy*, which probably lay in this area (*Scone Lib.*: no. 76). Around 1220, Coupar Angus Abbey acquired access for the transport of building materials (*materies*) from their *nemus* of Campsie, through the lands of Cargill, to the abbey (*C.A.Chrs.*: no. XXXI).

The rental book of Coupar Angus Abbey which covers the later 15th and early 16th centuries gives the best surviving insight into the running of an estate, whether lay or ecclesiastical, in medieval Scotland. From this record we learn that Coupar Angus Abbey held several woods and from the 1470s showed a clear focus on their management.

Before continuing to examine the management of the wood of Campsie in more detail, it is worth considering briefly the general administration of the abbey's estate at this time. By the 15th century, abbeys no longer raised an income or supplies of food and grain by farming their own granges, but instead they rented out their lands to tenants. To assist in this work,



ILLUS 6 Campsie Forest

to hold their courts and to enforce the abbot's wishes, they usually appointed a bailie from a local noble family. In the case of Coupar Angus the bailies came from the Ogilvies of Airlie, who became hereditary bailies and who seem to have worked well with the abbots (*C.A.Chrs.*: i, lxi; *C.A.Rent.*: xxxiv–xxxix). It is noticeable that the register of the leases of the abbey starts to become much more detailed in the 1460s and 1470s and shows a close understanding of the workings of the farms and touns on the abbey's estates. This can probably be attributed to the work of the abbot, David Bane (1461–79) and his bailie.

David Bane had been cellarer at Coupar and also carried out visitations or inspections of the other Cistercian abbeys in Scotland (*C.A.Chrs.*: ii, 273). James Ogilvy of Airlie is first mentioned as bailie in 1465 and probably continued in office till the 1480s. He held lands near Lintrathen and at Airlie, was also bailie of Arbroath Abbey and became a lord of parliament in 1491 (*C.A.Chrs.*: i, lxi; ii, no. CXXXIX and note p 56). Not being one of the greater nobility, he may have been more hands-on than many of the bailies in other abbeys (Murray 1976: 72, 132). Together they would have been well suited to help Coupar

Angus improve the administration of its estates and to recover from the economic hardship which the abbey had faced in the first half of the 15th century (*C.A.Chrs.*: i, xlvi–xlix). The bailie-deputes and the steward of the abbey, also laymen, could also have been involved in the detailed administration of the estates. In terms of woodland management, they seem to have been considering how their tenants could manage their woods more effectively. In 1470 at Forter in Glen Isla, two acres had been set aside as the fee of the forester who looked after the whole wood of Forter. However, the abbot was contemplating making both tenants of Forter keepers of the forest, more on the lines of tenant-foresters who looked after only that part of the wood on or near to their holdings and not the wood as a whole. He did not go ahead with this idea straightaway but decided to take advice on the matter (*C.A.Rent.*, i: no. 177).

The leases granted in the 1470s reveal a well-thought-out approach to the management of the abbey's woodlands. The woods of Invervack and Murthly (near Aberfeldy) were to be hained (*C.A.Rent.*, i: nos 308, 332). Cattle were to be kept out of the woods at Drimmie as far as possible (*C.A.Rent.*, i: no. 240). Planting ashes, oaks, willows and fruit trees was encouraged at Drimmie, Keithick, Balbrogie, Bridge of Cally and elsewhere, and all had to be protected (*C.A.Rent.*, i: nos 214, 222, 239, 240, 241). In this context it is worth noting that by 1541 – and probably earlier – the gardeners at Coupar Angus had to bring on ten beds of young ash trees till they were four or five years old (*C.A.Rent.*, ii: 208–10; Franklin 1952: 59). At Balbrogie, the abbey's cattle were not allowed to graze in the plantations of broom until the shrubs were big enough not to be damaged by them (*C.A.Rent.*, i: no. 226). Tenants were not allowed to burn wood or use it for making enclosures, but in Pearsie, Wester Drimmie and Bridge of Cally they could use it for their own buildings (*C.A.Rent.*, i: nos 240, 241, 245). These woods were kept in the abbey's hands. They were not let out and they were to be kept mainly for the abbey's use by the tenants as foresters. There are some signs that the abbey saw a commercial value in these woods but the evidence for this is slight. In 1490

the abbot made a contract with Patrick Doig, a sawyer, and three servants to produce 14 loads, 'draughts', per day for each saw, presumably from one of the abbey's woods. There is no statement as to what or where they were cutting (*C.A.Rent.*, i: no. 308) or whether the wood was for the abbey's use or for sale. At Murthly in 1466, the abbot made sure he had a holding he could use if he needed to harvest wood or timber from the woods there and he insisted that the tenant of Murthly had to hain the woods and keep them profitable (*C.A.Rent.*, i: nos 132, 210). The abbey, therefore, was probably contracting sawyers to go to different woods at different times to cut timber for the abbey, and calling in timber carriage duties to cart wood to the abbey or wherever it was required (*C.A.Rent.*, i: no. 188; *C.A.Rent.*, ii: no. 183). The tenants, however, who had to be regularly admonished not to sell the abbot's wood, clearly saw commercial value in the woods and in 1460 Patrick Ogilvy, bailie-depute, fined two tenants of Campsie for destroying and selling wood from Campsie (*C.A.Rent.*, i: no. 72).

Previous work on the leases of Campsie has suggested that some sort of coppicing was taking place but the nature of a rota or even the existence of a rota of cutting is more problematic (Anderson 1967, i: 214; Lindsay 1974, i: 341; Smout et al 2005: 157–8). Campsie was let to four tenants in 1472 (*C.A.Rent.*, i: no. 293; date from NRS CH6/2/1 f40), and the toun and the wood had to be divided into four equal parts, three below the wood and one above the wood. Each tenant became a tenant-forester with responsibility for looking after his part of the wood but also with some responsibility for the wood as a whole – while a fifth tenant, Andrew Hughson, was placed in overall charge as forester-general (*forestarius supergenaralis*). The tenants could not graze cattle in the wood nor take wood for fuel but whether they could take rods and poles or timber for construction of their houses is not stated. In 1474, however, Robert Pullour, who inhabited the abbot's mansion at the grange of Campsie, was allowed to graze as many of his cattle in the wood as he wished but he had to ensure, under pain of free forest, that his cattle did not damage the wood (*C.A.Rent.*, i:

no. 299). In 1479, the four tenants of Campsie, who by this time included the forester-general, had to cultivate the land of the forest within the walls, presumably an area which had been assarted from the forest in the past, and they had to continue to protect the woodland under pain of free forest. This last phrase meant that in effect they would be held responsible for any fines if they could not find the culprit (*C.A.Rent.*, i: no. 319). In 1483, the tenants, again including Andrew Hughson, were instructed to build walls around half the forest – *foresta* is being used here to mean woodland – within two years in order, one supposes, to separate the agricultural land from the wood and to keep animals out of the wood. These walls were probably constructed around the western half of the wood. They are referred to in 1494 when the lease of the three holdings of Campsie, which lay to the west of the wood, are clearly stated to be outside the walls of the forest (*C.A.Rent.*, i: nos 382, 385).

They had to keep the wood (*silva*) clear of cattle, presumably to protect young shoots, but one tenant, John Crago, who was a man on the make, was allowed to graze six of his own cattle in the forest, along with those of the abbey (*C.A.Rent.*, i: nos 361, 385; Sanderson 1982: 129, 138, 139).

Little, if anything, remains of these walls, but an old stone dyke running east from the grange of Campsie (Illus 6 & 7) could be part of the 1472 wall separating the Nether Woods from the arable lands and grazings of Nether Campsie.⁵ It lies on a line which might have divided the wood from the abbey's ward and meadow. In 1508, the ward, in this case probably an area of meadow beside the river, was kept in abbey hands and ran along the south bank of the Tay from Campsie to Stobhall (*C.A.Rent.*, ii: no. 548).

In response to the growing population and expanding agriculture in the second half of the 15th century, many touns in Scotland



ILLUS 7 Old dyke to the east of Campsie Grange

were subdivided. This happened on Coupar Angus' lands at Balbrogie and Keithick and it is presumably what we are seeing in operation in Campsie in 1472 (Dodgshon 1981: 195–204). In the early 16th century, this split is referred to as lands below the wood and lands above the wood (*C.A.Rent.*, i: nos 648, 649), and by 1539 these lands were called Nether Campsie and Over Campsie or Wolfhill (*C.A.Rent.*, i: no. 972; ii: no. 62). By 1532, the lands of Over Campsie had also been divided into four and John Crago's son, who rented three-quarters of the holding, was instructed to 'hayne and keip' the woods (*C.A.Rent.*, i: no. 945; Morgan 1929: ii, 312; NRS CH6/2/1 f128r). Crago, however, does not appear to have kept the woods to the abbey's satisfaction.

The management of the Nether Wood, set up by Andrew Hughson, seems to have been working well. The wall built round it must have kept cattle out of the wood successfully. The Over Wood to the east, however, which had no wall round it, was suffering. In 1539 it was described as 'aluterly waistit and destroyit'. Donald Campbell, the abbot at this time, was a brother of the earl of Argyll and took matters in hand along, no doubt, with his bailie, James Lord Ogilvy of Airlie (*C.A.Chrs.*, i: lxi), his steward and bailie-deputes. Nether Campsie was let to Alexander McBrek, a burghess of Perth and advocate of the abbey, and his son James. He was made forester of the whole wood of Campsie and was instructed to divide the Over Wood into four and build large enough dykes to keep out any beast able to destroy the wood. He had to maintain this in 'ilk part be the space of vij zeris eftir uther respective'. He was told to start immediately by constructing the 'gret utir dyk' (the great outer dyke), which at this time could have been made of stone or turf. Similarly, he had to keep the 'nether wodis from his awin gudis (cattle) and all utheris in tyme of haynyng' (*C.A.Rent.*, i: no. 972; Morgan 1929: ii, 314; NRS CH6/2/1 f143v).

McBrek, therefore, was expected to look after all seven parts of the wood of Campsie, three in the Nether Woods and four in the Over or East Wood. He had to operate a rota which kept cattle out of each part for seven years in

turn. The cattle would presumably have been kept out of one part for seven years immediately after it had been cut, and the exclusion of beasts would then move on to the next part of the wood – and so it would take 49 years to move round all seven parts of the wood. The way the tack was phrased there could have been one rota for the three sections of the Nether Woods and another for the four sections of the Over Woods or there could have been one rota for all seven sections. With a crop being taken from one part every seven years, ie just before the exclusion of cattle started, the abbey could have been planning for rotas of anything from 21 to 49 years. It seems likely that the aim would have been to produce young timber and underwood. When McBrek was asked to provide fuel for the abbot's house at Campsie at 24-hours notice, it had to come from broom and fallen wood, which would confirm that there were taller trees growing in the neighbouring woods (*C.A.Rent.*, ii: no. 66 at p 71). When there is evidence for the abbot getting wood from his woodlands, it is usually timber that was sought – as from Murthly in 1473 (*C.A.Rent.*, i: no. 210). When the tenants of Keithick, which lay between Campsie and the abbey, renewed their leases in 1472 and 1542, they had to provide carriage of timber as part of their lease, which again suggests that the aim at Campsie may have been to produce young timber (*C.A.Rent.*, i: nos 162, 188; ii: nos 183, 184). Unfortunately, there is no record of what cutting actually took place, nor of how often it occurred, nor of the product of these woods nor even of the kind of trees which were growing there.

These measures do seem to have had an impact. In 1549 John Crago could not graze cattle in the woods 'that sal happin to be hanyt for the tym' clearly showing that while one part of the wood was closed others were open (*C.A.Rent.*, ii: no. 62). By 1551, only one part of the Over or East Wood was still wasted. Three parts had obviously recovered. McBrek was then instructed to continue the rota of excluding cattle for seven years from each part and to build what were, presumably, the smaller internal dykes between 6 July, the date of the renewed lease, and 15 August (*C.A.Rent.*, ii: no. 66).

In 1558 John Crago continued to rent Over Campsie or Wolfhill with common pasture for his cattle only in the open woods and not in the woods which were enclosed or being enclosed (*C.A.Rent.*, ii: no. 220). In 1578, when he finally received Over Campsie in feu ferme, similar limits were placed on grazing (*Laing Charters*, no. 973). The earl of Atholl, who was related to Donald Campbell and who in 1563 had supported the appointment of the lay commendator, Leonard Lesley, also received grants of feu ferme in the lands of the abbey. In 1568 he received Over Campsie along with other lands, but only three pertinents were attached to Over Campsie, *silvis nemoribus virgultis*, which basically meant woods of all kinds and coppices (*RMS*, iv: no. 1809; NRS C2/32/611).

The wood, therefore, was continuing to be managed, perhaps with some success, since Pont's map of the area (c 1600) was still marking an *Est Wood*. Although it is slightly misplaced because the map is so compressed at this point, it probably represents the Over or East Wood of Campsie (NLS Pont *Lower Angus and Perthshire*) (Illus 8).

WOODLAND MANAGEMENT IN THE 14TH TO 16TH CENTURIES

By the 15th century, the references to woodland management start to foreshadow the evidence from the second half of the 16th century (Smout et al 2005: 159–61). There are more frequent references to coppices and to coppice wood. *Silvicidium* occurs first in 1365 in *Huchtirerne* in Cromar – perhaps Auchnerran, south-west of Logie Coldstone (*RMS*, i: no. 191) – and then it reappears in the 15th century in Darnaway. It also occurs in the 15th century in pertinents at Strathaven, Mauldslie and Nether Pollock, and in the early 16th century at Dunlophill, all of which were linked to the Maxwell family (Fraser *Pollok*: nos 31, 59, 71, 98). *Virgultis*, which occurs far more frequently than *silvicidiis*, starts to appear in the pertinents of charters from the 1450s onwards. The internal divisions of the wood of Campsie in the later 15th century led, as we have seen, to further divisions in the 16th century and the creation of some kind of seven-year rota. There are references to open and closed times in the woods of Coldingham Priory



ILLUS 8 Pont's map showing the name 'Est Wood' c 1600. Reproduced by permission of the National Library of Scotland

as well as Coupar Angus; and to the enclosure of woods at Lindores (*Balm. Lib.*: no. 2, p 4 in Lindores section) and Paisley (Lees 1878: lx, cxvii). James II also had woods enclosed within the royal parks at Falkland and Collessie in Fife (*ER*, vi: no. 566; *RMS*, ii: no. 385 and *NRS* C2/4/61). It seems likely that these enclosures, as at Darnaway, would have been carried out to encourage the growth of both timber and underwood.

In the 15th century, the parliaments of James I and II started to legislate on woodland matters. Their main concern was to deal with the theft and destruction of trees and to encourage the planting of trees. There are no preambles about shortages of wood or the widespread illegal cutting of trees. Parliament and the state may have been expanding the scope of their work, but the legislation is quite matter of fact and seems to focus on controlling the cutting of young wood to allow it to grow into timber. In 1400 at Sorrowlessfield, as we have seen, green wood was used in the sense of younger wood – as opposed to old wood – and this may have been what parliament had in mind when, in 1425, it imposed a fine of 40s on those who ‘steyllis grene vod or peyllis bark of the treyis destroyand voddis’ (*RPS*: 1425/3/11). They obviously realised that if young wood was cut then it could not grow into mature trees and so protecting young wood was the best way to increase supplies of timber. This seems to be what lay behind James II’s act of 1458, which banned the use of ‘dry stakis’, ‘rys’, ‘stykis’ and ‘hewyn wode’ to make hedges or enclosures. Rods and poles were not to be used to make wattle fences or hurdles and only fallen or dead wood could be used to make hedges. The aim of this legislation could have been to make more underwood available for other purposes, such as housing or agricultural equipment, but given what is known about timber shortages at this time, it seems more likely that the idea was to allow young wood to grow into timber. The impact of this legislation can be seen in the second half of the 15th century in both royal and non-royal woods.

In 1477–8 in Ettrick, a fine of 6s 8d was imposed for building a wooden fence (*ER*, viii:

477–8), and the statutes of Ettrick Forest in 1499 showed a similar concern when they required hedges and dykes to be made from thorn, willow or earth (Gilbert 1984: 53 clause 7). The idea of green wood meaning young wood may also appear in Ettrick in the same years, when four people were fined in a justice ayre and in a bound court of the forest for cutting green wood (*viridi lingo*) (*ER*, viii: 480). *Viride* on its own would have meant the vert and would have covered all wood and vegetation in the forest, but the addition of *ligno*, or any other wood word for that matter, suggests that the offence here related not just to wood but to green wood or young wood. Similarly, in 1488, when Paisley Abbey was allowed to take cases of ‘thieving destruction of green woods’ (*furtiva destructione nemorum viridum*) from the justice ayre, green wood was probably being used in the sense of young woods, especially since we know that Paisley Abbey enclosed several of its woods in the late 15th century and two of them, *Ocschauwode* and *Durschawsyd*, had the word ‘shaw’ in their names (*Pais. Reg.*: 84; Lees 1878: app lx, cxvii). In 1499, a point of inquest for the commissioners of crown lands included ‘the distrucione of grenewod and destroyaris of wod with[in] thair maling’ (*ER*, xi: 393), again suggesting that green wood and wood were two different things.

In 1504, James IV’s parliament took action because, it said, the woods of Scotland were utterly destroyed (*RPS*: 1504/3/33) and so the fine for selling or burning green wood was increased to £5. While one cannot take this statement about the state of Scotland’s woods at face value, the government was clearly trying to improve the supply of wood. James V increased the fine for cutting green wood to £10 on the first offence, £20 on the second and death on the third (*RPS*: 1535/17). At Falkland in 1539, when he extended the park he ordered that the young trees and bushes should be cut so that ‘young growth of young trees’ could grow again (*ADC*, ii: 622 5 July 1553). This very much sounds like an attempt to rejuvenate old coppice. The stress on young trees growing again is clearly aimed at growing coppice shoots, but whether to produce rods and poles or timber is hard to say.

Certainly, the woods were valued at £10,000 by their previous owner (Gilbert 2014: 87). This royal stress on protecting young wood continued. James VI, at Doune in Stirlingshire, took steps to protect young wood to encourage the growth of timber trees by building a massive wood dyke 5m wide at the base and 3m high (Fraser *Menteith*, ii: 419, 423). At the Torwood, south of Stirling, he ordered that young wood should be hained properly after timber had been cut. He obviously wanted to ensure future supplies of timber but he was also concerned to protect his shaws (Fraser *Elphinstone*, ii: no. 22).

Parliament was also encouraging plantation of trees by the acre (*RPS*: 1458/3/28; 1504/3/39; 1535/16), but while some planting around dwellings and along boundaries was happening (*ER*, vii: 69; *TA*, i: 367 and ii: 81, 82), it seems to have been decorative rather than a means of providing a supply of timber (*C.A.Rent.*, i: no. 542; *C.A.Chrs.*: no. CLXIX; Anderson 1967, i: 263).

It is not till 1570 that the sale of a section of a wood to a wood merchant enters the record in Scotland. This practice had been known in Europe since the early 13th century. Just south of Paris, the Abbey of Chelles entrusted their coppices to a local noble and set out a regime to manage the woods. A cutting was to be made at the end of five years – after which the wood was to be protected for seven years and then it was to be put up for auction. For four years after each cutting sheep were to be excluded (Duby 1968: 144). In 1570 in Ayrshire, three wood merchants bought the right to cut, peel and sell trees in part of Dalrymple wood. The wood merchants agreed to fence the hagsgs or sections of wood after they had been cut and they also agreed to cut the trees in the customary manner (Smout et al 2005: 158). One wonders if similar arrangements had operated in 1536–7, when the forester of Dalrymple wood cut 36 horse loads of ‘ryse’ for the construction of a bulwark in the defences of Ayr (*Ayr Accts.*: 19). There are various hints of commercial activity from the 12th century onwards: the bans on selling wood, the trade in wood to burghs, the valuing of woods suggested by evidence at Coldingham *c* 1300 (*Cold. Corr.*:

xciv–xcv, xcvi, xcix), Coupar’s desire to keep the woods in Murthly ‘at profit’ and its contract with a sawyer. Clearly wood was being cut, transported and sold and presumably there were commercial sales of woods by lords to wood merchants, but none have so far come to light.

EFFECTIVENESS OF WOODLAND MANAGEMENT

Dendrochronology has shown that most of the oak being used in Scottish buildings from the 12th to the 15th centuries was from trees that started their lives in Scotland in the 10th and 11th centuries. There is little sign of the young oaks, 25–100 years old, which would have been available if woodland had been managed to produce oak for construction purposes. This has been attributed to the difficulty of regeneration in a poor climate and to poor woodland management, at least in terms of timber (Mills & Crone 2012: 22, 29, 30). If, as has been argued here, many woods were managed, it is important to see what the documentary evidence can tell us about the nature of that management and how effective it was.

A shortage of wood, like any other commodity, depended not just on a simple balance of supply and demand, but on the location of the supply and the location of the demand. A local imbalance could be met by trading wood from areas of plentiful supply to areas of excess demand. But shortages could also depend on whether the demand was for large timbers or for underwood, for wood for construction, or for tool shafts, wattles, turning bowls and table legs.

In many European countries the overwhelming demand for wood was for young poles and rods to use as fuel (Warde 2006b: 41), but in Scotland, while wood was the preferred material for fuel, there was not enough to meet the demand. By the later 12th century, charters frequently specified the right to dig peat and turves for fuel (Oram 2011: 248–50) and from the 14th century onwards, turveries and peateries become increasingly common in the pertinents of charters. It should be remembered

that in some parts of central Scotland, from the 13th century onwards, coal was also being used (Hall 2006: 27–30). By the 13th century there are examples where it had to be specified that only fallen or dead wood could be used for fuel (eg *Pais. Reg.*: 92–6, 216; *Lind. Cart.*: no. 73). Clearly there was not enough underwood to meet the demands for fuel of the population at large. As a result, in many parts of lowland Scotland many people had to prioritise wood for uses such as agricultural equipment and house fittings rather than for fuel. It seems likely that underwood may still have been used as fuel by those who could afford it, or who owned it, while the majority of the population depended on peat, turves and coal – but more research is required on this topic.

While alternatives to wood as fuel may have been available locally, it was necessary, to fulfil various other uses, to resort to importing wood to the location of the demand. We have already seen that a domestic trade in wood to burghs is recorded from the later 12th century onwards. In the late 15th and 16th centuries the treasurer's accounts and the exchequer rolls show the development of a domestic timber trade to meet royal demands for timber for ship-building and other military requirements. Timber was transported to Edinburgh from Inverness, Darnaway, Clydesdale and Galloway, as well as from woods in Fife, Clackmannan and the Lothians (Gilbert 1979: 238; Crone & Mills 2012: 352).

In the early 14th century it was presumably the difficulties and costs in obtaining timber in Scotland which resulted in it being imported from the Baltic to assist with a *capella* over the body of Robert I at his burial in Dunfermline in 1329 (*ER*, i: 215) and to use for construction and repairs at Coldingham from the 1330s onwards. Timber imported to Berwick in 1332 for the use of the Franciscan convent at Roxburgh was seized and used for repairs to the town of Roxburgh and castle of Berwick (*Cold. Corr.*: xxiii–xxxix; *ER*, i: 411). This import trade grew steadily in the 15th and 16th centuries (Ditchburn 1988: 168; Crone & Mills 2012: 331) with the result that native oaks were rarely being used in construction after the mid-to-late 15th century.

There is no doubt that in lowland Scotland much woodland had been cleared or assarted throughout the medieval period and used for the construction of castles, abbeys and cathedrals (Oram 2011: 239–48). The evidence for assarting in the 12th and 13th centuries has been well documented, but evidence does exist for the 14th and 15th centuries as well, eg at Stocket in 1319 (*RMS*, i: app i no. 4), Boyne and Enzie Forest in 1327, 1362 and 1493 (*RMS*, i: app ii no. 389; *RMS*, i: no. 118; *A.B.Ill.*, ii: 132), and Keith wood in East Lothian in 1488, where a tenant lost his lease for ploughing up part of the lands of the woods (*Prot. Bk. Young*: 29 no. 135). The resultant shortages of timber have again been well rehearsed (Smout et al 2005: 37–44).

On the other hand, one sure sign of effective management is the survival over several centuries of a wood which was being exploited. Six woods at Coldingham, Aikieside or Old Cambus (now Penmanshiel), Brockholes, Hound Wood, *Denewod* and *Heruode* all lasted from the 12th century to at least the 16th century (Gilbert 2012: 82) as, for example, did woods at Newbattle, Mauchline, Drum and Birse. At Keith in East Lothian the baronial woods mentioned in the late 12th century were still being protected by the baron court in 1488 and by the justice ayre in 1511 (*Kelso Lib.*: 85; Gilbert 1979: 240). If the justice ayres of James IV's reign could still pursue the destruction of green wood in 93 woods spread across Ayrshire, Galloway, the Borders and the Lothians, then even on the basis of this rather negative evidence, something was being successfully managed (Gilbert 1979: 238–42).

How effectively a wood or an area of woodland was managed came down to the lord who controlled the rights to use the wood. Watson has clearly shown how in the 17th century the effectiveness of different landlords, with different policies, could vary considerably. When the laird was more concerned with keeping tight control of the amount of wood cut, while allowing for the needs of the tenantry, rather than simply making a profit from fines, the management of the wood could work well. At the same time, the landowner often had little practical control over the use of the woods – especially when the baron court was not held regularly and frequently tenants would

continue to graze cattle in the woods, despite the damage they might do. On the other hand, on a well-run estate, while tenants might resent the landlord's actions in his courts they still had a good working knowledge of coppicing and its value (Watson 1997: 102–3, 110–11, 113).

Much of this, one suspects, could have been said of the medieval period where the way in which a lord balanced sustainability against exploitation was crucial to the survival of the woodland. From the evidence so far presented, some lay lords in the 13th century – such as James Steward in Renfrew, John Comyn in Atholl and Strathearn and Richard (II) de Lincoln in Mow – were concerned to manage their woods sustainably while allowing their tenants and their men to have some use of the woods. There are signs that David Lindsay at Crawford in the early 13th century, John Comyn at Invervack in 1289 and Andrew Lesley at *Achquhorsk* in 1391 were looking after the interests of their tenants. The crown also appears to have had some effectiveness in woodland management. Woods did survive from the 12th century to the 16th century in, for instance, Jedburgh, Ettrick, Torwood and Darnaway Forests. However, in many situations lords and monarchs must have been happy just to exploit their woodlands for the large timbers needed for prestigious construction, whether castles, halls, town houses, warships, gun carriages or siege engines, or to gain spiritual reward by making generous grants of use to abbeys and churches and not worry about sustaining the needs of their tenants.

It may, in some ways, be misleading to separate lay and ecclesiastical approaches to woodland management since, in the 12th and 13th centuries, sons of noble houses became abbots or bishops and, in the 15th and 16th centuries, local landholders could become bailies or stewards of abbeys and could have considerable influence over them (Murray 1976: 22, 59; 1995: 38–9). It should have been easier for medieval abbeys, as estate holders, to manage woodland with a view to long term sustainability since, in effect, they never died but, perhaps due to the vagaries of surviving evidence, there is little sign of this in the 12th and 13th centuries. Melrose did impose a tree geld in Gala and Leader Forest in the 12th

century, and Kelso did encourage the dean of Stobo to enclose part of his wood at Corehouse and may have taken the initiative in seeking permission to enclose part of the woodland of Innerwick. Generally, however, the abbeys seem to have operated as exploiters rather than sound managers of woodland. Their pastoral activities in the Cheviots and Lammermuirs tended, as far as woodland was concerned, to do more harm than good. At Mow it was Richard (II) de Lincoln who, in 1251, tried to cut back their activities and there is no further reference to woodland in either Mow or Innerwick after the 13th century. It was the Steward family who, in 1190, gave Kelso permission to enclose part of the woodlands of Innerwick for their easements and then, in 1208x1214 and 1295, controlled the activities of Paisley Abbey in Renfrew Forest while still giving them generous access to woodlands (*Pais. Reg.*: 17, 92). Around 1200, at Greenan just outside Ayr, Melrose Abbey completely exhausted nearby woods to fuel a saltpan and then, without any qualm, asked and received another site near Turnberry (*Melr. Lib.*: no. 37; Fawcett & Oram 2004: 232). It was probably not till the shortages of the later medieval period that their attitude began to change. It is then that the management of Coupar Angus Abbey enters the record, that Paisley Abbey was enclosing woods around Paisley and that Melrose sought and received protection of their property from James III, with special mention that no one should hew, cut or lead away their woods (*Melr. Lib.*: no. 573).

However, three religious houses stand out for their interest in managing woodlands throughout this period, Coupar Angus, Lindores and Coldingham. Coupar Angus has already been mentioned. Lindores Abbey was Tironensian and it was probably from Kelso that its abbots inherited their ideas about managing woodland (*Lind. Cart.*: lxxvii). In the 13th century they acquired forest rights to manage the wood of Lindores, transported woodland products from the wood of Tulach in Atholl, insisted on their rights to wood in Glenlichorn in Strathearn for building and for agricultural equipment (*Lind. Cart.*: no. CXI) and, in 1451, became foresters of the royal wood of Earnside, just to the east of

Newburgh (*RMS*, ii: no. 445; *Balm. Lib.*: 18 no. 17). The measure of their success can be seen in the survival of the wood (*silva*) of Lindores till the 15th century when, in 1457, they enclosed it with a turf dyke (*Balm. Lib.*: 4 no. 2 in Lindores section). The Benedictine priory at Coldingham also emerges as an active manager of woodland over the centuries. The evidence shows the prior directing the cutting of wood in the 12th century, enclosing woods in the 13th century, having a system of measuring and valuing woodland around 1300, recovering from the destruction of warfare in the 14th century and then, in the first half of 15th century, operating open and closed times and issuing careful instructions to tenants about woodland use (Gilbert 2012: 79–85). Thereafter, despite all the arguments over the bailiery of Coldingham amongst the Homes in the 15th century, the expulsion of English monks and James III's schemes to take over the revenues of the priory, three of Coldingham's woods survived into the 19th century before being planted with conifers.

But in many instances, landholders who were motivated to manage their woods sustainably must have struggled, given the limits of what medieval administration could achieve. Although it is a burgh, the example of Aberdeen is instructive. When, in 1319, the burgh received a confirmation of the keepership of the royal forest of Stocket, beside the burgh, they were instructed by Robert I not to cut the mature standard trees (*grossarum arborum*) in the wood (*bosco*) of Stocket (*RMS*, i: app i no. 4), though they were presumably allowed to take underwood. The burgh does seem to have tried to protect the timber in the wood and to stop people cutting the trees, but in the late 14th and early 15th centuries the burgh court had to hear cases of foresters who were not performing their duties and were not arresting those who cut the trees. Even convicting and fining the foresters did not seem to improve the situation (*Abdn. Recs.*: 113, 129, 167, 192; *Abdn. Counc.*: 3, 4, 18). Unfortunately, due to lack of evidence, we cannot say how often lords held their baron or regality courts or how often woodland matters came before them. In the 15th century – and probably earlier – lords had to deal not just

with tenants destroying their woods but also with other lords doing so. When Archibald Earl of Angus was confronted with John Nisbet of Dalzell cutting down 1,000 oaks with birches and other trees valued at £300, in Barnwood near Bothwell, he had no recourse but to go to the lords of council (*ADC*, ii: 238), and his was only one of several such cases which went to that court (*ADC*, ii: 337, 372, 375). Even when tenants were accused, the owner of the wood could get nowhere if the tenants were backed by their lord – as at Drumlanrig in 1497 when two of Elizabeth Crichton's tenants peeled bark and destroyed the woods of William Douglas (*ADC*, ii: 91).

Presumably in order to toughen up their legal clout, several lords in James IV's reign sought or received free forest grants from the king, which applied only to the woods on their lands (Table 4). This enabled them to exact the full £10 fine from other landholders for wood-cutting offences.

Imposition of fines for cutting wood did of course depend on the work of the foresters, sub-foresters and servants who looked after the woods for the lord and reported offences. This developed into the idea of the tenant-foresters who only looked after the wood on or just beside their holdings. They first appear in Boyne and Enzie Forest in 1327, though they may well have existed earlier, but they are best known in Ettrick Forest in the 15th century (*RMS*, i: app ii no. 389; Gilbert 1979: 135).

Tenant-foresters, in effect, carried out the same duties as the foresters who had looked after the woods on the whole estate. In Glenorchy in the 17th century, they had to go with other tenants or their own cottars when they required wood in order to supervise the cutting on their holdings. Three or four times a year at a court, the tenant-forester had to swear to the condition of the wood and if the estate officers discovered that the wood had been cut without being accounted for, the tenant foresters were held responsible for the fine (Watson 1997: 102, 107–8). Once again it seems likely that much of this applied in the medieval period.

Just as in the 17th century, steps had to be taken to motivate these tenant-foresters to fulfil

their duties conscientiously. In the late 15th century, tenant-foresters were subjected to a carrot and stick approach. At Pearsie and Wester Drimmie tenant-foresters of Coupar Angus were allowed to keep any fines they raised (*C.A.Rent.*, i: no. 245 and ii: no. 56), but at Campsie they were liable for the fines of woodland offences. In Etrick Forest, if they did not keep the wood or the game properly, they could not only be held responsible for the fine imposed on poachers who were not caught but they could lose their lease (Gilbert 1984: 53, clauses 3 and 5). Arbroath, Coupar Angus and Paisley abbeys also threatened tenant-foresters with loss of lease if they did not fulfil their duties (*Arb. Lib.*, ii: nos 239 and 437; *C.A.Rent.*, ii: 55–6; Lees 1878: app 60, 117). In the 15th century, loss of lease was also a recognised penalty imposed by lay lords for destroying, burning or selling wood (*Prot. Bk. Young*: 29 no. 135; BL Harleian Ms 4700 f282r; *Carnwath Ct. Bk.*: 153).

Those tenant-foresters we can identify on the lands of Coupar Angus, Arbroath and Paisley abbeys in the 15th century tended to be main tenants, holding directly from the abbey and paying rents of between 8 and 26 merks, with rent in kind as well. Some had sub-tenants and all were in the class of middling to substantial tenants. They were not lairds – though some may have aspired to achieve that status (*C.A. Rent.*: sub Campsie, Murthly, Invervack, Drimmie; Sanderson 1982: 77, 92). In Etrick their status varied from important magnates, such as Lord Hamilton and William Douglas, to lairds, such as the Kerrs, and to those who were tenants with no other lands (Gilbert 1979: 138–9). It is also possible to get some idea of the offenders they were trying to control. In Etrick in the later 15th century, the exchequer rolls recorded six cases of landholders, abbots and magnates who were fined for cutting oaks, and two cases involving birch (*lentisci* – which has also been translated as beech) and ash trees. The exchequer rolls only recorded fines which were remitted and so it is hard to have an idea of the actual number of such high status offenders. Around 23 men of lower status, named and unnamed, were recorded cutting wood and had their fines remitted (Gilbert 1979: 165–9). In 1510, the record of a

justice ayre gives a more representative picture of what was actually happening. The points of dittay for the justice ayres in 1508 required the ayre to find out ‘gif thair be ony distrevaris or pelaris of grene wod’ (NRS RH2/1/6 f144). In 1510 it was presumably the same point which the justices were pursuing, although the crime listed was the theftuous destruction of wood (*silva*). Given that there were 148 offences recorded in Etrick, it does seem more likely that they involved cutting underwood or small timbers rather than mature trees (Gilbert 1979: 240–2). This is borne out by the general status of the offenders who came before the justices. In Etrick, while five were tenant-foresters and one was the sheriff of Selkirk and while around nine were of higher status, being described as AB of C, eg David Hoppringle of Smailholm, the majority were named as AB in C, eg John Dalglish in Catslack. They were sub-tenants or cottars. This picture holds true for the offenders brought before the justice ayres held in James IV’s reign at Lauder, Kirkcudbright, Ayr, Jedburgh, Peebles, Edinburgh and Wigtown (NRS RH2/1/5–7).

In many ways it is not surprising to find that most of those taking wood were lesser tenants or sub-tenants. In the 12th and 13th centuries, by far the largest number of users of woods must have been the ‘men’ whose predecessors had received easements in the woods of their own or another lord. These common rights, while they did often include timber, mainly involved underwood. Although, in Europe, the main use of underwood was for fuel, the vast majority of the population in Scotland, as in Europe, needed rods, poles and young timbers for everyday uses such as agricultural equipment and fences and for repairing and building houses (Warde 2006b: 41). The amount required should not be underestimated as the figures for Strathavon in the 16th century showed. It must also be remembered that most people needed to use woods for pasture, which develops best in open woodland, not woodland covered by the canopies of large trees. For a variety of reasons, therefore, the tenants and sub-tenants had little reason to encourage the growth of mature timber trees (Warde 2006b: 35).

In 1430 in Coldingham, the prior leased the lands of Brockholes, *Denewod* and *Heruode* to a Thomas Atkinson for 15 years, for 10 merks per annum (*Cold. Corr.*: 104). His lease made him the keeper of the woods and his sub-tenants also had to be ‘loyal and true’ to the keeping of the woods. The lease continued

also yt es accordit that the sayd Thomas and his wyfe and thair servands dwellyng wythin the sayde wode and landys sall have resonable esement of fewell of fallyn and dede wod foroutyn waste of whik wod, whilke may serve for tymbre ... by the deliverance of the priour of Coldyngnam or of his officeres. Also yt es accordit that the sayd Thomas and his wyfe sall have tymbre for byggyng of new howsys and reparelyng of tham when that it needys by reson and also for plewes and harowes for tylth made within the said lande by bydyng of the priour of Coldyngnam and delyverance of his officers gyve sick tymbre may be fune within the sayd wode ...

They could, therefore, have timber for building and repairing houses, and for ploughs and harrows under oversight of the prior’s officers, but only if such timber could be found. They had easements of fuel but they were not allowed to cut living wood which could serve for timber. The significance of this last stipulation is that tenants and men with easements of wood had obviously been cutting and coppicing underwood and then not allowing new shoots to grow to timber. The prior obviously hoped to stop this. In short, the underwood was being managed sustainably but the timber was not.

What seems to have been happening throughout the medieval period in lowland Scotland was that, in the 12th and 13th centuries, the demands for timber for castles, abbeys and large construction, the pressure of agriculture, grazing and population growth and then the climatic deterioration of the late 13th and 14th centuries depleted the woodland considerably. In terms of underwood, the use of coppicing and enclosure was sufficiently widespread and effective to meet the need for agricultural equipment, for house fittings and, in some areas, for housing construction, but it was not sufficiently effective to provide a supply of fuel for the populace at large – although it perhaps did not

need to be, given the availability of alternatives. In terms of timber, lowland Scotland was not generally practising sustainable management. The lords and landholders controlled the woods but they saw the use of timber as a means to express or enhance their status or spiritual standing by building or providing materials for building – and when they did try to protect this resource they struggled. In many places – but by no means everywhere – the majority of the local population who lived closest to the woods and were often in the 15th and 16th centuries, if not earlier, involved in managing them seem to have continued to ensure a regular supply not of large timber but of the underwood and small timbers which they needed most, and to which they or their ancestors or predecessors had been given rights of use.

NOTES

- 1 Where relevant, Latin words are given in order to aid understanding. Where they are quoted from a source they are given as they appear in the source. Where a word is not being quoted directly from a source it is given in nominative singular or plural.
- 2 Place names which have not been located are given in italics.
- 3 The argument about the meanings of Latin and Scots words is given more fully in Gilbert 2011.
- 4 I am indebted to Piers Dixon for pointing out to me the sequence in which the two longer banks were built. While I have not called them assart dykes, they might well have been so. I think they started life as wood banks to mark ownership of the wood. Melrose pushed southwards into Kelso’s land during a dispute between Kelso and Melrose abbeys in the 12th and early 13th centuries over a wood divided between them by David I. Fuller information is given in Gilbert 2012.
- 5 I am indebted to Christopher Dingwall for pointing out this feature to me.

ACKNOWLEDGEMENTS

Apart from the help acknowledged in the notes above, the author would also like to thank Professor T C

Smout and Dr A Ross for reading through this article and providing most useful and helpful comments. The author is also indebted to the Print and Design Department of St Andrews University for the production of the maps, Dr P Murray for drawing my attention to the role of lay administrators in abbeys in the 15th century and to D Hall for looking through the suggested statistics for Perth. Nonetheless, the views and arguments expressed in this article are the responsibility of the author alone, as are any remaining errors.

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