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**Village byelaws and the management of a contested common
resource: bracken (*Pteridium aquilinum*) in highland
Britain, 1500-1800**

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*Village byelaws (used here as a shorthand for the agrarian rules formulated and enforced by local seigniorial courts in Britain) formed the framework governing the exploitation of common land in Britain in the later medieval and early modern periods. This paper seeks to illustrate the sophistication and sensitivity of village byelaws as local communities sought to negotiate the conflicting demands placed on a common resource in the face of economic and technological change from the 16th to the 18th century. Bracken (*Pteridium aquilinum*) is used to illustrate the strategies available to local communities to manage a common resource in changing circumstances.*

Bracken, viewed as a noxious weed by modern hill farmers, was a vital resource in the early-modern agrarian economy of upland Britain. Growing extensively on the deeper soils of the hill commons, it was jealously guarded and its exploitation strictly controlled by byelaw. It had three principal uses, which placed different and sometimes incompatible patterns of demand on it between 1500 and 1800, namely: as litter for livestock when kept indoors, a use which probably remained more or less constant across the centuries; as thatch for roofing, a use which declined as slate and other stone roofing materials became more readily available; for burning into potash for sale, a use which developed rapidly, probably reaching a peak in the 18th century. The byelaws formulated by local courts reflect the contrasting chronologies of these uses and the pressure to which this particular resource was subjected. The allocation of bracken on particular sections of the common to individual commoners; seasonal restrictions; socially selective regulations and quantitative limits were all used in an attempt to ensure equitable access to this valuable resource and to enable conflicting demands to be reconciled.

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exploitation of common land in Britain in the later medieval and early modern periods. This paper seeks to illustrate the sophistication and sensitivity of village byelaws as local communities sought to negotiate the conflicting demands placed on a common resource in the face of economic and technological change from the 16th to the 18th century. Bracken (*Pteridium aquilinum*) is used to illustrate the strategies available to local communities to manage a common resource in changing circumstances.

1. Bracken and its uses

Bracken grows extensively on the deeper, better-drained soils of the British uplands. Its modern distribution shows a north-western bias, bracken blanketing the rough grazing lands of much of the western Scottish Highlands, the hills and mountains of Wales and the fells of the English Lake District in north-west England, the North York Moors and parts of the Pennines. As a plant of unimproved, rough hill land, bracken was a species of the commons and it remains a frequent component in the ecology of surviving common land in Britain today.

It has long been viewed as a noxious weed by hill farmers, choking pastures by crowding out grass, its rhizomes running deep and making it an extremely difficult plant to eradicate. In the literature on bracken infestation and control in Britain, it is often said that the bracken has spread extensively since the 19th century, though attempts to chart recent change have suggested considerable regional variation, with decreases in its extent in some areas (Pakeman *et al* 1996). Where an expansion of bracken-infestation is documented, anthropogenic factors are usually thought to have played a significant part. Rural depopulation of upland areas, and a decrease in the intensity of land management provide the context; specific causal factors include the cessation of cutting as part of traditional management practices (leading to an accumulation of dead bracken, protecting the rhizomes from frost and enhancing the plant's vigour) and the decline in the numbers of cattle grazing the hills, coupled with the increasing predominance of sheep. The action of cattle in trampling and crushing the tender, young bracken heads in the spring is thought to have contained the species, preventing its spread (Page 1982; Smith and Taylor 1986, 24-31, 80, 215-16, 241, 373-4). The modern perception of bracken as 'one of the worst weeds' can be traced

back to the heyday of agricultural improvement in the later 18th century (*Encyclopaedia Britannica* 1797, VII, 219). However, the plant was a vital resource in the early-modern agrarian economy of upland Britain and, as such, it was jealously guarded and its exploitation strictly controlled.

The multiplicity of applications to which bracken has been put has been reviewed by Rymer (1976). In the centuries between 1500 and 1800 the plant had three principal uses in upland Britain, each placing different and sometimes incompatible patterns of demand on it. First, bracken was traditionally used as litter for livestock when kept indoors, replacing straw, of which little was available in upland communities with little arable land. Recorded as standard practice from the 18th century, bracken continued to be cut as bedding in autumn, when it was dry and brown, until recent times, only ceasing in the mid 20th century in the Lake District, Yorkshire Dales and Malvern Hills (Rymer 1976, 167; Mabey 1996, 16-17; Hartley and Ingilby 1997, plates opp. p. 64; Smith and Taylor 1986, 202). In mid and southern Wales rights to cut bracken were registered under the Commons Registration Act of 1965 and bracken continued to be cut in some places in the 1980s (Hughes and Aitchison 1986). As such a mundane activity, the gathering of bracken for litter has left little trace in the written record before the 19th century. It seems unlikely that it was an innovation but was of probably of considerable antiquity, placing a regular demand on the plant across the early-modern centuries.

A second use again involved bracken as a substitute for straw in the pastoral uplands. This was the employment of the hard, shiny stems of the plant as thatch for roofing. References to 'thack brackens' are frequent in 16th- and 17th-century sources but rare later, suggesting that demand for bracken as a thatching material declined as slate and other stone roofing materials became more readily available. In the English Lake District, where bracken thatch appears to have been the common roofing material in the 16th century, slate gradually replaced bracken between the later 17th century and the early 19th (Denyer 1991, 158-9). In the Scottish Highlands, by contrast, bracken thatch continued to be used until well into the 19th century (Rymer 1976, 167).

Both these uses made bracken an indispensable resource in the traditional domestic economy of upland Britain. But it was also exploited commercially, by burning into

potash for sale, increasing the demand for the plant and leading to potential conflict with domestic exploitation. Potash derived from bracken had two principal markets, in the manufacture of glass, where fern ash provided the alkali component from the medieval period until well into the 18th century (Smedley and Jackson 2002; Rymer 1976, 163-4), and to make soap, where bracken ash provided a cheap and effective ingredient in soap for washing cloth. The latter use, recorded from the 15th century, continued to be a characteristic part of the domestic economy of both lowlands and uplands until the 19th century (Rymer 1976, 164-5; Neeson 1993, 166-7). For example, in the 18th century it was said that

In some places of the north, the inhabitants mow it [‘fern’] green; and, burning it to ashes, make those ashes up into balls with a little water. They then dry them in the sun, and make use of them to clean their linen with; looking upon it to be near as good as soap for that purpose (Mabey 1996, 16, quoting John Lightfoot, *Flora Scotica* 1777).

References to the burning of bracken on common land can be traced back to the early 16th century in the Lake District (Winchester 2000, 133) and demand appears to have increased, probably reaching a peak in the 18th century, when substantial quantities of ‘fern ash’ were exported to Liverpool from both the Inner Hebrides and Cumbria (McKay 1980, 125, 155, 213; Marshall 1967, 235). The scattered nature of available documentary evidence makes it difficult to chart the demise of bracken burning in northern England. On Stockdale Moor (Cumberland), a seigniorial mountain pasture in the Lake District where income from licences to burn bracken was recorded annually, burning continued regularly until 1785, after which no further payments are recorded (CRO, D/Lec/284, Middleward accounts 1754-1804). The death knell for the trade in bracken ash was sounded by the availability of cheap alternative sources of alkali by the 1830s, but the burning of bracken continued in North Wales until c. 1860 (Rymer 1976, 162, 165).

Demand for bracken ash conflicted with the traditional uses of the plant as litter and as thatch. Each use required the fronds to be harvested at a different stage of ripening. Thatching necessitated the stems to be cut or pulled in late summer, when they were hard and shiny but before they lost their rigidity as the plant died back in the frosts of

autumn. For bedding, the fronds could be harvested when they were dry and brown in the autumn. But the optimal time for cutting bracken for burning was earlier in the season: both the quantity of ash and the alkali content of bracken decline rapidly after July or August, the greatest yield of potash thus occurring in the summer months (Rymer 1976, 160). We might expect, therefore, that the trade in bracken ashes would have encouraged earlier burning, leading to conflict with the traditional uses.

In bracken, therefore, we see a resource, widespread on common land in Britain, in demand for a variety of potentially conflicting purposes. The contrasting chronologies of these uses between the 16th and 19th centuries (continuing demand for litter; declining demand for thatch; a surge in the market for bracken ash) provide a context in which to explore the effectiveness of traditional systems of common resource management. How did local communities reconcile the conflicting demands on bracken? How successful were they in negotiating a course through the changing pressures on the resource?

2. Village byelaws and the management of bracken

The hill commons of England and Wales had the legal status of manorial waste, that is land within the boundaries of a manor, the rights in the soil of which were vested in the lord of the manor, but were encumbered by the use rights of the tenants of the manor (the local farming community), who exercised common rights over the waste. The usual assemblage of common rights included common of pasture (the right to graze livestock on the commons), common of turbary (the right to cut peat and turf for fuel and other purposes) and common of estovers (the right to take other necessities from the common, particularly wood for fuel and repairs). These common rights could be exercised only by the tenants as adjuncts to their holdings of land in the manor. They were to support their holding and were not to be exercised for profit (by selling peat or wood or by bringing livestock into the manor from outside, for example) (Winchester 2000, 32-3, 78-9, 123).

Bracken was exploited by custom under the common right of estovers, as a necessary resource for the upkeep of buildings (as roofing thatch) and land and livestock (as litter and, composted with excrement, as manure for the fields). The burning of

bracken and the sale of bracken ash would fall outside the exercise of this common right on a strict legal definition, but it is clear that it was normally accepted as part of the tenants' use rights. The exercise of common rights was overseen by the manor courts, seigniorial courts held in the name of the lord of the manor, at which decisions were made by a jury drawn from the tenants. The decisions of the courts were governed by the need to preserve the lord's rights, to uphold manorial customs, and to maintain 'good neighbourhood', that is friendly relations within the local community. The management of the manor's common land was central to the work of the courts and was achieved by formulating byelaws and orders (or 'paines'), and by imposing financial penalties ('ameracements') on those who breached them (Winchester 2000, 33-48). The manor courts were thus an example of the local institutions found widely in pre-industrial Europe, which enabled communal self-regulation of common resources (De Moor *et al.* 2002, 249-52 and *passim*).

Surviving records of the manor courts thus allow us to reconstruct the rules governing the exploitation of bracken on common land. The following evidence from north-west England (drawn, unless otherwise indicated, from Winchester 2000, 135-6) illustrates the strategies employed by the courts in the face of the competing demands on the species, outlined above. Managing resources of bracken involved both spatial and seasonal restrictions on its exploitation. Defined stands of the plant were allocated to individual commoners: bracken 'rooms,' 'dales' or 'dalts' on the commons belonging to individual tenements are recorded in several Cumbrian manors in the 17th century, their bounds sometimes being defined in great detail, as, for example, at Braithwaite in 1678:

We find John Birkett hath a bracken dalt in Swinside pasture beginning at the steps in Holgill Sike and so from thence under the footgate along to the oak stump near the end of the intake wall.

In at least one instance (Staveley, Westmorland, 1678) there were both individual 'rooms' and a common 'bracken room', the use of which was controlled by the manor court. That individuals' sections of a bracken-covered hillside were protected by the weight of the court's authority is demonstrated by the presentment of a man at Ambleside in 1560 for reaping 'ferns' which belonged to the holding of another

person. When such allocations were first made is largely unrecorded but it is possible that an order from Farleton (Lancashire) in 1587, requiring no one to get brackens on the moor until every man had agreed and divided the bracken ‘portionably’, records the introduction of defined shares of bracken on the commons there.

Competition for bracken from the different, and not necessarily compatible, uses outlined above is reflected in a host of seasonal restrictions limiting the times at which the plant could be cut. Several 17th-century byelaws draw a distinction between the cutting, pulling or shearing of bracken fronds, which was allowed from late August or mid September, and the mowing of brackens, usually forbidden until around Michaelmas (29 September). These are illustrated in a particularly detailed order from Wythburn, in the heart of the English Lake District, made in 1677:

Item we find that no tenant or occupier within Wythburn shall mow any brackens before the day after Michaelmas day [*i.e.* 30 September] or pull any brackens before the day after St. Bartholemew day [*i.e.* 25 August] unless such as shall build houses & cover the same with brackens, such may pull for the covering of the same. And if any stands need of ‘stadleinge’ [*making foundations for a corn or hay stack*] with brackens or brackens for baking with, such may cut with a sickle & not mow before the said day & to have one scythe mowing for one toft [*house*] & no more upon the said bracken day.

And for every tenant or occupier that shall do contrary the paine is 6^s 8^d.

As well as providing evidence for further uses of bracken in the domestic economy (as a damp-proof foundation for corn or hay stacks, and as fuel for a quick, hot fire for baking), this byelaw suggests that tension between different uses of the resource required the formulation of sophisticated rules which drew the distinction between careful harvesting of fronds for thatching by pulling stems or by cutting with a sickle or hook and wholesale gathering for bedding or burning by mowing with a scythe. The earliest date on which mowing was allowed fell more than a month after the date from which fronds could be cut or pulled. Some byelaws recognised the need for flexibility when new buildings were erected and accepted that the cutting of ‘thack brackens’ might be allowed before the specified date where a new or ‘bare’ house

needed covering. In the byelaws from north-west England, Michaelmas (29 September), or the morning after, was the usual date from which mowing was allowed, but a greater range of dates was found in the day after which shearing or pulling could take place, ranging from St. Lawrence's day (10 August) to St. Matthew's day (21 September). Whatever the date was laid down, the intention was presumably the same, to enable those who needed to select fronds for thatching to gather these before the wholesale clearance of the drying bracken for litter or for burning.

However, pushing the date for wholesale mowing so late into the autumn was not without problems. While those gathering bracken for litter needed the plant to have dried brown, those burning it to sell the ash would find their profit reduced as the potash content dropped in the ripening fronds. There was thus a three-way conflict between the uses of the resource, which the setting of two separate 'bracken days' only partly resolved. That contemporaries were aware of the reduction in potash content as summer turned to autumn is confirmed by a byelaw from Crosthwaite and Lyth (Westmorland) in 1659, when the jury, noting the losses occasioned by shearing and mowing brackens when they were 'over ripe', set the comparatively early dates of 6 September for cutting and 20 September for mowing. As the dates specified in byelaws made before the change to the Gregorian calendar in 1752 would have been around ten days later in the season by modern reckoning, the potash content of bracken cut after Michaelmas, old style, would have been far from optimal.

The fierce competition over bracken resources is illustrated by the detailed regulation seen in many of the byelaws. Mowing was not to start before daybreak on the appointed day, the mowers were restricted to one scythe per holding, cottagers might have to wait until three days after the bracken day before starting to mow. Breaches of 'good neighbourhood' in the harvesting of bracken could range from disputes over the ownership of particular 'dalts', to mowing brackens in someone else's 'dalt', hindering others in getting brackens, and carrying away brackens which had been cut by a neighbour. An order from Bootle (Cumberland) that those cutting bracken were to 'take them clean before them without any marking or other indenting' was presumably intended to prevent trampling by people staking out a claim in advance. No other plant cut on the commons of northern England generated the profusion of

byelaws formulated to control its exploitation in the 17th century.

By the 18th century the demands on bracken were changing. As bracken thatch gave way to slate, the competition between thatching and burning would presumably have decreased. That might explain the introduction of an earlier date (12 September) for burning at Netherwasdale in 1746, perhaps indicating that demand for brackens for thatching had dropped sufficiently to allow wholesale harvesting a fortnight earlier than had been the norm (CRO, D/Lec/94, Netherwasdale court verdicts). However, the conflict remained a live issue in the neighbouring manor of Gosforth in 1743, when the court heard a complaint that bracken had been ‘cut, burn’d and mowed’ on the common before 29 September ‘to the great prejudice of the inhabitants for thatch for their houses’ (CRO, D/Lec/247, Egremont Lordship court leet verdicts).

There was also the potential for conflict between burning for ash and gathering for ‘dry’ uses. In 1745 the manor court at Dalston, near Carlisle, noted that the practice of ‘mowing and burning to ashes very often before midsummer’ conflicted with the parishioners’ needs for bracken as fuel (Dilley 1991, 334-5) and it may be that the dates after Michaelmas set as ‘bracken days’ on some Lake District manors in the 18th century (e.g. 2 October at Derwentfells in 1715; 10 October at Braithwaite in 1766)¹ were attempts to preserve bracken until it was dry enough to be harvested for bedding (CRO, D/Lec, boxes 85 and 120, court leet verdicts). In the same area, a different approach was taken by the court at Castlerigg, near Keswick, in 1741, when it ordered that no one was to cut ‘any green brackens to burn to ashes’ without the jurors’ consent (Dilley 1991, 334), keeping open the possibility of summer harvesting for potash where this could be accommodated with the domestic need for litter.

By the later 18th century the wind of change was affecting not only the demands placed on bracken as a resource but also the wider context of common land in upland Britain. Not only did enclosure in the century 1780-1880 convert many thousands of hectares from common to private property but the management regimes on surviving commons collapsed. The effectiveness of the manor courts declined rapidly on many manors after c.1720: irregular court meetings, few new byelaws and widespread

¹ But the latter date, 10 October, was ‘Old Michaelmas Day’ after the calendar change of 1752, so the order may represent no more than an attempt to return to the earlier customary ‘bracken day’.

flaunting of the traditional rules governing the use of the commons were widespread by the mid 18th century (Searle 1993; Straughton 2005). What impact did the collapse of the manor courts have on the exploitation of bracken? As has been noted, concern over the pressures placed on the resource by burning continued to be voiced in the mid 18th century, at a time when the number and frequency of court orders concerning common rights was dwindling. Explicit references to the exploitation of bracken are few and far between after c.1720: presumably some sort of *modus vivendi* was achieved on manors where bracken continued to be harvested for competing uses. By the later 18th century, we may assume that pressure on the plant was coming to an end. Except in highland Scotland, few buildings continued to be roofed with bracken thatch; enclosure, reclamation and the expansion of arable cultivation in the uplands would have increased the availability of straw, reducing (but not eliminating) the reliance on bracken for litter; and, perhaps most significantly, alternative sources of potash led to the demise of bracken burning.

3. Discussion

This paper has explored the interplay between changing demand for a common resource and the local management regimes which regulated the exercise of common rights. It remains to ask to what extent village byelaws succeeded in achieving sustainable management of this particular common pool resource. Sustaining bracken as a communal asset had three different aspects. First was ecological sustainability, the need to ensure the survival of adequate quantities of the plant to meet the demand for its use. As we have seen, work on the recent spread of bracken in Britain suggests that the traditional patterns of exploitation with which this paper has been concerned were one of the factors which kept the species in check. Regular cutting is known to reduce both the vigour of the plant and the yield of fronds, and the context of the numerous byelaws from the 17th century may, in part, be concern to preserve yields.

But other aspects of sustainability are more obvious in the orders of the manor courts. The need to manage competition between members of the local community and to ensure equitable access to the resource is a second aspect of sustainability. At the heart of bracken's exploitation under the common right of 'estovers' lay the concept of access for 'necessary use' to support a holding of land and property in the manor.

Cutting bracken for litter was a necessary adjunct to a holding of land in the pastoral uplands; taking bracken for thatch, for fuel or (in the form of ash) as a raw material for home-made soap were necessary uses in the traditional domestic economy of landed and landless tenants alike. Ensuring that all tenants had access to exercise their necessary use rights lay behind many of the byelaws. The allocation of beds of bracken to individuals and the rules attempting to prevent unfair advantage (limits on the numbers of scythes or sickles per holding; outlawing cutting before daylight on the appointed day; distinguishing between the rights of landed tenants and cottagers) were attempts to negotiate a framework of exploitation which ensured equitable access to those having use rights.

Competition between conflicting uses of bracken highlighted a third aspect of sustainability. This was the short-term need to ensure the survival of the resource each year for particular purposes, when that survival was threatened by exploitation for a competing need. This is most clearly illustrated in the competition between wholesale harvesting for commercial potash production and the traditional uses to which it bracken was put in the domestic economy. As we have seen, at the heart of the byelaws lay attempts to prioritise exploitation for different purposes across the late summer and early autumn. Priority was generally given to necessary domestic uses, particularly the need for bracken thatch for roofing.

The sea changes in the economy of Britain during the 18th century were ultimately felt on the remote hillsides of upland valleys. The increasing availability of stone roofing materials; the importing of alternative sources of potash; increased arable farming and the consequent availability of straw – all had an impact on the exploitation of *Pteridium aquilinum*, reducing demand for the plant, and leading ultimately to a remarkable transition from scarcity to over-abundance. The village byelaws, through which local communities had negotiated the conflicting demands on a contested common pool resource, became redundant, not because they failed to provide a framework for sustainable use but because economic and technological change diminished demand, so that what had been a valuable resource in the traditional and proto-industrial economy became a weed in the Age of Improvement.

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